

SEMESTER - I

Course Title - ARABIC TEXT-1

Subject- ARABIC

University Exam- 80

Minimum Pass Marks - 30

OBJECTIVE:

This paper is aimed at introducing the students to the Arabic language. They would be taught selected texts of the language so that they can enrich themselves with good vocabulary and expressions and develop their speaking, reading, and writing skills.

الوحدة الاولى: _____

دروس اللغة العربية (الجزء الأول) درس 1 تا 13

_____ الوحدة الثانية:

دروس اللغة العربية (الجزء الأول) درس 14 تا 23

_____ الوحدة الثالثة:

القرآۃ الواضحة (الجزء الاول) درس. 1 تا 30

_____ الوحدة الرابعة:

القرآن

Translation and memorization and Shan-e-Nazool of following suras from the Holy Quran with emphases on makharij al haroof.

١. سورة فاتحه ٢. سورة فيل ٣. سورة قريش ٤. سورة الماعون

٥. سورة كوثر ٦. سورة كافرون ٧. سورة نصر ٨. سورة لهب
٩. سورة اخلاص ١٠. سورة الفلق ١١. سورة الناس
الوحدة الخامسة:.....

- الحديث النبوى (تهذيب الاخلاق)
- باب فى حب الله ورسوله.
- باب فى حب اهل النبى
- باب فى الحب فى الله والبغض فى الله
- باب فى الكسب والعمل بيده
- باب فى النصيح وايصال الخير
- باب فى الاصلاح بين الناس
- باب فى بر الوالدين

Note For Paper Setting: The Questions paper will be divided in Two sections. Section "A" will carry 10 compulsory, objective type Questions, two from each unit, each carrying 1 Mark. Section "B" will have 10 Questions Two from each unit, each Question will hve Two parts. The student will attempt 1 Question from each unit. Each Question carrying 7+7=14 Marks.

PRESCRIBED BOOKS:

1. Dr. V Abdur Raheem, Drus al lughah al Arabiyyah.
Vol, I- Islamic Foundation Trust, Chennai.
2. Waheed uz Zaman Kairanwi, Al Qirat al Wadhiha.
Vol, I - Maktaba Hussainia Deoband
3. Tehzeeb al Akhlaq Allama Abdul Hayee Fakhar ud din
Alhasmi- Musassa Tusahafat Wanasher- Luckhnow
4. Drusul Lugat-ul-Arbia wal Muntakhaba Semester I
Published By Qasmi Kutub Khana, Jammu

SEMESTER - II

Course Code - AR-201

MAXIMUM MARKS 100

Course Title - ARABIC Grammar-II University Exam- 80

Duration of Exams- 3 Hrs.

Sessional Assessment -20

Subject- ARABIC

Minimum Pas Marks - 30

OBJECTIVE:

Grammar is an essential part of every language, the main objective of this Paper is to provide a strong base of learning arabic language. It will help them to correctly read, write and speak the language.

الوحدة الاولى:

النحو:

- تعريف العلم النحو. علم الهمجا. علم الصرف. الاعراب. الحركات
- الحروف شمسية والقمرية. الكلمة واقسامها
- معرب والمبني واقسامها (اسم موصول. اسم فعل. اسم صوت. اسم ظرف.
- اسم كناية. مركب بنائي
- اسماء الاشارة (للقريب والبعيد)
- الضمائر المنفصلة والمتصلة
- نواصب الفعل.
- جوازم الفعل

الوحدة الثانية:

النحو

- اسماء مشتقة واقسامها (اسم فاعل. اسم مفعول. صفت مشبهة. اسم تفضيل.
- اسم آله. اسم ظرف. اسم مبالغة)

- المعرفة واقسامها (اسم علم. اسم اشاره اسم موصول. معرف باللام.
- النكرة واقسامها (اسم ذات. اسم صفت. اسم استفهام. اسم فاعل. اسم مفعول. اسم حاله. حاصل مصدر. اسم كناية)
- المذكر والمؤنث
- جملة اسمية (المبتدا. الخبر) جملة فعلية (فعل + فاعل)
- حروف الجر

الوحدة الثالثة:

الصرف:

- تصريف الفعل الماضي واقسامها
- تصريف الفعل المضارع (معروف. مجهول. لام تأكيد نون ثقيله وخفيفه)
- تصريف الفعل الامر والنهي
- اوزان الفعل. ثلاثي مجرد ثلاثي مزيد. رباعي مجرد رباعي مزيد.
- تصريف الافعال الصحيحة من الثلاثي المجرد (صرف صغير)
- باب ضرب. نصر. سمع. فتح. كرم. حسب.
- تصريف الافعال الصحيحة من الثلاثي المزيد (صرف صغير)
- باب افعال. تفعيل. مفاعلة. تفاعل. افتعال. استفعال. انفعال

الوحدة الرابعة:

الصرف:

- تصريف الافعال الصحيحة من الرباعي المجرد (صرف صغير)
- باب فعلة. تفعّل
- تصريف الافعال المهموز من الثلاثي المجرد (صرف صغير)
- باب نصر. ضرب. فتح. سمع. كرم.
- تصريف الافعال المهموز من الثلاثي المزيد (صرف صغير)
- باب افعال. تفعيل. مفاعل تفاعل. افتعال. استفعال.
- تصريف الافعال المضاعف من الثلاثي المجرد (صرف صغير)
- باب نصر. ضرب. سمع. كرم

- تصريف الافعال المضاعف من الثلاثي المزيد (صرف صغير)
باب افعال . تفعيل . مفاعلة . تفاعل .
- تصريف الافعال المضاعف من الثلاثي المزيد (صرف صغير)
باب افتعال . انفعال . استفعال .

الوحدة الخامسة:

Translation

- سادہ اسمیہ جملوں کا ترجمہ جو مبتداء اور خبر سے بنتے ہیں۔
- سادہ فعلیہ جملے جو ماضی اور مضارع سے بنتے ہوں۔
- ہفتے کے دنوں کے نام۔ پھلوں کے نام۔ دس سبزیوں کے نام۔ دس پھولوں کے نام۔ دس رنگوں کے نام۔
- فعل شامل ہوں گے۔ پڑھنے۔ لکھنے سے متعلق۔ کھیل کود سے متعلق وغیرہ
- فہم و ادراک سے متعلق۔ خرید و فروخت سے متعلق وغیرہ۔
- تعلیم۔ کالج۔ کلاس روم۔ درس۔ کتاب۔ کاپی۔ قلم وغیرہ سے متعلق جملے۔
- خرید و فروخت۔ بازار۔ سبزی۔ دودھ۔ روٹی۔ دوکان وغیرہ سے متعلق جملے۔
- عربی گنتی

Note For Paper Setting:

The Questions paper will be divided in Two sections. Section "A" will carry 10 compulsory, objective type Questions, two from each unit, each carrying 1 Mark. Section "B" will have 10 Questions Two from each unit, each Question will hve Two parts. The student will attempt 1 Question from each unit. Each Question carrying 7+7=14 Marks.

Prescribed Books:

1. Tohfat al Nahw by: Sirajuddin Nadwi Vol, I,II,III, (Markazi Maktaba Islami, New Delhi)
2. Tohfat al sarf by: Sirajuddin Nadwi Vol, I,II,III, (Markazi Maktaba Islami, New Delhi)
3. Arabic Grammar Semester II by Dr. Nayeem-Un-Nisa.

Published by Qasmi Kutub Khana Jammu.

4. Tehzeeb al Akhlaq Allama Abdul Hayee Fakhar ud din
Alhasmi- Musassa Tusahafat Wanasher- Luckhnow

Books Recommended;

1. Ali al jarim: Al Nahw al wadheh: Danish book Depot,
Matia Mahal Delhi.
2. Rafiul Imaad Finan: The Essential Arabic Grammar,
Goodward, New Delhi-1999.
3. Wali Akhter: Arabic Grammar: A Practical Approach,
Dar Al Aman, New Delhi, 2004
4. Kitab al Nahw: Abdul Rehman Amritsari: Danish book
Depot Delhi.
5. Kitab al Sarf: Abdul Rehman Amritsari: Danish book
Depot Delhi.
6. Teach yourself Arabic: S.A Rehman: Goodward Books
New Delhi.
7. Jadid Arabi Eisay Boliy. Nadeem-ul- wajidi
Nadvatul Ulma Lucknow

ARABIC

SEMESTER - III

Examinations to be held in the years 2015,2016& 2017.

Course Code. AR- 301

Course Title- Arabic Text -III

Duration of Exams : 3 Hrs

Total Marks : 100

Theory Exams : 80

Internal Assessment : 20

_____ الوحدة الاولى:

دروس اللغة العربية (الجز الثاني) درس. 1 تا 10

_____ الوحدة الثانية:

دروس اللغة العربية (الجز الثاني) درس 11 تا 20

_____ الوحدة الثالثة:

القرآة الواضحة (الجز الثاني) درس 1 تا 30

_____ الوحدة الرابعة:

القرآن

Translation and memorization and Shan-e-Nazool of the following suras from the Holy Quran with emphasis on Makharij al Haroof.

1. سورة الفاتحة

2. سورة التين

3. سورة العلق 1-13 آيت

4. سورة القدر
5. سورة البينه
6. سورة الزلزال
7. سورة العاديات
8. القارعة
9. سورة التكاثر
10. سورة العصر
11. سورة الهمزة

الوحدة الخامسة:

الحديث النبوي (تهذيب الاخلاق)

- باب في برأصدقاء الأيوين وألاقارب
- باب في النفقة على العيال
- باب في حسن المعاشرة بالنساء
- باب في تربية الاولاد
- باب في حق الجار والوصية به
- باب في اكرام الضيف
- باب الشفقة على خلق الله من الرعية
- باب في حسن الخلق والتواضع

Note For Paper Setting:

The Questions paper will be divided inTwo sections.
Section "A" will carry 10 compulsory, objective type Questions, two from each unit, each carrying 1 Mark.
Section "B" will have 10 Questions Two from each unit,

each Question will hve Two parts. The student will attempt 1 Question from each unit. Each Question carrying 7+7=14 Marks.

Prescribed Books:

1. Dr. V.Abdur Raheem. Droos ul Lugah al Arabiyyah. Vol-II - Islamic foundation Trust chennai.
2. Wahed uz zaman Kairanwi-Al Qirat al Wadhiha Vol-II - Makataba Hussainia Deoband.
3. Drusul Lugat-ul-Arbia wal Muntakhaba Semester III
Published By Qasmi Kutub Khana, Jammu
4. Tehzeeb al Akhlaq Allama Abdul Hayee Fakhar ud din Alhasmi- Musassa Tusahafat Wanasher- Luckhnow

Distribution of Internal Assessment: Total Marks: 20

Class Test :10 Marks

Two written Assignments- 10 Marks (05 Marks each)

ARABIC

SEMESTER - IV

Examinations to be held in the years 2016,2017 & 2018

Course Code. AR- 401	Course Title- Arabic Grammar- IV
Duration of Exams	: 3 Hrs
Total Marks	: 100
Theory Exams	: 80
Internal Assessment	: 20

الوحدة الاولى:

النحو

- الكلمة. المفرد والمثنى والجمع . الاعراب
- المركب. المركب التام والناقص واقسامها (مركب توصيفي، مركب اضافي، مركب بنائي. مركب منع صرف)
- الجملة واقسامها (جملة اسمية، جملة فعلية، جملة ظرفية، جملة شرطية، وجملة انشائية)
- المركب تام (جملة اسمية المبتدا والخبر) جملة فعلية (فعل + فاعل + مفعول به)
- الاستثناء
- ان واخواتها . كان واخواتها.

الوحدة الثانية:

النحو

- ما ولا المشبهتان به ليس . لانفى جنس
- افراد کے اعتبار سے اسم کی قسمیں

- واحد. تشبيه. الجمع
- جمع المذكر السالم. جمع المؤنث السالم. جمع تكسير
- جمع قلت جمع كثرت
- العدد والمعدود. الممنوع من الصرف.
- مرفوعات. منصوبات. مجرورات

الوحدة الثالثة:

الصرف

- تصريف الافعال معتل الفاء (مثال) من الثلاثي المجرد. (صرف صغير) باب ضرب. فتح. سمع. نصر
- تصريف الافعال معتل الفاء (مثال) من الثلاثي المزيد (صرف صغير) باب افعال. تفعيل. مفاعلة. تفاعل
- تصريف الافعال معتل الفاء من الثلاثي المزيد (صرف صغير) باب تفاعل، انفعال، افتعال، استفعال،
- تصريف الافعال معتل العين (اجوف) من الثلاثي المجرد (صرف صغير) باب ضرب، سمع، نصر.
- تصريف الافعال معتل العين من الثلاثي المزيد (صرف صغير) باب افعال. تفعيل. مفاعلة. تفاعل.
- حروف التنبيه. حروف الاستفهام

الوحدة الرابعة:

الصرف

- تصريف الافعال معتل العين (اجوف) من الثلاثي المزيد (صرف صغير) باب تفاعل. انفعال. افتعال. استفعال.
- تصريف الافعال معتل لام (ناقص) من الثلاثي المجرد (صرف صغير) باب ضرب، فتح، سمع، نصر

- تصريف الافعال معتل لام (ناقص) من الثلاثي المزيد . (صرف صغير) باب افعال تفعيل . مفاعلة تفعّل .
 - تصريف الافعال معتل لام من الثلاثي المزيد (صرف صغير) باب تفاعل . انفعال . افتعال . استفعال .
 - حروف النداء . حروف عطف
- _____ الوحدة الخامسة :

Translation:-

- تعلیم سے متعلق جملے
- سادہ فعلیہ جملے - سادہ اسمیہ جملے
- سال کے مہینوں کے نام - ہفتے کے دنوں کے نام
- پرندوں کے نام (دس) حیوانوں کے نام (دس)
- عربی گنتی ایک سے سروتک
- پھلوں کے نام سبزیوں کے نام - رنگوں کے نام
- پانی دریا - آبشار - فوارے - سمندر وغیرہ سے متعلق جملے

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Prescribed Books:

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2. Tohfat al sarf by: Sirajuddin Nadwi Vol, I,II,III, (Markazi Maktaba Islami, New Delhi)

3. Arabic Grammar by Dr. Nayeem-Un-Nisa.
Qasmi Kutub Khana Jammu.

Books Recommended:

1. Ali al jarim: Al Nahw al wadheh: Danish book Depot, Matia Mahal Delhi.
2. Rafiul Imaad Finan: The Essential Arabic Grammar, Goodward, New Delhi-1999.
3. Wali Akhter: Arabic Grammar: A Practical Approach, Dar Al Aman, New Delhi, 2004
4. Kitab al Nahw: Abdul Rehman Amritsari: Danish book Depot Delhi.
5. Teach yourself Arabic: S.A Rehman: Goodward Books New Delhi.
6. Jadid Arabi Eisay Boliy. Nadeem-ul- wajidi Nadvatul Ulma Lucknow

Distribution of Internal Assessment: Total Marks : 20
Class Test :10 Marks
Two written Assignments- 10 Marks (05 Marks each)

ARABIC

SEMESTER - V

Examinations to be held in the years 2016, 2017 & 2018

Course Code. AR- 501 Course Title- Arabic Text -V
Duration of Exams : 3 Hrs
Total Marks : 100
Theory Exams : 80
Internal Assessment : 20

الوحدة الاولى: _____

دروس اللغة العربية (الجز الثالث) درس 1 تا 8

الوحدة الثانية: _____

دروس اللغة العربية (الجز الثالث) درس 9 تا 17

الوحدة الثالث: _____

معلم الانشاء (الجز الاول) درس 1 تا 12

الوحدة الرابعة: _____

القرآن

Translation and memorization and Shan-e-Nazool of the following suras from the Holy Quran with emphasis on Makharij al Haroof.

1. سورة الفاتحة

2. سورة الروم (آيت 10-27)

3. سورة اللقمان (آيت 13-20)

4. سورة المؤمنون (آيت 1-22)

5. سورة الحشر (آيت 17-24)

6. سورة البلد

7. سورة الشمس

8. سورة الليل

9. سورة الضحى

10. سورة الم نشرح

الوحدة الخامسة:

الحديث النبوى (تهذيب الاخلاق)

- باب فى الحلم والاناة والرفق
- باب فى الامانة والوفاء بالعهد.
- باب فى الصدق
- باب فى الحياء
- باب فى الصبر على البلاء
- باب فى الشكر
- باب فى التوكل
- باب فى التقوى

Note For Paper Setting:

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each Question will hve Two parts. The student will attempt 1 Question from each unit. Each Question carrying 7+7=14 Marks.

Prescribed Books:

1. Dr. V.Abdur Raheem. Droos ul Lugah al Arabiyyah. Vol-III - Islamic foundation Trust chennai.
2. Abdul Majid Nadwi, Maallim al Insha Vol-I Majlis Sahafat Nashriat, Lucknow.
3. Tehzeeb al Akhlaq Allama Abdul Hayee Fakhar ud din Alhasmi- Musassa Tusahafat Wanasher- Luckhnow
4. Drusul Lugat-ul-Arbia wal Muntakhaba Semester V Published By Qasmi Kutub Khana, Jammu

Distribution of Internal Assessment: Total Marks : 20
Class Test :10 Marks
Two written Assignments- 10 Marks (05 Marks each)

ARABIC

SEMESTER - VI

Examinations to be held in the years 2017,2018 & 2019

Course Code. AR- 601

Course Title- History of Arabic Literature

Duration of Exams : 3 Hrs

Total Marks : 100

Theory Exams : 80

Internal Assessment : 20

Pre-Islamic period :- الوحدة الاولى: ————— جاہلی دور —————

- جاہلی دور کا آغاز و ارتقاء
- ما قبل اسلام دنیا کی حالت، عرب کے تعلیمی و معاشی۔ جغرافیائی، مذہبی و اخلاقی حالات
- عربی زبان مختصر تعارف۔ عربی زبان کی ابتداء و نشوونما اور امتیازی خصوصیات
- عربی ادب کی تعریف۔ مختلف ادوار میں تقسیم
- جاہلی دور میں نثر نگاری۔ اور امتیازی خصوصیات۔ نثر نگار۔ قس بن ساعدہ الادیادی (حیات و خدمات) عمرو بن معدیکرب (حیات و خدمات)
- جاہلی دور میں شعر و شاعری اور امتیازی خصوصیات
- جاہلی شعراء زبیر بن ابی سلمی (حیات و خدمات) امرؤ القیس (حیات و خدمات)
- نابغہ ذبیانی (حیات و خدمات)
- المعلقات و اصحاب معلقات (اجمالی جائزہ)

————— الوحدة الثانية: —————

اسلامی و اموی دور Islamic and ummayyad period

- اسلامی دور کا آغاز و ارتقاء۔ خلفائے راشدین (اجمالی جائزہ)
- قرآن مجید، جمع و تدوین۔ حدیث نبوی، جمع و تدوین اور عربی زبان پر ان کا اثر۔

- اسلامی دور میں۔ نثر خطابت و شعر و شاعری۔ سبحان واکل (حیات و خدمات)
- علی بن ابی طالب (حیات و خدمات)
- عہد بنی اُمیہ آغاز و ارتقاء: اموی خلفاء۔ اموی عہد میں فن خطابت (اجمالی جائزہ)
- عہد بنی امیہ میں نظام حکومت۔ تعلیمی حالات۔ سماجی و معاشرتی حالات (اجمالی جائزہ)
- عہد بنی امیہ میں انشاء پردازی اور انشاء پرداز۔ زیاد بن ابیہ (حیات و خدمات)
- عبدالحمید بن یحییٰ (حیات و خدمات)
- عہد بنی امیہ میں شعر و شاعری اور شعراء۔ خنساء (حیات و خدمات) حسان بن ثابت (حیات و خدمات)
- انطل (حیات و خدمات) جریر (حیات و خدمات) فرزدق (حیات و خدمات)

الوحدة الثالثة:

Abbasid period

عباسی دور

- عباسی دور کا آغاز و ارتقاء۔ عباسی خلفاء (اجمالی جائزہ)
- عباسی دور میں نظام حکومت۔ تعلیمی حالات۔ سماجی و معاشرتی حالات
- عباسی دور میں نثر۔ انشاء پردازی۔ خطابت و انشاء پرداز۔
- جاحظ (حیات و خدمات) ابن المقفع (حیات و خدمات) بدیع الزماں ہمدانی (حیات و خدمات)
- عباسی دور میں شعر و شاعری۔ بغداد کے شعراء۔ اندلس کے شعراء۔ شام کے شعراء۔ مصر کے شعراء (اجمالی جائزہ)
- عباسی دور کے مشہور شعراء۔ بشار بن برد (حیات و خدمات) ابوتمام (حیات و خدمات) متنبی (حیات و خدمات)
- عباسی دور میں تاریخ نویسی۔ علوم شریعیہ۔ علم فقہ۔ کہانیاں اور مقامات نویسی (اجمالی جائزہ)
- امام غزالی (حیات و خدمات) ابن خلدون (حیات و خدمات)

الوحدة الرابعة:

Modern period

موجودہ دور

- موجودہ دور کا آغاز ارتقاء۔ عربی ادب کا عبوری دور
- موجودہ دور میں پریس، صحافت، مجری ادب، شعراء، ادباء اور مصنفین (اجمالی جائزہ)
- موجودہ دور میں نثر کا ارتقاء۔ دینی علوم۔ افسانہ نگاری۔ ناول نگاری۔ ڈرامہ نگاری (اجمالی جائزہ)
- موجودہ دور میں شعر و شاعری اور مشہور شعراء، البارودی (حیات و خدمات) احمد شوقی (حیات و خدمات) العقاد (حیات و خدمات) ابراہیم نازجی (حیات و خدمات)
- موجودہ دور میں نثر نگاری اور مشہور نثر نگار: محمد حسین بیگل (حیات و خدمات) محمد تیمور (حیات و خدمات) شیخ محمد عبدہ (حیات و خدمات) مفلوطی (حیات و خدمات) طہ حسین (حیات و خدمات)
- موجودہ دور میں ڈرامہ نگاری اور مشہور ڈرامہ نگار۔ محمود تیمور (حیات و خدمات)

الوحدة الخامسة:

Translation

- سادہ اسمیہ جملے
- سادہ فعلیہ جملے
- سادہ سوالیہ و ندائیہ جملے۔ ودعائیہ جملے
- گھر۔ باتھ روم۔ صحن و مکان۔ چھت۔ خریداری وغیرہ سے متعلق جملے
- رشتہ داروں۔ والدین، بچوں، بھائی بہنوں وغیرہ سے متعلق جملے
- لباس وغیرہ سے متعلق جملے
- عربی گنتی
- سواریوں سے متعلق جملے
- سال کے موسموں، آب و ہوا۔ دھوپ، بارش وغیرہ سے متعلق جملے
- باغ، درخت، پھل، میوے، پھولوں وغیرہ سے متعلق جملے

- پانی، دریا۔ آبخار۔ فوارے۔ سمندر وغیرہ سے متعلق جملے
- کالج، سکول، یونیورسٹی وغیرہ سے متعلق جملے

Note For Paper Setting:

The Questions paper will be divided in Two sections. Section "A" will carry 10 compulsory, objective type Questions, two from each unit, each carrying 1 Mark. Section "B" will have 10 Questions Two from each unit, each Question will hve Two parts. The student will attempt 1 Question from each unit. Each Question carrying 7+7=14 Marks.

Recommended Books:

1. Tareekh al Adab Al Arbi - Ahmed Hassan Zayaat.
2. Arabic Adab ki Tareekh (Vol: I-V)- Abdul Haleen Nadvi, Qaumi Council New Delhi.
3. Tareekh Adab Arabi Muqtada Hasan Azhari.
4. Jadeed Arabi Adab - Shams Kamal Anjum - Al kitaab international New Delhi.
5. A literary History of Arabs - Nicholson.
6. Teach yourself Arabic: S.A Rehman: Goodward Books New Delhi.
7. Jadid Arabi Eisay Boliy. Nadeem-ul- wajidi Nadvatul Ulma Lucknow

Distribution of Internal Assessment: Total Marks : 20

Class Test :10 Marks

Two written Assignments- 10 Marks (05 Marks each)

SEMESTER - I

Arabic

Examination to be held on Dec. 2016, 2017, 2018.

Course Code: UART101 Credits: 4+2
Course Title: Arabic Text-I,
Duration of Exams: 3 Hrs Theory Exams : 80
Total Marks : 100 Internal Assessment: 20

OBJECTIVE:

This paper is aimed at introducing the students to the Arabic language. They would be taught selected texts of the language so that they can enrich themselves with good vocabulary and expressions and develop their speaking, reading, and writing skills.

الوحدة الاولى:
دروس اللغة العربية (الجزا الأول) درس. 1 تا 13

الوحدة الثانية:
دروس اللغة العربية (الجزا الأول) درس. 14 تا 23

الوحدة الثالثة:
القرآة الواضحة (الجزا الأول) درس. 1 تا 30

الوحدة الرابعة:
القرآن

Translation and memorization and Shan-e-Nazool of following suras from the Holy Quran with emphases on makharij al haroof.

١. سورة فاتحه ٢. سورة فيل ٣. سورة قريش ٤. سورة الماعون
٥. سورة كوثر ٦. سورة كافرون ٧. سورة نصر ٨. سورة لهب
٩. سورة اخلاص ١٠. سورة الفلق ١١. سورة الناس

الوحدة الخامسة: _____.

- الحديث النبوى (تهذيب الاخلاق)
- باب فى حب الله ورسوله.
- باب فى حب اهل النبى
- باب فى الحب فى الله والبغض فى الله
- باب فى الكسب والعمل بيده
- باب فى النصيح وايصال الخير
- باب فى الاصلاح بين الناس
- باب فى بر الوالدين

Note For Paper Setting: The Questions paper will be divided in Two sections. Section "A" will carry 10 compulsory, objective type Questions, two from each unit, each carrying 1 Mark. Section "B" will have 10 Questions Two from each unit, each Question will hve Two parts. The student will attempt 1 Question from each unit. Each Question carrying 7+7=14 Marks.

PRESCRIBED BOOKS:

1. Dr. V Abdur Raheem, Drus al lughah al Arabiyyah.
Vol, I- Islamic Foundation Trust, Chennai.
2. Waheed uz Zaman Kairanwi, Al Qirat al Wadhiha.
Vol, I - Maktaba Hussainia Deoband
3. Tehzeeb al Akhlaq Allama Abdul Hayee Fakhar ud din
Alhasmi- Musassa Tusahafat Wanasher- Luckhnow
4. Drusul Lugat-ul-Arbia wal Muntakhaba Semester I
Published By Qasmi Kutub Khana, Jammu

SEMESTER - II

Arabic

Examination to be held on May 2017, 2018, 2019.

Course Code: UART201 Credits: 4+2
Course Title: Arabic Grammar-II
Duration of Exams: 3 Hrs Theory Exams : 80
Total Marks : 100 Internal Assessment: 20

OBJECTIVE:

Grammar is an essential part of every language, the main objective of this Paper is to provide a strong base of learning arabic language. It will help them to correctly read, write and speak the language.

الوحدة الاولى:
النحو:

- تعريف العلم النحو. علم الهجا. علم الصرف. الاعراب. الحركات
- الحروف شمسية والقمرية. الكلمة واقسامها
- معرب والمبنى واقسامها (اسم موصول. اسم فعل. اسم صوت. اسم ظرف.
- اسم كناية. مركب بنائي
- اسماء الاشارة (للقريب والبعيد)
- الضمائر المنفصلة والمتصلة
- نواصب الفعل.
- جوازم الفعل

الوحدة الثانية:

النحو

- اسماء مشتقة واقسامها (اسم فاعل . اسم مفعول . صفت مشبه . اسم تفضيل . اسم آله . اسم ظرف . اسم مبالغة)
- المعرفة واقسامها (اسم علم . اسم اشاره اسم موصول . معرف باللام .
- النكرة واقسامها (اسم ذات . اسم صفت . اسم استفهام . اسم فاعل . اسم مفعول . اسم حاله . حاصل مصدر . اسم كناية)
- المذكر والمؤنث
- جملة اسميه (المبتدا . الخبر) جملة فعلية (فعل + فاعل)
- حروف الجر

الوحدة الثالثة:

الصرف:

- تصريف الفعل الماضي واقسامها
- تصريف الفعل المضارع (معروف . مجهول . لام تأكيد به نون ثقيله وخفيفه)
- تصريف الفعل الامر والنهي
- اوزان الفعل . ثلاثي مجرد ثلاثي مزيد . رباعي مجرد رباعي مزيد .
- تصريف الافعال الصحيحة من الثلاثي المجرد (صرف صغير)
- باب ضرب . نصر . سمع . فتح . كرم . حسب .
- تصريف الافعال الصحيحة من الثلاثي المزيد (صرف صغير)
- باب افعال . تفعيل . مفاعلة . تفعل . تفاعل . افتعال . استفعال . انفعال

الوحدة الرابعة:

الصرف:

- تصريف الافعال الصحيحة من الرباعي المجرد (صرف صغير)
- باب فعلة . تفعّل
- تصريف الافعال المهموز من الثلاثي المجرد (صرف صغير)
- باب نصر . ضرب . فتح . سمع . كرم .

- تصريف الافعال المهموز من الثلاثي المزيد (صرف صغير)
باب افعال . تفعيل . مفاعل تفاعل . افتعال . استفعال .
- تصريف الافعال المضاعف من الثلاثي المجرد (صرف صغير)
باب نصر . ضرب . سمع . كرم
- تصريف الافعال المضاعف من الثلاثي المزيد (صرف صغير)
باب افعال . تفعيل . مفاعلة . تفاعل .
- تصريف الافعال المضاعف من الثلاثي المزيد (صرف صغير)
باب افتعال . انفعال . استفعال .

الوحدة الخامسة:

Translation

- سادہ اسمیہ جملوں کا ترجمہ جو مبتداء اور خبر سے بنتے ہیں۔
- سادہ فعلیہ جملے جو ماضی اور مضارع سے بنتے ہوں۔
- ہفتے کے دنوں کے نام۔ پھلوں کے نام۔ دس بزیوں کے نام۔ دس پھلوں کے نام۔ دس رنگوں کے نام۔
- یہ فعل شامل ہوں گے۔ پڑھنے۔ لکھنے سے متعلق۔ کھیل کود سے متعلق وغیرہ
- فہم و ادراک سے متعلق۔ خرید و فروخت سے متعلق وغیرہ۔
- تعلیم۔ کالج۔ کلاس روم۔ درس۔ کتاب۔ کاپی۔ قلم وغیرہ سے متعلق جملے۔
- خرید و فروخت۔ بازار۔ سبزی۔ دودھ۔ روٹی۔ دوکان وغیرہ سے متعلق جملے۔
- عربی گنتی

Note For Paper Setting:

The Questions paper will be divided in Two sections. Section "A" will carry 10 compulsory, objective type Questions, two from each unit, each carrying 1 Mark. Section "B" will have 10 Questions Two from each unit, each Question will hve Two parts. The student will attempt 1 Question from each unit. Each Question carrying 7+7=14 Marks.

Prescribed Books:

1. Tohfah al Nahw by: Sirajuddin Nadwi Vol, I,II,III, (Markazi Maktaba Islami, New Delhi)
2. Tohfah al sarf by: Sirajuddin Nadwi Vol, I,II,III, (Markazi Maktaba Islami, New Delhi)
3. Arabic Grammar Semester II by Dr. Nayeem-Un-Nisa. Published by Qasmi Kutub Khana Jammu.
4. Tehzeeb al Akhlaq Allama Abdul Hayee Fakhar ud din Alhasmi- Musassa Tusahafat Wanasher- Lucknow

Books Recommended;

1. Ali al jarim: Al Nahw al wadheh: Danish book Depot, Matia Mahal Delhi.
2. Rafiul Imaad Finan: The Essential Arabic Grammar, Goodward, New Delhi-1999.
3. Wali Akhter: Arabic Grammar: A Practical Approach, Dar Al Aman, New Delhi, 2004
4. Kitab al Nahw: Abdul Rehman Amritsari: Danish book Depot Delhi.
5. Kitab al Sarf: Abdul Rehman Amritsari: Danish book Depot Delhi.
6. Teach yourself Arabic: S.A Rehman: Goodward Books New Delhi.
7. Jadid Arabi Eisa Boliy. Nadeem-ul- wajidi Nadvatul Ulma Lucknow

BOTANY
(Semester-III)
(For examination to be held in the years 2015, 2016, 2017)

Course No: B0-301 (Theory)	Title: Seed Bearing Plants: Characteristics and Systematics
Duration of Exam: 3hrs	Maximum Marks: 100
Credits: 04	Theory Examination: 80 Marks
	Internal Assessment: 20 Marks

Objectives:

Gymnosperms and angiosperms represent the important botanical groups exhibiting great diversity. The course, therefore, is designed to study these groups for structural aspects and analyse these in a scientific manner for establishing their grouping.

UNIT-I: Seed Plants-Origin, Evolution and Characteristics

- 1.1 Fossilization –Processes and types, age of fossils and their importance.
- 1.2 Fossil gymnosperms - a general account; Benettiales (Cycadeoidales)- history and distribution.
- 1.3 Characteristic features, morphology, anatomy and reproduction in *Williamsonia* and *Cycadeoidea*.
- 1.4 Fossil angiosperms – a general account.

UNIT-II Classification, Morphology and Reproduction in Gymnosperms

- 2.1 General characters of gymnosperms; classification of gymnosperms as proposed by Sporne (1965).
- 2.2 Morphology, anatomy, reproduction and life cycle of *Cycas*
- 2.3 Morphology, anatomy, reproduction and life cycle of *Pinus*.
- 2.4 Morphology, anatomy, reproduction and life cycle of *Ephedra*.

UNIT-III Angiosperm-Origin and Nomenclature

- 3.1 Origin of angiosperms, characteristics of some primitive angiosperms with special reference to *Magnolia*.
- 3.2 History of angiosperm taxonomy - classical and modern, species concept and speciation.
- 3.3 Taxonomic identification: taxonomic keys and literature (floras, monographs and reviews).

- 3.4 Botanical nomenclature- principles and rules, taxonomic ranks, type concept and principle of priority.

UNIT-IV Classification and Tools in Angiosperm Taxonomy

- 4.1 Salient features of the classification of Bentham and Hooker; merits and demerits.
4.2 Salient features of the classification of Engler and Prantl; merits and demerits.
4.3. Contribution of anatomy and embryology to taxonomy.
4.4 Contribution of cytology and phytochemistry to taxonomy.

UNIT-V Diversity of Angiosperms

- 5.1 Morphological diversity of families: Ranunculaceae, Brassicaceae, Malvaceae and Asteraceae.
5.2 Morphological diversity of families: Fabaceae, Rosaceae, Apiaceae and Acanthaceae.
5.3 Morphological diversity of families: Apocyanaceae, Solanaceae, Lamiaceae and Euphorbiaceae.
5.4 Morphological diversity of families: Liliaceae, Amaryllidaceae and Poaceae.

Note for paper setters

The question paper will have 2 sections. Section 'I' will be compulsory having ten questions of 2 marks each. The questions will be short answer type having answers not exceeding 20 words. Section II will have long answer type questions of 12 marks each, two from each unit. The candidates will be required to answer one question from each unit.

Internal Assessment (Total Marks: 20)

20 marks for theory paper in a subject reserved for internal assessment shall be distributed as under:

(i)	Class Test	10 Marks
(ii)	Two Written Assignments/Project Reports	10 Marks
		(05 Marks each)

Suggested readings:

1. Bhatnagar, S.P. and Moitra, A. 1996. Gymnosperms. New Age International Limited, New Delhi.
2. Davis, P.H. and Heywood, V.H. 1963. Principles of Angiosperm Taxonomy. Oliver and Boyd, London.

3. Gifford, E.M. and Foster, A.S. 1988. Morphology and Evolution of Vascular Plants. W.H. Freeman and company, New York.
4. Jeffery, C. 1982. An Introduction to Plant Taxonomy. Cambridge University Press , London.
5. Jones, S.B. and Luchsinger, A.E. 1986. Plant Systematics. 2nd Edn. Mc Graw Hill Book Co., New York.
6. Radford, A.E. 1986. Fundamentals of Plant Systematics. Harper and Row, New York.
7. Singh, G. 1999. Plant Systematics: Theory and Practice. Oxford and IBH Pvt. Ltd., New Delhi.
8. Sporne, K.R. 1965. The Morphology of Gymnosperms. Hutchinson and Co. Ltd., London.
9. Stace, C.A. 1989. Plant Taxonomy and Biosystematics. 2nd Edn., Edward Arnold, London.
10. Stewart, W.M. 1983. Paleobotany and the Evolution of Plants. Cambridge University Press, Cambridge.

BOTANY
(Semester-III)
(For examinations to be held in the years 2015, 2016, 2017)

Course No: B0-301 (Practical)	Title: Seed Bearing Plants: Characteristics and Systematics
Duration of Exam: 3hrs	Maximum Marks: 50
Credits: 02	External Examination: 25 Marks
	Internal Assessment: 25 Marks

ANGIOSPERMS

Locally available genera/species of following families should be included. This list is only indicative. Teachers may select plants available in their locality.

1. Ranunculaceae: *Ranunculus*, *Delphinium*
2. Brassicaceae: *Brassica*, *Alyssum*, *Iberis*, *Coronopus*
3. Malvaceae: *Hibiscus*, *Abutilon*
4. Asteraceae: *Tagetes*, *Ageratum*
5. Fabaceae:
Faboideae: *Lathyrus*, *Cajanus*, *Melilotus*, *Trigonella*,
Caesalpinioideae: *Cassia*, *Caesalpinia*,
Mimosoideae: *Prosopis*, *Mimosa*, *Acacia*.
6. Apiaceae: *Coriandrum*, *Foeniculum*, *Anethum*
7. Acanthaceae: *Adhatoda*, *Peristrophe*
8. Apocynaceae: *Vinca*, *Thevetia*, *Nerium*
9. Asclepidiaceae: *Calotropis*
10. Solanaceae: *Solanum*, *Withania*, *Datura*, *Petunia*
11. Euphorbiaceae: *Euphorbia*, *Phyllanthus*
12. Lamiaceae: *Ocimum*, *Salvia*
13. Chenopodiaceae: *Chenopodium*, *Beta*
14. Liliaceae: *Asphodelus*, *Asparagus*, *Allium*
15. Poaceae: *Zea mays*, *Triticum aestivum*, *Oryza sativa*

GYMNOSPERMS

CYCAS

- i. Habit, armour of leaf bases on the stem (if specimen is not available show photograph), very young (circinate venation) and old foliage leaves, scale leaves, bulbils, male cone (specimen), microsporophyll, megasporophyll, mature seed.
- ii. Study through permanent slides-normal root (T.S), stem (T.S) (if sections are not available show photographs) and ovule (L.S.)
- iii. Study through hand sections or dissections- coralloid root (T.S), rachis (T.S), leaflet (V. S.) and Pollen grains (W.M).

PINUS

1. Habit, long and dwarf shoots showing cataphylls and scale leaves, T.S. Wood showing growth rings, male cones of 1st year, 2nd year and 3rd year, female cones, winged seeds.
2. Study through permanent slides-root (T.S), female cone (L.S), ovule (L.S) and embryo (WM) showing polycotyledonous conditions.
3. Study through hand sections or dissections-young stem (T.S), old stem (Wood) (T.L.S and R.L.S), needle (T.S), male cone (L.S and T.S) and Pollen grains (W.M.).

EPHEDRA

1. Habit and structure of whole male and female cones
2. Permanent slides-female cone (L.S)
3. Hand sections, dissections-node (L.S), internode (T.S), macerated stem to see vessel structure, epidermal peel mount of vegetative parts to study stomata; male cone (T.S and L.S) and pollen grains (W.M.)

In addition to laboratory exercises, study of plant diversity in nature is required, for which a field trip should be organized.

Note for distribution of 25 Marks in internal assessment in Practical Examination:

- | | |
|--|----------|
| 1. Day to Day performance in the laboratory: | 12 Marks |
| 2. Class Test: | 08 Marks |
| 3. Regularity of Attendance: | 05 Marks |

BOTANY
(Semester-IV)
(For examinations to be held in the years 2016, 2017, 2018)

Course No: B0-401 (Theory)	Title: Seed Bearing Plants-Diversity, Structure, Development and Reproduction
Duration of Exam: 3hrs	Maximum Marks: 100
Credits: 04	Theory Examination: 80 Marks
	Internal Assessment: 20 Marks

Objectives:

Seed bearing plants represent the most advanced groups of plant kingdom. Proper knowledge about their structure, mode of development and mechanisms of multiplication will assist in manipulating these for better human utility. This course will create awareness among students about proper utilization of important plant parts.

UNIT-I: Diversity and Structure

- 1.1 Basic architecture of flowering plants; structural diversity in annual, biennial and perennial plants.
- 1.2 Branching pattern in seed plants; monopodial and sympodial growth pattern and canopy architecture.
- 1.3 Structural modifications of roots and shoots –a detailed account; interaction of microbes with roots (a basic concept).
- 1.4 Dwindling plant diversity – factors responsible for it; strategies adopted for its conservation.

UNIT-II: Root and Shoot

- 2.1 Apical meristem of root, its position, structure and derivatives.
- 2.2 Apical meristem of shoot, its organization and role.
- 2.3 Vascularisation of primary shoot in monocotyledons and dicotyledons, leaf traces and leaf gaps, branch traces and branch gaps.
- 2.4 Epidermal modifications in monocots and dicots (trichomes and stomata), their structural organization and systematic value.

UNIT-III: Primary and Secondary Structure

- 3.1 Vascular cambium and its derivatives; their role in translocation of water, minerals and food.
- 3.2 Secondary growth – a general account; growth rings; heartwood, sapwood; periderm.

- 3.3 Leaf-origin, development and vascularisation; phyllotaxy, senescence and abscission of leaves.
- 3.4 Internal structure of monocot and dicot leaf; adaptations to water stress.

UNIT-IV Flower

- 4.1 Flower: structure, development and functions.
- 4.2 Structure of anther, male gametophyte and microsporogenesis; structure of pistil, ovule, female gametophyte and megasporogenesis.
- 4.3 Pollination: Types, attractants and rewards for pollinators; pollen-pistil interaction; self-incompatibility.
- 4.4 Double fertilization, embryo and endosperm development, cytology and functions of endosperm; formation of fruit.

UNIT-V Units and Mechanisms of Multiplication

- 5.1 Seed formation and its significance.
- 5.2 Seed dormancy; types and importance.
- 5.3 Seed dispersal strategies.
- 5.4 Vegetative propagation: grafting, layering, budding; economic aspects and as means of maintaining genetic constancy.

Note for paper setters

The question paper will have 2 sections. Section 'I' will be compulsory having ten questions of 2 marks each. The questions will be short answer type having answers not exceeding 20 words. Section II will have long answer type questions of 12 marks each, two from each unit. The candidates will be required to answer one question from each unit.

Internal Assessment (Total Marks: 20)

20 marks for theory paper in a subject reserved for internal assessment shall be distributed as under:

- | | | |
|------|---|-----------------|
| (i) | Class Test | 10 Marks |
| (ii) | Two Written Assignments/Project Reports | 10 Marks |
| | | (05 Marks each) |

SUGGESTED READING

1. Bhojwani, S.S and Bhatnagar, S.P. 2000. The Embryology of Angiosperms. 4th Edn. Vikas Publishing House, Delhi.
2. Cutter, E.G. 1969. Plant Anatomy: Experiment and Interpretation. Part-I: Cells and Tissues. Edward Arnold, London
3. Cutter, E.G. 1970. Plant Anatomy: Experiment and Interpretation. Part-II: Organs. Edward Arnold London.
4. Esau, K. 1977. Anatomy of Seed Plants. 2nd Edn. John Wiley and Sons, New York.
5. Faegri, K and Vander Pijl. 1979. The Principles of Pollination Ecology. 2nd Edn. Pergamon Press, Oxford.
6. Fahn, A. 1974. Plant Anatomy. 2nd Edn. Pergamon Press.
7. Hartmann, H.T. and Kestler, D.E. 1976. Plant Propagation: Principles and Practices. 3rd Edn., Prentice Hall of India Pvt. Ltd. New Delhi.
8. Kind, J. 1997. Reaching for the sun: How Plants work. Cambridge University Press, Cambridge, U.K.
9. Mauseth, J.D. 1988. Plant Anatomy. The Benjamin Cummings Publishing Company, Menlo Park, California, USA.
10. Proctor, M and Yeo, P. 1973. The Pollination of Flowers. William Collins Sons, London.
11. Raven, P.H., Evert, R.F. and Eichhorn, S.E. 1999. Biology of Plants, 5th Edn. W.H. Freeman and Co. Worth Publishers, New York.
12. Thomas, P. 2000. Trees: Their Natural History. Cambridge University Press, Cambridge.

BOTANY
(Semester-IV)
(For examinations to be held in the years 2016, 2017, 2018)

Course No: B0-401 (Practical)	Title: Seed Bearing Plants-Diversity, Structure, Development and Reproduction
Duration of Exam: 3hrs	Maximum Marks: 50
Credits: 02	External Examination: 25 Marks Internal Assessment: 25 Marks

1. Study of any commonly occurring dicotyledonous plant (for example *Solanum nigrum* or Kalanchoe) to understand the body plan.
2. Life forms exhibited by flowering plants (by a visit to a forest or a garden). Study of tree like habit in cycads, bamboos, banana, traveller's tree (*Ravenala madagascariensis*) or *Yucca* and comparison with true trees as exemplified by conifers and dicotyledons.
3. L.S. of shoot tip to study the cyto-histological zonation and origin of leaf primordia.
4. Monopodial and sympodial types of branching in stems (especially rhizomes).
5. Anatomy of primary and secondary growth in monocots and dicots using hand sections and prepared slides. Structure of secondary phloem and xylem. Growth rings in wood, Microscopic study of wood in T.S., T.L.S., and R.L.S.
6. Study of diversity in leaf shape, size, thickness, surface properties; internal structure of leaf, structure and type of stomata (using epidermal peels of leaf).
7. Anatomy of the root; primary and secondary structure.
8. Examination of wide range of flowers available in the locality and methods of their pollination.
9. Structure of anther, microsporogenesis (using slides) and pollen grains (using whole mounts). Pollen viability using *in vitro* pollen germination.
10. Structure of ovule and embryo sac development (using serial sections).
11. Test of self-incompatibility (using *Petunia axillaris*, *Brassica campestris*, *B. oleracea* or other suitable available material) using field pollinations.
12. Nuclear and cellular endosperm, embryo development in monocots and dicots (using slides and dissections).
13. Simple experiments to show vegetative propagation (leaf cuttings in *Bryophyllum*, *Sansevieria*, *Begonia*; stem cuttings in *Rosa*, *Salix*, *Pothos*, *Saccharum* and *Bougainvillea*).
14. Germination of non dormant seeds.

Note for distribution of 25 Marks in internal assessment in Practical Examination:

- | | | |
|----|---|----------|
| 1. | Day to Day performance in the laboratory: | 12 Marks |
| 2. | Class Test: | 08 Marks |
| 3. | Regularity of Attendance: | 05 Marks |

BOTANY
(Semester-V)
(For examinations to be held in the years 2016, 2017, 2018)

Course No: B0-501 (Theory)
Duration of Exam: 3hrs

Title: Physiology, Biochemistry and Biotechnology
Maximum Marks: 100

Credits: 04

Theory Examination: 80 Marks
Internal Assessment: 20 Marks

Objectives:

The course is designed to make students appreciate the various mechanisms underlying the important activities of plants as absorption of water and minerals, solute transport, transpiration, flowering, nitrogen metabolism etc. Another aim is to impart students knowledge regarding the biotechnological techniques and their utility in crop improvement.

Unit-I

- 1.1 Discovery and nomenclature of enzymes, characteristics of enzymes, concept of holoenzyme, apoenzyme, co-enzyme and co-factors.
- 1.2 Regulation of enzyme activity; mechanism of enzyme action.
- 1.3 Diffusion of water, osmosis, water potential, absorption and transport of water through xylem.
- 1.4 Types and mechanism of transpiration and mechanism of opening and closing of stomata.

Unit-II

- 2.1 Concept of macro- and micro elements and mineral uptake. Importance of Ca, N, P, K, Mg to the plants and their deficiency symptoms.
- 2.2 Mechanism of transport of organic substances in phloem, source-sink relationship and factors affecting translocation.
- 2.3 Photosynthesis – a general account of photosynthetic pigments, red drop and enhancement effect; concept of photosystems, PSI and PSII; cyclic and non-cyclic photophosphorylation.
- 2.4 Carbon fixation- Calvin cycle, C₄, Crassulacean Acid Metabolism and photorespiratory pathways and their significance.

Unit-III

- 3.1 Respiration- Glycolytic pathway, Kreb's cycle, Pentose Phosphate pathway.
- 3.2 Electron transport mechanism and oxidative phosphorylation, mechanism of synthesis of ATP (Chemi-osmotic theory).
- 3.3 Biological nitrogen fixation, importance of nitrate and nitrite reductases and ammonium assimilation.
- 3.4 Biosynthesis and functions of phospholipids and β -oxidation pathway.

Unit-IV

- 4.1 Plant growth and development - phases and kinetics of growth; seed germination - general account, factors affecting seed germination.
- 4.2 Physiology of flowering - florigen concept, photoperiodism, biological clocks.
- 4.3 Phytochromes - their discovery, physiological role and mechanism of action.
- 4.4 Plant hormones - auxins, gibberellins, cytokinins, abscissic acid and ethylene, their biosynthesis and importance.

Unit-V

- 5.1 Concept of Biotechnology, recombinant DNA technology and gene cloning; restriction endonucleases, Agarose gel electrophoresis, Southern blotting; genomic and cDNA libraries.
- 5.2 Salient features of cloning vectors- plasmids, bacteriophages and cosmids; Biology of *Agrobacterium* vectors for gene delivery.
- 5.3 Basic concepts of plant tissue culture, cellular totipotency, differentiation and morphogenesis, protoplast fusion, anther culture.
- 5.4 Salient achievements in crop biotechnology; Transgenic plants – a general account.

Note for paper setters

The question paper will have 2 sections. Section 'I' will be compulsory having ten questions of 2 marks each. The questions will be short answer type having answers not exceeding 20 words. Section II will have long answer type questions of 12 marks each, two from each unit. The candidates will be required to answer one question from each unit.

Internal Assessment (Total Marks: 20)

20 marks for theory paper in a subject reserved for internal assessment shall be distributed as under:

(i)	Class Test	10 Marks
(ii)	Two Written Assignments/Project Reports	10 Marks
		(05 Marks each)

Suggested Reading

1. Bhojwani, S.S. 1990. Plant Tissue Culture: Applications and Limitations. Elsevier Science Publishers, New York, USA.
2. Bhojwani, S.S. and Razdan, M.K. 2005. Plant Tissue Culture: Theory and Practice. Revised Edn. Elsevier Science Publication, The Netherlands.
3. Brown, T.A. 2010. Genomes. John Wiley and Sons (Asia) Pvt. Ltd.
4. Buchanan, B.B., Gruissen, W. and James, R.L. 2000. Biochemistry and Molecular Biology of Plants. I.K. International Pvt. Ltd. New Delhi.
5. Collin H.A. and Edwards, S. 1998. Plant Cell Culture: Introduction to Biotechniques. BIOS Scientific Publishers Ltd. UK.
6. Das, H.K. 2007. Textbook of Biotechnology. 3rd Edn. Wiley India Pvt. Ltd. U.P., India.
7. Galston, A.W. 1989. Life Process in Plants. Scientific American Library, Springer-verlag, New York, USA.
8. Glick, B.R., Pasternak J.J. and Patten, C.L. 2010. Molecular Biotechnology: Principles and Applications of Recombinant DNA. 4th Edn. ASM Press Washington, DC.
9. Hopkins, W.G. 2008. Introduction to Plant Physiology. John Wiley and Sons, Inc. New York, USA.
10. Old, R.W. and Primrose, S.B. 1989. Principles of Gene Manipulation. Blackwell Scientific Publications, Oxford, UK.
11. Primrose, S. B. 1995. Principles of Genome Analysis. Blackwell Scientific Publishers, Oxford UK.
12. Raghvan, V. 1986. Embryogenesis in Angiosperms: A Developmental and Experimental Study. Cambridge University Press, New York, USA.
13. Raghvan, V. 1997. Molecular Biology of Flowering Plants. Cambridge University Press, New York, USA.
14. Razdan, M.K. 2000. An Introduction to Plant Tissue Culture. Oxford and IBH Publications, Delhi.
15. Salisbury, F.B. and Ross, C.W. 1992. Plant Physiology. Wadsworth Publication Co. California, USA.
16. Taiz, L and Zeiger, E. 2006. Plant Physiology. 4th Edn., Sinauer Associates, Inc Publishers, Massachusetts, USA.
17. Vasil, I.K. and Thorpe, T.A. 1994. Plant Cell and Tissue Culture. Kluwer Academic Publishers. The Netherlands.

BOTANY
(Semester-V)
(For examinations to be held in the years 2016, 2017, 2018)

Course No: B0-501 (Practical)
Duration of Exam: 3hrs

Title: Physiology, Biochemistry and Biotechnology
Maximum Marks: 50

Credits: 02

External Examination: 25 Marks
Internal Assessment: 25 Marks

1. To study the permeability of plasma membrane using different concentrations of organic solvents.
2. To study the effect of temperature on permeability of plasma membrane.
3. To prepare the standard curve of protein and determine the protein content in unknown samples.
4. To study the enzyme activity of catalase and peroxidase as influenced by pH and temperature.
5. Comparison of the rate of respiration of various plant parts.
6. Separation of chloroplast pigments by solvent partitioning method.
7. Determining the osmotic potential of vacuolar sap by plasmolytic method.
8. Determining the water potential of potato tubers.
9. Separation of amino acids in a mixture by paper chromatography and their identification by comparison with standards.
10. Bioassay of auxin, cytokinin, ABA and ethylene using appropriate plant material.
11. Demonstration of the technique of micropropagation by using different explants e.g. axillary buds, shoot meristems.
12. Demonstration of the technique of anther culture.
13. Isolation of protoplasts from different tissues using commercially available enzymes.
14. Demonstration of root and shoot formation from the apical and basal portion of stem segments in liquid medium containing different hormones.

Note for distribution of 25 Marks in internal assessment in Practical Examination:

- | | |
|--|----------|
| 1. Day to Day performance in the laboratory: | 12 Marks |
| 2. Class Test: | 08 Marks |
| 3. Regularity of Attendance: | 05 Marks |

BOTANY
(Semester-VI)
(For examinations to be held in the years 2017, 2018, 2019)

Course No: B0-601 (Theory)

Duration of Exam: 3hrs

Title: Plant Ecology

Maximum Marks: 100

Credits: 04

Theory Examination: 80 Marks

Internal Assessment: 20 Marks

Objectives:

The course is designed to make students understand abiotic and biotic components of the ecosystems, ecological processes, biogeography, use of biological diversity and conservation approaches commonly used.

Unit-I Plants and Environment

- 1.1 Atmosphere- Stratification and gaseous composition; Carbon and Hydrogen cycle and their significance, green house gases and climate change.
- 1.2 Soil structure, soil profiles and development; soil types in India.
- 1.3 Morphological, anatomical and physiological responses of plants to water (hydrophytes and xerophytes) and salinity.
- 1.4 Morphological, anatomical and physiological responses of plants to light and temperature (heliophytes, sciophytes).

Unit-II Population, Community and Ecosystems

- 2.1 Concept of ecology, ecosystem: structure, abiotic and biotic components, food chain, food web, ecological pyramids and energy flow.
- 2.2 Community ecology: Community characteristics, frequency, density cover, life forms, biological spectrum.
- 2.3 Ecological succession: Concept, process and its types; climax communities.
- 2.4 Population ecology, growth curves; Ecotypes and ecads.

Unit- III Natural Resources and Management

- 3.1 Biogeographical regions of India.
- 3.2 Vegetation types of India; Forests and grasslands.
- 3.3 Role of remote sensing and GIS in environmental management.
- 3.4 *Ex-situ* and *in-situ* conservation of plant resources. Concept of rare, endangered and threatened (RET) plants.

Unit-IV Utilization of Plants

- 4.1 Food plants: Origin of wheat, maize and rice and their cultivation in India.
- 4.2 Fibres: Cultivation and processing of cotton and jute.
- 4.3 Non-alcoholic beverages: Botany and processing of tea and coffee.
- 4.4 Spices and condiments: Botany and utility of asafoetida, cumin, fennel, coriander, cloves, cinnamon, ginger, turmeric and cardamom.

Unit- V Utilization of Plants

- 5.1 Vegetable Oils: Botany, cultivation and utilization of groundnut, mustard and coconut.
- 5.2 Major firewood and timber yielding plants of J&K state and their utilization.
- 5.3 Medicinal plants of J&K state: a general account.
- 5.4 Sources, extraction and processing of commercial rubber.

Note for paper setters

The question paper will have 2 sections. Section 'I' will be compulsory having ten questions of 2 marks each. The questions will be short answer type having answers not exceeding 20 words. Section II will have long answer type questions of 12 marks each, two from each unit. The candidates will be required to answer one question from each unit.

Internal Assessment (Total Marks: 20)

20 marks for theory paper in a subject reserved for internal assessment shall be distributed as under:

(i)	Class Test	10 Marks
(ii)	Two Written Assignments/Project Reports	10 Marks (05 Marks each)

Suggested Readings

1. Chapman, J.L. and Reiss, M.J. 2000. Ecology: Principles and Applications. 2nd Edn., Cambridge University Press, U.K.
2. Kebs, C.J. 1989. Ecological Methodology. Harper and Row, New York, USA.
3. Kochar, S. L. 1998. Economic Botany in Tropics. 2nd edition. Macmillan India Ltd. New Delhi.

4. Kormondy, E.J. 1996. Concepts of Ecology. Prentice- Hall of India Pvt. Ltd. New Delhi.
5. Ludwist. J.A. and Reynolds, J.F. 1988. Statistical Ecology. Wiley, New York.
6. Misra, R. 1988. Ecology Work Book. Oxford and IBH, New Delhi.
7. Moore. P.W. and Chapman, S.B. 1986. Methods in Plant Ecology. Blackwell Scientific Publications.
8. Odum, E.P. 1983. Basic Ecology. Saunders, Philadelphia.
9. Sambamurthy, A.V. S.S. and Subramanyam, N.S. 1989. A textbook of Economic Botany. Wiley Eastern Ltd. New Delhi.
10. Sharma, O.P. 1996. Hills Economic Botany. (Late Dr. A.F. Hill, Adapted by Dr. O.P.Sharma), Tata McGraw Hill Co. Ltd. New Delhi.
11. Sharma, P. D. 2010. Ecology and Environment. 10th Edn. Rastogi Publications, Merut. India
12. Simpson, B.B. and Conner Ogorzaly, M. 1986. Economic Botany- Plants in Our World, McGraw Hill, New York.
13. Townsend, C.R., Begon, M. and Harper, J.L. 2008. Essentials of Ecology. 3rd Edn. Blackwell publishing. U.K.
14. Underwood, A.J. 1977. Experiments in Ecology: Their logical design and interpretation using analysis of variance. Cambridge University Press.
15. APHA-Standard methods for the examination of water and waste water, American Public Health Association, Washington.

BOTANY
(Semester-VI)
(For examinations to be held in the years 2017, 2018, 2019)

Course No: B0-601 (Practical)
Duration of Exam: 3hrs

Title: Plant Ecology
Maximum Marks: 50

Credits: 02

External Examination: 25 Marks
Internal Assessment: 25 Marks

1. To determine size of the quartet required for reliable estimate of biomass in grasslands.
2. To study the frequency of herbaceous species in grassland and to compare the frequency distribution with Raunkaier's Standard Frequency Diagram.
3. To estimate importance value index for grassland species on the basis of relative frequency, relative density and relative biomass in protected and grazed grassland.
4. To measure the vegetation cover of grassland through point frame method.
5. To measure the aboveground plant biomass in a grassland.
6. To determine Kemp's constant for dicot and monocot leaves and to estimate the leaf area index of a grassland community.
7. To determine diversity indices for richness, Simpson index, Shannon-Weaver index in grazed and protected grassland.
8. To estimate bulk density and porosity of grassland and woodland soils.
9. To determine the moisture content and water holding capacity of grassland and woodland soil.
10. To study the vegetation structure through profile diagram.
11. To estimate transparency and temperature of different water bodies.
12. To measure dissolved oxygen content of polluted and unpolluted water samples.
13. To estimate salinity of different water samples.
14. To determine the percent leaf area injury of different leaf samples collected around polluted sites.
15. To estimate dust holding capacity of the leaves of different plant species.
16. Study of the morphology, structure and simple microchemical tests of the food storing tissues in rice, wheat, maize, potato and sugarcane. Microscopic examination of starch in these plants (except sugarcane).
17. Study of cotton flowers, sectioning of the cotton ovules/developing seeds to trace the origin and development of cotton fibres. Microscopic study of cotton and test for cellulose. Sectioning and staining of Jute stem to show the location and development of fibres, Microscopic structure. Tests for ligno-cellulose.

18. Study of hand sections of groundnut, mustard and coconut and staining of oil droplets by Sudan III and Sudan Black.
19. To study sources of firewood yielding trees (10) and bamboos. A list to be prepared mentioning special features.
20. Examine black pepper, cloves, cinnamon (hand sections) and opened fruits of cardamom and describe them briefly.
21. Preparation of an illustrated Inventory of 10 medicinal plants used in indigenous systems of medicine or allopathy. Write their botanical and common names, parts used and diseases/disorders for which they are prescribed.
22. Section boiled coffee beans and tea leaves to study the characteristics and structural features.
23. Collect illustrative materials of *Hevea brasiliensis*: Morphology of the plant and tapping practices, history of rubber, list the uses of rubber.

Note for distribution of 25 Marks in internal assessment in Practical Examination:

- | | | |
|----|---|----------|
| 1. | Day to Day performance in the laboratory: | 12 Marks |
| 2. | Class Test: | 08 Marks |
| 3. | Regularity of Attendance: | 05 Marks |

BOTANY
(Semester-I)
(For examinations to be held in the years 2016, 2017, 2018)

Course No: UBOTC101	Title: Diversity of Microbes & Cryptogams (Theory)
Duration of Exam: 3hrs	Maximum Marks: 100
Credits: 04	External Examination: 80 Marks Internal Assessment: 20 Marks

Objectives:

The course is designed to familiarize the students with microbes and cryptogams. These plant groups are of great human use in agriculture, horticulture, medical and biotechnology based industries. Therefore, students need to know about their structural diversity, biology and utilization.

Unit-I Microbes and Microbiology

- 1.1 General account of plant viruses (TMV), transmission and control; concept of viroids and prions.
- 1.2 Bacteria-Ultrastructure, nutrition and reproduction, general account of Mycoplasma and Cyanobacteria.
- 1.3 Genetic recombination in bacteria (transformation, transduction and conjugation).
- 1.4 Economic importance of bacteria and plant viruses.

Unit-II Algae

- 2.1 General characteristics and classification of algae (Parker, 1982) up to class level.
- 2.2 Important features of Chlorophyceae and Xanthophyceae; life histories of *Volvox*, *Oedogonium*, *Chara* and *Vaucheria*.
- 2.3 Important features of Phaeophyceae and Rhodophyceae; Life histories of *Ectocarpus* and *Polysiphonia*.
- 2.4 Economic importance of algae (as food and feed; algal blooms and toxins).

Unit-III Fungi

- 3.1 General characteristics and classification of fungi (Ainsworth 1971), Economic importance of fungi, General account of Lichens.
- 3.2 Important features of Mastigomycotina; Life histories of *Pythium* and *Allomyces*.

- 3.3 Important characteristics of Zygomycotina and Ascomycotina; Life histories of *Rhizopus*, *Eurotium* and *Morchella*.
- 3.4 Important characteristics of Basidiomycotina and Deuteromycotina; Life histories of *Puccinia*, *Agaricus*, *Colletotrichum* and *Cercospora*.

Unit-IV Bryophytes

- 4.1 Bryophytes as the earliest land dwellers; general characteristics, classification (Smith, 1955) and alternation of generations.
- 4.2 Structure and reproduction in Hepaticae with reference to *Marchantia*.
- 4.3 Structure and reproduction in Anthocerotae and Musci with reference to *Anthoceros* and *Funaria*.
- 4.4 Evolution of sporophyte in bryophytes; importance of bryophytes in preventing soil erosion; monitoring and controlling pollution; geobotanical prospecting; in horticulture and as source of antibiotics.

Unit-V Pteridophytes

- 5.1 General characteristics, classification (Sporne, 1975) and origin of pteridophytes (the first vascular plants); stelar system and alternation of generations.
- 5.2 Important characteristics of Psilopsida and Lycopsidea; Structure and reproduction in *Psilotum*, *Lycopodium* and *Selaginella* (excluding development).
- 5.3 Important characteristics of Sphenopsida; structure and reproduction in *Equisetum* (excluding development).
- 5.4 Important characteristics of Pteropsida; structure and reproduction in *Pteris* and *Marsilea* (excluding development).

Note for paper setters

External End Semester Examination (Total marks: 80)

The question paper will have 2 sections. Section 'I' will be compulsory having ten questions of 2 marks each. The questions will be short answer type having answers not exceeding 20 to 50 words. Section II will have long answer type questions of 12 marks each, two from each unit. The candidates will be required to answer one question from each unit.

Internal Assessment (Total Marks: 20)

20 marks for theory paper in a subject reserved for internal assessment shall have one long answer type question of 10 marks and five short answer type question of 2 marks each.

Suggested Readings

1. Bilgrami, K.S. and Saha L.C. 1992. A Textbook of Algae. CBS Publishers and Distributors, Delhi.
2. Dube, H.C. 1990. An Introduction to Fungi. Vikas Publishing House Pvt. Ltd., Delhi.
3. Parihar, N. S. 1996. The Biology and Morphology of Pteridophytes. Central Book Distributors, Allahabad.
4. Puri, P. 1980. Bryophyta: Broad perspectives. Atma Ram & Sons, Delhi.
5. Rashid A. 1976. An Introduction to Pteridophytes- Diversity and Differentiation. Vikas Publishing House.
6. Smith, G.M. 1971. Cryptogamic Botany. Vol-I: Algae & Fungi. Tata McGraw Hill Publishing Co., New Delhi.
7. Smith, G.M. 1971. Cryptogamic Botany. Vol. II; Bryophytes & Pteridophytes. Tata McGraw Hill Publishing Co., New Delhi.
8. Sporne, K. R. 1970. The Morphology of Pteridophytes. Hutchinson Univ. Library, London.
9. Sumbali, G. and Mehrotra, R. S. 2009. Principles of Microbiology. The McGraw Hill Education Pvt. Ltd. New Delhi.
10. Sumbali G. 2010. The Fungi. 2nd Edn. Narosa Publishing House, New Delhi.

BOTANY
(Semester-I)
(For examinations to be held in the years 2016, 2017, 2018)

Course No: UBOPC102	Title: Diversity of Microbes & Cryptogams (Practical)
Duration of Exam: 3hrs.	Maximum Marks: 100
Credits: 02	External Examination: 50 Marks
	Internal Assessment: 50 Marks

Suggested Laboratory Exercises

1. Study of the genera included under algae and fungi.
2. Study of morphology, reproductive structures and anatomy of the examples cited in theory under Bryophyta and Pteridophyta.
3. Observation of disease symptoms in hosts infected by fungi, viruses and mycoplasma. Section cutting of diseased materials and identification of the pathogens as per the theory syllabus.
4. Gram staining of bacteria.
5. Study of crustose, foliose and other types of lichen thalli.

Note for distribution of 50 Marks in Practical Examination:

I. Internal Assessment

- | | | |
|----|---|----------|
| 1. | Day to Day performance in the laboratory: | 20 Marks |
| 2. | Class Test: | 10 Marks |
| 3. | Regularity of Attendance: | 10 Marks |
| 4. | Viva-voce | 10 Marks |

II. External Assessment

- | | | | |
|----|-----------|---|----------|
| 1. | Test | : | 40 Marks |
| 2. | Viva-voce | : | 10 Marks |

BOTANY
(Semester-II)
(For examination to be held in the years 2016, 2017, 2018)

Course No: UBOTC201	Title: Characteristics and Systematics of seed plants (Theory)
Duration of Exam: 3hrs	Maximum Marks: 100
Credits: 04	External Examination: 80 Marks Internal Assessment: 20 Marks

Objectives:

Gymnosperms and angiosperms represent the important botanical groups exhibiting great diversity. The course, therefore, is designed to study these groups for structural aspects and analyse these in a scientific manner for establishing their grouping.

UNIT-I: Seed Plants-Origin, Evolution and Characteristics

- 1.1 Fossilization –Processes and types, age of fossils and their importance.
- 1.2 Fossil gymnosperms - a general account; Benettitales (Cycadeoidales)- history and distribution.
- 1.3 Characteristic features, morphology, anatomy and reproduction in *Williamsonia* and *Cycadeoidea*.
- 1.4 Fossil angiosperms – a general account.

UNIT-II Classification, Morphology and Reproduction in Gymnosperms

- 2.1 General characters of gymnosperms; classification of gymnosperms as proposed by Sporne (1965).
- 2.2 Morphology, anatomy, reproduction and life cycle of *Cycas*
- 2.3 Morphology, anatomy, reproduction and life cycle of *Pinus*.
- 2.4 Morphology, anatomy, reproduction and life cycle of *Ephedra*.

UNIT-III Angiosperm-Origin and Nomenclature

- 3.1 Origin of angiosperms, characteristics of some primitive angiosperms with special reference to *Magnolia*.
- 3.2 History of angiosperm taxonomy - classical and modern, species concept and speciation.
- 3.3 Taxonomic identification: taxonomic keys and literature (floras, monographs and reviews).
- 3.4 Botanical nomenclature- principles and rules, taxonomic ranks, type concept and principle of priority.

UNIT-IV Classification and Tools in Angiosperm Taxonomy

- 4.1 Salient features of the classification of Bentham and Hooker; merits and demerits.
- 4.2 Salient features of the classification of Engler and Prantl; merits and demerits.
- 4.3 Contribution of anatomy and embryology to taxonomy.
- 4.4 Contribution of cytology and phytochemistry to taxonomy.

UNIT-V Diversity of Angiosperms

- 5.1 Morphological diversity of families: Ranunculaceae, Brassicaceae, Malvaceae and Asteraceae.
- 5.2 Morphological diversity of families: Fabaceae, Rosaceae, Apiaceae and Acanthaceae.
- 5.3 Morphological diversity of families: Apocyanaceae, Solanaceae, Lamiaceae and Euphorbiaceae.
- 5.4 Morphological diversity of families: Liliaceae, Amaryllidaceae and Poaceae.

Note for paper setters

External End Semester Examination (Total marks: 80)

The question paper will have 2 sections. Section 'I' will be compulsory having ten questions of 2 marks each. The questions will be short answer type having answers not exceeding 20 to 50 words. Section II will have long answer type questions of 12 marks each, two from each unit. The candidates will be required to answer one question from each unit.

Internal Assessment (Total Marks: 20)

20 marks for theory paper in a subject reserved for internal assessment shall have one long answer type question of 10 marks and five short answer type question of 2 marks each.

Suggested readings:

1. Bhatnagar, S.P. and Moitra, A. 1996. Gymnosperms. New Age International Limited, New Delhi.
2. Davis, P.H. and Heywood, V.H. 1963. Principles of Angiosperm Taxonomy. Oliver and Boyd, London.
3. Gifford, E.M. and Foster, A.S. 1988. Morphology and Evolution of Vascular Plants. W.H. Freeman and company, New York.
4. Jeffery, C. 1982. An Introduction to Plant Taxonomy. Cambridge University Press , London.
5. Jones, S.B. and Luchsinger, A.E. 1986. Plant Systematics. 2nd Edn. Mc Graw Hill Book Co., New York.
6. Radford, A.E. 1986. Fundamentals of Plant Systematics. Harper and Row, New York.
7. Singh, G. 1999. Plant Systematics: Theory and Practice. Oxford and IBH Pvt. Ltd., New Delhi.
8. Sporne, K.R. 1965. The Morphology of Gymnosperms. Hutchinson and Co. Ltd., London.
9. Stace, C.A. 1989. Plant Taxonomy and Biosystematics. 2nd Edn., Edward Arnold, London.
10. Stewart, W.M. 1983. Paleobotany and the Evolution of Plants. Cambridge University Press, Cambridge.

BOTANY
(Semester-II)
(For examinations to be held in the years 2016, 2017, 2018)

Course No: UBOPC202	Title: Characteristics and Systematics of seed plants. (Practical)
Duration of Exam: 3hrs	Maximum Marks: 100
Credits: 02	External Examination: 50 Marks Internal Assessment: 50 Marks

ANGIOSPERMS

Locally available genera/species of following families should be included. This list is only indicative. Teachers may select plants available in their locality.

1. Ranunculaceae: *Ranunculus*, *Delphinium*
2. Brassicaceae: *Brassica*, *Alyssum*, *Iberis*, *Coronopus*
3. Malvaceae: *Hibiscus*, *Abutilon*
4. Asteraceae: *Tagetes*, *Ageratum*
5. Fabaceae:
Faboideae: *Lathyrus*, *Cajanus*, *Melilotus*, *Trigonella*,
Caesalpinioideae: *Cassia*, *Caesalpinia*,
Mimosoideae: *Prosopis*, *Mimosa*, *Acacia*.
6. Apiaceae: *Coriandrum*, *Foeniculum*, *Anethum*
7. Acanthaceae: *Adhatoda*, *Peristrophe*
8. Apocynaceae: *Vinca*, *Thevetia*, *Nerium*
9. Asclepidiaceae: *Calotropis*
10. Solanaceae: *Solanum*, *Withania*, *Datura*, *Petunia*
11. Euphorbiaceae: *Euphorbia*, *Phyllanthus*
12. Lamiaceae: *Ocimum*, *Salvia*
13. Chenopodiaceae: *Chenopodium*, *Beta*
14. Lilliaceae: *Asphodelus*, *Asparagus*, *Allium*
15. Poaceae: *Zea mays*, *Triticum aestivum*, *Oryza sativa*

GYMNOSPERMS

CYCAS

- i. Habit, armour of leaf bases on the stem (if specimen is not available show photograph), very young (circinate venation) and old foliage leaves, scale leaves, bulbils, male cone (specimen), microsporophyll, megasporophyll, mature seed.

- ii. Study through permanent slides-normal root (T.S), stem (T.S) (if sections are not available show photographs) and ovule (L.S.)
- iii. Study through hand sections or dissections- coralloid root (T.S), rachis (T.S), leaflet (V. S.) and Pollen grains (W.M).

PINUS

1. Habit, long and dwarf shoots showing cataphylls and scale leaves, T.S. Wood showing growth rings, male cones of 1st year, 2nd year and 3rd year, female cones, winged seeds.
2. Study through permanent slides-root (T.S), female cone (L.S), ovule (L.S) and embryo (WM) showing polycotyledonous conditions.
3. Study through hand sections or dissections-young stem (T.S), old stem (Wood) (T.L.S and R.L.S), needle (T.S), male cone (L.S and T.S) and Pollen grains (W.M.).

EPHEDRA

1. Habit and structure of whole male and female cones
2. Permanent slides-female cone (L.S)
3. Hand sections, dissections-node (L.S), internode (T.S), macerated stem to see vessel structure, epidermal peel mount of vegetative parts to study stomata; male cone (T.S and L.S) and pollen grains (W.M.)

In addition to laboratory exercises, study of plant diversity in nature is required, for which a field trip should be organized.

Note for distribution of 50Marks in Practical Examination:

I. Internal Assessment

- | | | |
|----|---|----------|
| 1. | Day to Day performance in the laboratory: | 20 Marks |
| 2. | Class Test: | 10 Marks |
| 3. | Regularity of Attendance: | 10 Marks |
| 4. | Viva-voce | 10 Marks |

II. External Assessment

- | | | |
|----|-----------|----------|
| 1. | Test: | 40 Marks |
| 2. | Viva-voce | 10 Marks |

CHEMISTRY SYLLABUS

(For examinations to be held in the years 2015 & 2016)

SEMESTER-I

Course No.: CH-101 (Theory)

Title: Inorganic Chemistry-I

Credits: 04

Maximum Marks: 100

Time: 03 Hours

External Examination: 80 Marks

Internal Assessment: 20 Marks

Unit-I

(a) Atomic Structure

Idea of de Broglie matter waves, Heisenberg uncertainty principle, atomic orbital. Schrodinger wave equation, significance of quantum numbers, radial and angular wave functions and probability distribution curves, shapes of s, p, d orbitals. Aufbau and Pauli's exclusion principles, Hund's multiplicity rule, Electronic configurations of the elements, effective nuclear charge.

(b) Periodic Properties

Atomic and Ionic radii, ionization energy, electron affinity and electronegativity – definition, methods of determination of evaluation, trends in periodic table and applications in predicting and explaining the chemical behavior.

Unit-II

(a) Chemical Bonding-I

Covalent Bond. Valence bond theory and its limitations, directional characteristics of covalent bond, various types of hybridization and shapes of simple inorganic molecules and ions. Valence shell electron pair repulsion (VSEPR) theory and its applications to NH_3 , H_3O^+ , SF_4 , ClF_3 , ICl_2^- , and H_2O . MO theory, homonuclear and heteronuclear (CO and NO) diatomic molecules, bond strength and bond energy, calculation of percentage of ionic character from dipole moment and electro negativity difference.

(b) Chemical Bonding-II

Ionic solids, Ionic structures, radius ratio effect and coordination number, limitations of radius ratio rule, lattice defects, semiconductors, lattice energy and Born-Haber cycle, solvation energy and solubility of ionic solids, polarizing power and polarisability of ions, Fajan's rules.

Metallic bond – free electron, valence bond and band theories. Weak interactions-hydrogen bonding and van der Waals forces.

Unit-III

(a) s-Block Elements

General study, diagonal relationship, salient features of hydrides, solvation and complexation tendencies including their function in biosystems, an introduction to metal alkyls and aryls.

(b) p-Block Elements-I

General study (including diagonal relationship) of groups 13-17 elements, compounds like hydrides, oxides, oxyacids and halides of groups 13-16, hydrides of boron-diborane and borazine. Chemistry of fullerenes, carbides, fluorocarbons, silicates (structural principle), tetra sulphur tetranitride, basic properties of halogens and interhalogens.

(c) Chemistry of Noble Gases

Chemical properties of the noble gases, chemistry of xenon, structure and bonding in xenon compounds(oxides and fluorides).

Unit-IV**(a) Acids and Bases**

Arrhenius, Bronsted Lowry, Lux Flood, solvent system and Lewis concepts of acids and bases.

Hard and Soft Acids and Bases (HSAB): Classification of acids and bases as hard and soft. Pearson's HSAB concept, acid base strength and hardness and softness, symbiosis, theoretical basis of hardness and softness, electronegativity and hardness and softness.

(b) Non- aqueous Solvents

Physical properties of a solvent, types of solvents and their general characteristics, reactions in non-aqueous solvents with reference to liquid NH_3 and liquid SO_2 .

Unit-V**(a) Oxidation and Reduction**

Use of redox potential data- analysis of redox cycle, redox stability in water, Latimer diagrams for oxygen, nitrogen, manganese, copper (acidic medium, $\text{pH} = 0$) and for chlorine (acidic/ alkaline medium). Calculation of E- values for skip- step couples using EMF diagrams. Frost diagrams for oxygen and nitrogen, Pourbaix diagrams for iron species in natural waters.

(b) Inorganic Polymers

Siloxanes and phosphazenes as example of Inorganic polymers, nature of bonding in phosphazenes.

Note for Paper Setting

Internal Assessment: 20 marks for theory paper in a subject reserved for internal assessment shall be distributed as under:

- | | | | |
|------|-------------------------|---|--------------------------|
| (i) | One Class Test | : | 10 marks |
| (ii) | Two written assignments | : | 10 marks (05 marks each) |

External Examination: The question paper will contain three sections A, B & C.

Section A will consist of ten very short answers type questions, two from each unit, carrying 2 marks each. All the questions in section A will be compulsory **(20 marks)**.

Section B will consist of ten short answers type questions, two from each unit with internal choice. Student will be required to attempt five questions one from each unit, each question carrying 6 marks **(30 marks)**.

Section C will have five long answers type questions, one from each unit, carrying 10 marks. Student will be required to attempt any three questions **(30 marks)**.

BOOKS RECOMENDED

1. Basic Inorganic Chemistry, F.A.Cotton, G.Wilkinson and PL. Gaus, Wiley.
2. Concise Inorganic Chemistry, J.D.Lee, ELBS.
3. Concepts of Models of Inorganic Chemistry, B.Douglas, S. McDaniel and J. Alexander, John Wiley.
4. Inorganic Chemistry, D.E.Shriver, P.W.Atkins and C.H.Langford, Oxford.
5. Inorganic Chemistry, W.W. Porterfield, Addison-Wesey.
6. Inorganic Chemistry, A.G. Sharpe, ELBS.
7. Inorganic Chemistry, G.L Miessler and D.A. Tarr, Prentice Hall

CHEMISTRY SYLLABUS

(For examinations to be held in the years 2015 & 2016)

SEMESTER-I

Course No.: CH-101 (Practical)

Title: Inorganic Chemistry-1 (Practical)

Credits: 02

Maximum Marks: 50

Time: 4 Hours

External Examination: 25 Marks

Internal Examination: 25 Marks

Quantitative and qualitative analysis

Preparation of standard solutions Dilution -0.1M to 0.001M solutions (NaOH, Oxalic acid, KMnO_4 , $\text{K}_2\text{Cr}_2\text{O}_7$).

Quantitative Analysis (Volumetric Analysis)

- (a) Determination of acetic acid in Commercial vinegar using NaOH.
- (b) Estimation of calcium content in Chalk as calcium oxalate by permanganometry.
- (c) Estimation of ferrous and ferric ions by dichromate method.
- (d) Estimation of hardness of water by EDTA.
- (e) Estimation of copper using thiosulphate.

Semi micro Analysis of salt mixtures containing three acidic and three basic radicals

20 marks

Viva-Voce

05 marks

Note for distribution of 25 marks in internal assessment in practical examination:

Internal Examination: Total marks reserved for internal assessment shall be distributed as under:

- | | | |
|---|---|----------|
| (i) Daily assessment in the laboratory | : | 12 marks |
| (ii) Class test (internal practical test) | : | 08 marks |
| (iii) Regularity of attendance | : | 05 marks |

External Examination: There shall be two exercises in the external examination of ten marks each.

BOOKS RECOMENDED

1. Vogel's Qualitative Inorganic Analysis revised, Svehla, Orient Longman.
2. Vogel's Textbook of Quantative Inorganic Analysis, revised, Svehla, Orient Longman.
3. Vogel's Textbook of Quantative Inorganic Analysis (revised), J.Bassett, R.C.Denney, G.H.Jeffery and J.Mendham, ELBS.
4. Experimental Inorganic Chemistry, W.G.Palmer, Cambridge.

CHEMISTRY SYLLABUS

(For examinations to be held in the years 2016 & 2017)

SEMESTER-II

Course No.: CH-201 (Theory)

Title: Physical Chemistry - I

Credits: 04

Maximum Marks: 100

Time: 03 Hours

External Examination: 80 Marks

Internal Assessment: 20 Marks

Unit I

(a) Mathematical concepts

Differentiation of functions like e^x , x^n , $\sin x$, $\cos x$, $\log x$; Maxima and Minima, Partial differentiation and Euler's reciprocity relations, Integration of some useful/relevant functions; Factorials, Theorems of Probability.

(b) Solutions and Colligative properties

Ideal and non-ideal solutions, Methods of expressing concentration of solutions, Activity and activity coefficient. Dilute solution, Colligative properties, Raoult's law, Relative lowering of vapour pressure, Molecular weight determination. Osmosis and osmotic pressure and its measurement, Determination of molecular weight from osmotic pressure, Elevation of boiling point and Depression of freezing point.

Abnormal molar mass, Degree of dissociation and association of solutes.

Unit II

(a) Gaseous State

Postulates of kinetic theory of gases, Deviations from ideal behaviour, van der Waals equation of state.

Molecular Velocities: Root mean square, average and most probable velocities, Qualitative discussion of the Maxwell's distribution of molecular velocities, Collision number, Mean free path and Collision diameter, Liquefaction of gases, Linde's method and Claude's method.

Critical Phenomena: PV isotherms of real gases, Continuity of states, Isotherms of van der Waals equation, Relationship between critical constants and van der Waals constants, Law of corresponding states, Reduced equation of state, Numericals.

(b) Solid State

Definition of space lattice, unit cell.

Laws of crystallography: Law of constancy of interfacial angles, Law of rationality of indices, Law of symmetry, Symmetry elements in crystals.

X-ray diffraction by crystals, Derivation of Bragg's equation, Determination of crystal structure of NaCl and KCl (Laue's method and Powder method), perfect and imperfect crystals, Frenkel and Schottky defects.

Unit III

Thermodynamics-I

Definition of thermodynamic terms: System, Surroundings, etc., Types of systems, Intensive and extensive properties, State and path functions and their differentials, Thermodynamic process, Concept of heat and work.

First law of thermodynamics: Statement, Definition of internal energy and enthalpy, Heat capacity, Heat capacities at constant volume and pressure and their relationship, Joule's law, Joule-Thomson coefficient and inversion temperature, Calculation of w , q , dU and dH for the expansion of ideal gases under isothermal and adiabatic conditions for reversible process, Application to cyclic process (The Carnot Theorem), Carnot cycle and its efficiency.

Thermochemistry: Standard state, Standard enthalpy of formation, Hess's law of constant heat summation and its applications, Heat of reaction at constant pressure and at constant volume, Enthalpy of neutralization, Bond dissociation energy and its calculation from thermo-chemical data, Temperature dependence of enthalpy, Kirchhoff's equation, Numericals.

Unit IV

Thermodynamics –II

Second law of thermodynamics, Need for the law, Different statements of the law, Concept of entropy, Mathematical treatment of entropy concept, Combined form of the first and second laws of thermodynamics, Entropy as a state function, Entropy as function of V and T , Entropy as function of P and T , Entropy change in ideal gases and mixing of gases, Calculation of entropy changes of physical processes (Phase changes, Reversible isothermal expansion of ideal gas, Heating or cooling of substance, Reversible adiabatic change), Numerical.

Thermodynamics –III

Third law of thermodynamics, Nernst heat theorem, Definition of third law, Evaluation of absolute entropy of solids, liquids and gases from heat capacity data, Residual entropy.

Free energy functions: Purpose of new functions, Helmholtz (A) and Gibbs (G) free energy function, Significance of A and G , Variation of A and G with P , V and T ; A and G as criteria for thermodynamic Equilibrium and spontaneity.

Relation between A and G , Gibbs – Helmholtz equation and its application, Clausius-Clapeyron equation and its applications, Integrated form of Clausius-Clapeyron equation, Numerical.

Unit V

Chemical Kinetics

Chemical Kinetics and its scope, Rate of reaction, Factors influencing the rate of reaction: concentration, temperature, pressure, solvent, light, catalyst and surface area.

Concentration dependence of rates, Mathematical characteristics of simple chemical reactions: zero order, first order, second order, pseudo order, half life and mean life period, Determination of the

order of reaction: differentiation method, method of integration, method of half life period and isolation method, Radioactive decay as a first order phenomenon.

Effect of temperature on rate of reaction, Arrhenius equation, Concept of activation energy.

Parallel, Consecutive and Opposing reactions, Potential energy Surfaces

Note for Paper Setting

Internal Assessment: 20 marks for theory paper in a subject reserved for internal assessment shall be distributed as under:

- | | | | |
|------|-------------------------|---|--------------------------|
| (i) | One Class Test | : | 10 marks |
| (ii) | Two written assignments | : | 10 marks (05 marks each) |

External Examination: The question paper will contain three sections A, B & C.

Section A will consist of ten very short answers type questions, two from each unit, carrying 2 marks each. All the questions in section A will be compulsory **(20 marks)**.

Section B will consist of ten short answers type questions, two from each unit with internal choice. Student will be required to attempt five questions one from each unit, each question carrying 6 marks **(30 marks)**.

Section C will have five long answers type questions, one from each unit, carrying 10 marks. Student will be required to attempt any three questions **(30 marks)**.

BOOKS RECOMMENDED:

1. Mathematics for Chemists by Bhupendra singh, Pragati Prakashan.
2. An introduction to Chemical Thermodynamics by R. P. Rastogi and R. R. Misra, Vikas Publishing Co. Limited.
3. Text Book of Physical Chemistry by S. Glasstone, MacMillan India limited.
4. A Text Book of Physical Chemistry by K. L. Kapoor (Volumes 1 to 4), MacMillan India limited.
5. Chemical Kinetics by K. Laidler, Tata McGraw Hill Publishing Co. Limited.
6. Principles of Physical Chemistry by Maron and Prutton, Oxford and IBH Publishing Co. Pvt. Limited.

CHEMISTRY SYLLABUS

(For examinations to be held in the years 2016 & 2017)

SEMESTER-II**Course No.: CH-201 (Practical)****Title: Physical Chemistry (Practical)****Credits: 02****Maximum Marks: 50****Time: 4 Hours****External Examination: 25 Marks****Internal Examination: 25 Marks****Chemical Kinetics**

1. To determine the specific reaction rate of the hydrolysis of methyl acetate/ethyl acetate catalyzed by hydrogen ions at room temperature.
2. To study the effect of acid strength on the hydrolysis of an ester.
3. To compare the strength of HCl and H₂SO₄ by studying the Kinetics of hydrolysis of ethyl acetate.

Distribution law

1. To study the distribution of benzoic acid between benzene and water.
2. To study the distribution of iodine between carbon tetrachloride and water.

Colloids

To prepare arsenious sulphide sol and compare the precipitating power of mono-, bi- and trivalent anions.

Viscosity and Surface Tension

1. To determine the percentage composition of a given mixture (non interacting systems) by viscosity method.
2. To determine the viscosity of amyl alcohol in water at different concentrations and calculate the excess viscosity of these solutions.
3. To determine the percentage composition of a given binary mixture by surface tension method (acetone & ethyl methyl Ketone).
4. To determine the density of the liquid.

To determine the transition temperature by thermometric/dilatometric method.

To study the effect of a solute on the critical solution temperature of two partially miscible liquids (e.g., Phenol-Water system) and to determine the concentration of that solute in the given Phenol-Water system.

To determine the solubility of given inorganic salt (KCl, NaCl, KNO₃, NaNO₃ & NaSO₄) at different temperatures and obtain the solubility curves.

20 marks

Viva-Voce

05 marks

Note for distribution of 25 marks in internal assessment in practical examination:

Internal Examination: Total marks reserved for internal assessment shall be distributed as under:

- | | | | |
|-------|--------------------------------------|---|----------|
| (i) | Daily assessment in the laboratory | : | 12 marks |
| (ii) | Class test (internal practical test) | : | 08 marks |
| (iii) | Regularity of attendance | : | 05 marks |

External Examination: There shall be two exercises in the external examination of ten marks each.

BOOKS RECOMMENDED:

1. Advanced Practical Physical Chemistry by J. B. Yadav, Goel Publications, Meerut.
2. Advanced Practical Chemistry by J.Singh, L.D.S.Yadav and J. Srivastava, Pragati Parkashan
3. Practical Physical Chemistry by B. Viswanathan and P.S. Raghavan, Viva Books Pvt. Ltd.

CHEMISTRY SYLLABUS

(For examinations to be held in the years 2015, 2016 & 2017)

SEMESTER-III

Course No.: CH-301 (Theory)

Title: Organic Chemistry-I

Credits: 04

Maximum Marks: 100

Time: 03 Hours

External Examination: 80 Marks

Internal Assessment: 20 Marks

Unit-I

a) Structure and Bonding

sp^3 , sp^2 and sp hybridization of carbon compounds; bond lengths, bond angles and bond energy; localized and delocalized chemical bond; inductive and field effects, resonance and hyperconjugation.

b) Organic Reaction Mechanism

Homolytic and heterolytic bond breaking; formation of covalent bond; electrophilic and nucleophilic reagents; reaction intermediates-carbocations, carbanions, free radicals, carbenes, arynes and nitrenes (with examples); methods of determination of reaction mechanism (product analysis, intermediates, isotope effects, kinetic and stereochemical studies).

c) Stereochemistry of Organic compounds

Newman projection, Sawhorse, Fischer projection and Flying-Wedge formulae, Optical isomerism – elements of symmetry, molecular chirality, enantiomers, stereogenic centre, optical activity, properties of enantiomers, chiral and achiral molecules with two stereogenic centres, diastereomers, meso compounds, resolution of racemic mixtures; relative and absolute configurations – D&L and R&S systems of nomenclature, sequence rules; geometrical isomerism – cis-trans isomerism, E&Z system of nomenclature of alkenes.

Unit-II

Alkanes, Cycloalkanes, Alkenes and Alkynes

IUPAC nomenclature of alkanes; classification of carbon atoms in alkanes, methods of formation of alkanes with special reference to Wurtz reaction, Kolbe's reaction, Corey-House reaction and decarboxylation of carboxylic acids; physical properties and chemical reactions of alkanes; mechanism of free radical halogenation of alkanes.

Cycloalkanes – nomenclature, methods of formation, chemical reactions, Baeyer's strain theory and its limitations; ring strain in small rings (cyclopropane and cyclobutane); theory of strainless rings; banana bonds.

Nomenclature of alkenes; methods of formation of alkenes – mechanism of dehydration of alcohols and dehydrohalogenation of alkyl halides; regioselectivity in alcohol dehydration, the Saytzeff rule, Hofmann elimination; physical properties and chemical reactions – mechanisms involved in

hydrogenation, electrophilic and free radical additions, Markownikoff's rule, hydroboration-oxidation, oxymercuration-reduction, epoxidation, ozonolysis, hydration, hydroxylation and oxidation with KMnO_4 ; polymerization and industrial applications of alkenes.

Nomenclature, methods of formation and chemical reactions of alkynes (acidic nature of terminal alkynes, electrophilic and nucleophilic addition reactions, hydroboration-oxidation, metal-ammonia reduction, oxidation and polymerization).

Unit-III

(a) Arenes: Nomenclature of substituted mononuclear aromatic hydrocarbons; structure of benzene – Kekule structure, stability and carbon-carbon bond lengths of benzene, resonance structure and molecular orbital structure; aromaticity – Huckel's rule and its applications to polycyclic aromatics. Mechanism of aromatic electrophilic substitution reactions – nitration, halogenations, sulphonation and Friedel-Craft's reaction; role of σ - and π - complexes and energy profile diagrams; orientation in the aromatic electrophilic substitution reaction – effects of substituents on orientation and reactivity, ortho/para ratio.

(b) Alkyl and Aryl Halides: Nomenclature and classification of haloalkanes; methods of formation and chemical reactions of haloalkanes; mechanism of nucleophilic substitution reactions of alkyl halides – $\text{S}_{\text{N}}2$ and $\text{S}_{\text{N}}1$ reactions with energy profile diagrams.

Formation and reactions of aryl halides, nuclear and side chain reactions, the addition–elimination and the elimination–addition mechanisms of aromatic nucleophilic substitution reactions; relative reactivities of alkyl halides v/s aryl halides.

Unit-IV

Alcohols and Phenols

Classification and nomenclature.

Monohydric alcohols – nomenclature, methods of formation by reduction of aldehydes, ketones, carboxylic acids and esters, hydrogen bonding, acidic nature. Reaction of alcohols. Alkoxide as nucleophilic and non-nucleophilic bases.

Dihydric alcohols – nomenclature, methods of formation, chemical reactions of vicinal glycols, oxidative cleavage [$\text{Pb}(\text{OAc})_4$ and HIO_4] and Pinacol-Pinacolone rearrangement.

Nomenclature, structure and bonding. Preparation of phenols, physical properties and acidic character. Comparative acidic strengths of alcohols and phenols, resonance stabilization of phenoxide ion. Reactions of phenols-electrophilic aromatic substitutions: acylation and carboxylation. Mechanism of Fries rearrangement, Claisen rearrangement, Gattermann synthesis, Houben-Hoesch reaction and Lederer-Mannase reaction.

Unit-V**(a) Aldehydes and Ketones**

Nomenclature and structure of the carbonyl group. Synthesis of aldehydes and ketones with particular reference to the synthesis of aldehydes from acid chlorides, synthesis of aldehydes and ketones using 1,3-dithianes, synthesis of ketones from nitriles and from carboxylic acids, Physical properties.

Mechanism of nucleophilic additions to carbonyl group with particular emphasis on Benzoin, Aldol, Perkin and Knoevenagel condensations, Wittig reaction, Mannich reaction.

Oxidation of aldehydes, Baeyer-Villiger oxidation of Ketones, Cannizzaro reaction, MPV, Clemmensen, Wolf-Kishner, LiAlH_4 and NaBH_4 reductions.

(b) Carboxylic Acids & Derivatives

Nomenclature, structure and bonding, physical properties, acidity of carboxylic acids, effects of substituents on acid strength, Preparation of carboxylic acids. Reactions of carboxylic acids. Hell-Volhard-Zelinsky reaction. Reduction of carboxylic acids. Mechanism of decarboxylation.

Structure and nomenclature of acid chlorides, esters, amides (urea) and acid anhydrides. Relative stability of acyl derivatives. Physical properties, interconversion of acid derivatives by nucleophilic acyl substitution, Preparation of Carboxylic acid derivatives, chemical reactions, mechanism of esterification and hydrolysis (acidic and basic).

Note for Paper Setting

Internal Assessment: 20 marks for theory paper in a subject reserved for internal assessment shall be distributed as under:

- | | | | |
|------|-------------------------|---|--------------------------|
| (i) | One Class Test | : | 10 marks |
| (ii) | Two written assignments | : | 10 marks (05 marks each) |

External Examination: The question paper will contain three sections A, B & C.

Section A will consist of ten very short answers type questions, two from each unit, carrying 2 marks each. All the questions in section A will be compulsory **(20 marks)**.

Section B will consist of ten short answers type questions, two from each unit with internal choice. Student will be required to attempt five questions one from each unit, each question carrying 6 marks **(30 marks)**.

Section C will have five long answers type questions, one from each unit, carrying 10 marks. Student will be required to attempt any three questions **(30 marks)**.

BOOKS RECOMMENDED:

1. Organic Chemistry, Morrison and Boyd, Prentice-Hall.
2. Organic Chemistry, O.G. Wade Jr., Prentice Hall.
3. Fundamentals of Organic Chemistry, Solomons, John Wiley.

4. Organic Chemistry, Vol. I, II & III, S.M. Mukherji, S.P. Singh and R.P. Kapoor, Wiley Eastern Ltd. (New Age International).
5. Organic Chemistry, F.A. Carey (McGraw Hill, Inc.).
6. Introduction to Organic Chemistry, Streitwieser, Heathcock and Kosover (Macmilan).
7. Stereochemistry Conformation and Mechanism, 6th Ed., P.S. Kalsi (New Age International (P) Ltd.).
8. Stereochemistry of Carbon Compounds, Ernest L. Elich, (McGraw Hill Publishing Company Ltd.).
9. Stereochemistry of Organic Compounds- Principles and Applications, D. Nassipuri (New Age International Publishers).

CHEMISTRY SYLLABUS

(For examinations to be held in the years 2015, 2016 & 2017)

SEMESTER-III**Course No.: CH-301 (Practical)****Title: Organic Chemistry (Practical)****Credits: 02****Maximum Marks: 50****Time: 4 Hours****External Examination: 25 Marks****Internal Examination: 25 Marks****Purification of organic solids by**

- i) Sublimation (Naphthalene, camphor etc.)
- ii) Hot water (Benzoic acid, acetanilide etc.)

Checking purity of organic solids by melting point/mixed melting point.

Identification of Organic Compounds

The preliminary examination of physical and chemical characteristics (physical state, colour, odor and ignition tests), elemental analysis (nitrogen, sulphur, chlorine, bromine, iodine), solubility tests including acid-base reactions. Functional group tests of following classes of compounds

- phenols, carboxylic acids
- carbonyl compounds – ketones, aldehydes
- carbohydrates
- aromatic amines
- amides, ureas and anilides
- aromatic hydrocarbons and their halo- derivatives

Preparations

- i) Acetylation of salicylic acid, aniline
- ii) Benzoylation of salicylic acid, aniline
- iii) Preparation of iodoform from ethanol and acetone
- iv) Preparation of 4-nitroacetanilide from acetanilide
- v) Preparation of 4-bromoacetanilide from acetanilide

20 marks

Viva-Voce

05 marks

Note for distribution of 25 marks in internal assessment in practical examination:Internal Examination: Total marks reserved for internal assessment shall be distributed as under:

- | | | | |
|-------|--------------------------------------|---|----------|
| (i) | Daily assessment in the laboratory | : | 12 marks |
| (ii) | Class test (internal practical test) | : | 08 marks |
| (iii) | Regularity of attendance | : | 05 marks |

External Examination: There shall be two exercises in the external examination of ten marks each.

BOOKS RECOMMENDED:

1. Experimental Organic Chemistry – Principles and practice by Laurence M. Harwood and Christopher J. Moody (Blackwell Scientific Publications).
2. Laboratory Manual of Organic Chemistry by Raj K. Bansal (New Age Publications).
3. Advanced Practical Chemistry by Jagdamba Singh and others (Pragati Prakashan).
4. Practical Organic Chemistry by N.K. Vishnoi (New Age Publications).
5. Experimental Organic Chemistry, Vol. I & II, P.R. Singh, D.S. Gupta and K.S. Bajpai, Tata McGraw Hill.
6. Laboratory Manual in Organic Chemistry, R.K. Bansal, Wiley Eastern.
7. Vogel's Textbook of Practical Organic Chemistry, B.S. Furniss, A.J. Hannaford, V. Rogers, P.W.G. Smith and A.R. Tatchell, ELBS.
8. Experiments in General Chemistry, C.N.R. Rao and U.C. Agarwal, East-West Press.

CHEMISTRY SYLLABUS

(For examinations to be held in the years 2016, 2017 & 2018)

SEMESTER-IV

Course No.: CH-402 (Theory)

Title: Inorganic Chemistry-II

Credits: 04

Maximum Marks: 100

Time: 03 Hours

External Examination: 80 Marks

Internal Assessment: 20 Marks

Unit-I

(a) Chemistry of Transition Elements

General characteristic properties of d-block elements. Properties of the elements of the first transition series, relative stability of their oxidation states with reference to their binary compounds (oxides, halides and sulphides), coordination number and geometry of complexes of 3d transition elements. Chemistry of Elements of Second and Third Transition Series - General characteristics, comparative treatment with their 3d- analogues in respect of ionic radii, oxidation states, magnetic behavior, spectral properties and stereochemistry.

(b) Coordination Compounds

Werner's coordination theory and its experimental verification, effective atomic number concept, chelates, nomenclature of coordination compounds, isomerism in coordination compounds.

Unit-II

(a) Bonding in Coordination Compounds

Metal-ligand bonding in Transition Metal Complexes-Valence bond theory and its applications to transition metal complexes. Limitations of valence bond theory, an elementary idea of crystal field theory, crystal field splitting in octahedral, tetrahedral and square planar complexes, Crystal Field Stabilization Energy (CFSE), Effects of CFSE on hydration energy, factors affecting the crystal – field parameter.

(b) Thermodynamic and Kinetic Aspects of Metal complexes

A brief outline of thermodynamic and kinetic stability of metal complexes, stepwise and overall stability constants, factors affecting the stability of complexes, chelate effect.

Unit-III

(a) Magnetic Properties of Transition Metal Complexes

Types of Magnetic behaviour, methods of determining magnetic susceptibility(Guoy's and Faraday's methods) spin only formula, L-S coupling and correlation of μ values, orbital contribution to magnetic moments, application of magnetic moment data for structure analysis of 3d-metal complexes.

(b) Electronic Spectra of Transition Metal Complexes

Types of electronic transition, selection rules for d- d transitions, spectroscopic ground states, spectrochemical series, Orgel-energy level diagram for d^1 and d^9 states, discussion of the electronic spectrum of $[\text{Ti}(\text{H}_2\text{O})_6]^{3+}$ complex ion.

Unit-IV

(a) Chemistry of Lanthanide elements

Position of lanthanides in the periodic table, electronic structure, oxidation states , ionic radii and lanthanide contraction, magnetic and spectral properties, complex formation, chemical reactivity, occurrence and isolation, applications of lanthanides.

(b) Chemistry of Actinides

Position of actinides in the periodic table, electronic structure, oxidation states , ionic radii and actinide contraction, magnetic and spectral properties, complex formation, chemistry of separation of Np, Pu and Am from U, applications of actinides, Comparison between the later actinides and the later lanthanides.

Unit-V

(a) Organometallic Chemistry

Definition, nomenclature and classification of organometallic compounds. Preparation, properties, bonding and applications of alkyls and aryls of Li, Al and Ti, a brief account of metal –ethylene complexes and homogeneous hydrogenation, mononuclear carbonyls and the nature of bonding in metal carbonyls.

(b) Bio-Inorganic Chemistry

Essential and Trace elements in biological processes. Metalloporphyrins with special reference to haemoglobin and myoglobin. Biological role of alkali and alkaline earth metal ions with special reference to Ca^{2+} and Mg^{2+} ions, Biological nitrogen fixation.

Note for Paper Setting

Internal Assessment: 20 marks for theory paper in a subject reserved for internal assessment shall be distributed as under:

- | | | | |
|------|-------------------------|---|--------------------------|
| (i) | One Class Test | : | 10 marks |
| (ii) | Two written assignments | : | 10 marks (05 marks each) |

External Examination: The question paper will contain three sections A, B & C.

Section A will consist of ten very short answers type questions, two from each unit, carrying 2 marks each. All the questions in section A will be compulsory **(20 marks)**.

Section B will consist of ten short answers type questions, two from each unit with internal choice. Student will be required to attempt five questions one from each unit, each question carrying 6 marks **(30 marks)**.

Section C will have five long answers type questions, one from each unit, carrying 10 marks. Student will be required to attempt any three questions **(30 marks)**.

BOOKS RECOMENDED:

1. Basic Inorganic Chemistry, F.A.Cotton, G.Wilkinson and PL. Gaus, Wiley.
2. Concise Inorganic Chemistry, J.D.Lee, ELBS.
3. Concepts of Models of Inorganic Chemistry, B.Douglas, S. Mc Daniel and J. Alexander, John Wiley.
4. Inorganic Chemistry, D.E.Shriver, P.W.Atkins and C.H.Langford, Oxford.
5. Inorganic Chemistry, W.W.Porterfield, Addison,Wesey.
6. Inorganic Chemistry, A.G. Sharpe, ELBS.
7. Inorganic Chemistry, G.L Miessler and D.A. Tarr, Prentice Hall.
8. Inorganic Chemistry, 4th ed., Shriver & Atkins, Oxford.

CHEMISTRY SYLLABUS

(For examinations to be held in the years 2016, 2017 & 2018)

SEMESTER-IV**Course No.: CH-402 (Practical)****Title: Inorganic Chemistry-II (Practical)****Credits: 02****Maximum Marks: 50****Time: 4 Hours****External Examination: 25 Marks****Internal Examination: 25 Marks****Synthesis and Analysis**

- (a) Preparation of sodium trioxalato ferrate (III), $\text{Na}_3 \text{Fe} (\text{C}_2\text{O}_4)_3$ and determination of its composition by permanganometry.
- (b) Preparation of Ni-DMG complex, $\text{Ni} (\text{DMG})_2$.
- (c) Preparation of copper tetra-amine complex, $\text{Cu}(\text{NH}_3)_4\text{SO}_4$.
- (d) Preparation of cis-and trans-bisoxalato diaquachromate (III) ion.
- (e) Analysis of Cu as CuSCN and Ni as Ni (dimethylglyoxime).

Instrumentation**Colorimetry**

- (a) Job's method
- (b) Mole-ratio method

Solvent Extraction

Separation and estimation of Mg(II) and Fe(II)

Ion Exchange Method

Separation and estimation of Mg(II) and Zn(II).

Qualitative Inorganic Analysis

Semi micro Analysis of salt mixtures containing three acidic and three basic radicals with interfering ions.

20 marks

Viva-Voce

05 marks

Note for distribution of 25 marks in internal assessment in practical examination:Internal Examination: Total marks reserved for internal assessment shall be distributed as under:

- (i) Daily assessment in the laboratory : 12 marks
- (ii) Class test (internal practical test) : 08 marks
- (iii) Regularity of attendance : 05 marks

External Examination: There shall be two exercises in the external examination of ten marks each.**BOOKS RECOMENDED:**

1. Vogel's Qualitative Inorganic Analysis, revised, Svehla, Orient Longman.
2. Vogel's Textbook of Quantative Inorganic Analysis, revised, Svehla, Orient Longman.

3. Vogel's Textbook of Quantative Inorganic Analysis (revised), J.Bassett, R.C.Denney, G.H.Jeffery and J.Mendham, ELBS.
4. Experimental Inorganic Chemistry, W.G.Palmer, Cambridge.
5. Handbook of Preparative Inorganic Chemistry, Vol.I &II, Brauer, Academic Press.
6. Inorganic Synthesis, McGraw Hill

CHEMISTRY SYLLABUS

(For examinations to be held in the years 2016, 2017 & 2018)

SEMESTER-V**Course No.: CH-502 (Theory)****Title: Physical Chemistry - II****Credits: 04****Maximum Marks: 100****Time: 03 Hours****External Examination: 80 Marks****Internal Assessment: 20 Marks****Unit I****Equilibrium Phenomenon**

Chemical Equilibrium: Law of mass action, Thermodynamic derivation of law of mass action (van't Hoff equation and its integrated form), Relation between K_p , K_c and K_x , Distinction between ΔG and ΔG° .

Phase Equilibrium: Statement and meaning of the terms: Phase, component and degree of freedom, Derivation of Gibbs phase rule, Phase equilibrium of one component system: water, CO_2 and Sulphur system, Phase equilibrium of two component systems: solid liquid equilibria, Simple eutectic: Bi-Cd, Pb-Ag systems, Desilverisation of lead.

Solid solutions: Compound formation with congruent melting point (Mg-Zn) and incongruent melting point ($\text{NaCl-H}_2\text{O}$), ($\text{FeCl}_3\text{-H}_2\text{O}$) and $\text{CuSO}_4\text{-H}_2\text{O}$ system, Freezing mixtures, acetone- dry ice freezing mixture

Unit II**Electrochemistry-I**

Specific conductance and equivalent conductance, Measurement of equivalent conductance, Variation of equivalent conductance and specific conductance with dilution.

Migration of ions and Kohlrausch law, Arrhenius theory of electrolyte dissociation and its limitations, Weak and strong electrolytes, Ostwald's dilution law, its uses and limitations. Transport number, Definition and determination by Hittorf method and Moving boundary method.

Applications of conductivity measurements, Determination of degree of dissociation, Determination of K_a of acids, Determination of solubility product of sparingly soluble salt, Conductometric titrations.

Electrochemistry-II

Types of reversible electrodes: gas metal ion, metal-metal ion, metal- insoluble salt-anion and redox electrodes, Electrode reaction, Nernst equation, derivation of cell E.M.F and single electrode potential, Standard hydrogen electrode, Reference electrodes. Standard electrode potential, Sign convention, Electrochemical series and its significance. Electrolytic and Galvanic cells, reversible and irreversible cells, Conventional representation and electrochemical cells, E.M.F of a cell and its measurements, Computation of cell E.M.F, Calculation of thermodynamic quantities of cell reaction

(G, H, and K), Concentration cells with and without transport, Liquid junction potential, Applications of concentration cells, Valency of ions, Solubility product and activity coefficient. Definition of pH and pK_a , Determination of pH using hydrogen quinhydrone and glass electrodes by potentiometric methods.

Unit III

Quantum Mechanics-I

Black-body radiation, Planck's radiation law, Photoelectric effect, Heat capacity of solids, Bohr's model of hydrogen atom and its defects, Compton effect, Zeeman effect, de Broglie hypothesis, Heisenberg's uncertainty principle.

Quantum Mechanics-II

Schrodinger wave equation and its importance, Physical interpretation of the wave function, Concept of operators, Hamiltonian operator, Postulates of quantum mechanics, Discussion of solutions of the Schrodinger equation to some model systems viz; Particle in one dimensional box, Particle in three dimensional box, Concept of degeneracy.

Unit IV

Spectroscopy

Introduction: Electromagnetic radiation, Regions of spectrum, Basic features of different spectrometers, statement of the Born-Oppenheimer approximation, Degrees of freedom.

Rotational Spectrum: Diatomic molecules, Energy levels of a rigid rotor (Semi-classical principles), Selection rules, Spectral intensity, Distribution using population distribution (Maxwell-Boltzmann distribution) Determination of bond length, Isotope effect.

Vibrational Spectrum: Infrared spectrum, Energy levels of simple harmonic oscillator, Selection rules, Pure vibrational spectrum, Intensity, Determination of force constant and bond energies, Effect of anharmonic motion and isotope on the spectrum.

Raman Spectrum: Concept of polarizability, Pure rotational and pure vibrational Raman spectra of diatomic molecules.

Electronic Spectrum: Concept of potential energy curves for bonding and anti-bonding molecular orbitals, Qualitative description of selection rules and Franck-Condon principle.

Unit V

Photochemistry: Interaction of radiation with matter, Difference between thermal and photochemical processes, Laws of photochemistry: Grothus-Draper law, Stark-Einstein law, Jablonski diagram depicting various processes occurring in the excited state, Qualitative description of fluorescence, Phosphorescence, Quantum yield, Photosensitized reactions, energy transfer processes (simple examples).

Physical properties and Molecular Structure: Optical activity, Polarization – (Clausius-Mossotti equation), Orientation of dipoles in an electric field, Dipole moment, Induced dipole moment,

Measurement of dipole moment: temperature method and refractivity method, Dipole moment and structure of molecules, Magnetic properties: paramagnetism, diamagnetism and ferromagnetism.

Note for Paper Setting

Internal Assessment: 20 marks for theory paper in a subject reserved for internal assessment shall be distributed as under:

- | | | | |
|------|-------------------------|---|--------------------------|
| (i) | One Class Test | : | 10 marks |
| (ii) | Two written assignments | : | 10 marks (05 marks each) |

External Examination: The question paper will contain three sections A, B & C.

Section A will consist of ten very short answers type questions, two from each unit, carrying 2 marks each. All the questions in section A will be compulsory **(20 marks)**.

Section B will consist of ten short answers type questions, two from each unit with internal choice. Student will be required to attempt five questions one from each unit, each question carrying 6 marks **(30 marks)**.

Section C will have five long answers type questions, one from each unit, carrying 10 marks. Student will be required to attempt any three questions **(30 marks)**.

BOOKS RECOMMENDED:

1. Text Book of Physical Chemistry by S. Glasstone, MacMillan India limited
2. An Introduction to Electrochemistry by S. Glasstone, Affiliated East West Press Pvt. Limited.
3. Introductory Quantum Chemistry by A. K. Chandra, Tata Mc Graw Hill Publishing Co. Limited.
4. Fundamentals of Molecular Spectroscopy by C. N. Banwell and E. M. McCash, Tata Mc Graw Hill Publishing Co. Limited.
5. Quantum Chemistry by I.N. Levine, Pearson Education, Inc.

CHEMISTRY SYLLABUS

(For examinations to be held in the years 2016, 2017 & 2018)

SEMESTER-V**Course No.: CH-502 (Practical)****Title: Physical Chemistry-II (Practical)****Credits: 02****Maximum Marks: 50****Time: 4 Hours****External Examination: 25 Marks****Internal Examination: 25 Marks****Molecular Weight Determination**

- (a) Determination of molecular weight of a non-volatile solute by Rast method/Beckmann point method.
- (b) Determination of the apparent degree of dissociation of an electrolyte (e.g NaCl) in aqueous solution at different concentrations by ebullioscopy.

Refractometry and Polarimetry

- (a) To verify law of refraction of mixture (e.g of glycerol and water) using Abbe's refractrometer.
- (b) To determine the specific rotation of a given optically active compound.

Conductometric Titrations

- (a) To determine the strength of the given acid conductometrically using standard alkali solution.
- (b) To determine the solubility and solubility product of a sparingly soluble electrolyte conductometrically.
- (c) To study the saponification of ethyl acetate conductometrically
- (d) To determine the ionisation constant of a weak acid conductometrically.
- (e) To titrate potentiometrically the given ferrous ammonium sulphate solution using $\text{KMnO}_4/\text{K}_2\text{Cr}_2\text{O}_7$ as titrant and calculate the redox potential of $\text{Fe}^{++}/\text{Fe}^{+++}$ system on the hydrogen scale.

Colorimetry

To verify Beer-Lambert law for $\text{KMnO}_4/\text{K}_2\text{Cr}_2\text{O}_7$ and determine the concentration of the given solution of the substance.

Thermochemistry

To determine the heat of neutralization of strong acid (HCl, H_2SO_4) and weak acid (acetic acid).
 Determination of equilibrium constant for the system $\text{I}_2 + \text{KI} \rightarrow \text{KI}_3$ and to determine the concentration of given KI solution.

20 marks

Viva-Voce

05 marks

Note for distribution of 25 marks in internal assessment in practical examination:

Internal Examination: Total marks reserved for internal assessment shall be distributed as under:

- (i) Daily assessment in the laboratory : 12 marks

- (ii) Class test (internal practical test) : 08 marks
(iii) Regularity of attendance : 05 marks

External Examination: There shall be two exercises in the external examination of ten marks each.

BOOKS RECOMMENDED:

1. Advanced Practical Physical Chemistry by J. B. Yadav, Goel Publications, Meerut.
2. Advanced Practical Chemistry by J.Singh, L.D.S.Yadav and J. Srivastava, Pragati Parkashan
3. Practical Physical Chemistry by B. Viswanathan and P.S. Raghavan, Viva Books Pvt. Ltd.

CHEMISTRY SYLLABUS

(For examinations to be held in the years 2017, 2018 & 2019)

SEMESTER-VI**Course No.: CH-602 (Theory)****Title: Organic Chemistry-II****Credits: 04****Maximum Marks: 100****Time: 03 Hours****External Examination: 80 Marks****Internal Assessment: 20 Marks****Unit-I****a) Electromagnetic spectrum**

Ultraviolet (UV) absorption spectroscopy – absorption laws (Beer Lambert law), molar absorptivity, types of electronic transitions, effect of conjugation. Concept of Chromophore and auxochrome. Bathochromic, hypsochromic, hyperchromic and hypochromic shifts, effect of solvents. UV spectra of conjugated enes and enones (Woodward - Fieser rules).

Infrared (IR) absorption spectroscopy – molecular vibrations. Hooke's law, selection rules, intensity and position of IR bands, measurement of IR spectrum, fingerprint region, characteristic absorptions of various functional groups and interpretation of IR spectra of simple organic compounds (benzaldehyde, benzoyl chloride, acetophenone, benzamide, salicylic acid, p-hydroxybenzoic acid, p-nitroaniline, p-nitrophenol, benzonitrile, α,β -unsaturated ketones).

b) Spectroscopy

Nuclear magnetic resonance (NMR) spectroscopy. Proton magnetic resonance (^1H NMR) spectroscopy, nuclear shielding and deshielding, chemical shift and molecular structure, spin-spin splitting and coupling constants, areas of signals, interpretation of PMR spectra of simple organic molecules such as ethyl bromide, ethanol, acetaldehyde, 1,1,2-tribromoethane, ethyl acetate, toluene and acetophenone.

Unit-II**a) Organometallic compounds of Mg, Li & Zn, Organosulphur compounds**

Organomagnesium compounds: Grignard reagents – formation, structure and chemical reactions.

Organozinc compounds: formation and chemical reactions.

Organolithium compounds: formation and chemical reactions.

Organosulphur compounds: nomenclature, structural features, methods of formation and chemical reactions of thiols, thioethers and sulphonic acids.

b) Organic Synthesis via enolates

Acidity of α -hydrogens, alkylation of diethyl malonate and ethyl acetoacetate. Synthesis of ethyl acetoacetate: the Claisen condensation. Keto-enol tautomerism of ethyl acetoacetate. Alkylation of 1,3-dithianes, alkylation and acylation of enamines.

c) Synthetic polymers

Addition or chain-growth polymerization. Free radical vinyl polymerization, ionic vinyl polymerization, Ziegler-Natta polymerization and vinyl polymers. Condensation or step growth polymerization.

Unit-III**a) Nitroalkanes/arenes, cyanides and amines**

Preparation of nitroalkanes and nitroarenes. Chemical reactions of nitroalkanes, mechanism of nucleophilic substitution in nitroarenes and their reduction in acidic, neutral and alkaline media. Halonitroarenes: reactivity.

Structure and nomenclature of amines, physical properties. Separation of mixture of primary, secondary and tertiary amines. Structural features affecting basicity of amines. Amine salts as phase-transfer catalysts (Principles and mechanisms). Preparation of alkyl and aryl amines (reduction of nitro compounds, nitriles), reductive amination of aldehydic and ketonic compounds. Gabriel-phthalimide reaction, Hofmann-bromamide reaction. Reactions of amines as nucleophiles, electrophilic aromatic substitution in aryl amines, Preparation and synthetic transformations of aryl diazonium salts, azo coupling.

b) Conformations and stereochemistry

Conformational analysis of butane, cyclohexane and mono-substituted cyclohexanes. Stereochemistry of E_2 Anti-elimination reaction and addition reactions to alkenes (bromination, hydroboration/oxidation, hydration).

Unit-IV**a) Heterocyclic compounds**

Introduction: Molecular orbital picture and aromatic characteristics of pyrrole, furan, thiophene and pyridine. Methods of synthesis and chemical reactions with particular emphasis on the mechanism of electrophilic substitution. Mechanism of nucleophilic substitution reactions in pyridine. Comparison of basicity of pyridine, piperidine and pyrrole.

Introduction to condensed five and six-membered heterocycles. Preparation and reactions of indole, quinoline with special reference to Fisher indole synthesis and Skraup synthesis. Mechanism of electrophilic substitution reactions of indole, quinoline.

b) Synthetic dyes

Colour and constitution (electronic concept), synthesis of Methyl orange, Malachite green. Crystal violet, Phenolphthalein, chemistry and synthesis of Indigo.

Unit-V**a) Amino acid, peptides, proteins, nucleic acid**

Classification, structure and stereochemistry of amino acids, acid- base behaviour, isoelectric point and electrophoresis, preparation and reactions of α -amino acids.

Structure and nomenclature of peptides and proteins. Classification of proteins, peptide structure determination, end group analysis, selective hydrolysis of peptides. Classical peptide synthesis, solid-phase peptide synthesis. Structures of proteins. Levels of protein structure. Protein Nucleic acids: introduction. Constituents of nucleic acids. Ribonucleosides and ribonucleotides. The double helical structure of DNA.

b) Carbohydrates

Classification, Monosaccharides, mechanism of osazone formation, interconversion of glucose and fructose, chain lengthening and chain shortening of aldoses, configuration of monosaccharides. Erythro and threo diastereomers. Conversion of glucose into mannose. Formation of glycoside, ethers and esters. Determination of ring size of monosaccharides. Cyclic structure of D(+)- glucose. Mechanism of mutarotation.

An introduction to disaccharides (maltose, sucrose and lactose) and polysaccharides (starch and cellulose) without involving structure determination.

Note for Paper Setting

Internal Assessment: 20 marks for theory paper in a subject reserved for internal assessment shall be distributed as under:

- | | | | |
|------|-------------------------|---|--------------------------|
| (i) | One Class Test | : | 10 marks |
| (ii) | Two written assignments | : | 10 marks (05 marks each) |

External Examination: The question paper will contain three sections A, B & C.

Section A will consist of ten very short answers type questions, two from each unit, carrying 2 marks each. All the questions in section A will be compulsory **(20 marks)**.

Section B will consist of ten short answers type questions, two from each unit with internal choice. Student will be required to attempt five questions one from each unit, each question carrying 6 marks **(30 marks)**.

Section C will have five long answers type questions, one from each unit, carrying 10 marks. Student will be required to attempt any three questions **(30 marks)**.

BOOKS RECOMMENDED:

1. Organic Chemistry, Morrison and Boyd, Prentice-Hall.
2. Organic Chemistry, L.G. Wade Jr. Prentice-Hall.
3. Fundamentals of Organic Chemistry, Solomons, John Wiley.

4. Organic Chemistry Vol. I, II & III, S.M. Mukerji, S.P. Singh and R.P. Kapoor, Wiley Eastern Ltd. (New Age International).
5. Organic Chemistry, F.A. Carey, McGraw Hill Inc.
6. Introduction to Organic Chemistry, Stritwieser, Healthcock and Kosover, Macmilan.
7. Organic Spectroscopy, William Kemp, Mcmillan.
8. Spectroscopic Methods in Organic Chemistry, 4th ed., Dudley H. Williams and Ian Fleming (Tata McGraw-Hill Publishing Company Ltd.).
9. Spectroscopic Identification of Organic Compounds, R.M. Silverstein, G.C. Bassler and T.C. Morriel (John-Wiley).

CHEMISTRY SYLLABUS

(For examinations to be held in the years 2017, 2018 & 2019)

SEMESTER-VI**Course No.: CH-602 (Practical)****Title: Organic Chemistry-II (Practical)****Credits: 02****Maximum Marks: 50****Time: 4 Hours****External Examination: 25 Marks****Internal Examination: 25 Marks****Column Chromatography**

Separation of fluorescein and methylene blue

Separation of leaf pigments from spinach leaves

Resolution of racemic mixture of ($\pm$) Mandelic acid**Preparations**

i) p-Nitroaniline from acetanilide

ii) p-Bromoaniline from acetanilide

iii) m-Nitroaniline from nitrobenzene

iv) Synthesis of di-benzalacetone from benzaldehyde (Claisen-Schmidt condensation)

v) Synthesis of benzyl alcohol and benzoic acid from benzaldehyde (Cannizaro reaction)

Extraction of organic compounds from natural resources

i) Isolation of casein from milk

ii) Isolation of lactose from milk

iii) Isolation of lycopene from tomatoes

iv) Isolation of caffeine from tea leaves

20 marks

Viva-Voce

05 marks

Note for distribution of 25 marks in internal assessment in practical examination:Internal Examination: Total marks reserved for internal assessment shall be distributed as under:

(i) Daily assessment in the laboratory : 12 marks

(ii) Class test (internal practical test) : 08 marks

(iii) Regularity of attendance : 05 marks

External Examination: There shall be two exercises in the external examination of ten marks each.**BOOKS RECOMMENDED:**

1. Experimental Organic Chemistry – Principles and practice by Laurence M. Harwood and Christopher J. Moody (Blackwell Scientific Publications).
2. Laboratory Manual of Organic Chemistry by Raj K. Bansal (New Age Publications).
3. Advanced Practical Chemistry by Jagdamba Singh and others (Pragati Prakashan).

4. Practical Organic Chemistry by N.K. Vishnoi (New Age Publications).
5. Experimental Organic Chemistry, Vol. I & II, P.R. Singh, D.S. Gupta and K.S. Bajpai, Tata McGraw Hill.
6. Laboratory Manual in Organic Chemistry, R.K. Bansal, Wiley Eastern.
7. Vogel's Textbook of Practical Organic Chemistry, B.S. Furniss, A.J. Hannaford, V. Rogers, P.W.G. Smith and A.R. Tatchell, ELBS.
8. Experiments in General Chemistry, C.N.R. Rao and U.C. Agarwal, East-West Press.

CHEMISTRY SYLLABUS

(For examinations to be held in the years Dec 2016, 2017 & 2018)

SEMESTER-I

Course No.: UCHTC101

Title: Inorganic Chemistry-I

Credits: 04

Maximum Marks: 100

Time: 03 hours

External Examination: 80 marks

Internal Assessment: 20 marks

Atomic Structure

Idea of de Broglie matter waves, Heisenberg uncertainty principle, atomic orbital. Schrodinger wave equation, significance of quantum numbers, radial and angular wave functions and probability distribution curves, shapes of s, p, d orbitals. Aufbau and Pauli's exclusion principles, Hund's multiplicity rule, Electronic configurations of the elements, effective nuclear charge.

Periodic Properties

Atomic and Ionic radii, ionization energy, electron affinity and electronegativity – definition, methods of determination, trends in periodic table and applications in predicting and explaining the chemical behavior.

Chemical Bonding-I

Covalent Bond. Valence bond theory and its limitations, directional characteristics of covalent bond, various types of hybridization and shapes of simple inorganic molecules and ions. Valence shell electron pair repulsion (VSEPR) theory and its applications to NH_3 , H_3O^+ , SF_4 , ClF_3 , ICl_2^- , and H_2O . MO theory, homonuclear and heteronuclear (CO and NO) diatomic molecules, calculation of percentage of ionic character from dipole moment and electronegativity difference.

Chemical Bonding-II

Ionic solids, Ionic structures, radius ratio effect and coordination number, limitations of radius ratio rule, lattice defects, semiconductors, lattice energy and Born-Haber cycle, solvation energy and solubility of ionic solids, polarizing power and polarisability of ions, Fajan's rules.

Metallic bond – free electron, valence bond and band theories. Weak interactions-hydrogen bonding and van der Waals forces.

s-Block Elements

General study, diagonal relationship, salient features of hydrides, solvation and complexation tendencies including their function in biosystems.

p-Block Elements-I

General study (including diagonal relationship) of groups 13-17 elements, compounds like hydrides, oxides, oxyacids and halides of groups 13-16, diborane and borazine. Chemistry of fullerenes, carbides, fluorocarbons, silicates (structural principle), tetra sulphur tetranitride, interhalogen compounds.

Chemistry of Noble Gases

Chemistry of xenon, structure and bonding in xenon compounds(oxides and fluorides).

Acids and Bases

Arrhenius, Bronsted Lowry, Lux Flood, solvent system and Lewis concepts of acids and bases.

Hard and Soft Acids and Bases (HSAB): Classification of acids and bases as hard and soft. Pearson's HSAB concept, acid base strength and hardness and softness, symbiosis, theoretical basis of hardness and softness.

Non- aqueous Solvents

Physical properties of a solvent, types of solvents and their general characteristics, reactions in non-aqueous solvents with reference to liquid NH_3 and liquid SO_2 .

Oxidation and Reduction

Use of redox potential data- analysis of redox cycle, redox stability in water, Latimer diagrams for oxygen, copper (acidic medium, $\text{pH} = 0$) and for chlorine (acidic/ alkaline medium). Calculation of E-values for skip- step couples using EMF diagrams. Frost diagrams for oxygen and nitrogen.

Inorganic Polymers

Siloxanes and phosphazenes as example of Inorganic polymers, nature of bonding in phosphazenes.

Note for Paper Setting

Internal Assessment Test of 1 hour duration of 20 marks will be conducted when upto 50% (after 45 days) syllabus has been covered. Internal assessment test will contain one long answer type question of 10 marks and five short answer type questions of 02 marks each.

External End Semester University examination of 03 hours duration of 80 marks will be conducted after 100% syllabus (after 90 days) has been covered.

Pattern of examination: There will be two sections A & B. The candidate has to attempt five questions in all.

Section A will be compulsory containing ten very short answer type questions of 02 marks each covering the entire syllabus.

Section B will contain seven long answer type questions of 15 marks each covering the entire syllabus. The candidate will attempt any four questions from Section B.

Books Recommended:

1. Basic Inorganic Chemistry, F.A.Cotton, G.Wilkinson and PL. Gaus, Wiley.
2. Concise Inorganic Chemistry, J.D.Lee, ELBS.
3. Concepts of Models of Inorganic Chemistry, B.Douglas, S. McDaniel and J. Alexander, John Wiley.
4. Inorganic Chemistry, D.E.Shriver, P.W.Atkins and C.H.Langford, Oxford.
5. Inorganic Chemistry, W.W. Porterfield, Addison-Wesey.
6. Inorganic Chemistry, A.G. Sharpe, ELBS.
7. Inorganic Chemistry, G.L Miessler and D.A. Tarr, Prentice Hall

CHEMISTRY SYLLABUS

(For examinations to be held in the years Dec 2016, 2017 & 2018)

SEMESTER-I

Course No.: UCHPC102

Title: Inorganic Chemistry-I (Practical)

Credits: 02

Maximum Marks: 50

Time: 04 hours

External Examination: 25 marks

Internal Assessment: 25 marks

Quantitative and qualitative analysis

Preparation of standard solutions Dilution -0.1M to 0.001M solutions (NaOH, Oxalic acid, KMnO_4 , $\text{K}_2\text{Cr}_2\text{O}_7$).

Quantitative Analysis (Volumetric Analysis)

- (a) Determination of acetic acid in Commercial vinegar using NaOH.
- (b) Estimation of calcium content in Chalk as calcium oxalate by permanganometry.
- (c) Estimation of ferrous and ferric ions by dichromate method.
- (d) Estimation of hardness of water by EDTA.
- (e) Estimation of copper using thiosulphate.

Semi micro Analysis of salt mixtures containing three acidic and three basic radicals

20 marks

Viva -Voce

05 marks

Note for distribution of 25 marks in internal assessment in practical examination:

Internal Assessment: Total marks reserved for internal assessment shall be distributed as under:

- | | | |
|--|---|----------|
| (i) Daily assessment in the laboratory and internal practical test | : | 15 marks |
| (ii) Regularity of attendance | : | 05 marks |
| (iii) Viva-voce | : | 05 marks |

External Examination: There shall be two exercises in the external examination of ten marks each and viva-voce of 05 marks.

Books Recommended:

1. Vogel's Qualitative Inorganic Analysis revised, Svehla, Orient Longman.
2. Vogel's Textbook of Quantative Inorganic Analysis, revised, Svehla, Orient Longman.
3. Vogel's Textbook of Quantative Inorganic Analysis (revised), J.Bassett, R.C.Denney, G.H.Jeffery and J.Mendham, ELBS.
4. Experimental Inorganic Chemistry, W.G.Palmer, Cambridge.

CHEMISTRY SYLLABUS

(For examinations to be held in the years May 2017, 2018 & 2019)

SEMESTER-II

Course No.: UCHTC201

Credits: 04

Time: 03 hours

Title: Physical Chemistry - I

Maximum Marks: 100

External Examination: 80 marks

Internal Assessment: 20 marks

Mathematical concepts

Differentiation of functions like e^x , x^n , $\sin x$, $\cos x$, $\log x$; Maxima and Minima, Partial differentiation and Euler's reciprocity relations, Integration of some useful/relevant functions; Factorials.

Solutions and Colligative properties

Ideal and non-ideal solutions, Methods of expressing concentration of solutions, Activity and activity coefficient. Dilute solution, Colligative properties, Raoult's law, Relative lowering of vapour pressure, Molecular weight determination. Osmosis and osmotic pressure and its measurement, Determination of molecular weight from osmotic pressure, Elevation of boiling point and Depression of freezing point.

Abnormal molar mass, Degree of dissociation and association of solutes.

Gaseous State

Postulates of kinetic theory of gases, Deviations from ideal behaviour, van der Waals equation of state.

Molecular Velocities: Root mean square, average and most probable velocities, Qualitative discussion of the Maxwell's distribution of molecular velocities, Collision number, Mean free path and Collision diameter, Liquefaction of gases, Linde's method and Claude's method.

Critical Phenomena: PV isotherms of real gases, Continuity of states, Isotherms of van der Waals equation, Relationship between critical constants and van der Waals constants, Law of corresponding states, Reduced equation of state, Numericals.

Solid State

Definition of space lattice, unit cell.

Laws of crystallography: Law of constancy of interfacial angles, Law of rationality of indices, Law of symmetry.

X-ray diffraction by crystals, Derivation of Bragg's equation, Determination of crystal structure of NaCl and KCl (Laue's method and Powder method), perfect and imperfect crystals, Frenkel and Schottky defects.

Thermodynamics-I

Definition of thermodynamic terms: System, Surroundings, etc., Types of systems, Intensive and extensive properties, State and path functions and their differentials, Thermodynamic process, Concept of heat and work.

First law of thermodynamics: Statement, Definition of internal energy and enthalpy, Heat capacity, Heat capacities at constant volume and pressure and their relationship, Joule's law, Joule-Thomson coefficient and inversion temperature, Calculation of w , q , dU and dH for the expansion of ideal gases under isothermal and adiabatic conditions for reversible process, Application to cyclic process (The Carnot Theorem), Carnot cycle and its efficiency.

Thermochemistry: Standard state, Standard enthalpy of formation, Hess's law of constant heat summation and its applications, Heat of reaction at constant pressure and at constant volume, Enthalpy of neutralization, Bond dissociation energy and its calculation from thermo-chemical data, Kirchhoff's equation, Numericals.

Thermodynamics –II

Second law of thermodynamics, Need for the law, Different statements of the law, Concept of entropy, Mathematical treatment of entropy concept, Combined form of the first and second laws of thermodynamics, Entropy as a state function, Entropy as function of V and T , Entropy as function of P and T , Entropy change in ideal gases and mixing of gases, Numerical.

Thermodynamics –III

Third law of thermodynamics, Nernst heat theorem, Definition of third law, Evaluation of absolute entropy of solids, liquids and gases from heat capacity data, Residual entropy.

Free energy functions: Helmholtz (A) and Gibbs (G) free energy function, Significance of A and G , Variation of A and G with P , V and T ; A and G as criteria for thermodynamic Equilibrium and spontaneity.

Relation between A and G , Gibbs – Helmholtz equation and its application, Clausius-Clapeyron equation and its applications, Integrated form of Clausius-Clapeyron equation, Numerical.

Chemical Kinetics

Chemical Kinetics and its scope, Rate of reaction, Factors influencing the rate of reaction: concentration, temperature, pressure, solvent, light, catalyst and surface area.

Concentration dependence of rates, Mathematical characteristics of simple chemical reactions: zero order, first order, second order, pseudo order, half life and mean life period, Determination of the order of reaction: differentiation method, method of integration, method of half life period and isolation method, Radioactive decay as a first order phenomenon.

Effect of temperature on rate of reaction, Arrhenius equation, Concept of activation energy.

Note for Paper Setting

Internal Assessment Test of 1 hour duration of 20 marks will be conducted when upto 50% (after 45 days) syllabus has been covered. Internal assessment test will contain one long answer type question of 10 marks and five short answer type questions of 02 marks each.

External End Semester University examination of 03 hours duration of 80 marks will be conducted after 100% syllabus (after 90 days) has been covered.

Pattern of examination: There will be two sections A & B. The candidate has to attempt five questions in all.

Section A will be compulsory containing ten very short answer type questions of 02 marks each covering the entire syllabus.

Section B will contain seven long answer type questions of 15 marks each covering the entire syllabus. The candidate will attempt any four questions from Section B.

Books Recommended:

1. Mathematics for Chemists by Bhupendra singh, Pragati Prakashan.
2. An introduction to Chemical Thermodynamics by R. P. Rastogi and R. R. Misra, Vikas Publishing Co. Limited.
3. Text Book of Physical Chemistry by S. Glasstone, MacMillan India limited.
4. A Text Book of Physical Chemistry by K. L. Kapoor (Volumes 1 to 4), MacMillan India limited.
5. Chemical Kinetics by K. Laidler, Tata McGraw Hill Publishing Co. Limited.
6. Principles of Physical Chemistry by Maron and Prutton, Oxford and IBH Publishing Co. Pvt. Limited.

CHEMISTRY SYLLABUS

(For examinations to be held in the years May 2017, 2018 & 2019)

SEMESTER-II

Course No.: UCHPC202

Title: Physical Chemistry-I (Practical)

Credits: 02

Maximum Marks: 50

Time: 04 hours

External Examination: 25 marks

Internal Assessment: 25 marks

Chemical Kinetics

1. To determine the specific reaction rate of the hydrolysis of methyl acetate/ethyl acetate catalyzed by hydrogen ions at room temperature.
2. To study the effect of acid strength on the hydrolysis of an ester.
3. To compare the strength of HCl and H₂SO₄ by studying the Kinetics of hydrolysis of ethyl acetate.

Distribution law

1. To study the distribution of benzoic acid between benzene and water.
2. To study the distribution of iodine between carbon tetrachloride and water.

Colloids

To prepare arsenious sulphide sol and compare the precipitating power of mono-, bi- and trivalent anions.

Viscosity and Surface Tension

1. To determine the percentage composition of a given mixture (non interacting systems) by viscosity method.
2. To determine the viscosity of amyl alcohol in water at different concentrations and calculate the excess viscosity of these solutions.
3. To determine the percentage composition of a given binary mixture by surface tension method (acetone & ethyl methyl Ketone).
4. To determine the density of the liquid.

To determine the transition temperature by thermometric/dilatometric method.

To study the effect of a solute on the critical solution temperature of two partially miscible liquids (e.g., Phenol-Water system) and to determine the concentration of that solute in the given Phenol-Water system.

To determine the solubility of given inorganic salt (KCl, NaCl, KNO₃, NaNO₃ & NaSO₄) at different temperatures and obtain the solubility curves.

20 marks

Viva-Voce

05 marks

Note for distribution of 25 marks in internal assessment in practical examination:

Internal Assessment: Total marks reserved for internal assessment shall be distributed as under:

- | | | | |
|-------|--|---|----------|
| (i) | Daily assessment in the laboratory and internal practical test | : | 15 marks |
| (ii) | Regularity of attendance | : | 05 marks |
| (iii) | Viva-voce | : | 05 marks |

External Examination: There shall be two exercises in the external examination of ten marks each and viva-voce of 05 marks.

Books Recommended:

1. Advanced Practical Physical Chemistry by J. B. Yadav, Goel Publications, Meerut.
2. Advanced Practical Chemistry by J.Singh, L.D.S.Yadav and J. Srivastava, Pragati Parkashan
3. Practical Physical Chemistry by B. Viswanathan and P.S. Raghavan, Viva Books Pvt. Ltd.



UNIVERSITY OF JAMMU

NOTIFICATION (17/Jan/Adp/01)

In supersession to this office Notification No. F.Acd./II/16/8435-86 dated 04.08.2016, it is hereby notified for the information of all the concerned that the Vice-Chancellor, in anticipation of the approval of the Academic Council, is pleased to authorize the adoption of the Syllabi and Courses of Study in the subject of **Chemistry** under **Choice Based Credit System** at undergraduate level for the examinations to be held in the years as under:-

<u>Subject</u>	<u>Semester</u>	<u>For the Examinations to be held in the years</u>
Chemistry	Semester-II	May 2017

[Signature] 30/1/17
DEAN ACADEMIC AFFAIRS

No. F.Acd/II/17/15970-16020

Dated: 30/01/2017

Copy for information and necessary action to:

1. Special Secretary to the worthy Vice-Chancellor
2. Sr. P.A. to the Dean Academic Affairs
3. Sr. P.A. to the Registrar / Controller of Examinations
4. Dean, Faculty of Sciences
5. Convener, Board of Studies in Chemistry
6. All members of the Board of Studies
7. Principals of concerned colleges - *Through E-mail*
8. C.A. to Controller of Examinations
9. I/c Director, Computer Centre, University of Jammu
10. Asst. Registrar (Conf./Exams. U.G/ Inf./Pub.)
11. Website Office
12. S.O (Confidential)

CHOICE BASED CREDIT SYSTEM

B. Sc. WITH CHEMISTRY

CHEMISTRY SYLLABUS

(For examinations to be held in the year 2017)

SEMESTER-II

Course No.: UCHTC201

Theory: 60 Lectures

Title: CHEMICAL ENERGETICS, EQUILIBRIA & FUNCTIONAL ORGANIC CHEMISTRY

Credits: 04

Maximum Marks: 100

Time: 03 hours

External Examination: 80 marks

Internal Assessment: 20 marks

Section A: Physical Chemistry-1 (30 Lectures)

Chemical Energetics

Review of thermodynamics and the Laws of Thermodynamics.

Important principles and definitions of thermochemistry. Concept of standard state and standard enthalpies of formations, integral and differential enthalpies of solution and dilution. Calculation of bond energy, bond dissociation energy and resonance energy from thermochemical data. Variation of enthalpy of a reaction with temperature – Kirchhoff's equation.

Statement of Third Law of thermodynamics and calculation of absolute entropies of substances.

(10 Lectures)

Chemical Equilibrium:

Free energy change in a chemical reaction. Thermodynamic derivation of the law of chemical equilibrium. Distinction between ΔG and ΔG° , Le Chatelier's principle. Relationships between K_p , K_c and K_x for reactions involving ideal gases.

(8 Lectures)

Ionic Equilibria:

Strong, moderate and weak electrolytes, degree of ionization, factors affecting degree of ionization, ionization constant and ionic product of water. Ionization of weak acids and bases, pH scale, common ion effect. Salt hydrolysis-calculation of hydrolysis constant, degree of hydrolysis and pH for different salts. Buffer solutions. Solubility and solubility product of sparingly soluble salts – applications of solubility product principle.

(12 Lectures)



Section B: Organic Chemistry-2 (30 Lectures)

Fundamentals of Organic Chemistry

Physical Effects, Electronic Displacements: Inductive Effect, Electromeric Effect, Resonance and Hyperconjugation. Cleavage of Bonds: Homolysis and Heterolysis.

Structure, shape and reactivity of organic molecules: Nucleophiles and electrophiles. Reactive Intermediates: Carbocations, Carbanions and free radicals.

Stereochemistry

Conformations with respect to ethane, butane and cyclohexane. Inteconversion of Wedge Formula, Newmann, Sawhorse and Fischer representations. Concept of chirality (upto two carbon atoms). Configuration: Geometrical and Optical isomerism; Enantiomerism, Diastereomerism and Meso compounds). Threo and erythro; D and L; *cis-trans* nomenclature; CIP Rules: R/S (for upto 2 chiral carbon atoms) and E/Z Nomenclature (for upto two C=C systems).

(6 Lectures)

Functional group approach for the following reactions (preparations & reactions) to be studied in context to their structure.

Aromatic hydrocarbons

Preparation (Case benzene): from phenol, by decarboxylation, from acetylene, from benzene sulphonic acid.

Reactions: (Case benzene): Electrophilic substitution: nitration, halogenation and sulphonation. Friedel-Craft's reaction (alkylation and acylation) (upto 4 carbons on benzene). Side chain oxidation of alkyl benzenes (upto 4 carbons on benzene).

(7 Lectures)

Alkyl and Aryl Halides

Alkyl Halides (Upto 5 Carbons) Types of Nucleophilic Substitution (S_N1 , S_N2 and S_Ni) reactions.

Preparation: from alkenes and alcohols.

Reactions: hydrolysis, nitrite & nitro formation, nitrile & isonitrile formation. Williamson's ether synthesis: Elimination vs substitution.

Aryl Halides *Preparation*: (Chloro, bromo and iodo-benzene case): from phenol, Sandmeyer & Gattermann reactions.

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Reactions (Chlorobenzene): Aromatic nucleophilic substitution (replacement by $-OH$ group) and effect of nitro substituent. Benzyne Mechanism: KNH_2/NH_3 (or $NaNH_2/NH_3$).

Reactivity and Relative strength of C-Halogen bond in alkyl, allyl, benzyl, vinyl and aryl halides.

(7 Lectures)

Alcohols, Phenols and Ethers (Upto 5 Carbons)

Alcohols: *Preparation:* Preparation of 1° , 2° and 3° alcohols: using Grignard reagent, Ester hydrolysis, Reduction of aldehydes, ketones, carboxylic acid and esters.

Reactions: With sodium, HX (Lucas test), esterification, oxidation (with PCC, alk. $KMnO_4$, acidic dichromate, conc. HNO_3). Oppeneauer oxidation *Diols:* (Upto 6 Carbons) oxidation of diols. Pinacol-Pinacolone rearrangement.

Phenols: (Phenol case) *Preparation:* Cumene hydroperoxide method, from diazonium salts. *Reactions:* Electrophilic substitution: Nitration, halogenation and sulphonation. Reimer-Tiemann Reaction, Gattermann-Koch Reaction, Houben-Hoesch Condensation, Schotten – Baumann Reaction.

Ethers (aliphatic and aromatic): Cleavage of ethers with HI.

Aldehydes and ketones (aliphatic and aromatic): (Formaldehyde, acetaldehyde, acetone and benzaldehyde)

Preparation: from acid chlorides and from nitriles.

Reactions – Reaction with HCN, ROH, $NaHSO_3$, NH_2 -G derivatives. Iodoform test. Aldol Condensation, Cannizzaro's reaction, Wittig reaction, Benzoin condensation. Clemensen reduction and Wolff Kishner reduction. Meerwein-Ponndorf Verley reduction.

(10 Lectures)

Note for Paper Setting

Internal Assessment Test of 1 hour duration of 20 marks will be conducted when upto 50% (after 45 days) syllabus has been covered. Internal assessment test will contain one long answer type question of 10 marks and five short answer type questions of 02 marks each.

External End Semester University Examination of 03 hours duration of 80 marks will be conducted after 100% (after 90 days) has been covered.

Pattern of Examination: There will be two sections A & B. The candidate has to attempt five questions in all.

Section A will be compulsory containing ten very short answer type questions of 02 marks each covering the entire syllabus.

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Section B will contain seven long answer type questions of 15 marks each covering the entire syllabus. The candidate will attempt any four questions from Section B.

Reference Books:

- Graham Solomon, T.W., Fryhle, C.B. & Snyder, S.A. *Organic Chemistry*, John Wiley & Sons (2014).
 - McMurry, J.E. *Fundamentals of Organic Chemistry*, 7th Ed. Cengage Learning India Edition, 2013.
 - Sykes, P. *A Guidebook to Mechanism in Organic Chemistry*, Orient Longman, New Delhi (1988).
 - Finar, I.L. *Organic Chemistry* (Vol. I & II), E.L.B.S.
 - Morrison, R.T. & Boyd, R.N. *Organic Chemistry*, Pearson, 2010.
 - Bahl, A. & Bahl, B.S. *Advanced Organic Chemistry*, S. Chand, 2010.
 - Barrow, G.M. *Physical Chemistry* Tata McGraw-Hill (2007).
 - Castellan, G.W. *Physical Chemistry* 4th Ed. Narosa (2004).
 - Kotz, J.C., Treichel, P.M. & Townsend, J.R. *General Chemistry* Cengage Learning India Pvt. Ltd., New Delhi (2009).
 - Mahan, B.H. *University Chemistry* 3rd Ed. Narosa (1998).
 - Petrucci, R.H. *General Chemistry* 5th Ed. Macmillan Publishing Co.: New York (1985).
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CHEMISTRY SYLLABUS

(For examinations to be held in the year 2017)

SEMESTER-II

Course No.: UCHPC202

60 Lectures

Title: Laboratory Course-II

Credits: 02

Maximum Marks: 50

Time: 04 hours

External Examination: 25 marks

Internal Assessment: 25 marks

Section A: Physical Chemistry

Thermochemistry

1. Determination of heat capacity of calorimeter for different volumes.
2. Determination of enthalpy of neutralization of hydrochloric acid with sodium hydroxide.
3. Determination of enthalpy of ionization of acetic acid.
4. Determination of integral enthalpy of solution of salts (KNO_3 , NH_4Cl).
5. Determination of enthalpy of hydration of copper sulphate.
6. Study of the solubility of benzoic acid in water and determination of ΔH .

Ionic equilibria

pH measurements

- a) Measurement of pH of different solutions like aerated drinks, fruit juices, shampoos and soaps (use dilute solutions of soaps and shampoos to prevent damage to the glass electrode) using pH-meter.
- b) Preparation of buffer solutions:
 - (i) Sodium acetate-acetic acid
 - (ii) Ammonium chloride-ammonium hydroxide

Measurement of the pH of buffer solutions and comparison of the values with theoretical values.

Section B: Organic Chemistry

1. Purification of organic compounds by crystallization (from water and alcohol) and distillation.
2. Criteria of Purity: Determination of melting and boiling points.
3. Preparations: Mechanism of various reactions involved to be discussed. Recrystallisation, determination of melting point and calculation of quantitative yields to be done.
 - (a) Bromination of Phenol/Aniline
 - (b) Benzoylation of amines/phenols
 - (c) Oxime and 2,4-dinitrophenylhydrazone of aldehyde/ketone

20 marks

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Viva-Voce

05 marks

Note for distribution of 25 marks in internal assessment in practical examination:
Internal Assessment: Total marks reserved for internal assessment shall be distributed as under:

- | | | |
|--|---|----------|
| (i) Daily assessment in the laboratory and internal practical test | : | 15 marks |
| (ii) Regularity of attendance | : | 05 marks |
| (iii) Viva-voce | : | 05 marks |

External Examination: There shall be two exercises in the external examination of ten marks each and viva-voce of 05 marks.

Reference Books

- Vogel, A.I., Tatchell, A.R., Furnis, B.S., Hannaford, A.J. & Smith, P.W.G., *Textbook of Practical Organic Chemistry*, Prentice-Hall, 5th edition, 1996.
 - Mann, F.G. & Saunders, B.C. *Practical Organic Chemistry* Orient-Longman, 1960.
 - Khosla, B. D.; Garg, V. C. & Gulati, A. *Senior Practical Physical Chemistry*, R. Chand & Co.: New Delhi (2011).
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ECONOMICS
University of Jammu
Semester III

Syllabus of Economics for the Examinations to be held in the years 2015, 2016 and 2017

Course No: 301

Duration of Examination: 3 Hours

Title: Macroeconomics

Total Marks: 100

External Examination: 80

Internal Assessment: 20

PREAMBLE: The aim of this course is to give an overview as to how the economy behaves when the behaviour of the various economic agents are aggregated. The role of the state and its influence on the economy through its powers to tax, spend and control the supply of money is a major area of economic analysis in terms of theoretical, empirical as well as policy-making issues. Macroeconomics has an extensive, substantive as well as methodical content. It deals with the functioning of the economy as a whole, including how the economy's total output of goods and services and employment of resources is determined and what causes these totals to fluctuate. This paper has been designed to make the undergraduate students aware of the basic theoretical framework underlying the field of macroeconomics.

UNIT: 1 National Income and Social Accounts:

National income- concepts, methods of measurement: Difficulties in measuring national income and Uses of national income; National income identities with government and international trade, Two-sector and three-sector models.

UNIT: 2 Output and Employment:

The Principle of Effective Demand; Consumption function; Investment function (autonomous, induced and marginal efficiency of capital); Saving and Investment (ex-post and ex-ante)-equilibrium; Investment Multiplier and its effectiveness in LDC's.

UNIT: 3 Financial Markets and Macro Economic Theory:

Money Market – concept, functions and constituents of organised Indian money market; Characteristics of a developed money market; Monetary and Fiscal policies – meaning, objectives and role in developing economies; ISLM Model.

UNIT: 4 Trade cycles, Inflation and Open Economy:

Trade cycles – nature and characteristics; Control of trade cycles- Counter-cyclical Policies, Inflation- types, causes of demand pull and cost push inflation; Effects and methods to control inflation; Concepts of reflation and deflation; Determination of the Equilibrium National Income in a Small Open Economy, Foreign Trade Multiplier, Equilibrium in the Goods Market

Note for Paper setting: The question paper will contain two sections. In the first section, two questions from each unit i.e. 8 questions in total will be asked. The candidate will be required to answer any four questions of 6 marks each (choosing one question from each unit), word limit is not more than 250 words each. Second section will contain two questions from each unit i.e. 8 questions in total. The candidate will be required to answer one question from each unit i.e. a total of 4 questions. There will be internal choice with each unit. Each question will carry 14 marks and word limit is not more than 600 words.

The Distribution of the Internal Assessment of 20 marks will be as follows: There shall be a class test of 10 marks and two written assignments of 5 marks each.

Suggested Readings:

Ackley, G: Macroeconomics- Theory and Policy, Macmillan Publishing Co., New York.
Ahuja, H.L: Macroeconomics for Business and Management, S. Chand & Co. Ltd., New Delhi.
Bhole, L.M.: Financial Institutions and Markets, Tata McGraw-Hill Publishing Co., New Delhi.
Dwivedi, D.N: Macroeconomics- Theory and Policy, Tata McGraw Hill, New Delhi.
Gupta, S.B.: Monetary Economics, S. Chand and Co., New Delhi.
Khan, M.Y.: Indian Financial Systems, Tata McGraw- Hill Publishing Company, New Delhi.
Shapiro, E.: Macroeconomic Analysis, Galgotia Publications, New Delhi.
Keynes, J.M.: The General Theory of Employment, Interest and Money, Macmillan, London.
Mithani, D.M: Macroeconomics, Himalaya Publishing House, Mumbai.
Paul, R.R: Money, Banking and International Trade, Kalyani Publishers, New Delhi.
Seth, M.L: Macroeconomics, Lakshmi Narain Agarwal Publishers, Agra.
Vaish. M.C: Macroeconomic Theory, Vikas Publishing House Pvt. Ltd., New Delhi.

SEMESTER IV

Syllabus of Economics for the Examinations to be held in the years 2016, 2017 and 2018

Course No: 401

Title: Quantitative Methods in Economics

Duration of Examination: 3 Hours

Total Marks: 100

External Examination: 80

Internal Assessment: 20

PREAMBLE: This course is to introduce students of economics to the use of quantitative methods on economics both as a tool for analysis as well as as tool for empirical validation and quantification. Thus statistical and mathematical tools are important to the study of economics both to analyse data as well as to create mathematical models where complex arguments can be demonstrated in quantitative terms.

Unit I: Some Basic concepts

Role of Mathematics in Economics; Number System—Integers, Rational Numbers; Irrational Numbers, Real Numbers and Imaginary Numbers; Gradient or Slope and Equation of Straight Line (Economic Examples- Budget line, linear demand curves); Rectangular Hyperbola; Equations—Different types of equations (non-linear demand curves). Simple equations, simultaneous equations, quadratic equations and their solutions, (Economic Examples- Various Demand Supply Equilibria)

Unit II: Functions and Differentiation

Functions—Different Function in Economics; Limits and Continuity; Derivatives—Definition and Evaluation, Rules of Differentiation- differentiating polynomial functions; Uses of Differentiation in Economics; Marginal Concepts and Elasticities. First and Second Order Conditions for optimisation, Examples from Economics- Utility Maximisation, Profit Maximisation

Unit III: Measures of Central Tendency and Dispersion

Measures of central tendency— Arithmetic Mean, Median, Mode, Geometric Mean and

their merits and demerits; Measures of dispersion— Mean Deviation, Standard Deviation, Coefficient of Variation, Variance and their merits and demerits, Skewness- Definition; Coefficient of Skewness— Karl Pearson's measure, Kurtosis— Meaning; Measures of kurtosis.

Unit IV: Bivariate Data

Covariance- definition and formula, Correlation Coefficient, Spearman's Rank Correlation Coefficient, Curve fitting- fitting variable X against Y, Goodness of fit- Definition and formula, uses in economics- estimation of Demand Curves, Supply Curves, Consumption Function

Note for Paper setting: The question paper will contain two sections. In the first section, two questions from each unit i.e. 8 questions in total will be asked. The candidate will be required to answer any four questions of 6 marks each (choosing one question from each unit), word limit is not more than 250 words each. Second section will contain two questions from each unit i.e. 8 questions in total. The candidate will be required to answer one question from each unit i.e. a total of 4 questions. There will be internal choice with each unit. Each question will carry 14 marks and word limit is not more than 600 words.

The Distribution of the Internal Assessment of 20 marks will be as follows: There shall be a class test of 10 marks and two written assignments of 5 marks each.

Basic Reading List:

1. Schaum's Series (2005), *An Introduction to Mathematical Economics*, Tata McGraw Hill, New Delhi.
2. Chiang A.C & Wainwright, *Fundamentals of Mathematical Economics*
3. Chander, Romesh (2007), *Lectures On Elementary Mathematics For Economists*, New Academic Publishing Co, New Delhi.
4. S.P. Gupta (2005), *Statistical Methods*, S. Chand & Sons, New Delhi.

Additional Reading List:

1. G.S. Monga (1972), *Mathematics & Statistics for Economists*, Vikas Publishing House, New Delhi.
2. C.B. Gupta & Vijay Gupta (1995), *An Introduction to Statistical Methods*, Vikas Publishing House, New Delhi.

University of Jammu

Syllabus of Economics for the Examinations to be held from 2016, 2017 and 2018

Semester V

Course No: 501 Title: Money, Banking, Public Finance and International Trade

Duration of Examination: 3 Hours

Total Marks: 100

External Examination: 80

Internal Assessment: 20

PREAMBLE: Money, Banking, Public Finance and International Trade constitute an important components towards understanding of economics. A clear understanding of the operations of money and banking and their interaction with the rest of the economy is essential to realise how monetary forces operate through a multitude of channels – market, non-market institutions and among others, the state. In modern times, the activities of the state have considerably increased and the theoretical understanding of different state activities through the budgetary mechanism is essential. Accordingly, the paper on “Money, Banking , Public Finance and International Trade” is an integration of monetary theory, banking institutions and government which combines with itself a systematic discussion of the theory, institutions and policy with special reference to India.

UNIT: 1 Money and Theories of Money:

Money – meaning, functions and classification; Characteristics of good money; Gresham’s Law; Fisher’s Transactions Approach and Cambridge Cash Balance Approach; A comparison of Fisherian and Cambridge Versions;

UNIT: 2 Commercial Banking and Central Banking:

Commercial Banks – meaning, types and functions; The process of credit creation; Recent Reforms in Banking Sector in India; Functions of Central Banks; Qualitative and qualitative methods of credit control.

UNIT: 3 Public Finance:

Meaning and scope of public finance; Distinction between public and private finance; The Principle of Maximum Social Advantage; Public expenditure – meaning and classification; Taxation – meaning and classification; Basic features of VAT, Preparation and passing of budget in India.

UNIT 4: International economics:

Importance of the study of International economics; Concepts of Internal, Interregional and International trade; Theories of International Trade- Absolute Advantage, Comparative Advantage, Heckscher – Ohlin’s theory and Reciprocal demand theory; Tariffs and Quotas – meaning, types and their impact (partial equilibrium analysis).

5. **Note for Paper setting:** The question paper will contain two sections. In the first section, two questions from each unit i.e. 8 questions in total will be asked. The candidate will be required to answer any four questions of 6 marks each (choosing one question from each unit), word limit is not more than 250 words each. Second section will contain two questions from each unit i.e. 8 questions in total. The candidate will be required to answer one

question from each unit i.e. a total of 4 questions. There will be internal choice with each unit. Each question will carry 14 marks and word limit is not more than 600 words.

6. The Distribution of the Internal Assessment of 20 marks will be as follows: There shall be a class test of 10 marks and two written assignments of 5 marks each.

Suggested Readings:

Ackley, G: Macroeconomics- Theory and Policy, Macmillan Publishing Co., New York.
Ahuja, H.L: Macroeconomics for Business and Management, S.Chand & Co. Ltd., New Delhi.
Dwivedi, D.N: Macroeconomics- Theory and Policy, Tata McGraw Hill, New Delhi.
Gupta, S.B.: Monetary Economics, S. Chand and Co., New Delhi.
Jha, R: Modern Public Economics, Rutledge, London.
Lekhi, R.K: Public Finance, Kalyani Publishers, New Delhi.
Mithani, D.M: Money, Banking & International Trade, Himalaya Publishing House, Mumbai.
Mithani, D.M: Modern Public Finance, Himalaya Publishing House, Mumbai.
Musgrave, R.A. and Musgrave, P.B: Public Finance in Theory and Practice, McGraw Hill, Tokyo.
Paul, R.R: Money, Banking and International Trade, Kalyani Publishers, New Delhi.
Seth, M.L: Money, Banking and International Trade, Lakshmi Narain Agarwal Publishers, Agra.
Singh, S.K: Public Finance in Theory and Practice, S. Chand & Co., New Delhi.
Sundharam, K.P.M., Andley, K.K: Public Finance – Theory and Finance, S. Chand & Co., New Delhi.
Govt. Of India, Economic Survey (Annual), New Delhi.
Reserve Bank of India: Report on Trends and Progress of Banking in India, Mumbai.

University of Jammu

Syllabus of Economics for the Examinations to be held from 2017, 2018 and 2019

Semester: VI

Course No: 601

Duration of Examination: 3 Hours

Title: Development Economics

Total Marks: 100

External Examination: 80

Internal Assessment: 20

PREAMBLE : Units incorporated in this paper would enable the students to know about theories of growth and development. Sectoral aspects of development, investment criteria, allocation of resources and interrelations of international aspects of development have been incorporated. The techniques of planning and its recent adaptations in the light of market dominated strategy and issues resulting to sustainable development are also find their due place in the contents of this paper.

UNIT: 1 Development and Economic Growth:

Distinction between economic growth and economic development; Factors affecting economic growth; Sustainable development; Development and underdevelopment- characteristics of underdevelopment, perpetuation of underdevelopment; Measurement of development; Human development indices-PQLI and HDI.

UNIT: II Theories of Economic Development:

Schumpeter's theory of economic development; Nurkse's theory of disguised unemployment;

Myrdal's theory of circular causation; Lewis's theory of unlimited supply of labour; Rostow's stages of economic growth.

UNIT III: Domestic and International Aspects of Economic Development:

Role of agriculture in economic development; Industrialization and economic development; Capital formation and economic development; Population growth and economic development; Role of international trade in economic development; Foreign Aid and economic development.

UNIT IV: Choice of techniques and Development planning:

Labour intensive techniques vs Capital intensive technique; Meaning of economic planning; Need for planning in under developed countries; Pre requisites of successful planning; Centralized and Decentralized planning; Capital-Output ratio- meaning and importance in planning.

7. **Note for Paper setting:** The question paper will contain two sections. In the first section, two questions from each unit i.e. 8 questions in total will be asked. The candidate will be required to answer any four questions of 6 marks each (choosing one question from each unit), word limit is not more than 250 words each. Second section will contain two questions from each unit i.e. 8 questions in total. The candidate will be required to answer one question from each unit i.e. a total of 4 questions. There will be internal choice with each unit. Each question will carry 14 marks and word limit is not more than 600 words.
8. The Distribution of the Internal Assessment of 20 marks will be as follows: There shall be a class test of 10 marks and two written assignments of 5 marks each.

Suggested Readings:

Aggarwal R.C. Economics of Development and Planning, Lakshmi Narain Aggarwal, Agra.
Bhagwati, J and Desai, P: India-Planning for Industrialisation, OUP, London.
Hayami, Y: Development Economics, Oxford University Press, New York.
Haggins, B: Economic Development, Norton, New York.
Jhingan, M.L: The Economics of Development and Planning, Vrinda Publications, Delhi.
Joshi, M.V: Environmental Economics, Atlantic Publisher & Distributors, New Delhi.
Kindleberger, C.P: Economic Development, McGraw Hill, New York.
Kumar, Pushpam(ed.): Economics of Environment and Development, Ane Books, New Delhi.
Lekhi, R.K: The Economics of Development and Planning, Kalyani Publishers, New Delhi.
Lekhi, R.K and Sujata Slathia: Development and Environmental Economics, Kalyani Publishers, Ludhiana.
Meier, G.M: Leading Issues in Economic Development, OUP, New Delhi.
Shankar, U. (ed): Environmental Economics, OUP, New Delhi.
Thirwal, A.P: Growth and Development, Macmillan, London.
Todaro, M.P: Development Planning-Models and methods, OUP, New Delhi

University of Jammu

Syllabus of Economics for the Examinations to be held from Dec 2016, 2017 & 2018 Semester I

Course no. UECTC-101

Credits:- 4

Title: Principles of Microeconomics

Total Marks: 100

Internal Assessment: 20

External Examination: 80

PREAMBLE: *As a foundation course, in this paper, the student is expected to understand the behaviour of an economic agent, namely, a consumer, a producer, a factor owner and the price fluctuation in a market. The approach of this paper is to study the behaviour of a unit and analysis is generally static and in partial equilibrium framework.*

UNIT: 1- Introduction:

Nature and Scope of Economics; Market price determination – demand and supply; Utility- Laws of diminishing and Equi-marginal utility; Indifference curves : meaning and properties; consumer's equilibrium; Elasticity of demand : types, degrees (price, income and cross) and methods for measuring price elasticity of demand; Factors affecting elasticity of demand; Consumer's surplus (Marshall's interpretation).

UNIT: 2- Theory of Production and Cost:

Production Function – Meaning and types; Isoquants – meaning and properties; Producer's equilibrium – least cost combination of factors; Expansion path; Law of variable proportions; Returns to scale; Economics of scale (internal and external); Different cost curves and their relationship.

UNIT: 3- Market Structure:

Market forms- perfect and imperfect; Equilibrium of the firm – Perfect competition, Monopoly, Price Discrimination, Monopolistic competition.

UNIT: 4 Factor pricing and Welfare Economics:

Marginal productivity theory of distribution (classical); Modern theory of wages; Ricardian theory of rent and Concept of quasi rent; Classical and Keynesian theories of interest; Theories of Profit – Risk, Uncertainty and Innovation, Concept of welfare Economics; The Pareto Optimality (marginal conditions).

Pattern of Examination

THEORY

	Syllabus to be covered in the examination	Time Allotted	% Weightage (Marks)
Internal Assessment Test	Upto 50% (after 45 days)	1 hour	20
(Pattern: One long answer type question of 10 marks and Five short answer type questions of 2 marks each)			
External End Semester University Exam	Upto 100% (after 90 days)	3 hour	80
Component			
04 Short Answer type	4 Credit Courses (Theory Paper)		4 x 2.5 = 10 Marks
03 Medium Answer type	3 x 10 = 30 Marks		
02 Long Answer type	2 x 20 = 40 Marks		
Total Semester End Examination Marks in each course			80
Total			100

Suggested Readings:

Ahuja, H.L.: Advanced Economic Theory- Microeconomic Analysis, S. Chand and Co. New Delhi.

Bhutani, Prem J.: Principles of Economics, Taxmann's Publications (P) Ltd., New Delhi.

Chopra, P.N.: Principles of Economics, Kalayani Publishers, New Delhi.

Dwivedi, D.N.: Microeconomics, Vikas Publishing House, New Delhi.

Koutsoyiannis, A: Modern Microeconomics, Macmillan Publishers Ltd., New Delhi.

Limsey, R.G and Chrystal, K.A: Principles of Economics, Oxford University Press, Oxford.

Mithani, D.M.: Microeconomics, Himalaya Publishing House, Mumbai.

Samuelson, P.A and Nordhaus, W.D: Economics, Tata Mc Graw Hill, New Delhi.

Seth, M.L.: Micro Economics, Lakshmi Narain Agarwal, Publishers, Agra.

Stonier, A.W and Hague, D.C: A Textbook of Economic Theory, ELBS & Longman Group, London.

 
(2)

Semester II

Syllabus of Economics for the Examinations to be held in the years May 2017, 2018 & 2019

Course No: UECTC-201

credit - 4

Title: Principles of Macroeconomics

Total Marks: 100

Internal Assessment: 20

External Examination: 80

PREAMBLE: The aim of this course is to give an overview as to how the economy behaves when the behaviour of the various economic agents are aggregated. The role of the state and its influence on the economy through its powers to tax, spend and control the supply of money is a major area of economic analysis in terms of theoretical, empirical as well as policy-making issues. Macroeconomics has an extensive, substantive as well as methodical content. It deals with the functioning of the economy as a whole, including how the economy's total output of goods and services and employment of resources is determined and what causes these totals to fluctuate.

This paper has been designed to make the undergraduate students aware of the basic theoretical framework underlying the field of macroeconomics.

UNIT: 1 National Income and Social Accounts:

National income- concepts, methods of measurement: Difficulties in measuring national income and Uses of national income; National income identities with government and international trade, Two-sector and three-sector models.

UNIT: 2 Output and Employment:

The Principle of Effective Demand; Consumption function; Investment function (autonomous, induced and marginal efficiency of capital); Saving and Investment (ex-post and ex-ante)-equilibrium; Investment Multiplier and its effectiveness in LDC's.

UNIT: 3 Financial Markets and Macro Economic Theory:

Money Market – concept, functions and constituents of organised Indian money market; Characteristics of a developed money market; Monetary and Fiscal policies – meaning, objectives and role in developing economies; ISLM Model.

UNIT: 4 Trade cycles, Inflation and Open Economy:

Trade cycles – nature and characteristics; Control of trade cycles- Counter-cyclical Policies, Inflation- types, causes of demand pull and cost push inflation; Effects and methods to control inflation; Concepts of inflation and deflation; Determination of the Equilibrium National Income in a Small Open Economy, Foreign Trade Multiplier, Equilibrium in the Goods Market.

Pattern of Examination THEORY

	Syllabus to be covered in the examination	Time Allotted	% Weightage (Marks)
Internal Assessment Test	Upto 50% (after 45 days)	1 hour	20
(Pattern: One long answer type question of 10 marks and Five short answer type questions of 2 marks each)			
External End Semester University Exam	Upto 100% (after 90 days)	3 hour	80
Component			
04 Short Answer type	4 Credit Courses (Theory Paper)		4 x 2.5 = 10

03 Medium Answer type

3 x 10 = 30 Marks

02 Long Answer type

2 x 20 = 40 Marks

Total Semester End Examination Marks in each course

Total

Marks

80

100

Suggested Readings:

Ackley, G: Macroeconomics- Theory and Policy, Macmillan Publishing Co., New York.
Ahuja, H.L: Macroeconomics for Business and Management, S. Chand & Co. Ltd., New Delhi.
Bhole, L.M.: Financial Institutions and Markets, Tata McGraw-Hill Publishing Co., New Delhi.
Dwivedi, D.N: Macroeconomics- Theory and Policy, Tata McGraw Hill, New Delhi.
Gupta, S.B.: Monetary Economics, S. Chand and Co., New Delhi.
Khan, M.Y.: Indian Financial Systems, Tata McGraw- Hill Publishing Company, New Delhi.
Shapiro, E.: Macroeconomic Analysis, Galgotia Publications, New Delhi.
Keynes, J.M.: The General Theory of Employment, Interest and Money, Macmillan, London.
Mithani, D.M: Macroeconomics, Himalaya Publishing House, Mumbai.
Paul, R.R: Money, Banking and International Trade, Kalyani Publishers, New Delhi.
Seth, M.L: Macro Economics, Lakshmi Narain Agarwal Publishers, Agra.
Vaish. M.C: Macroeconomic Theory, Vikas Publishing House Pvt. Ltd., New Delhi.

EDUCATION

Semester III

(For the examination to be held in the year 2015, 2016 & 2017)

Course No. : ED-301 (Theory)

Duration of Exam.: 3 Hrs.

Title : Education in Modern India

Total Marks : 100

Theory Examination. : 80

Internal Assessment : 20

Objectives of the course:

To help the students to :

- Understand the stages at which education is imparted.
- Understand the important issues of education in Modern India (Post- Independence Period)
- Understand the process of development and problems of education in J&K State at all levels (Post- Independence Period).
- Acquaint students with basic concepts of Elementary Education
- Understand the concept and relevance of Secondary Education and Higher Education.
- To enable the students to understand the concept and relevance of Women Education, Population and Adult Education.
- To familiarize the students with concept and relevance of distance education, Environmental Education, Educational Technology and Teacher Education.

Unit –I

Stages of Education:

Elementary Education: concept, objectives of elementary education. Concept of Universalization of Elementary Education (UEE), Promotion of UEE through Sarva Shiksha Abhiyan (SSA).

Secondary Education: Concept, objectives of secondary education. Organizational Pattern as suggested by Kothari Commission of Education (1964-66). Main problems of secondary education and remedial measures to solve the problems.

Higher Education: Concept, objectives of higher education as per National Policy on Education. Problems being faced in higher education with emphasis on problem of selective admission, autonomy & examination and their remedial measures.

Unit-II

Important Issues in Indian Education

Women Education: Concept of women education, Need for prioritizing women education, Problems of women education and suggestive remedial measures.

Population Education: Concept of Population Education, Need and Objectives of Population Education.

Adult Education: Concept of adult education, functions of adult education. National Adult Education Programme (NAEP)-Meaning and its features, National Literacy Mission (NLM) objectives and importance.

Unit-III

Important Issues in Indian Education (Continued)

Distance Education: Concept of distance education, scope of distance education in India. modes of distance education viz.;

- Correspondence Courses and
- Open Learning System.

Environmental Education: Concept of environmental education, Need for prioritizing environmental education at various stages of education. Recommendations of National Policy on Education-1986 on environmental education.

Educational Technology: Concept of educational technology, Various approaches to implement educational technology towards Quality Education. Role of ICT in education.

Unit –IV

Teacher Education: Concept of teacher education, objectives of teacher education in India. problems of teacher education, Role of NCTE in improving the quality of teacher education in India.

Evaluation, Assessment and Certification: Concepts of evaluation, assessment and certification, need for evaluation in Education. Shortcomings in the present system of evaluation and suggestive remedial measures. Continuous and Comprehensive Evaluation (CCE)-concept and problems.

Unit-V

Development of Education in the State of Jammu and Kashmir (Post-independence Period)

Elementary Education: Growth of elementary education in the State since Independence. Specific problems of elementary education and remedial measures taken to deal with the problems.

Secondary Education: Growth of secondary education in the State since Independence. Specific problems of secondary education and remedial measures taken to deal with the problems.

Higher Education: Growth of higher education in the state since Independence. Specific problems of higher education and remedial measures to deal with the problems.

Question Paper Setting

The question paper would contain two types of questions, that is, **Long Answer Type Questions and Short Answer Types Questions.**

There would be **two long answer type questions**, set from each unit; out of which one question will have to be attempted by the students, **unit wise.**

Similarly, there would be **two short answer type questions**, set from each unit. The student will have to attempt **one short answer type question** from each unit. In all, students will have to attempt **five long answer type questions** and **five short Answer type questions** out of five units.

Long answer type questions would carry **Sixty marks (12 marks, each question)**; and

Short answer type questions would carry **fifteen marks** for five questions (**3 marks, each question**). These questions would be set **unitwise** in the question paper, separately.

(Answer to short answer type question should not be more than 100 words, each question).

Internal Assessment (Total Marks : 20)

20 marks for theory paper in a subject reserved for internal assessment shall be distributed as under :

(i)	Class Test	:	10 marks
(ii)	Two Written Assignments/ Project reports	:	10 marks (05 marks each)

Books recommended

1. Aggarwal J.C. (1987). Modern Indian education and its problem New Delhi : Arya Book Depot.
2. Bhatnagar Suresh and Saxena A. (2002). Modern Indian education and its problem. Meerut : R. Lall Book Depot.
3. Bhatia R. L and Ahuja B.N. (2000). Modern Indian education and its problem. Delhi: Surjeet Publications.
4. Chauhan C.P.S (2004). Modern Indian education: Policies, progress and problem New Delhi : Kanishka Publisher, Distributors.
5. Mohanty Jaganath (2000). Current trends in higher education. New Delhi : Deep and Deep Publications Pvt. Ltd.
6. Mohanty Jagannath (2002). Primary and elementary education New Delhi: Deep and Deep Publications Pvt. Ltd.
7. Nayak A.K. and Roa V.K. (2002). Primary education. New Delhi :APH Publishing Corporation.
8. Reddy K. P. and Reddy D.N. (2002). Environmental Education. New Delhi: Neel Kamal Publications Pvt. Ltd.
9. Singha H.S. (1991). School education in India : Contemporary issues and trends New Delhi : Sterling Publishers Pvt. Ltd.
10. Shrivastava K.K. (2004). Environmental education: Principles, concepts and management New Delhi : Kaniska Publishers, Distributors. ’
11. Sharma R.A. (2001). Technological foundation of education : Theory, practice and research. Meerut : R. Lall Book Depot.

EDUCATION

Semester IV

(For the examination to be held in the year 2016, 2017 & 2018)

Course No. : ED-401 (Theory)

Duration of Exam.: 3 Hrs.

Title : Psychological Foundations of Education

Total Marks : 100

Theory Examination. : 80

Internal Assessment : 20

Objectives of the course:

To help the students to :

- Understand concept of educational psychology and its objectives.
- Understand the methods of studying human behaviour.
- Understand the process of human growth and development through different sequential stages with reference to various changes and educational provisions.
- Acquaint students with various types of special children and educational provisions for these children.
- Understand the concept, types and bases of motivation.
- Understand the concept of adjustment and mechanisms of adjustment.
- Understand the concept of personality, its development and techniques of assessment of personality.
- Acquaint themselves with use of statistics in Education in terms of use and computation of statistical measures like variability, percentiles and correlation.

UNIT-I

Educational Psychology and Methods of Studying Behaviour

Concept of educational psychology, objectives of studying educational psychology,

Methods of studying human behavior

Introspection - Meaning and definitions, process involved in introspection, merits and limitations of the method.

Observation - Meaning and definitions, types -controlled and uncontrolled, steps involved during observation, merits and limitations.

Experimental - Meaning and definitions, characteristics, steps involved in experimental method, merits and limitations.

Stages of Human Growth and Development

Infancy, childhood and adolescence with special reference to physical, intellectual, emotional and social changes, educational provisions for different stages.

UNIT-II

Special Children, Categories and Educational Provisions

Special Children

Concept, Types.

Gifted and Creative Children

Meaning and definitions, difference between gifted and creative children

Characteristics of gifted children, identifying gifted children, educational provisions for the gifted children.

Delinquent Children

Concept, causes responsible for delinquent acts among children.

Measures to prevent and treat delinquent children.

UNIT-III

Motivation and Adjustment

Concept : Types of motivation (intrinsic and extrinsic), Bases of motivation-needs (physiological and psychological) and drives

Adjustment: Concept, mechanisms of adjustment; rationalization and sublimation

UNIT-IV

Personality

Concept & Types of personality

Assessment of Personality

Subjective Techniques (Anecdotes, Autobiography, Case Study)

Objective Techniques (Controlled Observation Structured Interview and Rating Scale)

Projective Techniques (Thematic Apperception Test-TAT, Rorschach Inkblot Test)

Unit- V

Statistics and Its Use in Education

Measures of Variability: concept of measures of Variability, concepts and calculation of Range, Quartiles, Quartile Deviation (Q.D.), Mean deviation and Standard Deviation.

Percentiles and Percentile Rank: concepts and calculation of percentiles and percentile rank.

Correlation: Concept of correlation, computation of coefficient of correlation of ungrouped data by Rank Difference method (Spearman's method) and Product Moment (Karl Pearson's method)

Question Paper Setting

The question paper would contain two types of questions, that is, **Long Answer Type Questions and Short Answer Types Questions.**

There would be **two long answer type questions**, set from each unit; out of which one question will have to be attempted by the students, **unitwise.**

Similarly, there would be **two short answer type questions**, set from each unit. The student will have to attempt **one short answer type question** from each unit. In all, students will have to attempt **five long answer type questions and five short Answer type questions** out of five units.

Long answer type questions would carry **Sixty marks for five questions (12 marks, each question);** and

Short answer type questions would carry **Twenty marks** for five questions (**4 marks, each question**). These questions would be set **unitwise** in the question paper, separately.

(Answer to short answer type question should not be more than 100 words, each question).

Internal Assessment (Total Marks : 20)

20 marks for theory paper in a subject reserved for internal assessment shall be distributed as under :

(i)	Class Test	:	10 marks
(ii)	Two Written Assignments/ Project reports	:	10 marks (05 marks each)

Books Recommended

1. Aggarwal, J.C. (2001): Essentials of Educational Psychology. New Delhi: Vikas Publishing House.
2. Bhatia, H.R. (1968) : Elements of Educational Psychology. 3rd Edition, Calcutta, Orient Longman.
3. Bhatnagar, Suresh (2001). Advanced Educational Psychology. Meerut : R. Lal Book Depot.
4. Bower, Gordon and Hillgard, R. Earnst (1986): Theories of Learning Eastern Economy Edition. New Delhi : Prentice Hall of India.
5. Carlson, Neil, R. (1996): “Psychology : The Science of Behaviour” New York : Allyon and Bacon.
6. Chauhan, S.S. (1978): Advanced Educational Psychology. New Delhi: Vikas Publishing House Pvt. Ltd.
7. Dutt, N.K. (2003). Psychological Foundations of Education. New Delhi: Doaba House.
8. Garrett, H.E. (1979): Statistics in Psychology and Education. Bombay, Vakils, Feffer and Simons Ltd.
9. Guilford JP Fruchter Benjamin (1978) : Fundamental Statistics in Psychology and Education. Singapore : McGraw Hill Company.
10. Hurlock, B. Elizabeth (1981). Developmental Psychology - A Life Span Approach. New Delhi : TATA McGraw Hill.
11. Kuppaswamy (1988). Advanced Educational Psychology. New Delhi : Sterling Publishers.
12. Kulshreshtha, S.P. (2001). Educational Psychology. Meerut : R. Lal Books Depot.
13. Mangal, S.K. (1999): Advanced Educational Psychology. New Delhi: Prentice Hall of India Pvt. Ltd.
14. Morgan, C.T. (1961). An Introduction to Psychology. New York : McGraw Hill.
15. Sharma, R.A. (2001). Fundamentals of Educational Psychology. Meerut : R. Lal Book Depot.
16. Sharma, R.N. (1987). Advanced Educational Psychology. Meerut : Rastogi Publications.
17. Verma, L.K. and Sharma N.R. (2007). Statistics in Education and Psychology. Jalandhar : Narindra Publications.
18. Woolfolk, Anita (2004). Educational Psychology. 2004 Ninth Ed Indian Reprint Edition (2005) New Delhi: Pearson Education Inc.

EDUCATION

Semester V

(For the examination to be held in the year 2016, 2017 & 2018)

Course No. : ED-501 (Theory)

Title : Principles of Education

Duration of Exam.: 3 Hrs.

Total Marks : 100

Theory Examination. : 80

Internal Assessment : 20

Course Objectives

1. To enable the students to understand the bases of education.
2. To help the students to understand the concept and major philosophies of education.
3. To enable the students to understand the contributions made by educational thinkers.
4. To appraise the students with major National concerns.
5. To enable students to understand various social and educational issues.

Unit –I

Education, Philosophy & its Bases

Concept of Education, Distinction between a) Education and Training, b) Education and Instruction, C) Education and Literacy. Bases of Education: Philosophical, Psychological and Sociological. Concept of Philosophy and Educational Philosophy, Relationship between Education and Philosophy. Concept of Knowledge, Reality and Values in context of Educational Philosophy.

Unit –II

Educational Philosophies

Idealism: Concept, Salient features, Educational Implications with Reference to Aims, Curriculum, Instructional Techniques, Discipline and Role of Teacher.

Naturalism: Concept, Salient features, Educational Implications with Reference to Aims, Curriculum, Instructional Techniques, Discipline and Role of Teacher.

Pragmatism: Concept, Salient features, Educational Implications with Reference to Aims, Curriculum, Instructional Techniques, Discipline and Role of Teacher.

Unit –III

Educational Thinkers

Educational Contribution of the following thinkers– with reference to concept of Education, Aims, Curriculum, Instructional Techniques, Discipline and Role of Teachers.

J.J.Rousseau

John Dewey

Swami Vivekananda

Unit –IV

Issues in Education

Education and Democracy : Concept of Democracy, Role of Education in promoting democratic values

Socialistic Pattern of Society : Nature, Objectives, Role of Education for Promoting Socialistic Pattern of Society.

Community and Education : Meaning of Community, Role of Education for Upliftment of Community, Mass Media as a Social Means of Education.

Unit –V

New trend in Education and Statistics

Inclusive Education: Meaning and Significance, Scope and Role of Teacher in inclusive education.

Normal Probability curve: Concept, characteristics and applications.

- i) Calculating standard scores.
- ii) Determining percent of cases against given standard scores.
- iii) Determining percent of cases/Number of scores falling between given score limits.
- iv) Determining percent of cases against above and below given score.

Question Paper Setting

The question paper would contain two types of questions, that is, **Long Answer Type Questions and Short Answer Types Questions.**

There would be **two long answer type questions**, set from each unit; out of which one question will have to be attempted by the students, **unitwise**.

Similarly, there would be **two short answer type questions**, set from each unit. The student will have to attempt **one short answer type question** from each unit. In all, students will have to attempt **five long answer type questions** and **five short Answer type questions** out of five units.

Long answer type questions would carry **Sixty marks for five questions** (12 marks, each question); and

Short answer type questions would carry **Twenty marks** for five questions (4 marks, each question). These questions would be set **unitwise** in the question paper, separately.

(Answer to short answer type question should not be more than 100 words, each question).

Internal Assessment (Total Marks : 20)

20 marks for theory paper in a subject reserved for internal assessment shall be distributed as under :

(i)	Class Test	:	10 marks
(ii)	Two Written Assignments/ Project reports	:	10 marks (05 marks each)

REFERENCES:

- Brubacher J.S. (1970) Modern Philosophies of Education, New Delhi: Tata McGraw Hill Publishing Company Ltd.
- Chandra S.S. & Sharma (2002) Philosophy of Education, New Delhi : Atlantic Publishers.
- Garett, H.E. (1979): Statistics in Psychology and Education. Bombay, Vakils, Feffer and Simons Ltd.
- Mathur S.S. (1998) A Sociological Approach to Indian Education, Agra: Vinod Pustak Mandir.
- Sharma R.N. (1991) Contemporary Indian Philosophy New Delhi, Atlantic Publishers.
- Sharma Yogindra K. (2003) Foundation in Sociology of Education, New Delhi: Kanishka Publishers.
- Taneja V.R. (1998) Educational Thinkers, New Delhi : Atlantic Publishers.
- Taneja V.R. (1998) Socio-Philosophical Approach to Education, New Delhi: Atlantic Publishers.
- Verma, L.K. and Sharma N.R. (2007) : Statistics in Education and Psychology. Jalandhar : Narindra Publications.

EDUCATION

Semester VI

(For the examination to be held in the year 2017, 2018 & 2019)

Course No. : ED-601 (Theory)

Title : Development of Educational System in India

Duration of Exam.: 3 Hrs.

Total Marks : 100

Theory Examination. : 80

Internal Assessment : 20

Course Objectives:

To enable the students to gain knowledge about

1. The system of Indian Education during Vedic, Buddhist and Medieval periods.
2. Britishers influence on Indian Education.
3. Impact of British commission and committees on Indian education.
4. Growth and development of Education in Post Independence Era.
5. New Education Policy and Programme of Action.
6. Role of National organization in the field of education.

Unit-I:

Education During Ancient and Medieval Period:

Education during Vedic Period

Concept of Education, Aims, Curriculum, Instructional techniques, Role and Status of Teacher.

Education during Buddhist Period

Concept of Education, Aims, Curriculum, Instructional Techniques, Discipline, Role and Status of Teacher.

Education during Muslim Period

Concept of Education, Aims, Curriculum, Instructional Techniques, Discipline, Role and Status of Teacher.

Unit-II:

Education During British Period

Brief Historical Perspective with reference to Charter Act (1813) & Macalay's (1835)

Wood's Despatch (1854) Main Recommendations and its impact on Indian education

Sargent Report(1944) Main Recommendations and its impact on Indian education

Unit-III:

Education in Post- Independence Era

Main Recommendations of the following:

University Education Commission (1948)

Secondary Education Commission (1952-53)

Indian Education Commission (1964-66)

Unit-IV:**National Policies**

National Policy on Education (NPE) 1986 and (1992) Main features.

Programme of Action 1992.

Right of Children to Free and Compulsory Education Act (2009) (RTE)

Unit-V:**National Organizations in Education**

Central Advisory Board of Education (CABE)- Meaning, Composition and Functions

National Council of Educational Research and Training (NCERT) Meaning, Composition and Functions

University Grants Commission (UGC) Meaning, Composition and Functions

Question Paper Setting

The question paper would contain two types of questions, that is, **Long Answer Type Questions and Short Answer Types Questions**.

There would be **two long answer type questions**, set from each unit; out of which one question will have to be attempted by the students, **unitwise**.

Similarly, there would be **two short answer type questions**, set from each unit. The student will have to attempt **one short answer type question** from each unit. In all, students will have to attempt **five long answer type questions** and **five short Answer type questions** out of five units.

Long answer type questions would carry **Sixty marks for five questions** (12 marks, each question); and

Short answer type questions would carry **Twenty marks** for five questions (**4 marks, each question**). These questions would be set **unitwise** in the question paper, separately.

(Answer to short answer type question should not be more than 100 words, each question).

Internal Assessment (Total Marks : 20)

20 marks for theory paper in a subject reserved for internal assessment shall be distributed as under :

(i)	Class Test	:	10 marks
(ii)	Two Written Assignments/ Project reports	:	10 marks (05 marks each)

REFERENCES :

Aggarwal, J.C. (2000) : Landmarks in the History of Modern Indian Education, New Delhi : Vikas Publishing House Pvt.

Chauhan, C.P.S. (2004) : Modern Indian Education Policies, Progress and Problems, New Delhi : Kanishka Publishers.

Ministry of Human Resource Development (1986) : National Policy on Education, 1986.

Ministry of Human Resource Development (1992) : National Policy on Education, 1986 (Revised).

Ministry of Human Resource Development (1992) : Programme of Action (NPE, 1992), New Delhi, Govt. of India.

Sharma, Y.K. (2003) : Sociological Philosophy of Education, New Delhi : Kanishka Publishers.

EDUCATION

Semester I

(For the examination to be held in the year Dec 2016, 2017 & 2018)

Course No. : USEDTC101
Duration of Exam.: 3 Hrs.
Contact Hours: 4 Per Week
80

Title : Education and Society
Total Marks : 100, Credit: 4
External Semester End Examination. :

Internal Assessment Test: 20

Course objectives

To enable students to:

- Understand basic concepts of Education, Sociology and identify sociological issues concerning education with special reference to Indian society;
- Identify, list and elaborate upon major functions of Education in a given society to be carried out by the members through different agencies – Formal, Non-formal and Informal;
- Identify, list and elaborate upon major aims that educational institutions, set up by the society should achieve;
- Understand the concept of curriculum, categories it into different types, plan and construct suitable curricular, co-curricular activities for students as per their developmental needs.
- Understand the need and importance of organizing various types of co-curricular activities in the educational institutions keeping students' developmental needs in mind
- Understand the concept of culture and find its relationship with Education;
- Understand the basic concept of Indian society, identify, enlist and elaborate upon its major features.
- Understand the concept of social change, identify, list and elaborate upon relevant causes responsible for social change, give role of education in bringing about social change; and
- Understand the Concept of Right To Education

Unit-I:

Education : Concept, Aims and Agencies.

Concept and Functions of Education

Aims of Education :

Concept of Aims, Individual Aims, Social Aims, Synthesis of Individual and Social Aims.

Agencies of Education :

Concept of Agencies of Education, Types (Formal, Informal and Non-formal) , Home and School as major agencies imparting education in a society.

Unit-II:

Indian Society : Concept of Society and Indian Society, Problems – Social and Economic, Features of Indian Society,

Educational Sociology: Concept of Sociology and Educational Sociology, Relationship between Education and Sociology.

Socialization : Concept, Process, Factors facilitating the process of socialization.

Unit-III:

Curriculum : Concept, Types of Curricula - Subject Centred, Learner Centred. Basic Principles of Curriculum Construction.

Curricular and Co-curricular Activities :

Concepts, Types of Co-curricular Activities, Importance of Organizing Co-curricular Activities in Educational Institutions.

Right To Education (Article 21A): Historical Background and its implications

Unit-IV:

Education and Culture - Concept of Culture. Relationship between Education and Culture.

Education and Social Change : Concept of Social Change, Factors responsible for bringing about social change, Role of Education.

Education and National Integration – Concept of National and Emotional Integration.

Barriers in way of achieving National Integration. Role of Education in Promoting National Integration.

Note for Paper Setting

Internal Assessment Test (Total Marks : 20)

The question paper will consist of two sections viz A & B.

Section A will consist of two long answer questions from first two units covered out of which a candidate will be required to answer any one question. The question carries **10** marks.

Section B will consist of six Short answer type questions three from first two units covered out of which candidates will be required to answer any five. Each question will carry 02 marks (2 X 5=10)

External Semester End Examination: 80 Marks

The question paper would contain two types of questions, that is, **Long Answer Type Questions and Short Answer Types Questions.**

There would be **two long answer type questions**, set from each unit; out of which one question will have to be attempted by the students, **unitwise**.

Similarly, there would be **ten short answer type questions** from entire syllabus. The student will have to attempt **eight short answer type questions** out of the ten. In all, students will have to attempt **four long answer type questions** and **eight short answer type questions** out of four units.

Long answer type questions would carry **forty eight marks for four questions (12 marks, each question)**; and eight Short answer type questions would carry **thirty two marks** for eight questions (**4 marks, each question**).

(Answer to short answer type question should not be more than 100 words, each question).

Books recommended

Aggarwal JC, (2000): Land marks in the History of Modern Indian Education, New Delhi: Vikas Publishing House Pvt. Ltd.

Ahiya Ram (1997): Social Problems in India, Jaipur: Rewat Publications.

Brubacher, J.S. Modern Philosophies of Education.

Chaube, SP and A Chaube (1999): Education in Ancient and Medieval India, New Delhi: Vikas Publishing Housing Pvt. Ltd.

D. Conner, D.J. Introduction to the Philosophy of Education.

Dewey John Democracy and Education.

Gupta, Dipankar Social Stratification (Ed.) New York. Oxford University Press.

Gupta NL, (2000): Human Values in Education, New Delhi: Concept Publishing Company.

Haralambos, M. Heald R.M. (1980): Sociology – Themes and Perspectives. New Delhi. Oxford University Press.

Kilpatric, W.H. Philosophy of Education.

Kneller, George F. Philosophy of Education.

Lindzay, G.A. Handbook of Social Psychology.

Naik, J.P. Syed Nurullah (1974): A students' History of Education in India (1800-1973), New Delhi: Mac Millan India Ltd.

Ramachandran Padma and Vasantha Ramkumar (2005): Education in India, New Delhi: National Book Trust, India.

Ravindernath Tagore The Centre of Indian Culture.

Raymont, T. Modern Education.

Ross, James S. Ground Work of Educational Theory.

Rao, Shanker: Sociology. New Delhi: S Chand and Company

EDUCATION

Semester II

(For the examination to be held in the year may 2017, 2018 & 2019)

Course No. : USEDTC201
Duration of Exam.: 3 Hrs.
Contact Hours: 4 Per Week
80

Title : Educational Psychology and Statistics
Total Marks : 100, Credit: 4
External Semester End Examination. :
Internal Assessment Test: 20

Objectives of the course:

To help the students to :

- Understand Nature of Psychology as a scientific discipline and its use in the discipline of Education.
- Understand the Nature of Educational Psychology as a field of applied Psychology.
- Understand the process of Human growth and development through different sequential stages.
- Acquaint students with basic concepts and principles offered by different theories of Learning, and their implications to learning situations.
- Understand the concept of Transfer of Learning.
- Motivate themselves for efficient and effective learning by understanding basic principles of learning.
- Understand concept of Intelligence and Intelligence quotient.
- Acquaint themselves with use of statistics in Educational situations, and
- Develop in them the skills of graphical representation of data and its Types and computation of measures of Central tendency.

Unit-I:

Psychology and Education :

Meaning and definitions of : i) Education ii) Psychology iii) Educational Psychology. Relationship between Education and Psychology. Difference between Psychology and Educational Psychology.

Human Growth and Development : Concept of Growth and Development, Difference between Growth and Development. Factors affecting Growth and Development (Biological and Environmental). Basic Principles governing the process of human growth and development.

Unit-II:

Learning and its Approaches : Concept of Learning;

Approaches to Learning – Behaviouristic and Cognitive.

Theories of Learning – Thorndike's Trial and Error Theory – Concept, Experiment, Laws of Learning based on the theory. Educational Implications of the theory.

Gestalt Theory of Learning by Wolfgang Kohler, Concept, Experiment, Educational Implications.

Transfer of Learning/Training : Concept of Transfer of Learning/Training. Forms of Transfer of learning, Role of Teacher in facilitating the process of transfer of Learning/Training.

Unit-III:

Intelligence : Concept of Intelligence.

Theories of Intelligence: Two Factor Theory by Charles Spearman. Description of the Theory, Characteristics of 'g' factor and 's' factors, Educational Implications of the Theory.

Primary Mental Abilities Theory by LL Thurstone : Description of the Theory. Educational Implications of the Theory.

Intelligence Tests : Concept of Intelligence Tests. Uses of Intelligence Tests.

Concepts of I.Q. (Intelligence Quotient) MA (Mental age) and CA (Chronological age)

Memory and Forgetting : Concept of Memory and Forgetting.

Components of Memory : Learning, Retention, Recall and Recognition.

Types of Memory, Signs of good Memory, Methods of memorizing, Factors responsible for causing Forgetting.

Unit-IV:

Statistics and its use in Education

Concept of Statistics, Importance of Statistics for students in Education.

Data – Concept, Types of Data (Grouped and Ungrouped), Graphical Representation of the Data - Histogram and Frequency Polygon.

Measures of Central Tendency : Concepts of Mean, Median and Mode, Computation of Mean, Median, and Mode of grouped and ungrouped data. Uses of various Measures of Central Tendency in Educational Situations.

Note for Paper Setting

Internal Assessment Test (Total Marks : 20)

The question paper will consist of two sections viz A & B.

Section A will consist of two long answer questions from two units covered out of which a candidate will be required to answer any one question. The question carries 10 marks.

Section B will consist of six Short answer type questions three from each unit covered out of which candidates will be required to answer any five. Each question will carry 02 marks (2 X 5=10)

External Semester End Examination: 80 Marks

The question paper would contain two types of questions, that is, **Long Answer Type Questions and Short Answer Types Questions.**

There would be **two long answer type questions**, set from each unit; out of which one question will have to be attempted by the students, **unitwise.**

Similarly, there would be **ten short answer type questions** from entire syllabus. The student will have to attempt **eight short answer type questions** out of the ten. In all, students will have to attempt **four long answer type questions** and **eight short answer type questions** out of four units.

Long answer type questions would carry **forty eight marks for four questions (12 marks, each question)**; and eight Short answer type questions would carry **thirty two marks** for eight questions (**4 marks, each question**).

(Answer to short answer type question should not be more than 100 words, each question).

Books recommended

1. Aggarwal, J.C. (2001) : Essentials of Educational Psychology. New Delhi: Vikas Publishing House.
2. Bhatia, H.R. (1968): Elements of Educational Psychology. 3rd Edition, Calcutta, Orient Longman.
3. Bhatnagar, Suresh (2001): Advanced Educational Psychology. Meerut : R. Lal Book Depot.
4. Bower, Gordon and Hillgard, R. Earnst (1986) : Theories of Learning Eastern Economy Edition. New Delhi : Prentice Hall of India.
5. Carlson, Neil, R. (1996) "Psychology: The Science of Behaviour" New York : Allyon and Bacon.
6. Chauhan, S.S. (1978): Advanced Educational Psychology. New Delhi: Vikas Publishing House Pvt. Ltd.
7. Dutt, N.K. (2003): Psychological Foundations of Education. New Delhi: Doaba House.
8. Garrett, H.E. (1979): Statistics in Psychology and Education. Bombay, Vakils, Feffer and Simons Ltd.
9. Guiford JP Fruchter Benjamin (1978): Fundamental Statistics in Psychology and Education. Singapore : McGraw Hill Company.
10. Hurlock, B. Elizabeth (1981): Developmental Psychology - A Life Span Approach. New Delhi : TATA McGraw Hill.
11. Kuppaswamy (1988) : Advanced Educational Psychology. New Delhi : Sterling Publishers.
12. Kulshreshtha, S.P. (2001): Educational Psychology. Meerut : R. Lal Books Depot.
13. Mangal, S.K. (1999) : Advanced Educational Psycho-logy. New Delhi: Prentice Hall of India Pvt. Ltd.
14. Morgan, C.T. (1961): An Introduction to Psychology. New York : McGraw Hill.
15. Sharma, R.A. (2001) : Fundamentals of Educational Psychology. Meerut : R. Lall Book Depot.
16. Sharma, R.N. (1987): Advanced Educational Psychology. Meerut : Rastogi Publications.

17. Verma, L.K. and Sharma N.R. (2007) : Statistics in Education and Psychology. Jalandhar : Narindra Publications.
18. Woolfolk, Anita (2004): Educational Psychology. 2004 Ninth Ed Indian Reprint Edition (2005) New Delhi: Pearson Education Inc.

Annexure IV

Detailed Syllabus for the Examination to be held in year 2016, 2017, 2018. **Semester I**

Course Title: English

Credits: 6

Course Code: UENTC101

M.M: 100

Semester End Examination: 80

Internal Assessment: 20

Duration of Exam: 3hrs

SYLLABUS

Objective: The objective of this paper is to further the comprehension, reading , writing & speaking skills of the students through the exercises in language & literature. The listening skills will be developed & assessed in the class by the teacher.

Unit I: Prose

- Francis Bacon: Of Studies
- Charles Lamb: Poor Relations
- Shashi Tharoor: Freedom of the Press
- Abdul Kalam: Wings of Fire

UnitII: Poetry

- Rabindranath Tagore- Leave this Chanting.
- Rudyard Kipling- *If*.
- William Wordsworth: The World is too Much With Us
- Karan Singh: Adventurer

Unit III: Short Stories

- O' Henry: The Last Leaf
- Munshi Premchand: Child
- Khetrpal: *Cheta* (in translation)

Unit IV: Reading, Writing and Speaking Skills

- Comprehension of unseen passage.
- Consonant and Vowel Sounds

Unit V: Applied Grammar

- Subject – Verb Agreement
- Antonym & Synonym

Book Prescribed:

The Pierian Spring. Orient Black Swan.

Mode of Examination

Internal Assessment Test:

Syllabus to be covered: upto 50% ; Time allotted: 1 Hour; Marks % Weightage: 20% (20 Marks)

10 Short answer type Questions of 2 mark each shall be given which may include some multiple choice questions, fill in the blanks, one word/line answer questions. (10x2=20)

External End Semester University Examination:

Section-A

This section will cover units I to III and will have three long answer type questions for 10 marks each with internal choice. The prescribed word limit will be 250-300 words.

Section-B

This section will cover units I to III and will have five short answer questions. The candidates will be required to attempt any three. Each question will be for 6 marks and the prescribed word limit will be 60-80 words.

Section-C

This section will have two questions of 16 marks each.

The first question will have two parts. The first would deal with comprehension of unseen passage and will carry 10 Marks.

The second part will examine the candidate's knowledge of consonant and vowel sounds and monosyllabic words from within the unseen passage through identifying the sounds of the underlined alphabets of the word and carry 6 marks. The examiner will give 10 words out of which 6 are to be solved.

The second question will also have two parts and will be set from the prescribed text book. The first part will have 15 sentences on subject and verb agreement out of which 10 are to be attempted. This will carry 10 marks. The second part will have 10 questions on Antonyms and Synonyms out of which 6 are to be attempted. This will carry 6 marks.

Detailed Syllabus for the Examination to be held in year 2017, 2018, 2019.
Semester II

Course Title: English

Credits: 6

Course Code: UENTC201

M.M: 100

Semester End Examination: 80

Internal Assessment: 20

Duration of Exam: 3hrs

SYLLABUS

Unit-I: Prose

- J C Hill: Good Manners
- Joseph Addison: Sir Roger at the Theatre
- M. K. Gandhi: Playing the English Gentleman
- Vinobha Bhave: The Task of Education

Unit-II: Poetry

- William Shakespeare: My Mistress' Eyes are Nothing Like the Sun
- Emily Dickinson: Success is Counted Sweetest
- John Keats: Ode to Autumn
- *Lal Ded: Vakh No. 118-121* (Ranjit Hoskote's Translation)

Unit-III: Tales from Shakespeare

- Charles and Mary Lamb: Midsummer Night's Dream

Unit- IV: Reading, Writing & Speaking Skills

- a. Paragraph Writing
- b. Syllables and word stress, Disyllabic and Tri-syllabic words

Unit-V: Applied Grammar

- a. Tenses
- b. Word formation (e.g. noun to verb, adjective, adverb etc.)

Book Prescribed:

The Pierian Spring. Orient Black Swan.

Mode of Examination

Internal Assessment Test:

Syllabus to be covered: upto 50% ; Time allotted: 1 Hour; Marks % Weightage: 20% (20 Marks)

10 Short answer type Questions of 2 mark each shall be given which may include some multiple choice questions, fill in the blanks, one word answer questions. (10x2=20)

External End Semester University Examination:

Section-A

This section will cover units I to III and will have three long answer type questions for 10 marks each with internal choice. The prescribed word limit will be 250-300 words.

Section-B

This section will cover units I to III and will have five short answer questions. The candidates will be required to attempt any three. Each question will be for 6 marks and the prescribed word limit will be 60-80 words.

Section-C

This section will have two questions of 16 marks each.

The first question will have two parts.

In the first part outline of a passage with internal choice will be given which is to be developed by the students into a meaningful paragraph of 100 words. This will carry 10 marks.

The second part will examine the candidate's knowledge of sounds Syllables and word stress, and Disyllabic and Tri-syllabic words by indentifying the sounds of the underlined alphabets of the word and carry 6 marks. The examiner will give 10 words out of which 6 are to be solved.

The second question will also have two parts and will be set from the prescribed text book. A running passage will be given with 10 blanks, each having a verb in brackets. Candidates will have to use the appropriate tense form of the given word. This will carry 10 marks. The second part will have 10 Words for the formation of words (e.g. noun to verb, adjective, adverb etc.) out of which 6 are to be attempted. This will carry 6 marks.

Annexure V

Detailed Syllabus for the Examination to be held in year 2016, 2017, 2018 **Semester I**

Course Code: UELTC101

Title: English Literature

Credit: 6

Maximum Marks: 100

Semester End Examination: 80

Internal Assessment: 20

Duration of Examination: 03 Hrs.

OBJECTIVE: The objective of this paper is to acquaint the learners with the beginnings of English literature and to familiarize them with the figures of speech & literary terms required to be understood for understanding various literary works prescribed here, especially in poetry, prose and drama.

UNIT-I: INTRODUCTION TO LITERARY TERMS:

Alliteration, Assonance, Imagery, Metaphor, Simile, Rhyme, Blank Verse, Meter, Couplet, Prologue, Epilogue, Personification, Soliloquy, Farce, Satire, Irony.

UNIT-II: HISTORY OF ENGLISH LITERATURE: OLD & MIDDLE ENGLISH LITERATURE

- Literature in the Age of Chaucer,
- Literature of the Revival,
- Origin of Drama
- University Wits.

UNIT-III: POETRY

- Chaucer: Selections from Prologue – Characters of Wife of Bath and Monk

UNIT-IV: SONNET

- Development of English Sonnet
- Sir Thomas Wyatt: ‘Whose List to Hunt’
- Philip Sydney: O Grammar Rules (Sonnet 63)

UNIT-V: DRAMA

- Christopher Marlowe: *Dr. Faustus*.

MODE OF EXAMINATION:

Internal Assessment Test:

Syllabus to be covered: upto 50% ; Time allotted: 1 Hour; Marks % Weightage: 20% (20 Marks)

10 Short answer type Questions of 2 mark each shall be given which may include some multiple choice questions, fill in the blanks, one word answer questions.
(10x2=20)

External End Semester University Examination:

THIS PAPER WILL BE DIVIDED INTO SECTIONS A, B & C.

SECTION A: MULTIPLE CHOICE QUESTIONS

Section A will have 12 MCQs covering all the Units. Students will write the correct answers of any 8 in the answer sheets. (8 X 1=8 MARKS).

SECTION B: SHORT ANSWER TYPE QUESTIONS

Section B will have short answer questions from Unit I to Unit V. Four out of Five questions will have to be attempted by the students. (4 X 4=16 MARKS)

SECTION C: LONG ANSWER TYPE QUESTIONS

Section C will have four long answer type questions from Unit II to Unit V with internal choice from the same unit. Candidate will be required to attempt all in about 250 – 300 words.
(14x4=56 MARKS)

Suggested Readings:

1. History of English Literature by Legouis and Cazamian
2. A Critical History of English Literature Vol-I by David Daiches
3. English Literature by William J. Long

4. A History of English Literature by Michael Alexander; Macmillan Press Ltd. 2000
5. The Short Oxford History of English Literature by Andrew Sanders; Clarendon Press , Oxford 1994
6. Peck, John & Martin, Coyle. A Brief History of English Literature. New York. Palgrave, 2004.
7. A Glossary of Literary Terms by M H Abrams
8. A Dictionary of Literary & Thematic Terms by Edward Quinn
9. Rose Murfin & Supriya M. Ray. A Bedford Glossary of Critical and Literary Terms. New York: MacMillan, 1998.
10. J.W. Lever. The Elizabethan Love Sonnet. London. Methuen, 1956.

Detailed Syllabus for the Examination to be held in year 2017, 2018, 2019
Semester II

Course Code: UELTC201

Title: English Literature

Credit: 6

Maximum Marks: 100

Semester End Examination: 80

Internal Assessment: 20

Duration of Examination: 03 Hrs.

UNIT-I: INTRODUCTION TO LITERARY TERMS:

Comedy, Tragedy, Aside, Climax, Anti-climax, Catharsis, Pun, Chorus, Comic relief, Peripeteia, Aphorism, Baroque, Ciceronean Prose Style, Anaphora, Monologue

UNIT-II: HISTORY OF ENGLISH LITERATURE: ELIZABETHAN LITERATURE

- Characteristics of Elizabethan Literature
- Trends in Elizabethan Poetry
- Trends in Elizabethan Prose
- Development of Drama till Shakespeare
- Characteristic of Romantic Comedy.

UNIT-III: PROSE

Bacon: 'Of Youth and Age'

UNIT-IV: POETRY

Spenser: *Prothalamion*

Shakespeare: Sonnet XV

UNIT V: ROMANTIC COMEDY

William Shakespeare: *As You Like It*

MODE OF EXAMINATION:

Internal Assessment Test:

Syllabus to be covered: upto 50% ; Time allotted: 1 Hour; Marks % Weightage: 20% (20 Marks)

10 Short answer type Questions of 2 mark each shall be given which may include some multiple choice questions, fill in the blanks, one word answer questions. (10x2=20)

External End Semester University Examination:

THIS PAPER WILL BE DIVIDED INTO SECTIONS A, B & C.

SECTION A: MULTIPLE CHOICE QUESTIONS

Question no. 1 will have 12 MCQS covering all the units. Students will write correct answers of any 8 in the answer sheets..... (8x1=8 marks).

SECTION B: SHORT ANSWER TYPE QUESTIONS

Section B will have short answer questions from Unit I to Unit V. Four out of Five questions will have to be attempted by the students.

(4 X 4=16 MARKS)

SECTION C: LONG ANSWER TYPE QUESTIONS

Section C will have four long answer type questions from Unit II to Unit V with internal choice from the same unit. Candidate will be required to attempt all in about 250 – 300 words.

(14x4=56 MARKS)

Suggested Reading:

Boris Ford. The Age of Shakespeare.U.S.A. Penguin Books Pvt. Ltd, 1993.

H.B. Charlton. Shakespearean Comedy. Routledge Kegan and Paul,1966.

Annexure VI

Detailed Syllabus for the Examination to be held in year 2016, 2017, 2018 **Semester I**

Course Code: UFETC101

Title: Functional English

Credit: 6

Maximum Marks: 100

Semester End Examination: 80

Internal Assessment: 20

Duration of Examination: 03 Hrs.

SYLLABUS

Unit-I

What is communication, objectives and principles of effective communication.
Types of communication. Formal and Informal communication.

Unit-II

The organs of speech and air-stream mechanism. The classification and description of speech sounds i.e. consonants and vowels.

Unit-III

Articles, verbs-Transitive, Intransitive, regular and irregular, subject-verb concord, linking verbs, helping verbs and Negative verbs.

Unit-IV

Tenses and their uses, Active and Passive voice, Question tags.

Mode of Examination

Internal Assessment Test:

Syllabus to be covered: upto 50% ; Time allotted: 1 Hour; Marks % Weightage:
20% (20 Marks)

10 Short answer type Questions of 2 mark each shall be given which may include some multiple choice questions, fill in the blanks, one word/ line answer questions. (10x2=20)

External End Semester University Examination:

The paper will be divided into four sections. Each section will have two questions. Each question will be of 10 marks.

Section A will have two questions from **Unit-I** with internal choice.

Section B will have two questions from **Unit-II** with internal choice.

Section C will have two questions from **Unit-III** with no internal choice. However choice may be given within the question.

Section D will have two questions from **Unit-IV** with no internal choice. However choice may be given within the question.

PRACTICUM

Total Marks=50

Distribution of Marks

Internal - 25 Marks

Test -15 Marks

Presentation- 5 Marks

Attendance- 5Marks

External – 25 Marks

Test- 15 Marks

Viva – 10 Marks

Syllabus

1. Individual Presentation, Debates, Extempore
2. Practice of Listening, Speaking and Reading

3. Power Point Presentations

4. Practice of Sounds i.e. Vowels and Consonants

5. Exposure of British and American English spelling and Pronunciation.

Suggested Reading:

- Spoken English – A Foundation Course Part A & B by Kamlesh, Susheela Punitha.
- Speaking on Special Occasions: Roger Mason.
- Speaking English Effectively: Krishna Mohan, N. P. Singh.
- Communication in English by Bhatnagar & Bell Orient Black Swan.
- Advance Writing Skills by A. John & J. Harmer Longman 1979
- Spoken English and Broken English, Linguaphone Institute.

Detailed Syllabus for the Examination to be held in year 2017, 2018, 2019.
Semester II

Course Code: UFETC201

Title: Functional English

Credit: 6

Maximum Marks: 100

Semester End Examination: 80

Internal Assessment: 20

Duration of Examination: 03 Hrs.

SYLLABUS

Unit-I

Phonetic Transcription, word stress and its functions.

Unit-II

Syllable: an introduction, accent and rhythm in connected speech. Intonation pattern and uses of falling tone, rising tone and falling-rising tone.

Unit-III

Transformation of sentences, difficulties with comparative and superlative. Confusion of adjectives and adverbs, adverbial use of 'No', 'None' and 'N.A.'

Unit-IV

The Prop. Word one, prepositions redundant, the use of correlatives, use of 'who', 'Whom', 'much', 'many', 'still', 'yet', 'so that', 'so as', 'make' and 'do'. Errors in the use of individual words the courtesy words, 'please', 'thank you', 'date', 'time', and greetings'.

Mode of Examination

Internal Assessment Test:

Syllabus to be covered: upto 50% ; Time allotted: 1 Hour; Marks % Weightage: 20% (20 Marks)

10 Short answer type Questions of 2 mark each shall be given which may include some multiple choice questions, fill in the blanks, one word/ line answer questions. (10x2=20)

External End Semester University Examination:

The paper will be divided into four sections. Each section will have two questions. Each question will be of 10 marks.

Section A will have two questions from **Unit-I** with internal choice.

Section B will have two questions from **Unit-II** with internal choice.

Section C will have two questions from **Unit-III** with no internal choice. However choice may be given within the question.

Section D will have two questions from **Unit-IV** with no internal choice. However choice may be given within the question.

PRACTICUM

Total Marks=50

Distribution of Marks

Internal - 25 Marks

Test -15 Marks

Presentation- 5 Marks

Attendance- 5Marks

External – 25 Marks

Test- 15 Marks

Viva – 10 Marks

Syllabus

1. Practice of Word stress.
2. Practice of accent and rhythm

3. Practice of Intonation.
4. Group discussion/ Brain storming session

Suggested Reading:

- Spoken English – A Foundation Course Part A & B by Kamlesh, Susheela Punitha.
- Speaking on Special Occasions: Roger Mason.
- Discourse Analysis, OUP Text Book Series.
- Writing Tasks by D. Jolly OUP
- Modern English Structure by B. Strange
- The Routledge Handbook of Language and Professional Communication by Vijay Bhatia, Stephen Bremner. Routledge Publishing House.

Annexure III

Detailed Syllabus for the Examination to be held in year 2016, 2017, 2018

Course Title: Communication English-I

Credits: 2

Course Code: UCETS101

M.M: 50

Unit-I: Listening and Speaking

- Listening Skills [Active, passive, interpretive, Accent]
- Speaking Skills [Stress, Intonation, Assertion, Rhetorical questions, Exclamation, Emphasis]
- Conversations [Formal, Informal, Telephonic]
- Interviews [Essentials, Dos and Don'ts, Body Language]

Unit-II: Reading and understanding

- Reading Comprehension
- Paraphrasing
- Analysis and Interpretation

Unit-III: Writing Skills

- Letter writing
- Public Notice
- Advertisements

Unit-IV: Grammar Skills

- Parts of Speech: Using the same word as different parts of Speech, Correct use of verbs and articles
- Vocabulary: Homonyms, Homophones; Words often confused

Mode of Examination:

Internal Assessment Test:

Syllabus to be covered: upto 50% ; Time allotted: 1 Hour; Marks % Weightage: 20% (10 Marks)

10 Short answer type Questions of 1 mark each shall be given which may include some multiple choice questions, fill in the blanks, one word answer questions.
(10x1=10)

External End Semester University Examination:

Section A

Five short answer type questions of 1 mark each shall be given which may include multiple choice questions, fill in the blanks, one word answer questions. (5x1=5)

Section B

Three medium answer type questions of 5 marks each. The examiner will set four questions out of which the candidate will be required to attempt any three.
(5x3=15)

Section C

Two long answer type questions of 10 marks each. The examiner will set three questions out of which the candidate will be required to attempt any two.
(10x2=20)

Suggested Readings:

Rani, Kandula Nirupa, Jayshree Mohanraj and Indira Babbellapati. Eds. *Speak Well*. Delhi: Orient Black Swan.

Essential Communication Skills: A Multi Course for English Communication. MacMillan Publishers India Pvt. Limited.

Taylor, Ken. *Telephone and Teleconferencing Skills*. Delhi: Orient Black Swan.

English at Workplace. Part II, Delhi: Oxford University Press, 2007.

Hewing, Martin. *Advanced English Grammar*. New Delhi: Cambridge University Press, 2010.

Detailed Syllabus for the Examination to be held in year 2017, 2018, 2019.

Course Title: Communication English-II

Credits: 2

Course Code: UCETS201

M.M: 50

Unit-I: Reading and Presentation Skills

- Reading Skills: Decoding, Comprehension& Retention, Reading Techniques, Reading Problems, Close reading
- Public speaking skills (preparation, Vocal control , time management & handling questions)
- Oral Presentation, Debates, Elocution and Extempore, Demonstration, Conversation

Unit-II : Writing Skills

- Report Writing
- Writing a Paragraph

Unit-III: Technical and Modern Communication

- Writing a proposal
- Preparing a Resume
- Book/ Film Reviews
- E-mails
- Blogs and comments on social media

Unit-IV: Grammar

- Punctuation and Capitalization
- Corrections (Noun, Pronoun, Adjective and Adverb); Common Errors in the use of English

Mode of Examination:

Internal Assessment Test:

Syllabus to be covered: upto 50% after 45days; Time allotted: 1 Hour; Marks %
Weightage: 20% (10 Marks)

10 Short answer type Questions of 1 mark each shall be given which may include some multiple choice questions, fill in the blanks, one word answer questions.
(10x=10)

External End Semester University Examination:

Section A

Five short answer type questions of 1 mark each shall be given which may include multiple choice questions, fill in the blanks, one word answer questions. (5x1=5)

Section B

Three medium answer type questions of 5 marks each. The examiner will set four questions out of which the candidate will be required to attempt any three.
(5x3=15)

Section C

Two long answer type questions of 10 marks each. The examiner will set three questions out of which the candidate will be required to attempt any two.

Suggested Readings:

Interactive English. Macmillan Publishers India Ltd.

Baber, Eric. *Business English, Using the Internet*. Delhi: Orient Black Swan.

Wood, J. *Interpersonal Communication: Everyday Encounters*. Boston, MA: Wadsworth-Cengage Learning, 2010.

Raydu, C.S. *Developing Communication Skills*. Himalaya Publishing House, 2012.

Hewing, Martin. *Advanced English Grammar*. New Delhi: Cambridge University Press, 2010.

GENERAL ENGLISH

SEMESTER-III

Syllabus for the Examination to be held in Dec. 2015, 2016 & 2017

Course No. AA 301 (Theory)

Duration of Exam: 3 hrs.

Title - General English

Total Marks: 100

Semester End Examination: 80

Internal Assessment: 20

Objective: The objective of this paper is to develop the comprehension, reading, writing skills of the students through a study of literature and language. This would stimulate and sharpen their aesthetic sensibility by a study of the selected English prose, poems and short stories.

UNIT I: Essays

- | | |
|--|-------------------------|
| i) Go Kiss the World | ----- Subroto Bagachi |
| ii) Don't be Sorry for Yourself | ----- A.J. Cronin |
| iii) Spoken English and Broken English | ----- G.B. Shaw |
| iv) Early Modern English | ----- Dr K Radha Kumari |

UNIT II: Poems

- | | |
|--------------------|---------------------|
| i) The Lotus | ----- Toru Dutt |
| ii) London | ----- William Blake |
| iii) Habba Khatoon | ----- Habba Khatun |
| iv) Migrations | ----- Keki Daruwala |

UNIT III: Short Stories

i) The Gold Frame

----- R.K. Laxman

ii) Miyan's Farm

----- Krishna Prem

UNIT IV: Grammar

i) Articles

ii) Punctuation and Capitalization

iii) Change of voice

iv) Modals and auxiliary verbs

UNIT V: Reading, Writing and Speaking Skills

i) Ways of Reading, Rules of word stress

ii) Transcriptions of words

iii) Précis Writing

Mode of Examination

Section A

This section will cover units I to III and will have three long answer type questions for 10 marks each with internal choice. The prescribed word limit will be 250-300 words.

Section-B

This section will cover units I to III and will have five short answer questions. The candidates will be required to attempt any three. Each question will be of 6 marks and the prescribed word limit will be 60-80 words.

Section – C

This section will have two questions of 16 marks each.

The first question will have four parts of four marks each. In each part seven questions will be asked and the students will attempt four out of seven.

The second question will have three parts. The first two parts will be of four marks each and will deal with part i and ii of Unit V. In each part seven questions will be set and the candidate will attempt any four in each part. The third part will be set on précis writing and will carry eight marks.

The questions will be set from the prescribed text book.

Suggested Reading:

- 1) *Spoken English and Broken English*, Linguaphone Institute.
- 2) *Indian Writing in English* by K.R. Srinivasa Iyengar. Sterling publisher.
- 3) *William Blake's London: An Interpretation* by Samir Mazarweh. Grin Verlag publishers.
- 4) *Habba Khatoon: The Nightingale of Kashmir* by S.N. Wakhlu Roli Books Private Ltd.
- 5) *An Anthology of Commonwealth Poetry* by C.D. Narasimhaiah. Macmillan India.
- 6) *Fantasy: A Collection of Short Stories* by V. Sasikumar. Orient Longman Pvt. Ltd.
- 7) *Comprehensive English Grammar and Composition* by S.C. Gupta. Arihant Prakashan.
- 8) *The Routledge Handbook of Language and Professional Communication* by Vijay Bhatia, Stephen Bremner. Routledge Publishing house.

ENGLISH LITERATURE

SEMESTER-III

Syllabus for the Examination to be held in Dec. 2015, 2016 & 2017

Course No. EL 301(Theory)

Duration of Exam: 3 hrs.

Title -English Literature

Total Marks: 100

Semester End Examination: 80

Internal Assessment: 20

Objective: The objective of this paper is to acquaint the students with the English milieu and literature written during seventeenth century with special reference to prose, drama and cavalier, puritan and metaphysical poetry. Through the in-depth study of *Macbeth* the students will be able to understand Shakespearean tragedy. They will also study poetry from 1600 to 1660 with special reference to the prominent poets like John Donne, Andrew Marvel, John Milton and John Suckling.

Unit I

Literary terms:

Aestheticism, Alazon, Agon, Eiron, Black Comedy, Pastoral, Pathetic Fallacy, Fable, Picaresque, Metonymy, Slipslop, Meiosis, Parable.

Unit II

History:

- ❖ Development of Tragedy till Shakespeare.
- ❖ Literature in the age of Charles I (Prose, Drama, Cavalier and Metaphysical Poetry)
- ❖ The Puritan Prose.

❖ The Puritan Poetry.

Unit III

Drama:

William Shakespeare: *Macbeth* (Detailed) References.

Unit IV

Poetry:

John Donne: *The Flea*

Andrew Marvell: *To His Coy Mistress*

John Milton: *On His Blindness*

John Suckling: *A Ballad Upon a Wedding*

Mode of Examination:

The Paper will be divided into Sections A, B & C

Section -A: Multiple Choice Questions

Section A will have 12 MCQs covering all the units. Students will write the correct answers of any 8 in the answer sheets. (8x1=8 Marks)

Section- B: Short answer type questions

Section B will have short answer questions from Unit I to Unit V. Four out of Five will have to be attempted by the students. (4x4=16 Marks)

Section-C: Long Answer type questions

Section C will have four long answer type questions from Unit II to Unit V with internal choice from the same unit. Candidate will be required to attempt all in about 250-300 words. (14x4=56 Marks)

Suggested reading:

- 1) *A Glossary of Literary terms* Eleventh Edition by M.H. Abrams, Geoffrey Harpham. Cengage Learning.
- 2) *History of English Literature* by N. Jayapalan. Atlantic Publishers.
- 3) *A Compendious History of English Literature* by R.D. Trivedi. Vikas Publication house.
- 4) *A literary History of England: The Restoration and Eighteenth Century (1660-1789)* by G. Sherburne and D.F. Bond. Albert Croll Baugh.
- 5) *William Shakespeare's Macbeth: A source book* Ed. Alexander Leggatt. Routledge Guides to Literature.
- 6) *John Donne The Flea and Andrew Marvell To His Coy Mistress* by Daniela Schulze. Grin Publishers.
- 7) *John Milton: A Short Introduction* by Roy Flannagan. Blackwell Publication.
- 8) *The Facts on File Companion to British Poetry: 17Th and 18th Centuries* by Virginia Brackett. Infobase publication.

FUNCTIONAL ENGLISH

SEMESTER-III

Syllabus for the Examination to be held in Dec. 2015, 2016 & 2017

Course No. FE 301

Duration of Exam: 3 hrs.

Theory: 100

Practical: 50

Title – Functional English

Total Marks: 150

Semester End Examination: 80

Internal Assessment: 20

Internal 25

External 25

Objective: The objective of this Paper is to enhance the communication ability of the students by introducing situational conversation, strategies of advanced writing skills and also the figurative aspect of English language. They will also be introduced to the skill of copywriting and to improve the competitive skills required in the job market.

Unit-I:- Developing Conversational Ability-

Introducing Self, Meeting and Greeting people, Welcoming visitors, Fixing an appointment, Making/ receiving a telephone call, At the office, At the reception / enquiry counters, At the airport / railway station, At the restaurant, At the travel agency, At the doctor's clinic, At the Chemist, At the hospital At the bank, At the police station.

Unit-II:- Advanced writing skills-

Reports and Factual descriptions- Sports, Accidents, Political; Press release, News items.

Unit-III:- Comprehension, Paragraph writing with imaginative use of words as simile, metaphor, irony, satire, personification.

Unit-IV:- Copywriting-

Language of advertisement-commercial and classified ads; Notice/Poster Writing.

Mode of Examination:

The question paper will contain 8 questions in all with an internal choice and all are to be attempted. Two questions from each unit with internal choice to be set. Each question will carry 10 marks.

PRACTICUM

Role Playing/ Enactment for, e.g. Doctor- patient, salesman-customer.

Pictorial development of stories

Development of Posters, Collage making etc.

Field Visit: visit to any newspaper/media house

One Workshop on Basic Computer Learning

Suggested Reading

- ❖ **Spoken English-A Foundation course**
Part A & B- by Kamlesh ; Susheela Punitha
- ❖ **Speaking on Special Occasions: Roger Mason**
- ❖ **Speaking English Effectively: Krishna Mohan, N. P. Singh**
- ❖ **Communication in English (Orient Longman): Bhatnagar & Bell**
- ❖ **Hedge, T. 1988, Writing, OUP**
- ❖ **John, A. And Harmer, J. 1979, Advance writing Skills, Longman.**
- ❖ **Jolly, D. Writing Tasks, OUP**
- ❖ **Extensive Use of Newspapers Magazines, VCR and TV in the class is highly recommended.**
- ❖ **Halliday & Beangrade An introduction to Text Analysis, Longman**
- ❖ **Discourse Analysis, OUP Text Book Series.**

- ❖ **University Grammar of English**
- ❖ **A Fundamental Grammar of English.**
- ❖ **Strange, B. Modern English Structure.**

GENERAL ENGLISH

SEMESTER-IV

Syllabus for the Examination to be held in May 2016, 2017 & 2018

Course No. AA 401 (Theory)

Duration of Exam: 3 hrs.

Title - General English

Total Marks: 100

Semester End Examination: 80

Internal Assessment: 20

Objective: The objective of this paper is to develop the comprehension, reading, writing skills of the students through a study of literature and language. This would also stimulate and sharpen their aesthetic sensibility by a study of the selected English prose, poems and one act plays.

UNIT I: ESSAYS

- | | |
|--|----------------------|
| i) Our muddled Generation | ----- Dinesh Kumar |
| ii) On Exercise of Fans | ----- Joseph Addison |
| iii) Position of Women in Ancient India
Gupta | ----- Padmini Sen |
| iv) Why I Write | ----- Mulk Raj Anand |

UNIT II: Poems

- | | |
|--------------------------------|----------------------|
| i) The Crutches | ----- Bertolt Brecht |
| ii) The Diameter of the Bomb | ----- Yehuda Amichai |
| iii) An Abandoned Dusk | ----- Yash Sharma |
| iv) Daffodils, The New Version | ----- David Cram |

UNIT III: One Act Play

UNIT IV: GRAMMAR

- i) Direct/ Indirect Speech
- ii) The infinitive and the -ing form

UNIT V: Reading, Writing and Speaking Skills

- i) Speech Patterns
- ii) Letter Writing, Job Application, CV

Mode of Examination

Section A

This section will cover units I to III and will have three long answer type questions for 10 marks each with internal choice. The prescribed word limit will be 250-300 words.

Section-B

This section will cover units I to III and will have five short answer questions. The candidates will be required to attempt any three. Each question will be of 6 marks and the prescribed word limit will be 60-80 words.

Section – C

This section will have two questions of 16 marks each.

The first question will have two parts based on direct/indirect and the infinitive and –ing form respectively and each part will carry eight marks. In each part twelve questions will be set out of which the candidate would be required to attempt eight.

The second question will have two parts of eight marks each with internal choice and will test the candidate on (i) speech patterns and (ii) Letter Writing, Job Application, CV.

The questions will be set from the prescribed text book.

Suggested Reading:

- 1) *The Spectator: With Notes, and a General Index* by Joseph Addison, Sir Richard Steele. Google Books.
- 2) *Women in India* by Padmini Sen Gupta. Google Books.
- 3) *Indian Writing in English* by K.R. Srinivasa Iyengar. Sterling Publisher.
- 4) *The Selected poetry of Yehuda Amichai* by Yehuda Amichai, C.K. Williams. University of California Press.
- 5) *The Collected Plays of G.B. shaw (Illustrated)* by G.B. Shaw E-artnow Publishers.
- 6) *Oxford Guide to English Grammar*. John Eastwood. OUP.
- 7) *English Grammar in Steps*. David Bolton and Noel Goodey. Richmond Publishing
- 8) *The Literacy Cookbook: A Practical Guide to Effective Reading, Writing, Speaking, and Listening Instruction* by Sarah Tantillo. Jossey Bass Publishers.

ENGLISH LITERATURE

SEMESTER-IV

Syllabus for the Examination to be held in May 2016, 2017 & 2018

Course No. EL 401(Theory)

Title - English Literature

Duration of Exam: 3 hrs.

Total Marks: 100

Semester End Examination: 80

Internal Assessment: 20

Objective: The objective of this paper is to introduce the students to the main literary developments in England during the Restoration period. The students will be introduced to the emerging genre of prose fiction with reference to the pioneer of the English fiction John Bunyan. The paper will also make students familiar with Restoration poetry through John Dryden and Restoration comedy through William Congreve.

Unit I

Literary Terms:

Comedy of manners, Masque, Malapropism, Maxim, Slapstick, Melodrama, Parody, Repartee, Bombast, Grotesque.

Unit II

History of English Literature (1660-1700)

- ❖ Characteristics of Restoration Drama.
- ❖ Characteristics of Restoration Prose and Fiction.
- ❖ Characteristics of Restoration Poetry.

Unit III

John Bunyan: *Life and Death of Mr. Badman*

Unit IV

John Dryden: *Mac Flecnoe*

Unit V

William Congreve: *Love for Love (Drama)*

Mode of Examination:

The Paper will be divided into Sections A, B & C

Section -A: Multiple Choice Questions

Section A will have 12 MCQs covering all the units. Students will write the correct answers of any 8 in the answer sheets. (8x1=8 Marks)

Section- B: Short answer type questions

Section B will have short answer questions from Unit I to Unit V. Four out of Five will have to be attempted by the students. (4x4=16 Marks)

Section-C: Long Answer type questions

Section C will have four long answer type questions from Unit II to Unit V with internal choice from the same unit. Candidate will be required to attempt all in about 250-300 words. (14x4=56 Marks)

Suggested reading:

- 1) *A Glossary of Literary terms* Eleventh Edition by M.H. Abrams, Geoffrey Harpham. Cengage Learning.
- 2) *History of English Literature* by N. Jayapalan. Atlantic Publishers.

- 3) *A Compendious History of English Literature* by R.D. Trivedi. Vikas Publication house.
- 4) *A literary History of England: The Restoration and Eighteenth Century (1660-1789)* by G. Sherburne and D.F. Bond. Albert Croll Baugh.
- 5) *Life and Death of Mr. Badman and The Holy War* by John Bunyan and John Brown. Cambridge Publication.
- 6) *John Dryden: A Survey and Bibliography of Critical Studies, 1895-1974* by David J. Latt, Samuel Holt Monk. Minnesota Archive Edition.
- 7) *The Critical Heritage: William Congreve* Ed. Howard Erskine-Hill, Alexander Lindsay. Routledge Publication.

FUNCTIONAL ENGLISH

SEMESTER-IV

Syllabus for the Examination to be held in May 2016, 2017 & 2018

Course No. FE 401

Duration of Exam: 3 hrs.

Theory: 100

Practical: 50

Title – Functional English

Total Marks: 150

Semester End Examination: 80

Internal Assessment: 20

Internal 25

External 25

Objective: This course aims to further enhance the spoken and writing skills by introducing students to various drafting techniques required in the professional world. They will also be introduced to the field of Radio/ TV anchoring.

Unit-I:- Developing Conversational Ability-

Formal Interviews, Booking a room in a hotel, Seeking permission, Seeking/ Giving advice and making suggestion. Persuading and dissuading people, Expressing hopes / wishes/regrets/concerns, Congratulating people, Expressing sympathy and offering condolences, making an apology, making a request.

Unit-II:- Formal Letter Writing-

Official/Business/Letters to the editor /letters of request / placing orders/ giving reminders /making complaints / orders/ circulars.

Unit-III:- Precis writing , Speech writing , Article writing-

Unit-IV:- Fundamentals of Radio/ T.V. Anchoring.

Writing scripts for T.V and Radio Programmer/ Radio Jockey.

PRACTICUM

Group Discussion

Role playing/ Enactment

Field visit: visit to Radio/ T.V. station

Workshop on T.V. / Radio

Mode of Examination:

The question paper will contain 8 questions in all with an internal choice and all to be attempted. Two questions from each unit with internal choice to be set. Each question will carry 10 marks.

Suggested Reading

❖ Spoken Foundation course

Part A & B- by English-A Kamlesh ; Susheela Punitha

❖ Speaking on Special Occasions: Roger Mason

❖ Speaking English Effectively: Krishna Mohan, N. P. Singh

❖ Communication in English (Orient Longman): Bhatnagar & Bell

❖ Hedge, T. 1988, writing OUP

❖ John, A. And Harmer, J. 1979, Advance writing Skills Longman.

❖ Jolly, D. Writing Tasks, OUP

❖ Extensive Use of Newspapers Magazines, VCR and TV in the class is highly recommended.

❖ Halliday & Beangrade An introduction to Text Analysis, Longman

❖ Discourse Analysis, OUP Text Book Series.

❖ University Grammar of English

❖ A Fundamental Grammar of English.

❖ Strange, B. Modern English Structure.

GENERAL ENGLISH

SEMESTER-V

Syllabus for the Examination to be held in Dec. 2016, 2017 & 2018

Course No. AA 501 (Theory)

Duration of Exam: 3 hrs.

Title - General English

Total Marks: 100

Semester End Examination: 80

Internal Assessment: 20

Objectives:- The objective of the course is to develop reading and comprehension skills of the students by a study of selected texts. This course is designed to familiarize the students with some basics of literature and language to equip them to appreciate various genres of literature and nuances of language.

Unit-1 Novel: Ernest Hemingway: *Old Man and the Sea* (non detailed).

Unit-2 Poetry: The following poems are prescribed

- a) William Blake: The Tyger
- b) Alfred, Lord Tennyson :The Lady of Shallot
- c) Robert Browning: The Last Ride Together
- d) Nissim Ezekiel: The Poet, Lover and Birdwatcher
- e) William Shakespeare: Poet, Lover and Lunatic

Unit-3 Report Writing

Unit-4 Grammar/Language skills

- | | |
|---------------|---------------------------|
| a) Intonation | b) Subject-Verb Agreement |
| c) Eponyms | d) Homophones |
| e) Homonyms | f) Corrections |

Mode of Examination:

Q.no1 will be a reference to the context type question from Unit-2. The candidates will attempt any three out of five sections. **(5×3=15marks)**

Q.No 2 will have two long answer type questions with internal choice from Unit 1.
(Word Limit 250 word each) **(7×2=14 marks)**

Q.No. 3 Will have one long answer type question with internal choice from Unit 2.
(Word Limit 350 word) **(10×1=10 marks)**

Q.No. 4 Will be based on report writing. The examiner shall provide internal choice to the students. (Word Limit 250 word) **(10×1=10)**

Q.No 5 shall be divided as:-

a) Intonation: five sentences will be set to locate tone and the associated meaning with that intonation. **(5×1=5 marks)**

b) Subject-verb agreement: A running paragraph of ten blanks will be set by the examiner. The examiner shall be required to reproduce it with the appropriate form of verbs provided in the brackets. **(5×1=5 marks)**

c) Eponym: Five problems of multiple choice nature shall be set. The candidates shall rewrite all of them with appropriate illustration in the answer sheet. **(5×1=5 marks)**

d) Homophones: The candidates shall use all the five pairs of homophones in sentences to bring out the difference in their meaning. **(5×1=5 marks)**

e) Homonyms: The candidates shall use all the five pairs of homophones in sentences to bring out the difference in their meaning. The same form of words given needs to be used in the sentences. **(5×1=5marks)**

f) Corrections: Six sentences will be set. The candidates will attempt all by rewriting the incorrect and correct version. **(6×1=6 marks)**

ENGLISH LITERATURE

SEMESTER-V

Syllabus for the Examination to be held in Dec. 2016, 2017 & 2018

Course No. EL 501 (Theory)

Duration of Exam: 3 hrs.

Title - English Literature

Total Marks: 100

Semester End Examination: 80

Internal Assessment: 20

Objective:

The objective of teaching this paper is to acquaint the learners with yet another important period in the history of English literature which finds various important literary movements and diverse literature written in English. Augustan age is important for its prosaic productions & for a consequent revolt in form of a movement called Romanticism. The period under study also saw emergence of an indigenous genre which flourished as the most popular genre ever since called novel. We have also prescribed some representative works of this period. Learners are advised to read other works also to get a thorough knowledge about this period.

Unit I : Literary Terms

Augustan Age, Heroic Couplet, Romanticism, Medievalism, Imagism, Age of Transition, Ottava Rima, Negative Capability, Satire, Verse-Satire, Mock-epic, Romances, Novella, Novel, Plot, Characterization, Gothic novel & Sentimental Novel.

Unit II: History of English Literature: 1700 to 1830

- Trends in Neo-classical Poetry
- Characteristics of Neo-Classical Prose
- History and Development of English Satire.
- Features of Romantic School of Poetry

- Rise & Development of English Novel till 1830.

Unit III : Prose

Jonathan Swift: A Modest Proposal

Joseph Addison: No. 135: The English Language [from The Spectator]

Samuel Johnson: ***History of Translation***

Charles Lamb: *Imperfect Sympathies*

Unit IV: Novel

Henry Fielding: Tom Jones

Unit V: Poetry

William Blake: London

Percy Bysshe Shelley: Song to the Men of England

John Keats: To Autumn

Walter Scott: Lochinvar

Mode of Examination:

The internal as well as external examination shall have a uniform pattern covering Objective type, short answer type & long answer type questions covering the entire syllabus. The distribution of marks shall be as:

- Internal examination: 20 marks
- Semester End Examination: 80 marks

Q.No 1 shall comprise of 15 multiple choice questions from all units . Students will be required to answer all by re-writing them in their answer sheets.

.....15 marks

Q.No 2 shall cover short answer questions from Unit –I . Four out of five questions of five marks each shall be attempted. The examiner shall test in depth understanding of the examinees who will be required to answer with two illustrations each. The division of marks shall be: Definition= 2marks, two

illustrations of 1.5 marks each.

.....20 marks

Q.No 3, 4 & 5 shall be long answer in nature out of Unit-II, III, IV & V . Three out of four questions to be attempted. Answers shall not exceed 350 words each but shall also not be of inadequate length.....15 marks each.

Note: The examiner shall cover all the units uniformly in Q.no 1, 3, 4 & 5.

.....

Suggested Reading:

1. *History of English Literature* by Legouis and Cazamian (MacMillan India Ltd)
2. *A Critical History of English Literature Vol-II* by David Daiches
3. *English Literature* by William J. Long (Kalyani Publishers)
4. *A History of English Literature* by Michael Alexander; MacMillan Press Ltd. 2000
5. *The Short Oxford History of English Literature* by Andrew Sanders: Clarendon Press, Oxford 1994
6. Peck, John & Martin , Coyle . *A Brief History of English Literature* .New York . Palgrave, 2004.
7. *A Glossary of Literary Terms* By M H Abrams
8. *A Dictionary of Literary & Thematic Terms* By Edward Quinn
9. Rose Murfin & Supriya M. Ray. *A Bedford Glossary of Critical and Literary Terms*. New York : Macmillan, 1998.
10. *Handbook of English Literary History* By Arunodoy Bhattacharya (Booksaway Kolkata)
11. *Poetry the Basics* By Jeffrey Wainwright (Routledge)
12. Swift , Jonathan. “*A Modest Proposal*.” Abrams M H , Greenblatt, S. and Stillinger, J. 2000. *The Norton Anthology of English Literature*, 8th Edn, Norton, New York.

FUNCTIONAL ENGLISH

SEMESTER-V

Syllabus for the Examination to be held in Dec. 2016, 2017 & 2018

Course No. FE 501

Duration of Exam: 3 hrs.

Theory: 100

Practical: 50

Title – Functional English

Total Marks: 150

Semester End Examination: 80

Internal Assessment: 20

Internal 25

External 25

Objective: - The objective of the paper is to give practical training to the students in news reading, announcing and reporting on Television and Radio from a written script and to improve the personality of the students.

Unit I: - Communication, Elements of communication, Formal and Informal Communication channels.

Formal – Downward, Upward, Horizontal, Diagonal.

Informal – Grapevine, consensus

Communication barriers, Socio-psychological barriers

Unit II: - Non-Verbal Communication

Types of non-verbal communication, personal appearance, facial expression; eye-contact, gestures, Pro-xemics, Para-language, Kinesis and Body movement, touching.

Functions of non-verbal communication, face to face communication. Audio-Visual communication, silence

Unit III: - Reading and Reading Techniques

Reading – Meaning and nature

Reading Techniques – Skimming, scanning and Sensitising, Developing effective reading skills, reading comprehension.

Unit IV: - Communication through mass media, characteristics of mass communication. Functions and effects of mass media, Future of mass media. Emerging trends in the fields of media: Digitalization - Computer, email, internet, multi-media. Role of Satellite Communication.

Mode of Examination:

The question paper will contain 8 questions in all with an internal choice and all are to be attempted. Two questions from each unit with internal choice to be set. Each question will carry 10 marks.

PRACTICUM

1. Practical training in overcoming the communication barriers
2. Enhancing the nonverbal communication skills
 - a) Gestures b) Facial expressions c) Eye movements d) Body movement
3. Improving reading skills
 - a) Reading comprehension in the classroom
 - b) Improving reading speed from skimming to scanning
4. Power points and two reports (300 words, on contemporary topics like social, global, political, sports).

Suggested Reading:

1. Greenall, Simon, Michael Swan. *Effective Reading Teacher's book: Reading Skills for Advanced Students*. Cambridge University Press, 2010.

2. Langan, John. *Ten Steps to Improving College Reading Skills*. 5 Ed. Townsend Press, 2008.
3. McWhorter, Kathleen T and Brette M Sember. *College Reading and Study Skills*. 12 Ed. 2012.
4. Fawcett, Susan. *Evergreen: A Guide to Writing with Readings*. 10 Ed. New York: Cengage Learning, 2013.
5. Hancock, Ophelia H. *Reading Skills for College Students*. 6 Ed. New York: Prentice Hall, 2008.
6. Riggio, Ronald E. *Applications of Nonverbal Communication*. Mahwah, NJ: Lawrence Erlbaum Associates, 2005.
7. Mehrabian, Albert. *Non Verbal Communication*. University of Michigan Press, 1972.

GENERAL ENGLISH

SEMESTER-VI

Syllabus for the Examination to be held in May 2017, 2018 & 2019

Course No. AA 601 (Theory)

Duration of Exam: 3 hrs.

Title - General English

Total Marks: 100

Semester End Examination: 80

Internal Assessment: 20

Objective: -The Objective of the course is to train the learners as efficient language users. They will be studying and analyzing complex works like drama and novel along with a study of grammar.

Unit-1. Novel: R K Narayan : *Vendor of Sweets* (Non-detailed study)

Unit-2. Drama: G.B. Shaw: *Arms and the Man* (Detailed Study)

Unit-3. Essay writing

Unit-4. Grammar

- (a) Clauses
- (b) Types of sentences
- (c) Transformation of sentences
- (d) One word substitution
- (e) Parts of Speech

Mode of Examination:

Q No. 1 Shall be a reference to the context type question from Unit-2. The candidates will attempt any three out of six passages. **(5×3=15 marks)**

Q No.2 Will have two long answer questions with internal choice from Unit -1. **(7×2=14 marks)**

Q No. 3 Will be a long answer question with internal choice from Unit -2. (Word Limit= 300 words) **(10×1=10 marks)**

Q No. 4 will be from Unit 3. The candidates will be required to write an essay on any one of the four given topics of current interest.
(10×1=10 marks)

Q No. 5 shall have six parts

a) Five questions to be set on the clauses. The candidates will be required to attempt all. **(5×1=5 marks)**

b) Five problems will be set on sentences and their sequence. The sentence might be in jumbled form. The students will identify and correct the sequence. **(5×1=5 marks)**

c) Transformation of sentences: This will be “do as directed” type question where students will be required to transform simple, complex, negative and interrogative etc sentences into the form mentioned within the bracket. Five sentences out of seven to be attempted **(5×1=5 marks)**

d) One word substitution: The students will substitute the words in Italics in the sentences given with one word from the given cluster of words and rewrite the reformed sentences in the answer sheet. Six sentences will be given. All to be attempted. **(6×1=6 marks)**

e) Parts of Speech: Five words out of eight to be used as different parts of speech as directed by the examiner. **(5×1=5 marks)**

f) The correction of prepositions: Five incorrect sentences to be corrected with correct preposition. Five sentences to be set. All to be attempted. **(5×1=5 marks)**

ENGLISH LITERATURE

SEMESTER-VI

Syllabus for the Examination to be held in May 2017, 2018 & 2019

Course No. EL 601 (Theory)

Duration of Exam: 3 hrs.

Title – English Literature

Total Marks: 100

Semester End Examination: 80

Internal Assessment: 20

Objectives: The aim of this paper is to acquaint the learners with the major literary developments of this period ranging from Victorian age, Georgian age, Edwardian age to the modern age. They will be required to have an indepth knowledge of the development of various genres during the period under study. The learners will also have an exposure to the genre of short fiction written extensively during this period. Some corresponding authors and their works have also been prescribed for better understanding of this age. The teachers are required to involve students in extra-readings of other works & authors falling in this age in co-curricular /classroom activities.

Unit I : Literary Terms

Elegy, Rhetoric , Stream of consciousness, Poetic Drama, Absurd drama, Magic realism, Naturalism, Point of view, Short Story, Pre-Raphaelite Brotherhood, Oxford Movement, Bloomsbury Group, Modernism .

Unit II: History of English Literature: 1830-2000

- Development of poetry from Victorian to Modern age.
- Development of novel from Victorian to Modern age.
- Development of drama from Victorian to Modern age.
- Development of English Short story from Victorian to Modern age..

Unit III : Short Story

William Somerset Maugham:

H.H. Munro:

The Force of Circumstance

A Matter of Sentiment

D.H Lawrence:
Ruskin Bond:

The Prussian Officer
The Kitemaker

Unit IV: Drama

Oscar Wilde: The Importance of Being Earnest

Unit V: Poetry

Robert Browning: Prospice
Thomas Hardy: The Darkling Thrush
Matthew Arnold: Dover Beach
W.B Yeats: Adam's Curse

Mode of Examination:

The internal as well as external examination shall have a uniform pattern covering Objective type, short answer type & long answer type questions covering the entire syllabus. The distribution of marks shall be as:

- Internal examination: 20 marks
- Semester End Examination: 80 marks

Q.No 1 shall comprise of 15 multiple choice questions from all units . Students will be required to answer all by re-writing them in their answer sheets.
.....15 marks

Q.No 2 shall cover short answer questions from Unit –I . Four out of five questions of five marks each shall be attempted. *The examiner shall test in depth understanding of the examinees who will be required to answer with two illustrations each.* The division of marks shall be: Definition= 2marks, two illustrations=1.5 marks each.
.....20 marks

Q.No 3, 4 & 5 shall be long answer in nature out of Unit-II, III, IV & V . Three out of four questions to be attempted. Answers shall not exceed 350 words each but shall also not be of inadequate length.....15 marks each.

Note: The examiner shall cover all the units uniformly in Q.no 1, 3, 4 & 5.

Suggested Reading:

11. *History of English Literature* by Legouis and Cazamian (MacMillan India Ltd)
12. *A Critical History of English Literature Vol-II* by David Daiches
13. *English Literature* by William J. Long (Kalyani Publishers)
14. *A History of English Literature* by Michael Alexander; MacMillan Press Ltd. 2000
15. *The Short Oxford History of English Literature* by Andrew Sanders: Clarendon Press, Oxford 1994
16. Peck, John & Martin , Coyle . *A Brief History of English Literature* .New York . Palgrave, 2004.
17. *A Glossary of Literary Terms* By M H Abrams
18. *A Dictionary of Literary & Thematic Terms* By Edward Quinn
19. Rose Murfin & Supriya M. Ray. *A Bedford Glossary of Critical and Literary Terms*. New York : Macmillian, 1998.
20. *Handbook of English Literary History* By Arunodoy Bhattacharya (Booksaway Kolkata)
11. *Poetry the Basics* By Jeffrey Wainwright (Routledge)
12. Swift , Jonathan. “*A Modest Proposal*.” Abrams M H , Greenblatt, S. and Stillinger, J. 2000. *The Norton Anthology of English Literature*, 8th Edn, Norton, New York.

FUNCTIONAL ENGLISH

SEMESTER-VI

Syllabus for the Examination to be held in May 2017, 2018 & 2019

Course No. FE 601

Duration of Exam: 3 hrs.

Theory: 100

Practical: 50

Title – Functional English

Total Marks: 150

Semester End Examination: 80

Internal Assessment: 20

Internal 25

External 25

Unit I: - Announcing for Electronic media. Role of announcer, Importance of announcer as communicator, fundamentals of anchoring radio and T.V. news.

Unit II: - Voice analysis and improvement: The importance of voice improvement, speech, personality analyzing the speech voice analysis, pitch volume, tempo, vitality, energy, voice quality, resonance vs thinness.

Unit III: - Speech delivery: Communication apprehension Principles of speech delivery; physical delivery vocal delivery, improving vocalization style of speech delivery. Audience report, overcoming microphone and camera fright; a study of the main causes of microphone and camera fright, microphone and camera consciousness.

Unit IV: - Listening and Feedback: The listening process, the hearing listening distinction, stages of listening process, types of listening, variables affecting listening, developing effective listening skills.

Mode of Examination:

The question paper will contain 8 questions in all with an internal choice and all to be attempted. Two questions from each unit with internal choice to be set. Each question will carry 10 marks.

Practicum

1. Voice training
 - a) Pitch
 - b) Volume
 - c) Tempo
 - d) Nasal resonanceThese voice improvement techniques should be used to improve the voice personality of the candidate.
2. Practical training in facing the camera and the microphone
 - a) Reducing camera fright
 - b) Reducing microphone fright
 - c) Anchoring radio and T.V. news
3. Two power points, two video shoots on topics of current relevance.
4. Job training- to enhance the employability in the fields of IT, media and journalism. The candidate will be placed in job training for 2 weeks.

Suggested Readings

Hargie, Owen. Ed. *The Handbook of Communication Skills*. New York: Routledge, 2006.

Barker, Alan. *Improve Your Communication Skills*. London: Kogan Page, 2013.

Baker, Joanna and Heather Westrup. *Essential Speaking Skills*. London: VSO Books, 2003.

Bygate, Martin. *Speaking*. New York: OUP, 2003.

Stuart W. Hyde : *Television and Radio announcing*,

C. S. Rayudu: *Communication*.

Larry L Barker: *Communication*.

Francois Grellar *Developing Reading Skills*. Cambridge University Press.

Krihan Menon: *Developing Communication Skills*.

Detailed Syllabus

Semester-I

Course No: U E S T S 1 04
Time of Examination :2.30 hrs

Title :Environmental studies-1

Credit:2

(a) Semester Examination : 40
(b) Sessional Assessment: 10

Syllabus for the examinations to be held in Dec.2016, 2017 and 2018.

Unit I: The Environment and Ecosystem

- 1.1 Environment and Environmental studies: Definition, concept, components and importance.
- 1.2 Ecosystem and Ecology: Structure and Function of ecosystem, Brief concept of Autecology and Synecology.
- 1.3 Food chain, food web and ecological pyramids .
- 1.4 Biogeochemical cycles in an ecosystems: (Carbon, Nitrogen and Phosphorous cycle)
- 1.5 Ecological succession: Definition, types, concept and process (Hydrosere, Xerosere and Lithosere).

Unit 2 Environmental Pollution and Disaster Management

- 2.1 Definition , causes, effects and control measures of :
 - a. Air pollution
 - b. Water pollution(thermal and marine pollution)
 - c. Land pollution
 - d. Radiation pollution and Nuclear hazard.
 - e. Noise pollution
- 2.2 Solid waste management: Causes , effects and control measures.
- 2.3 Global warming and climate change Ozone depletion
- 2.4 Acid rain: Causes , effects and control measures
- 2.5 Types and management of Natural disasters (Earthquakes; Droughts; Floods; Landslides).

Unit 3: Environmental treaties, laws and Ethics

- 3.1 . Environmental Treaties : National and International(Brief account)
- 3.2. Salient features of following Acts:

- a. Wildlife (Protection) Act, 1972.
 - b. Water (Prevention and control of pollution) Act, 1974.
 - c. Forest (Conservation) Act, 1980.
 - d. Air (Prevention and control of pollution) Act, 1981.
 - e. Environmental Protection Act, 1986.
- 3.3. National Green Tribunal: Structure, composition and functions.
- 3.4. Environmental Ethics
- 3.5. Need for Sustainable Development.

Field /Practical Work

All the students are required to undertake the following field/practical work

- i) Visit to a local area to document environmental assets/ecosystems-
River/forest/grassland/mountain
- ii) Construction of Food chain/food web of the visited area
- iii) To identify the sources of air/water/soil/noise pollution of your area.

Note for Paper setter

Note for Paper setter

- a. Question paper will consist of TWO sections 'A' and 'B'. Section 'A' will consist of 6 short answer type questions, two from each unit; out of which candidate has to answer any five questions and each question would be of 2 marks. Section 'B' would consist of THREE long answer type questions of 10 marks each, one from each unit, with internal choice.
- b. Internal assessment test of 10 marks will be based on questions from syllabus/ field trip visit(s).

Detailed Syllabus

Semester-II

Course No:U ES TS 2 04
Time of Examination :2.30 hrs

Title :Environmental studies-2

Credit:2

(a) Semester Examination : 40
(b) Sessional Assessment: 10

Syllabus for the examinations to be held in May 2017, 2018 and 2019.

Unit - 1: Biodiversity and its conservation:

- 1.1 Definition, concept , levels and values of biodiversity.
- 1.2 Biodiversity of India, India as a mega diversity nation, Hotspots of biodiversity.
- 1.3 Threats to Biodiversity (Habitat loss, poaching of wildlife and man wildlife conflict)
- 1.4 Conservation of Biodiversity: *in-situ* Conservation; *ex-situ* conservation
- 1.5 Ecotourism, Concept of Protected Area Network with special reference to Kishtwar, Dachigam and Hemis National Parks.

Unit - 2:Natural Resources and their Conservation

- 2.1 Forest Resources: Uses and overexploitation of forests and consequences of deforestation.
- 2.2 Water Resources: Use and consequences of over-utilization, concept of rain water harvesting and watershed management, water conflicts.
- 2.3 Food Resources: Sources of food, food problems- Indian scenario, Impacts of modern agriculture on environment (Fertilizer - pesticide problem, water logging and salinity), Organic farming.
- 2.4 Energy Resources: Renewable and Non-Renewable energy sources, Growing energy needs and alternate energy sources.
- 2.5 Land Resources: Global land use patterns, Soil erosion, Desertification, Wasteland Reclamation.

Unit- 3: Environment and Human health

- 3.1 Human population growth and Family Welfare Programs.
- 3.2 Common diseases: Air borne diseases (Chicken Pox, Tuberculosis,

Influenza, Meningitis), Water and food borne diseases (Cholera, Diarrhoea, Hepatitis, Malaria, Salmonellosis).

- 3.3 HIV/AIDS: Symptoms, causes, effect and control measures.
- 3.4 Drug addiction: Causes, symptoms and prevention; Drug abuse in India.
- 3.5 Role of IT in environment and human health.

Field /Practical Work

All the students are required to undertake the following field/practical work

- i) To record the biodiversity of the any visited area
- ii) Identify the Natural resources of your area
- iii) Identify the sources of energy used in your area
- iv) Visit to a health Centre for recording of common water/air/food borne diseases of your area.

Note for Paper setter

- a. Question paper will consist of TWO sections 'A' and 'B'. Section 'A' will consist of 6 short answer type questions, two from each unit; out of which candidate has to answer any five questions and each question would be of 2 marks. Section 'B' would consist of THREE long answer type questions of 10 marks each, one from each unit, with internal choice.
- b. Internal assessment test of 10 marks will be based on questions from syllabus/ field trip visit(s).

Environmental Studies

III – Semester

Examination to be held in the year Dec. 2015, Dec. 2016 and Dec. 2017
(B.A./B.SC./B.COM./BBA/BCA)

Course No. : ES 301 (Theory)

Duration : 45 minutes

Title : Environmental Studies

Max. Marks : 50

Theory examination : 35

Sessional assessment : 15

Detailed Syllabus

UNIT-I. Introduction of environment studies and ecosystem.

- 1.1. Definition, Scope and importance of ecology and environment, need for public awareness.
- 1.2. Concept of structure and function of ecosystem: Producers, Consumers and decomposers. Energy flow in ecosystem.
- 1.3. Concept of ecological succession.
- 1.4. Food Chain, food web and ecological pyramids.
- 1.5. Introduction, types and characteristic features of the following ecosystems of India:
 - i) Forest ecosystem
 - ii) Grassland ecosystem
 - iii) Desert ecosystem.
 - iv) Aquatic ecosystem.

UNIT-II. Environmental pollution

- 2.1 Definition, causes, effects and control measures of:
 - i) Air pollution
 - ii) Water pollution (marine and thermal pollution)
 - iii) Soil pollution
 - iv) Noise pollution
 - v) Radiation pollution
- 2.2. Solid waste management; causes, effects, and control measures of urban and industrial waste.

- 2.3. Acid rain
- 2.4 Ozone depletion
- 2.5. Global warming

UNIT-III. Environmental laws and disasters

- 3.1. Salient features of following Acts
 - i) Environmental Protection Act, 1986.
 - ii) Air (Prevention and control of pollution) Act, 1981.
 - iii) Water (Prevention and control of pollution) Act, 1974.
 - iv) Wildlife protection Act, 1972.
 - v) Forest conservation Act, 1980.
- 3.2. Disaster management: Floods, Earthquakes, cyclones, landslides, droughts.
- 3.3. Wasteland reclamation.
- 3.4. Resettlement and rehabilitation of people, its problems and concerns
- 3.5 Environmental ethics, issues and possible solutions.

Field /Practical Work

All the students are required to undertake the following field/practical work based on which they will be assessed for their Internal Assessment Test

- i) Visit to a local area to document environmental assets/ecosystems- River/forest/grassland/mountain
- ii) Construction of Food chain/food web of the visited area
- iii) To identify the sources of air/water/soil/noise pollution of your area.

Note :

The sessional assessment of 15 marks will be distributed as follows :

- | | | |
|--------------------------------------|---|-----------|
| ➤ Attendance in Theory and Practical | - | 05 |
| ➤ Test based on field work | - | 10 |

For Theory Paper Setter

The question paper of 35 marks will consists of 35 multiple choice questions based on above topics. Questions should be equally distributed from all the units. Each question would be of ONE mark.

Environmental Studies

IV – Semester

Examination to be held in the year May 2016, May 2017 and May 2018
(B.A./B.SC./B.COM./BBA/BCA)

Course No. : ES 401 (Theory)
Duration : 45 minutes

Title : Environmental Studies

Max. Marks : 50
Theory examination : 35
Sessional assessment : 15

Detailed Syllabus

UNIT I. Biodiversity and its conservation

- 1.1 Biodiversity:
 - a) Definition; genetic, species and ecosystem diversity.
 - b) Values of biodiversity (consumptive, productive, social, ethical and aesthetic values)
- 1.2 Biodiversity of India; India as a mega diversity nation, hotspots of biodiversity, concept of Bio-geographic regions of India.
- 1.3 Threats to Biodiversity (habitat loss, poaching of wildlife, man wildlife conflicts)
- 1.4 Conservation of Biodiversity; *Insitu* and *Exsitu* conservation of biodiversity, endemic and endangered species of India.
- 1.5 Ecotourism, Eco-marketing

UNIT-II. Natural Resources and their management:

- 2.1. Forest Resources: Uses of forests, causes of over-exploitation (deforestation, timber extraction), mining and its effects on forests and tribal people.
- 2.2. Water Resources: Uses & over-utilization of surface and groundwater & effects; conflicts over water, dams- benefits & problems; water conservation, rainwater harvesting.
- 2.3. Food Resources: World food problems, changes caused by agriculture and over- grazing, effects of modern agriculture (fertilizer-pesticide problem, water logging and salinity).
- 2.4. Energy Resources: Growing energy needs, renewable & non-renewable energy sources, use of alternate energy resources; urban problems related to energy.
- 2.5. Land Resources: Land as a resource, land degradation, man- induced landslides, soil erosion and desertification.

UNIT –III. Population and Human Health.

- 3.1. Population growth, variation among nations. Family Welfare Programs.
- 3.2. Common diseases: communicable and non communicable
 - i) Water borne diseases,
 - ii) Air borne diseases
 - iii) Food borne diseases
- 3.3. HIV/AIDS, Drug addiction
- 3.4. Nuclear Hazards
- 3.5. Role of Information Technology in Environment & human health.

Field /Practical Work

All the students are required to undertake the following field/practical work based on which they will be assessed for their Internal Assessment Test

- i) To record the biodiversity of the any visited area
- ii) Identify the Natural resources of your area
- iii) Identify the sources of energy used in your area
- iv) Visit to a health Center for recording of common water/air/food borne diseases of your area.

Note :

The sessional assessment of 15 marks will be distributed as follows :

➤ Attendance in Theory and Practical	-	05
➤ Test based on field work	-	10

For Theory Paper Setter

The question paper of 35 marks will consists of 35 multiple choice questions based on above topics. Questions should be equally distributed from all the units. Each question would be of ONE mark.

**Minutes of the meeting of Board of Study held on 16/4/2015 in the
P.G.D. of Hindi under the Chairmanship of Prof. Neelam Saraf**

1. पहले सेमिस्टर की पुस्तक 'काव्य-तारा' के अन्त में दिये गये अभ्यास प्रश्नों में से ही परीक्षा में प्रश्न पूछे जायेंगे।

पहले सेमिस्टर की परीक्षा हेतु examiner/Paper setter को यह सूचना देना ज़रूरी है।

2. बी.ए. के तीसरे, चौथे, पांचवें एवं छठे सेमिस्टर का विस्तृत पाठ्यक्रम तैयार किया गया।

Copy enclosed

बी.ए. के तीसरे सत्र की परीक्षा वर्ष — 2015, 2016 तथा 2017

हेतु विस्तृत पाठ्यक्रम

Course No : HI - 301

विषय : हिन्दी

पेपर : प्रबन्ध काव्य - एक

समय : 3 घंटे

कुल अंक: 100

1. बाह्य परीक्षा : 80

2. आन्तरिक परीक्षा: 20

(i) Class Test - 10

(ii) Two written Assignments of
05 Marks each (Total 10 marks)

निर्धारित पुस्तक

लेखक

प्रकाशक

रश्मिरथी (खण्ड काव्य)

रामधारी सिंह दिनकर

केदारनाथ सिंह, उदयाचल राजेन्द्र
नगर, पटना-4

पाठ्यक्रम का विवरण

1. रश्मिरथी — काव्य रूप/खण्ड काव्य
2. रश्मिरथी में भाग्य और पौरुष-सम्बन्धी विचार
3. रश्मिरथी में युद्ध और धर्म सम्बन्धी चिन्तन
4. रश्मिरथी में वर्तमान जीवन की अभिव्यक्ति
5. 'रश्मिरथी' शीर्षक की सार्थकता
6. प्रमुख पात्रों का चरित्र-चित्रण
7. कवि दिनकर का साहित्यिक परिचय

प्रश्नपत्र का प्रारूप एवं अंक-विभाजन इस प्रकार होगा —

1. पहला प्रश्न सप्रसंग व्याख्या का होगा। इसमें पाठ्यक्रम में निर्धारित खण्डकाव्य में से दो अवतरण विकल्प के साथ दिए जाएंगे।
7X2=14
2. पाठ्यक्रम में निर्धारित पुस्तक से सम्बन्धित शत प्रतिशत विकल्प के साथ तीन दीर्घ उत्तरापेक्षी प्रश्न विकल्प सहित पूछे जाएंगे।
11X3=33
3. निर्धारित पुस्तक में से शत प्रतिशत विकल्प के साथ तीन लघु उत्तरापेक्षी प्रश्न पूछे जाएंगे।
6X3=18
4. निर्धारित पुस्तक में से शत प्रतिशत विकल्प के साथ तीन लघु उत्तरापेक्षी प्रश्न पूछे जाएंगे।
3X3=09
5. निर्धारित पुस्तक तथा लेखक पर आधारित छः वस्तुनिष्ठ प्रश्न पूछे जाएंगे। इसमें कोई विकल्प नहीं होगा।
1X6=06

आवश्यक नोट — दीर्घ उत्तरापेक्षी प्रश्न का उत्तर लगभग 500 शब्दों में, लघु उत्तरापेक्षी लगभग 250 और अति लघु उत्तरापेक्षी प्रश्न का उत्तर लगभग 100 शब्दों में देना होगा।

बी.ए. के चौथे सत्र की परीक्षा वर्ष — 2016, 2017 तथा 2018

हेतु विस्तृत पाठ्यक्रम

Course No : HI - 401

विषय : हिन्दी

पेपर : नाटक एवं अन्य गद्य विधाएं

समय : 3 घंटे

कुल अंक: 100

1. बाह्य परीक्षा : 80

ध्रुव स्वामिनी : 50

गद्य फुलवारी : 30

2. आन्तरिक परीक्षा: 20

(i) Class Test - 10

(ii) Two written Assignments of
05 Marks each (Total 10 marks)

निर्धारित पुस्तकें

लेखक

प्रकाशक

1. ध्रुवस्वामिनी

जयशंकर प्रसाद

राजकमल प्रकाशन, दिल्ली

2. गद्य फुलवारी

राजपाल प्रकाशन

(इस संकलन में संकलित कहानियाँ एवं निबन्ध पाठ्यक्रम में निर्धारित नहीं हैं।)

पाठ्यक्रम का विवरण

1. ध्रुवस्वामिनी

1. ध्रुवस्वामिनी की ऐतिहासिकता
2. स्त्री विमर्श की दृष्टि से ध्रुवस्वामिनी
3. ध्रुवस्वामिनी की मूल समस्या/प्रतिपाद्य/उद्देश्य
4. प्रसाद की नाट्यकला
5. ध्रुवस्वामिनी की रंगमचीयता

2. गद्य फुलवारी

1. हिन्दी रेखाचित्र/संस्मरण/यात्रा वृत्तान्त/एकांकी/व्यंग का परिचय एवं विशेषताएँ
2. पाठ्यक्रम में निर्धारित गद्य विधाओं पर आलोचनात्मक प्रश्न (उद्देश्य, शीर्षक, पात्र-योजना, नाटकीयता, प्राकृतिक सौंदर्य एवं भाषा शैली)
3. पाठ्यक्रम में निर्धारित गद्य विधाओं के लेखकों का साहित्यिक परिचय

प्रश्नपत्र का प्रारूप एवं अंक-विभाजन इस प्रकार होगा —

1. प्रत्येक पुस्तक में से एक-एक सप्रसंग व्याख्या शत प्रतिशत विकल्प के साथ पूछी जाएंगी।
7X2=14
2. ध्रुवस्वामिनी में से दो एवं गद्य फुलवारी में से एक दीर्घ उत्तरापेक्षी प्रश्न शत प्रतिशत विकल्प के साथ पूछे जायेंगे।
11X3=33

3. ध्रुवस्वामिनी में से दो एवं गद्य फुलवारी में से एक लघु उत्तरापेक्षी प्रश्न शत प्रतिशत विकल्प के साथ पूछे जायेंगे। 6X3=18
4. ध्रुवस्वामिनी में से दो एवं गद्य फुलवारी में से एक अति लघु उत्तरापेक्षी प्रश्न शत प्रतिशत विकल्प के साथ पूछे जायेंगे। 3X3=09
5. ध्रुवस्वामिनी एवं गद्य फुलवारी पर आधारित तीन-तीन वस्तुनिष्ठ प्रश्न बिना किसी विकल्प के पूछे जाएंगे। 1X6=06

नोट — दीर्घ उत्तरापेक्षी प्रश्न का उत्तर लगभग 500 शब्दों में, लघु उत्तरापेक्षी का लगभग 250 तथा अति लघु प्रश्न का लगभग 100 शब्दों में होना चाहिए।

संस्तुत पुस्तकें

ध्रुवस्वामिनी

1. दशरथ ओझा, हिन्दी नाटक उद्भव और विकास, राजपाल एण्ड सन्ज
2. जगन्नाथ प्रसाद शर्मा, प्रसाद के नाटकों का शास्त्रीय अध्ययन, हिन्दी परिषद, विश्वविद्यालय, प्रयाग
3. शान्तिस्वरूप गुप्त, प्रसाद के नाटक एवं नाट्य शिल्प
4. गोविन्द चातक, ध्रुवस्वामिनी : विचार और विश्लेषण
5. द्वारिका प्रसाद सक्सेना, प्रसाद के नाटकों में इतिहास, धर्म, संस्कृति, दर्शन और कला, राधा पब्लिकेशन, नई दिल्ली
6. बच्चन सिंह, हिन्दी नाटक, राधा कृष्ण प्रकाशन, नई दिल्ली

निबन्ध एवं अन्य विधाएँ (गद्य फुलवारी)

1. डॉ. गणेश खरे, हिन्दी के प्रमुख निबन्धकार रचना और शिल्प, अभिलाषा प्रकाशन, कानपुर
2. इन्द्रनाथ, निबन्ध और निबन्ध, बंसल एण्ड कम्पनी, नई दिल्ली
3. डॉ. बाबू राम मेहता, शुक्लोत्तर निबन्धों में संस्कृति, निर्मल पब्लिशिंग
4. शांता कुमारी, हिन्दी के प्रमुख निबन्ध, उमेश प्रकाशन
5. ओंकारनाथ शर्मा, हिन्दी निबन्धों का विकास, अनुसंधान प्रकाशन
6. पाठ्यक्रम में निर्धारित सभी विधाओं के लिए अलग-अलग आलोचनात्मक पुस्तकें देखिए।

बी.ए. के पांचवें सत्र की परीक्षा वर्ष — 2016, 2017 तथा 2018

हेतु विस्तृत पाठ्यक्रम

Course No : HI - 501

विषय : हिन्दी

पेपर : प्रबन्ध काव्य – दो

समय : 3 घंटे

कुल अंक: 100

1. बाह्य परीक्षा : 80

2. आन्तरिक परीक्षा: 20

(i) Class Test - 10

(ii) Two written Assignments of
05 Marks each (Total 10 marks)

निर्धारित पुस्तक

लेखक

प्रकाशक

शकुन्तलायन

डॉ ओम प्रकाश गुप्त

राजपाल एण्ड सन्ज़, कश्मीरी गेट,
दिल्ली - 110006

पाठ्यक्रम का विवरण

1. शकुन्तलायन का महाकाव्यत्व
2. नामकरण की सार्थकता
3. नारी भावना
4. प्रकृति-चित्रण
5. प्रमुख पात्रों का चरित्र-चित्रण
6. काव्य-सौन्दर्य

प्रश्नपत्र का प्रारूप एवं अंक-विभाजन इस प्रकार होगा —

1. निर्धारित पुस्तक में से शत प्रतिशत विकल्प के साथ व्याख्या के लिए दो अवतरण पूछे जाएँगे।
 $7 \times 2 = 14$
2. निर्धारित विषयों पर आधारित तीन दीर्घ-उत्तरापेक्षी प्रश्न (शत प्रतिशत विकल्प के साथ) पूछे जाएँगे
 $11 \times 3 = 33$
3. निर्धारित विषयों पर आधारित तीन लघु-उत्तरापेक्षी प्रश्न (शत प्रतिशत विकल्प के साथ) पूछे जाएँगे
 $6 \times 3 = 18$
4. निर्धारित विषयों पर आधारित तीन अति-लघु उत्तरापेक्षी प्रश्न (शत प्रतिशत विकल्प के साथ) पूछे जाएँगे
 $3 \times 3 = 09$
5. पूरे पाठ्यक्रम पर आधारित 6 वस्तुनिष्ठ प्रश्न बिना किसी विकल्प के पूछे जाएँगे।
 $1 \times 6 = 06$

संस्तुत पुस्तकें

- | लेखक | पुस्तक | प्रकाशक |
|------------------------|-------------------|--|
| 1. डॉ. सुशीला खार | शकुन्तला उपाख्यान | देवनागर प्रकाशक,
चौड़ा रास्ता, जयपुर। |
| 2. डॉ. जयदयाल गोयन्दका | संक्षिप्त महाभारत | गीता प्रेस, गोरखपुर। |

बी.ए. के छठे सत्र की परीक्षा वर्ष — 2017, 2018 तथा 2019

हेतु विस्तृत पाठ्यक्रम

Course No : HI - 601

विषय : हिन्दी

पेपर : कथा साहित्य

समय : 3 घंटे

कुल अंक: 100

1. बाह्य परीक्षा : 80

2. आन्तरिक परीक्षा: 20

(i) Class Test - 10

(ii) Two written Assignments of 05 Marks each (Total 10 marks)

निर्धारित पुस्तकें

पुस्तक	लेखक	प्रकाशक
1. उपन्यास — आपका बंटी	मन्नू भंडारी	राधाकृष्ण प्रकाशन
2. कहानी संग्रह — कहानी एकादशी	दशरथ ओझा	शिक्षा भारती, कश्मीरी गेट, दिल्ली

(पहली सात कहानियाँ ही पाठ्यक्रम में निर्धारित हैं।)

पाठ्यक्रम का विवरण

1. उपन्यास

1. बाल मनोविज्ञान की दृष्टि से आप का बंटी
2. वैवाहिक सम्बन्धों के बदलते मूल्य और आप का बंटी।
3. आप का बंटी की शिल्पगत विशेषताएँ
4. मन्नू भंडारी का साहित्यिक परिचय।

2. कहानी एकादशी

1. हिन्दी कहानी का उद्भव और विकास
2. निर्धारित कहानियों की तात्विक आलोचना
3. निर्धारित कहानियों के प्रमुख पात्रों का चरित्र-चित्रण

प्रश्नपत्र का प्रारूप एवं अंक-विभाजन इस प्रकार होगा —

1. निर्धारित पुस्तकों में से शत प्रतिशत विकल्प के साथ एक-एक व्याख्या पूछी जाएगी।

7X2=14

2. आपका बंटी उपन्यास पर आधारित दो एवं कहानी संग्रह पर आधारित एक दीर्घ

उत्तरापेक्षी प्रश्न (कुल तीन) शत प्रतिशत विकल्प के साथ पूछे जाएँगे।

11X3=33

3. आपका बंटी उपन्यास पर आधारित दो एवं कहानी संग्रह पर आधारित एक लघु उत्तरापेक्षी प्रश्न (कुल तीन) शत प्रतिशत विकल्प के साथ पूछे जाएँगे। $6 \times 3 = 18$
4. आपका बंटी उपन्यास पर आधारित दो एवं कहानी संग्रह पर आधारित एक अति लघु उत्तरापेक्षी प्रश्न (कुल तीन) शत प्रतिशत विकल्प के साथ पूछे जाएँगे। $3 \times 3 = 09$
5. दोनों पुस्तकों पर आधारित तीन-तीन वस्तुनिष्ठ प्रश्न बिना विकल्प के पूछे जाएँगे $1 \times 6 = 06$

संस्तुत पुस्तकें

1. डॉ. वंशीधर, डॉ. राजेन्द्र मिश्र : मन्नू भंडारी का श्रेष्ठ सर्जनात्मक साहित्य, नटराज पब्लिशिंग हाउस, हरियाणा
2. नन्दिनी मिश्रा : मन्नू भंडारी का उपन्यास साहित्य
3. डॉ. शशि जेकब : महिला उपन्यासकारों की रचनाओं में वैचारिकता
4. डॉ. सुखबीर सिंह : हिन्दी कहानी : समकालीन परिदृश्य, अभिव्यंजना प्रकाशक, नई दिल्ली
5. डॉ. रघुवरदयाल वाष्णेय : हिन्दी कहानी : बदलते प्रतिमान, पांडुलिपि प्रकाशन, दिल्ली
6. डॉ. कान्ता मेहदीरता : हिन्दी कहानी का मूल्यांकन, राधाकृष्ण प्रकाशन, नई दिल्ली

बी.ए. के पहले सत्र का विस्तृत पाठ्यक्रम

परीक्षा वर्ष — 2016, 2017 तथा 2018

कोर्स कोड : UG HI TC 101

क्रेडिट : 4

पेपर : काव्य एवं आलोचना सिद्धान्त

कुल अंक: 100

1. बाह्य परीक्षा : 80

2. आन्तरिक परीक्षा: 20

निर्धारित पुस्तक

संपादक

प्रकाशक

काव्य तारा

डॉ. बद्रीनाथ तिवारी,

राजकमल प्रकाशन, दिल्ली

डॉ. राजेन्द्र प्रसाद सिंह,

पाठ्यक्रम का विवरण

इकाई -एक : विद्यापति से लेकर जय शंकर प्रसाद तक (कुल 7 कवि)

इकाई -दो : निराला से लेकर धूमिल तक (कुल 9 कवि)

इकाई -तीन : आलोचना सिद्धान्त :

1. कविता : परिभाषाएं एवं तत्व
2. निबन्ध : परिभाषाएं एवं तत्व
3. नाटक : परिभाषाएं एवं तत्व
4. कहानी : परिभाषाएं एवं तत्व
5. उपन्यास : परिभाषाएं एवं तत्व
6. उपन्यास और कहानी में अन्तर

प्रश्नपत्र का प्रारूप एवं अंक-विभाजन इस प्रकार होगा —

बाह्य परीक्षा :

अंक 80 , पाठ्यक्रम 100%, समय : 3 घंटे

1. पहला प्रश्न सप्रसंग व्याख्या का होगा। इसमें इकाई -एक तथा इकाई -दो में से शत प्रतिशत विकल्प के साथ एक-एक व्याख्या पूछी जाएगी। $7 \times 2 = 14$
2. दूसरा प्रश्न इकाई -एक, दो तथा तीन में से शत प्रतिशत विकल्प के साथ एक-एक कुल तीन दीर्घ उत्तरापेक्षी प्रश्न पूछे जाएंगे। $11 \times 3 = 33$
3. तीसरा प्रश्न इकाई -एक, दो तथा तीन में से शत प्रतिशत विकल्प के साथ एक-एक कुल तीन लघु उत्तरापेक्षी प्रश्न पूछे जाएंगे। $6 \times 3 = 18$
4. चौथा प्रश्न इकाई -एक, दो तथा तीन में से शत प्रतिशत विकल्प के साथ एक-एक कुल तीन अति लघु उत्तरापेक्षी प्रश्न पूछे जाएंगे। $3 \times 3 = 09$
5. पूरे पाठ्यक्रम पर आधारित छः वस्तुनिष्ठ प्रश्न पूछे जाएंगे। इसमें कोई विकल्प नहीं होगा। $1 \times 6 = 06$

आन्तरिक परीक्षा: 20

अंक 20 , पाठ्यक्रम 50%, समय : 1 घंटा

- 1-पहला प्रश्न- शत प्रतिशत विकल्प के साथ एक व्याख्या पूछी जाएगी। $1 \times 5 = 05$
2. दूसरा प्रश्न -शत प्रतिशत विकल्प के साथ एक दीर्घ उत्तरापेक्षी प्रश्न पूछा जाएगा। $1 \times 8 = 08$
3. तीसरा प्रश्न -शत प्रतिशत विकल्प के साथ एक लघु उत्तरापेक्षी प्रश्न पूछा जाएगा। $1 \times 4 = 04$
4. चौथा प्रश्न-शत प्रतिशत विकल्प के साथ एक अति लघु उत्तरापेक्षी प्रश्न पूछा जाएगा। $1 \times 2 = 02$
5. एक वस्तुनिष्ठ प्रश्न पूछा जाएगा। इसमें कोई विकल्प नहीं होगा। $1 \times 1 = 01$

आवश्यक नोट — दीर्घ उत्तरापेक्षी प्रश्न का उत्तर लगभग 500 शब्दों में, लघु उत्तरापेक्षी लगभग 250 और अति लघु उत्तरापेक्षी प्रश्न का उत्तर लगभग 100 शब्दों में देना होगा।

बी.ए. के दूसरे सत्र का विस्तृत पाठ्यक्रम

परीक्षा वर्ष — 2016, 2017 तथा 2018

कोर्स कोड : UG HI TC 201

कुल अंक:100

क्रेडिट : 4

1.बाह्य परीक्षा : 80

पेपर : हिन्दी साहित्य का इतिहास

2.आन्तरिक-परीक्षा: 20

पाठ्यक्रम का विवरण इकाई -एक :

आदिकाल : नामकरण, परिस्थितियाँ, प्रवृत्तियाँ। प्रमुख कवि -
विद्यापति, अमीर खुसरो, चन्दबरदाई, नरपति नाल्हा एवं उनकी
कृतियाँ।

इकाई -दो :

भक्तिकाल : ऐतिहासिक पृष्ठभूमि, सभी प्रमुख धाराओं की
प्रवृत्तियाँ। प्रमुख कवि - सूरदास, तुलसीदास, कबीर, जायसी एवं
उनकी कृतियाँ।

इकाई -तीन :

रीतिकाल : नामकरण, परिस्थितियाँ, प्रवृत्तियाँ। प्रमुख कवि -
बिहारी, भूषण, घनानंद, देव एवं उनकी कृतियाँ।

इकाई -चार :

आधुनिक काल :

क) (पद्य भाग) - भारतेन्दु युग, द्विवेदी युग, छायावाद,
प्रगतिवाद, प्रयोगवाद, नई कविता (मात्र प्रवृत्तियाँ)।

ख) (गद्य भाग) - कहानी, उपन्यास, नाटक एवं निबन्ध-उद्भव
एवं विकास।

प्रश्नपत्र का प्रारूप एवं अंक-विभाजन इस प्रकार होगा —

बाह्य परीक्षा : 80

अंक 80 , पाठ्यक्रम 100%, समय : 3 घंटे

6. प्रत्येक इकाई में से शत प्रतिशत विकल्प के साथ एक-एक दीर्घ कुल चार उत्तरापेक्षी प्रश्न पूछे जाएंगे।
 $1 \times 4 = 44$
7. प्रत्येक इकाई में से शत प्रतिशत विकल्प के साथ एक-एक लघु कुल चार उत्तरापेक्षी प्रश्न पूछे जाएंगे।
 $5 \times 4 = 20$
8. प्रत्येक इकाई में से शत प्रतिशत विकल्प के साथ एक-एक अति लघु कुल चार उत्तरापेक्षी प्रश्न पूछे जाएंगे।
 $3 \times 4 = 12$
9. पूरे पाठ्यक्रम पर आधारित चार वस्तुनिष्ठ प्रश्न पूछे जाएंगे। इसमें कोई विकल्प नहीं होगा।
 $1 \times 4 = 04$

आन्तरिक परीक्षा: 20

अंक 20 , पाठ्यक्रम 50%, समय : 1 घंटा

6. शत प्रतिशत विकल्प के साथ एक दीर्घ उत्तरापेक्षी प्रश्न पूछा जाएगा।
 $1 \times 8 = 08$
7. शत प्रतिशत विकल्प के साथ दो लघु उत्तरापेक्षी प्रश्न पूछे जाएंगे।
 $2 \times 4 = 08$
8. शत प्रतिशत विकल्प के साथ एक अति लघु उत्तरापेक्षी प्रश्न पूछा जाएगा।
 $1 \times 2 = 02$
9. दो वस्तुनिष्ठ प्रश्न पूछे जाएंगे। इसमें कोई विकल्प नहीं होगा।
 $1 \times 2 = 02$

आवश्यक नोट — दीर्घ उत्तरापेक्षी प्रश्न का उत्तर लगभग 500 शब्दों में, लघु उत्तरापेक्षी लगभग 250 और अति लघु उत्तरापेक्षी प्रश्न का उत्तर लगभग 100 शब्दों में देना होगा।

बी.ए. के पहले सत्र का विस्तृत पाठ्यक्रम

परीक्षा वर्ष — 2016, 2017 तथा 2018

कोर्स कोड : UCHITS 101

क्रेडिट : 2

पेपर : सम्प्रेषण कौशल

कुल अंक: 50

1. बाह्य परीक्षा : 40

2. आन्तरिक परीक्षा: 10

इकाई -एक :

1. प्रतिवेदन लेखन
2. सम्वाद लेखन
3. सार लेखन
4. मुहावरे और लोकोक्तियाँ

इकाई -दो :

1. सार्वजनिक सूचना
2. वर्गीकृत विज्ञापन लेखन
3. सन्धि - परिभाषाएं एवं भेद
4. समास - परिभाषाएं एवं भेद

इकाई -तीन :

1. तत्सम, तद्भव, देशज एवं विदेशी शब्द
2. अनेकार्थी शब्द
3. अनेक शब्दों के लिए एक शब्द

1-6

05/02

बाह्य परीक्षा के प्रश्नपत्र का प्रारूप एवं अंक-विभाजन इस प्रकार होगा

1. प्रथम दो इकाइयों में से शत प्रतिशत विकल्प के साथ एक-एक दीर्घ उत्तरापेक्षी प्रश्न पूछा जाएगा। $2 \times 8 = 16$
2. प्रथम दो इकाइयों में से शत प्रतिशत विकल्प के साथ एक-एक लघु उत्तरापेक्षी प्रश्न पूछा जाएगा। $2 \times 4 = 8$
3. प्रथम दो इकाइयों में से शत प्रतिशत विकल्प के साथ एक-एक अति लघु उत्तरापेक्षी प्रश्न पूछा जाएगा। $2 \times 2 = 4$
4. इकाई तीन के प्रत्येक भाग में से शत प्रतिशत विकल्प के साथ चार-चार अंको के प्रश्न पूछे जाएंगे। $4 \times 3 = 12$

कुल अंक : 40

12/8/16

बी.ए. के दूसरे सत्र का विस्तृत पाठ्यक्रम

परीक्षा वर्ष — 201३, 201४ तथा 201६

कोर्स कोड : UOHI TS 201

क्रेडिट : 2

पेपर : सम्प्रेषण कौशल

कुल अंक:50

1.आन्तरिक-परीक्षा: 10

2.बाह्य परीक्षा : 40

इकाई -एक :

1. वाक्य के स्तर पर अशुद्धियों को शुद्ध करना।
2. शब्द रचना - क) उपसर्ग ख) प्रत्यय
3. विराम चिह्न

इकाई -दो :

1. अपठित गद्यांश .
2. पत्र-लेखन - क) औपचारिक ख) अनौपचारिक
3. समाचार - लेखन

इकाई -तीन :

1. समरूपी भिन्नार्थक शब्द
2. पर्यायवाची शब्द
3. विपरीतार्थक शब्द

बाह्य परीक्षा के प्रश्नपत्र का प्रारूप एवं अंक-विभाजन इस प्रकार होगा

1. प्रथम दो इकाइयों में से शत प्रतिशत विकल्प के साथ एक-एक दीर्घ उत्तरापेक्षी प्रश्न पूछा जाएगा। $2 \times 8 = 16$
2. प्रथम दो इकाइयों में से शत प्रतिशत विकल्प के साथ एक-एक लघु उत्तरापेक्षी प्रश्न पूछा जाएगा। $2 \times 4 = 8$
3. प्रथम दो इकाइयों में से शत प्रतिशत विकल्प के साथ एक-एक अति लघु उत्तरापेक्षी प्रश्न पूछा जाएगा। $2 \times 2 = 4$
4. इकाई तीन के प्रत्येक भाग में से शत प्रतिशत विकल्प के साथ चार-चार अंको के प्रश्न पूछे जाएंगे। $4 \times 3 = 12$

कुल अंक : 40

12/5/16

DETAILED SYLLABUS
COURSE NO. 200
SEMESTER: FIRST (UNDER GRADUATE)

COURSE TITLE: **ANCIENT INDIA.**

Contact Programme- 90 Lectures.

Credit: 4

Maximum Marks:

(a) Semester Examination:

(b) Sessional Assessment:

(c) Minimum Pass Marks:

Duration of Examination: 2.30 Hours.

SYLLABUS.

Objective:

Unit-I

- i. Survey of Literature-Vedas to Upanishads.
- ii. Social Life in Early & Later Vedic Age.
- iii. Economic Life in Early & Later Vedic Age.
- iv. Religious Life in Early & Later Vedic Age.

Unit-II

- i. Life and Teaching of Mahavira.
- ii. Development of Jainism after Mahavira.
- iii. Life and Teachings of Buddha.
- iv. Development of Buddhism: Four Buddhists Councils and Mahayana Sect.

Unit-III

- i. Origin and Sources of Mauryas
- ii. Administration of Mauryas
- iii. Kalinga War and Policy of Dhamma Vijaya of Ashoka.
- iv. Causes of Downfall of the Mauryas.
- v. Pushyamitra Sunga.
- vi. Kushans: Conquests and Cultural Contribution with special reference to Kanishka.

Unit-IV

- i. Origin and Sources of Guptas
- ii. Expansion of Guptas under Samudra Gupta and Chandra Gupta.
- iii. Causes of downfall of Guptas.
- iv. Harshavardhan's Administration.

Note for Paper setting:

The question paper will contain two questions from each Unit (total eight questions) and the candidates will be required to answer one question from each Unit (total questions to be attempted, will be four) i.e., there will be internal choice within the Unit.

BIBLIOGRAPHY:

1. Romila Thappar: *Early India from the origins to A.D 1300*, Penguin Books.
2. D.N Jha: *Ancient India in Historical Outline*, Manohar Publisher.
3. Bhartiya Vidhya Bhavan Series: Vol.-I: *The Vedic Age*.

Vol.-II: *The Age of Imperial Unity*

Vol.-III: *The Classical Age*.

4. Majumdar: *The Ancient India*, Motilal Banarsida.
5. D.Devahuti: *Harsha-A Political Study*, Oxford Press.
6. Dr. Baijanath Sharma: *Harsha and His times*, Sushma Prakastan Varanasi.
7. Irfan Habib and V.K Thakur-*The Vedic Age*.
8. Irfan Habib and V.Jha-*The Mauryan India*.
9. A.L Bashan-*Wonder that was India*.

DETAILED SYLLABUS
COURSE NO. 201
SEMESTER: SECOND (UNDER GRADUATE)

COURSE TITLE: **EARLY MEDIEVAL INDIA.**

Contact Programme- 90 Lectures.

Credit: 4

Maximum Marks:

(a) Semester Examination:

(b) Sessional Assessment:

(c) Minimum Pass Marks:

Duration of Examination: 2.30 Hours.

SYLLABUS.

Objective:

Unit-I

- i. Political Conditions of Northern India on the eve of Ghoridian Invasion.
Establishment of Turkish Sultanate with reference to Qutub-ud-din Aibak.
- ii. Iltutmish: Conquest & Consolidation.
- iii. Razia Sultan: Accession & Role of Nobility.
- iv. Ghiyas-ud-din Balban: Theory of Kingship and Achievements.

Unit-II

- i. Jala-ud-din Khilji-Conquests.
- ii. Ala-ud-din Khilji-Conquest of North India.
- iii. Ala-ud-din's Deccan Policy.
- iv. Revenue Administration & Market Control Policy of Ala-ud-din.

Unit-III

- i. Works of Ghiyas-ud-din Tughlaq.
- ii. Mohammed Tughlaq: Transfer of Capital, Token Currency, Taxation in Doas.
- iii. Conquest of Khurasan and Quarachil under Mohammad-bin-Tughlaq.
- iv. Feroz Shah Tughlaq: Public Welfare Activities and Religious Policy.

Unit-IV

- i. Timur's Invasion of India.
- ii. Conquests of Sikander Lodhi and Ibrahim Lodhi.
- iii. Administration of the Sultanate (1206-1520 A.D).
- iv. Architecture during Sultanate period (1200-1526 A.D).

Note for Paper setting:

The question paper will contain two questions from each Unit (total eight questions) and the candidates will be required to answer one question from each Unit (total questions to be attempted, will be four) i.e., there will be internal choice within the Unit.

BIBLIOGRAPHY:

1. Muhammad Habib and
Khaliq Ahmad N. Zahid : *Comprehensive History of India, Vol-V, the Delhi Sultanate.*
2. ABM Habibullah : *Foundation of Muslim Rule in India.*
3. Ishwani Prasad : *History of the Qurannah Turks.*
4. K.S Lal : *History of the Khiljis.*
5. A.B Pandey : *Early Medieval India.*
6. R.C Jawhari : *Firoz Shah Tughluq.*
7. A.M Hussain : *Tughluq Dynasty.*
8. A.L Srivastava : *The Sultanate of Delhi.*

HISTORY
IIIRD SEMESTER
DETAILED SYLLABUS FOR THE YEARS 2015, 2016 AND 2017.
COURSE NO. 301 (THEORY)
SEMESTER: THIRD (UNDER GRADUATE)

COURSE TITLE: MODERN INDIA.

Contact Programme- 90 Lectures.

Credit: 4

Maximum Marks: 100
(a) Semester Examination: 80
(b) Sessional Assessment: 20
(c) Minimum Pass Marks:

Duration of Examination: 2.30 Hours.

SYLLABUS.

Objective:

Unit-I

- i. Revolt of 1857: Causes, Nature and Repercussions.
- ii. Act of 1858: Causes, Salient features and general appraisal.
- iii. Reforms Movement of 19th Century Brahmo Samaj and Arya Samaj.
- iv. Social Legislation of 19th Century.

Unit-II

- i. Administrative Development under Lord Ripon.
- ii. Administrative Development under Lord Curzon.
- iii. Act of 1909: Causes, Salient features and general appraisal.
- iv. Act of 1919: Causes, Salient features and general appraisal.

Unit-III

- i. Rise of Indian Nationalism: Factors and Circumstances.
- ii. The Indian National Movement: Birth of Indian National Congress, Moderates and Extremists.
- iii. Non-Cooperation Movement.
- iv. Swaraj Party.

Unit-IV

- i. Simon Commission, Nehru Report.

- ii. The Cripps Mission.
- iii. Quit India Movement.
- iv. Cabinet Mission and Mountbatten Plan.

Note for Paper setting:

The question paper will contain two questions from each Unit (total eight questions) and the candidates will be required to answer one question from each Unit (total questions to be attempted, will be four) i.e., there will be internal choice within the Unit.

BIBLIOGRAPHY:

1. Tara Chand: *A History of Freedom Movement in India Vols. I, II, III & IV.*
2. R.C Majumdar: *History of Freedom Movement in India Vols. I, II and III.*
3. Durga Dass *India from Curzon to Nehru and after.*
4. A.C Kapoor: *Constitutional History of India.*
5. A.B Keith: *Constitutional History of India.*
6. J.L Nehru: *An Autobiography.*
7. G.S Chhabra: *An Advance Study in the History of Modern India, Vols. I, II, & III.*
8. Anil Seal: *Emergence of Indian Nationalism.*
9. S.R Mehrotra: *Emergence of Indian National Congress.*
10. Pattavi Sitaramayya: *History of the Indian National congress Vols. I and II.*
11. P.C Ghose: *Indian National Congress*
12. Daniel Argov: *Moderates and Extremists in the Indian National Movement.'*
13. Andrews and
Mookerji: *Rise and the Growth of the Congress.*
14. B.M Taunk: *Non-Cooperation Movement in Indian Politics.*
15. Sumit Sarkar: *Modern Indian.*
16. Bipin Chandra: *Nationalism.*
17. A.R Desai: *Social Background of Indian Nationalism.*
18. S. Gopal: *British Policy in India 1905 to 1947.*

Internal Assessment: 20 marks

i) Class Test: 10 Marks

ii) Two Written Assessment 10 Marks
(5 Marks each)

HISTORY
IVTH SEMESTER
DETAILED SYLLABUS FOR THE YEARS OF 2016, 2017 AND 2018.
COURSE NO. 401 (THEORY)
SEMESTER: FOURTH (UNDER GRADUATE)

COURSE TITLE: HISTORY OF JAMMU AND KASHMIR.

Contact Programme- 90 Lectures.

Credit: 4

Maximum Marks: 100
(a) Semester Examination: 80
(b) Sessional Assessment: 20
(c) Minimum Pass Marks:

Duration of Examination: 2.30 Hours.

SYLLABUS.

Objective:

Unit-I

- i. Sources of Kashmir History.
- ii. Lalitaditya: Conquests and Administration.
- iii. Avantiverman: Administrative Reforms.
- iv. Didda as Regent and as Queen.

Unit-II

- i. Foundation of Sultanate: Factors and Events.
- ii. Sultan Sikander: Conquests in Religious Policy.
- iii. Sultan Zain-ul-Abidin-Administration.
- iv. Sultan Zain-ul-Abidin-Religious Policy.

Unit-III

- i. Sources of the History of Jammu.
- ii. Raja Mal Dev; Political Achievements.
- iii. Rise of Jammu Kingdom under Ranjit Dev.
- iv. Early Life and Rise of Gulab Singh till 1819 A.D.

Unit-IV

- i. Expansion of Jammu Raj till 1846 A.D.
- ii. Circumstances leading to the foundation of the Modern Jammu and Kashmir.
- iii. Administration under Gulab Singh.
- iv. Administrative Reforms of Maharaja Ranbir Singh.

Note for Paper setting:

The question paper will contain two questions from each Unit (total eight questions) and the candidates will be required to answer one question from each Unit (total questions to be attempted, will be four) i.e., there will be internal choice within the Unit.

BIBLIOGRAPHY:

- | | | |
|-----|----------------------|--|
| 1. | P.N.K Bamzai: | <i>History of Kashmir.</i> |
| 2. | S.C Ray: | <i>Early History and Culture of Kashmir.</i> |
| 3. | K.S Saxena | <i>Political History of Kashmir.</i> |
| 4. | Mohibul Hasan: | <i>Kashmir under the Sultans.</i> |
| 5. | R.K Parma: | <i>A History of Muslim Rule in Kashmir.</i> |
| 6. | S.D.S Charak: | <i>The Rise and Fall of Jammu Kingdom.</i> |
| 7. | S.D.S Charak: | <i>Zorawar Singh.</i> |
| 8. | S.D.S Charak: | <i>History and Culture of Himalayan States, Vol. IV.</i> |
| 9. | Satinder Singh Bawa: | <i>Jammu Fox.</i> |
| 10. | M.L Kapoor: | <i>History of Jammu and Kashmir Vol. I.</i> |
| 11. | M.L Kapoor: | <i>Kingdom of Kashmir.</i> |
| 12. | S.D.S Charak: | <i>A Short History of Jammu Raj.</i> |

Internal Assessment: 20 marks

i) Class Test: 10 Marks

ii) Two Written Assessment 10 Marks
(5 Marks each)

HISTORY
VTH SEMESTER
DETAILED SYLLABUS FOR THE EXAMINATION 2016, 2017 AND 2018.
COURSE NO. 501 (THEORY)
SEMESTER: FIFTH (UNDER GRADUATE)

COURSE TITLE: **HISTORY OF MODERN EUROPE TILL 1870.**

Contact Programme- 90 Lectures.

Credit: 4

Maximum Marks: 100
(a) Semester Examination: 80
(b) Sessional Assessment: 20
(c) Minimum Pass Marks:

Duration of Examination: 2.30 Hours.

SYLLABUS.

Objective:

Unit-I

- i. Causes and Characteristics of Renaissance.
- ii. Reformation: Movement and Causes.
- iii. Role of Martin Luther in the Reformation Movement.
- iv. Counter Reformation: Movement, Causes and Success.

Unit-II

- i. French Revolution: Causes.
- ii. Achievements of National Assembly.
- iii. Role of National Convention.
- iv. Works of Napoleon as first counsel.

Unit-III

- i. Continental System of Napoleon.
- ii. Causes of the Downfall of Napoleon.
- iii. Settlement of 1815 and its Consequences.
- iv. Revolution of 1830- Causes & Consequences.

Unit-IV

- i. Industrial Revolution: Genesis and Consequences.
- ii. Unification of Italy.
- iii. Foreign Policy of Napoleon-III.
- iv. Unification of Germany.

Note for Paper setting:

The question paper will contain two questions from each Unit (total eight questions) and the candidates will be required to answer one question from each Unit (total questions to be attempted, will be four) i.e., there will be internal choice within the Unit.

BIBLIOGRAPHY:

- | | | |
|-----------------------|---|---|
| 1. David Thompson | : | <i>Europe since Napoleon.</i> |
| 2. D.M Kettel by | : | <i>A History of Modern Times.</i> |
| 3. Grant and Temperly | : | <i>Europe in the 19th and 20th Centuries.</i> |
| 4. Raghuvir Dayal | : | <i>A Text Book of Modern European History.</i> |
| 5. K.L Sachdeva | : | <i>A History of Modern Europe.</i> |
| 6. Clyde & Bears | : | <i>Far East in Modern Times.</i> |
| 7. H.M Vinayacke | : | <i>A History of the Far East in Modern Times.</i> |

Internal Assessment: 20 marks

i) Class Test: 10 Marks

ii) Two Written Assessment 10 Marks
(5 Marks each)

HISTORY
VITH SEMESTER
DETAILED SYLLABUS FOR THE EXAMINATION 2017, 2018 AND 2019.
COURSE NO. 601 (THEORY)
SEMESTER: SIXTH (UNDER GRADUATE)

COURSE TITLE: MODERN WORLD 1860 TO 1945.

Contact Programme- 90 Lectures.

Credit: 4

Maximum Marks: 100
(a) Semester Examination: 80
(b) Sessional Assessment: 20
(c) Minimum Pass Marks:

Duration of Examination: 2.30 Hours.

SYLLABUS.

Objective:

Unit-I

- i. Bismarck's Foreign Policy-Basic objectives, relations with France & Russia.
- ii. Franco-Russian Alliance of 1894.
- iii. Anglo-French Entente of 1904.
- iv. Anglo Russian Entente of 1907.

Unit-II

- i. Causes of Russian Revolution of 1917.
- ii. Causes of Bolshevik Revolution (October, 1917).
- iii. Causes of Bolshevik Success & Immediate Consequences.
- iv. Contribution of Lenin (1917-1924).

Unit-III

- i. Causes of First World War & Peace Settlement of 1919.
- ii. League of Nations: Achievements: Political & Socio-Economic.
- iii. Failures of League of Nations & Causes of the failures of the league.
- iv. Modernization of Japan (1868-1905).

Unit-IV

- i. Rise of Chinese Nationalism & Role of Dr. Sun-Yat-Sen.
- ii. Modernization of Turkey under Mustafa Kamal Pasha.
- iii. Foreign Policy of Hitler (1933-39).
- iv. Causes of World War II and its Immediate Consequences.

Note for Paper setting:

The question paper will contain two questions from each Unit (total eight questions) and the candidates will be required to answer one question from each Unit (total questions to be attempted, will be four) i.e., there will be internal choice within the Unit.

BIBLIOGRAPHY:

- | | | |
|-----------------------------------|---|---|
| 1. David Thompson | : | <i>Europe since Napoleon.</i> |
| 2. D.M Kettel by | : | <i>A History of Modern Times.</i> |
| 3. Grant and Temperly | : | <i>Europe in the 19th and 20th Centuries.</i> |
| 4. Raghuvir Dayal | : | <i>A Text Book of Modern European History.</i> |
| 5. K.L Sachdeva | : | <i>A History of Modern Europe.</i> |
| 6. Clyde & Bears | : | <i>Far East in Modern Times.</i> |
| 7. H.M Vinayacke | : | <i>A History of the Far East in Modern Times.</i> |
| 8. Arjun Dev & Indra
Arjun Dev | : | <i>History of the World.</i> |

Internal Assessment: 20 marks

i) Class Test: 10 Marks

ii) Two Written Assessment 10 Marks
(5 Marks each)

PERSIAN

SEMESTER - III

Examinations to be held in the years 2015,2016 & 2017.

Course Code. PR 301

Course Title - Persian Text II, History of Persian Literature

Duration of Exams : 3 Hrs

Total Marks : 100

Theory Exams : 80

Internal Assessment : 20

UNIT-I

آموزش زبان فارسی "حصه دوم" از مهدی ضرغامیان

۱- درس اول، دوم

۲- درس سوم، چهارم

UNIT-II

کتاب درس فارسی (حصه دوم) از شمس الدین احمد

Translation and Explanation:

۱- بلای سخت (رودکی)

۲- رباعیات ۱ تا ۱۰ (خیام)

۳- موسی و شبان (رومی)

۴- شب فراق، رفتار زیبا- (سعدی)

UNIT-III

کتاب درس فارسی (حصه دوم) از شمس الدین احمد

Translation and Explanation:

- ۱- پیمان شکن، شرف مرد (فرخی)
- ۲- غزلیات ۱، ۲، ۳- (غنی کاشمیری)
- ۳- سکوت شب، دماوند (بهار)

UNIT-IV

Critical note on life and literary works of Prescribed Poet of Unit-II and III

UNIT-V

Origin and development of Persian literature during the "Ghaznavid Period" (غزنوی دور)

Note For Paper Setting:

The paper setter shall set two questions from each unit in accordance with the syllabus detailed under the respective units and Students shall be required to attempt one Question from each unit. the total number of Questions to be attempted from all unit shall be five. All unit shall carry equal marks.

Books Recommended;

- ۱) آموزش زبان فارسی (حصه دوم) (مهدی ضرغامیان)
- ۲) کتاب درس فارسی (حصه دوم) (شمس الدین احمد)
- ۳) تاریخ ادبیات ایران (رضا اذشفق)
- ۴) شعر العجم (شبلی نعمانی)
- ۵) جدید ادبیات ایران (منظر امام)

- (۶) جدید فارسی شاعری (منیب الرحمن)
(۷) لغات کشوری/فرہنگ عامرہ
(۸) ہدایت الترجمہ/رفیق الترجمہ
(۹) جدید فارسی نصاب (سمسٹر III) (قائمی کتب خانہ جموں)

Distribution of Internal Assessment: Total Marks: 20
Class Test :10 Marks
Two written Assignments- 10 Marks (05 Marks each)

PERSIAN

SEMESTER - IV

Examinations to be held in the years 2016,2017 & 2018

Course Code. PR - 401

Course Title - Persian Text II, History of Persian Literature

Duration of Exams : 3 Hrs

Total Marks : 100

Theory Exams : 80

Internal Assessment : 20

UNIT-I

آموزش زبان فارسی 'حصه دوم' از مهدی ضرغامیان

۱- درس پنجم، ششم

۲- درس هفتم، هشتم

UNIT-II

کتاب درس فارسی (حصه دوم) از شمس الدین احمد

Translation and Explanation:

۱- وزنه برداران

۲- داستان خیر و شر از نظامی

۳- پزشک انسان دوست (۱) (۲)

UNIT-III

کتاب درس فارسی (حصه دوم) از شمس الدین احمد

Translation and Explanation:

- ۱- فداکاری مادر و عزم و اراده فرزند (۱) (۲)
- ۲- بانوی فانوس به دست
- ۳- شیرین کلا..... از محمد مجازی
- ۴- انتخاب از جوامع الحکایات (حکایت ۳، ۲، ۱)

UNIT-IV

1. Life and literary works of Prescribed Writers of Unit-II and III
2. Answer of Prescribed Questions (پرسش و تمرین) of Unit- II and III

UNIT-V

Detailed study of origin and development of persian literature during th "Saljuqid Period" (سلجوقی دور)

Note For Paper Setting:

The paper setter shall set two questions from each unit in accordance with the syllabus detailed under the respective units and Students shall be required to attempt one Question from each unit. the total number of Questions to be attempted from all unit shall be five. All unit shall carry equal marks.

Books Recommended;

- ۱) آموزش زبان فارسی (مهدی ضرغامیان) حصه دوم
- ۲) کتاب درس فارسی (شمس الدین احمد) حصه دوم
- ۳) تاریخ ادبیات ایران (رضا دانشنق) (رضا دانشنق)

- (۴) شعر العجم (شبلی نعمانی)
(۵) جدید ادبیات ایران (منظر امام)
(۶) جدید فارسی شاعری (منیب الرحمن)
(۷) لغات کشوری/فرہنگ عامرہ
(۸) ہدایت ترجمہ/رفیق ترجمہ
(۹) جدید فارسی نصاب (سمسٹر IV) (قاسمی کتب خانہ جموں)

Distribution of Internal Assessment: Total Marks : 20

Class Test :10 Marks

Two written Assignments- 10 Marks (05 Marks each)

PERSIAN

SEMESTER - V

Examinations to be held in the years 2016,2017 & 2018

Course Code. PR - 501

Course Title - Persian Text III,History of Persian Literature

Duration of Exams : 3 Hrs

Total Marks : 100

Theory Exams : 80

Internal Assessment : 20

UNIT-I

آموزش زبان فارسی "حصه سوم" از مهدی ضرغامیان

۱- درس اول، دوم

۲- درس سوم، چهارم

UNIT-II

کتاب درس فارسی (حصه سوم) از شمس الدین احمد

Translation and Explanation:

۱- بادنوروزی، زاغ و باز (عنصری)

۲- تماشای باغ، مردم هنری (انوری)

۳- آیین مردی، ترانهها (مسعود سعد سلمان)

UNIT-III

کتاب درس فارسی (حصہ سوم) از شمس الدین احمد

Translation and Explanation:

- ۱۔ کاخ آرزو، دامگاہِ حادثہ۔ (حافظ)
- ۲۔ غزلیات نمبر: ۳، ۴، ۵۔ (خواجہ کرمانی)
- ۳۔ در برابر خدا، گریز و درد (خانم فروغ فرخ زاد)

UNIT-V

Life and literary works of Prescribed
Poets of Unit-II and III

UNIT-V

Origin and development of Persian literature during the
"Taimurid Period" (تیوری دور)

Note For Paper Setting:

The paper setter shall set two questions from each unit in accordance with the syllabus detailed under the respective units and Students shall be required to attempt one Question from each unit. the total number of Questions to be attempted from all unit shall be five. All unit shall carry equal marks.

Books Recommended;

- | | | |
|-----------------------|---------|------------------|
| ۱۔ آموزش زبان فارسی | حصہ سوم | (مہدی ضرغامیان) |
| ۲۔ کتاب درس فارسی | حصہ سوم | (شمس الدین احمد) |
| ۳۔ تاریخ ادبیات ایران | | (رضا زادشوق) |
| ۴۔ شعرا العجم | | (شبلی نعمانی) |

- (۵) جدید ادبیات ایران (منظر امام)
(۶) جدید فارسی شاعری (منیب الرحمن)
(۷) لغات کشوری/فرہنگ عامرہ
(۸) ہدایت ترجمہ/رفیق ترجمہ
(۹) جدید فارسی نصاب (سمسٹر V-VI) (قاسمی کتب خانہ جموں)

Distribution of Internal Assessment: Total Marks :20

Class Test :10 Marks

Two written Assignments- 10 Marks (05 Marks each)

PERSIAN

SEMESTER - VI

Examinations to be held in the years 2017,2018 & 2019

Course Code. PR - 601

Course Title - Persian Text III, History of Persian Literature

Duration of Exams : 3 Hrs

Total Marks : 100

Theory Exams : 80

Internal Assessment : 20

UNIT-I

آموزش زبان فارسی "حصه سوم" از مهدی ضرغامیان

۱- درس پنجم، هشتم

۲- درس هفتم، هشتم

UNIT-II

کتاب درس فارسی "حصه سوم" از شمس الدین احمد

Translation and Explanation:

۱- سازمان ملل متحد

۲- داستانها

۳- کشف امریکا-

۴- به ورزش تن خود بنیر و کنیم-

UNIT-III

کتاب درس فارسی (حصه سوم) از شمس الدین احمد

Translation and Explanation:

- ۱- نوروز.....از پرویز خانلری
- ۲- احقاق حق یک بچه.....از مجتبی مینوی
- ۳- دُغمه زندگان.....از علی دشتی

UNIT-IV

1. Life and literary works of Prescribed Writers of Unit-II and III
2. Answer of Prescribed Questions (پرسش و تمرین) of Unit- II and III

UNIT-V

Origin and development of Persian literature during the "Modern Period" (جدید دور)

Note For Paper Setting:

The paper setter shall set two questions from each unit in accordance with the syllabus detailed under the respective units and Students shall be required to attempt one Question from each unit. the total number of Questions to be attempted from all unit shall be five. All unit shall carry equal marks.

Books Recommended;

- (۱) آموزش زبان فارسی (حصه سوم) (مهدی ضرغامیان)
- (۲) کتاب درس فارسی (حصه سوم) (شمس الدین احمد)
- (۳) تاریخ ادبیات ایران (رضا زاهدی شفق)

- (۴) شعر العجم (شبلی نعمانی)
(۵) جدید ادبیات ایران (منظر امام)
(۶) جدید فارسی شاعری (منیب الرحمن)
(۷) لغات کشوری/فرہنگ عامرہ
(۸) ہدایت الترجمہ/رفیق الترجمہ
(۹) جدید فارسی نصاب (سمسٹر V-VI) (قاسمی کتب خانہ جہوں)

Distribution of Internal Assessment: Total Marks: 20
Class Test :10 Marks
Two written Assignments- 10 Marks (05 Marks each)

PERSIAN

SEMESTER - I

Examination to be held on Dec. 2016, 2017, 2018.

Course Code. UPRT101 Credits: 4+2

Course Title - Persian Text I, History of Persian Literature

Duration of Exams : 3 Hrs Theory Exams: 80

Total Marks : 100 Internal Assessment: 20

Objectives: To enable the students to read, write, speak and understand the origin, development and importance of Persian Language and literature.

UNIT-I

آموزش زبان فارسی ”حصه اول“ (از مهدی ضرغامیان)

۱- درس اول

۲- درس دوم

۳- درس سوم

۴- درس چهارم

UNIT-II

۱- درس پنجم آموزش زبان فارسی حصه اول

۲- فعل ماضی و اقسام

۳- فعل حال، فعل مستقبل، فعل امر، فعل نهی

UNIT-III

کتاب درس فارسی ”حصہ اول“ از شمس الدین احمد

Translation and Explanation

- ۱۔ توانا بود هر که دانا بود (فردوسی)
- ۲۔ بخورتا توانی بازوی خویش (سعدی)
- ۳۔ محنت قرب، فتنه جو، سرکش، تسلیم (جامی)
- ۴۔ هوای عشق، شب وصل، ترانہا (فیضی)

UNIT-IV

کتاب درس فارسی ”حصہ اول“ از شمس الدین احمد

Translation and Explanation

- ۱۔ غزل ۸-۹-۱۰ (ملاحسن فانی کشمیری)
- ۲۔ آئین عشق، سوال بوسہ (قآنی)
- ۳۔ حدیث مہر، لطف حق (پروین اعتصامی)
- ۴۔ گنہگار، یاران نیمہ راہ (فریدون تولّی)

UNIT-V

Critical note on life and literary works of prescribed poets of Unit III & IV.

Note For Paper Setting:

The paper setter shall set two questions from each unit in accordance with the syllabus detailed under the respective units and Students shall be required to attempt one Question from each unit. the total number of Questions to be attempted from all unit shall be five. All unit shall carry equal marks.

Books Recommended;

- ۱- آموزش زبان فارسی حصه اول (مهدی ضرغامیان)
- ۲- کتاب درس فارسی (حصه اول)
- ۳- تاریخ ادبیات ایران (رضا زاده شفق)
- ۴- شعر العجم (شبلی نعمانی)
- ۵- هدایت الترجمة / رفیق الترجمة
- ۶- دوره جدید زبان فارسی (قاسم کتب خانه)

PERSIAN

SEMESTER - II

Examination to be held on May 2017, 2018, 2019.

Course Code. UPRT201 Credits: 4+2
Course Title - Persian Text I, History of Persian Literature
Duration of Exams : 3 Hrs Theory Exams : 80
Total Marks : 100 Internal Assessment: 20

Objectives: To enable the students to read, write, speak and understand the origin, development and importance of Persian Language and literature.

UNIT-I

آموزش زبان فارسی "حصه اول" (از مهدی خرنامیان)

- ۱- درس ششم
- ۲- درس هفتم
- ۳- درس هشتم
- ۴- درس نهم

UNIT-II

کتاب درس فارسی "حصه اول" از شمس الدین احمد

Translation and Explanation

- ۱- پیر نام خدا
- ۲- از من نگهداری کنید
- ۳- داستان پرواز ۳ تا ۳

- ۴۔ اختراع ٹیلیفون
۵۔ مقررات عبور و مرور

UNIT-III

کتاب درس فارسی ”ہفتہ اول“ از شمس الدین احمد
Translation and Explanation

- ۱۔ ادیسون
۲۔ دہقان فداکار
۳۔ حکایت (سعدی)
۴۔ بہترین ارمغان
۵۔ کودک سہراب اتا۳ (فردوسی)

UNIT-IV

1. Critical note on life and literary works of prescribed writers of Unit-II and III.
2. Origin and development of Persian Literature with special references to Ghazal, Qasida, Masnavi and Rubai.

UNIT-V

Detailed study of Origin and development of Persian literature during the period of "Saamanid" and Ghaznavi.

Note For Paper Setting:

The paper setter shall set two questions from each unit in accordance with the syllabus detailed under the respective units and Students shall be required to attempt one Question from each unit. the total number of Questions to be attempted from all unit shall be five. All unit shall carry equal marks.

Books Recommended;

- (۱) آموزش زبان فارسی حصه اول (مهدی ضرغامیان)
- (۲) کتاب درس فارسی حصه اول
- (۳) تاریخ ادبیات ایران (رضا زادشفق)
- (۴) شعر العجم (شبلی نعمانی)
- (۵) هدایت ترجمه / رفیق الترجمة
- (۶) دوره جدید زبان فارسی (قاسم کتب خانه)

NO/PG/POL/16/312

Dated 4-8-16

University of Jammu, Jammu

**Syllabi and Courses of Study for
Bachelor of Arts (B.A.)**

Semesters I – 2016, 2017, 2018

Semester II – 2017, 2018, 2019

**B.A.POLITICAL SCIENCE
CHOICE BASED CREDIT SYSTEM SYLLABUS**

Semester-I

COURSE NO.: USPSTC-101 TITLE: INTRODUCTION TO POLITICAL SCIENCE

DURATION OF EXAM : 3 HRS

TOTAL MARKS : 100

THEORY EXAM: 80

CREDITS : 4

INTERNAL ASSESSMENT: 20

UNIT-I : POLITICAL THEORY AND POLITICAL SCIENCE

- 1.1 Introduction to Political Science, Politics and Political Theory
- 1.2 Nature and scope of Political Science
- 1.3 Traditional Approaches to the study of Political Science (Philosophical, Historical, Legal Institutional)
- 1.4 Modern Approaches (Behavioural and System)

UNIT-II: STATE: ORIGIN AND NATURE

- 2.1 Meaning and Elements of State : Difference between State, Society and Nation
- 2.2 Theories of Origin of State : Divine, Historical/Evolutionary and Social Contract
- 2.3 Theories of Nature of State ; Origin, Liberal and Marxist
- 2.4 Sovereignty and its Theories : Austin's Theory and Pluralistic Theory

UNIT-III : BASIC CONCEPTS

- 3.1 Right and various Perspectives (Liberal and Marxist) and Concept of Justice (Social, Economic, Political and Legal)
- 3.2 Liberty, Equality and their Relationship
- 3.3 Power, Authority and Legitimacy
- 3.4 Democracy: Meaning, Evolution and Types

UNIT-IV : MAJOR IDEOLOGIES

- 4.1 Liberalism: Classical, Modern and Contemporary
- 4.2 Socialism: Evolutionary (Fabian) and Revolutionary (Marxian)
- 4.3 Secularism: Western and Indian Perspectives

[Signature]

See the note on 11nd page

[Signature]
Head

Dept. of Political Science

2

4.4 Feminism: Meaning and Issues

Note for Paper-setter:

Theory Examination: The question paper will be divided into two sections.

Section-I: It will carry 20 marks. There will be total 08 short answer type questions in this section. Students will attempt any four questions with upper limit of 150 words in every answer. Each question will be of 5 marks.

Section-II: It will consist of 08 questions of which students will attempt 04 questions from within unit choice. The upper limit of answer to each question will be 750 words. Each question will be of 15 marks. Total marks in this section will be 60.

Internal Assessment (Total marks: 20):

Twenty (20) marks are for internal assessment in each paper on the basis of following pattern:

(i) Class Test 10 marks

(ii) Two written assignments/project reports 10 marks (05 marks each)

Suggested Readings:

Aggarwal, R.C. **Political Theory**, S.Anand, New Delhi, 2004

Heywood, Andrew **Political Ideologies: An Introduction**, Palgrave, N.York, 1992

Jain M.P **Political Theory**, Guild, Delhi, 1989

Johri, J.C. **Contemporary Political Theory: Basis Concepts and Trends**, Sterling Publishers, New Delhi, 1987

Joad, C.E.M. **Modern Political Theory**, Clarendon Press, Oxford, 1924

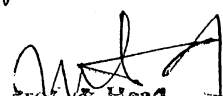
Kapoor, A.C. **Principles of Political Science**, Sterling Publishers, New Delhi, 1985

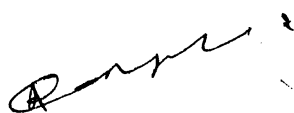
Laski, Harold **Grammar of Politics**, Yale University Press, Michigan, 1925

Ray, Amal **Political Theory: Ideas and Institutions**, Bhattacharya, Mohit Eastern Publishers, New Delhi, 1962

Vermani, R.C. **An Introduction to Political Theory**, Gitanjali Publishing House, New Delhi, 2001

This Syllabi and Courses of study for Bachelor of Arts (BA), Semesters I, II needs approval of the Board of Studies. However, the undersigned is sending the syllabi and the note for paper setter as desired by the DAA in a emergency situation in anticipation of the approval of the BOS.


Prof. & Head
Deptt. of Political Science
University of Jammu
Jammu,



NO/PG/Pol/16/312

Dated: 4-8-11

B.A.

POLITICAL SCIENCE

Semester- II - May. 2017, 2018 and 2019

COURSE NO.: USPSTC201 TITLE: INDIAN GOVERNMENT AND POLITICS

DURATION OF EXAM : 3 HRS TOTAL MARKS: 100

THEORY EXAM : 80

CREDITS: 4

INTERNAL ASSESSMENT: 20

UNIT-I : INTRODUCTION TO INDIAN CONSTITUTION

- 1.1 Indian Constitution: Evolution, Ideological Basic and Features
- 1.2 Fundamental Rights, Directive Principles of State Policy and Fundamental Duties
- 1.3 Federalism: Structure, Nature and Emerging Trends
- 1.4 Procedure for Amendment

UNIT-II: GOVERNMENT: STRUCTURE AND FUNCTIONS

- 2.1 Indian Parliament: Composition and Law Making Procedure
- 2.2 The President of India: Formal Powers and Position
- 2.3 The Prime Minister and Council of Ministers: Formal Powers and Position
- 2.4 The Supreme Court of India: Jurisdiction, Judicial Review and Judicial Activism

UNIT-III: POLITICAL PROCESS

- 3.1 Party System in India: Evolution from One Party Dominant System to Multiparty System
- 3.2 Coalition Politics: Nature and Trends
- 3.3 Ideology and Social Base of National Parties: Congress, Bhartiya Janata Party and Communist Parties
- 3.4 Nature and Evolution of Regional Parties: Akali Dal, AIADMK and TDP

UNIT-IV: MAJOR POLITICAL ISSUES

- 4.1 Ethnicity and Identity Politics in India
- 4.2 Role of Caste in Indian Politics
- 4.3 Communalism in Indian Politics
- 4.4 Regionalism in Indian Politics

Note for Paper-setter:

Theory Examination: The question paper will be divided into two sections.

Section-I: It will carry 20 marks. There will be total 08 short answer type questions in this section. Students will attempt any four questions with upper limit of 150 words in every answer. Each question will be of 5 marks.

Section-II: It will consist of 08 questions of which students will attempt 04 questions from within unit choice. The upper limit of answer to each question will be 750 words. Each



see the note on the 2nd page

 & Head
Dept. of Political Science

2

question will be of 15 marks. Total marks in this section will be 60.

Internal Assessment (Total marks: 20):

Twenty (20) marks are for internal assessment in each paper on the basis of following pattern:

- (i) Class Test 10 marks
- (ii) Two written assignments/project reports 10 marks (05 marks each)

Suggested Readings:

Basu D.D **Introduction to Constitution of India**, Wadhwa Publishers, New Delhi, 2001
Brass, Paul **Ethnicity and Nationalism: Theory and Comparison**, Sage, New Delhi, 1991
Chandra, Bipin **India After Independence**, Penguin, New Delhi, 2000
Chandra, Bipin **Nationalism and Colonialism in Modern India**, Orient Langman, New Delhi, 1979
Chatterjee, Partha **State and Politics in India**, OUP New Delhi, 1999
Chauhan & Vasudeva **Coalition Government in India**, OUP, New Delhi, 2013
Fadia, B.L. **Government and Politics**, Sahitya Bhawan, Agra, 2008
Hasan, Zoya **Politics and the State in India**, Sage, New Delhi, 2000
Kaviraj, Sudipta **Politics in India**, Orient Langman, Delhi, 1979
Mahajan, Gurpreet **Democracy, Differences and Social Justice**, Oxford, New Delhi, 1998
Natrang, A.S **Indian Government and Politics**, Gitanjali Publications, New Delhi, 2000

Ansul

This Syllabi and courses of study for Bachelor of Arts (BA), Semesters I, II needs approval of the Board of Studies. However, the undersigned is sending the syllabi and the note for paper setter as desired by the DAA in a emergency situation in anticipation of the approval of the BOS.

MAA
Prof. & Head
Deptt. of Political Science
University of Jammu
Jammu,
8-16

University of Jammu, Jammu

Syllabi and Courses of Study for Bachelor of Arts (B.A.)

Semesters I – 2014, 2015, 2016

Semester II – 2015, 2016, 2017

Semester III – 2016, 2017, 2018

Semester IV – 2017, 2018, 2019

Semester V – 2018, 2019, 2020

Semester VI – 2019, 2020, 2021

**B.A.
POLITICAL SCIENCE
Semester-I**

COURSE NO.:PS-101 TITLE: INTRODUCTION TO POLITICAL SCIENCE

**DURATION OF EXAM : 3 HRS TOTAL MARKS : 100
THEORY EXAM: 80
INTERNAL ASSESSMENT:20**

UNIT-I : POLITICAL THEORY AND POLITICAL SCIENCE

- 1.1 Introduction to Political Science, Politics and Political Theory
- 1.2 Nature and scope of Political Science
- 1.3 Traditional Approaches to the study of Political Science (Philosophical, Historical, Legal Institutional)
- 1.4 Modern Approaches (Behavioural and System)

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- 2.1 Meaning and Elements of State : Difference between State, Society and Nation
- 2.2 Theories of Origin of State : Divine, Historical/Evolutionary and Social Contract
- 2.3 Theories of Nature of State ; Origin, Liberal and Marxist
- 2.4 Sovereignty and its Theories : Austin's Theory and Pluralistic Theory

UNIT-III : BASIC CONCEPTS

- 3.1 Right and various Perspectives (Liberal and Marxist) and Concept of Justice (Social, Economic, Political and Legal)
- 3.2 Liberty, Equality and their Relationship
- 3.3 Power, Authority and Legitimacy
- 3.4 Democracy: Meaning, Evolution and Types

UNIT-IV : MAJOR IDEOLOGIES

- 4.1 Liberalism: Classical, Modern and Contemporary
- 4.2 Socialism: Evolutionary (Fabian) and Revolutionary (Marxian)
- 4.3 Secularism: Western and Indian Perspectives
- 4.4 Feminism: Meaning and Issues

Note for Paper-setter:

Theory Examination: The question paper will be divided into two sections.

Section-I: It will carry 20 marks. There will be total 08 short answer type questions in this section. Students will attempt any four questions with upper limit of 150 words in every answer. Each question will be of 5 marks.

Section-II: It will consist of 08 questions of which students will attempt 04 questions from within unit choice. The upper limit of answer to each question will be 750 words. Each question will be of 15 marks. Total marks in this section will be 60.

Internal Assessment (Total marks: 20):

Twenty (20) marks are for internal assessment in each paper on the basis of following pattern:

- | | |
|--|--------------------------|
| (i) Class Test | 10 marks |
| (ii) Two written assignments/project reports | 10 marks (05 marks each) |

Suggested Readings:

- | | |
|-----------------|---|
| Aggarwal, R.C. | Political Theory , S.Anand, New Delhi, 2004 |
| Heywood, Andrew | Political Ideologies: An Introduction , Palgrave, N.York, 1992 |
| Jain M.P | Political Theory , Guild, Delhi, 1989 |
| Johri, J.C. | Contemporary Political Theory: Basis Concepts and Trends , Sterling Publishers, New Delhi, 1987 |
| Joad, C.E.M. | Modern Political Theory , Clarendon Press, Oxford, 1924 |
| Kapoor, A.C. | Principles of Political Science , Sterling Publishers, New Delhi, 1985 |
| Laski, Harold | Grammar of Politics , Yale University Press, Michigan, 1925 |
| Ray, Amal | Political Theory: Ideas and Institutions , Bhattacharya, Mohit Eastern Publishers, New Delhi, 1962 |
| Vermani, R.C. | An Introduction to Political Theory , Gitanjali Publishing House, New Delhi, 2001 |

**B.A.
POLITICAL SCIENCE
Semester- II**

COURSE NO.: PS-201

TITLE: INDIAN GOVERNMENT AND POLITICS

DURATION OF EXAM : 3 HRS

TOTAL MARKS: 100

THEORY EXAM : 80

INTERNAL ASSESSMENT: 20

UNIT-I : INTRODUCTION TO INDIAN CONSTITUTION

- 1.1 Indian Constitution: Evolution, Ideological Basic and Features
- 1.2 Fundamental Rights, Directive Principles of State Policy and Fundamental Duties
- 1.3 Federalism: Structure, Nature and Emerging Trends
- 1.4 Procedure for Amendment

UNIT-II:GOVERNMENT: STRUCTURE AND FUNCTIONS

- 2.1 Indian Parliament: Composition and Law Making Procedure
- 2.2 The President of India: Formal Powers and Position
- 2.3 The Prime Minister and Council of Ministers: Formal Powers and Position
- 2.4 The Supreme Court of India: Jurisdiction, Judicial Review and Judicial Activism

UNIT-III:POLITICAL PROCESS

- 3.1 Party System in India: Evolution from One Party Dominant System to Multiparty System
- 3.2 Coalition Politics: Nature and Trends
- 3.3 Ideology and Social Base of National Parties: Congress, Bhartiya Janata Party and Communist Parties
- 3.4 Nature and Evolution of Regional Parties: Akali Dal, AIADMK and TDP

UNIT-IV: MAJOR POLITICAL ISSUES

- 4.1 Ethnicity and Identity Politics in India
- 4.2 Role of Caste in Indian Politics
- 4.3 Communalism in Indian Politics
- 4.4 Regionalism in Indian Politics

Note for Paper-setter:

Theory Examination: The question paper will be divided into two sections.

Section-I: It will carry 20 marks. There will be total 08 short answer type questions in this section. Students will attempt any four questions with upper limit of 150 words in every answer. Each question will be of 5 marks.

Section-II: It will consist of 08 questions of which students will attempt 04 questions from within unit choice. The upper limit of answer to each question will be 750 words. Each question will be of 15 marks. Total marks in this section will be 60.

Internal Assessment (Total marks: 20):

Twenty (20) marks are for internal assessment in each paper on the basis of following pattern:

- | | |
|--|--------------------------|
| (i) Class Test | 10 marks |
| (ii) Two written assignments/project reports | 10 marks (05 marks each) |

Suggested Readings:

Basu D.D	Introduction to Constitution of India , Wadhwa Publishers, New Delhi, 2001
Brass, Paul	Ethnicity and Nationalism: Theory and Comparison , Sage, New Delhi, 1991
Chandra, Bipin	India After Independence , Penguin, New Delhi, 2000
Chandra, Bipin	Nationalism and Colonialism in Modern India , Orient Langman, New Delhi, 1979
Chatterjee, Partha	State and Politics in India , OUP New Delhi, 1999
Chauhan & Vasudeva	Coalition Government in India , OUP, New Delhi, 2013
Fadia, B.L.	Government and Politics , Sahitya Bhawan, Agra, 2008
Hasan, Zoya	Politics and the State in India , Sage, New Delhi, 2000
Kaviraj, Sudipta	Politics in India , Orient Langman, Delhi, 1979
Mahajan, Gurpreet	Democracy, Differences and Social Justice , Oxford, New Delhi, 1998
Natrang, A.S	Indian Government and Politics , Gitanjali Publications, New Delhi, 2000

**B.A.
Political Science
Semester-III**

Course no. PS-301

Title: Western Political Thought

Duration of Exam.: 3 Hours

Total Marks: 100

Theory Examination: 80

Internal Assessment: 20

Unit-I: Plato (427 B.C. – 347 B.C.)

- 1.1 Concept of Justice: Prevalent Theories of Justice and Plato's Concept of Justice
- 1.2 Concept of Education: Education in Ancient Greece and Platonic Concept of Education
- 1.3 Concept of Communism: Communism of Wives and Children and Property
- 1.4 Concept of Ideal State and Philosopher King

Unit-II: Aristotle (384 B.C. – 322 B.C.)

- 2.1 Aristotle as Father of Political Science: A shift from Political Philosophy to Political Science
- 2.2 Aristotle's views on Household: Criticism of Plato's Concept of Communism and Aristotle's Concept of Slavery
- 2.3 Aristotle's Classification of Government and Concept of Revolution
- 2.4 Aristotle's best practicable State: Concept and Characteristics

Unit-III: Machiavelli (1469 -- 1527 A.D.)

- 3.1 Renaissance and its impact on Machiavelli
- 3.2 Machiavelli's views on Human Nature and Motives – Implications and Evaluation
- 3.3 Machiavelli's views on Relationship between Ethics and Politics
- 3.4 Machiavelli's views regarding Preservation and Extension of State Power

Unit-IV: John Stuart Mill (1806 – 1873)

- 4.1 Concept of Liberty, Thought, Expression and Action
- 4.2 Mill's views on Women's Equality
- 4.3 Mill's views on Representative Government: Proportional Representation and Plural Voting
- 4.4 Relevance of Mill's Ideas on Modern State and Government

Note for Paper-setter:

Theory Examination: The question paper will be divided into two sections.

Section-I: It will carry 20 marks. There will be total 08 short answer type questions in this section. Students will attempt any four questions with upper limit of 150 words in every answer. Each question will be of 5 marks.

Section-II: It will consist of 08 questions of which students will attempt 04 questions from within unit choice. The upper limit of answer to each question will be 750 words. Each question will be of 15 marks. Total marks in this section will be 60.

Internal Assessment (Total marks: 20):

Twenty (20) marks are for internal assessment in each paper on the basis of following pattern:

- | | |
|--|--------------------------|
| (i) Class Test | 10 marks |
| (ii) Two written assignments/project reports | 10 marks (05 marks each) |

Suggested Readings:

Annas, J, *An Introduction to Plato's Republic*, Clarendon Press, Oxford, 1981.
Aristotle, *The Politics*, OUP, Oxford, 1982.
Brian, Nelson, *Western Political Thought*, Second Edition, Pearson, New Delhi, 2006.
Barker, Ernest, *The Political Thought of Plato and Aristotle*, Methuen, London, 1906.
Sabine, George and Thomas L. Thorson, *A History of Political Theory*, Fourth Edition, Oxford and IBH, New Delhi, 1973.
Jones, W. T., *Masters of Political Thought – Machiavelli to Bentham*, Houghton Mifflin Company, Boston, 1947.
Ten, C. L., *Mill on Liberty*, Clarendon Press, Oxford, 1980.
Wayper, C. L., *Teach Yourself Political Thought*, Surjeet Publications, Delhi, 2007.

**B.A.
Political Science
Semester-IV**

Course no. PS-401

Title: Comparative Politics

Duration of Exam.: 3 Hours

Total Marks: 100

Theory Examination: 80

Internal Assessment: 20

Unit-I: Understanding Comparative Politics

- 1.1 Comparative Politics: Meaning, Nature and Scope
- 1.2 Distinction between Comparative Government and Comparative Politics
- 1.3 System and Structural-Functional Approach
- 1.4 Political Economy and Dependency Approach (A. G. Frank)

Unit-II: Political Processes and Political Development

- 2.1 Political Culture: Meaning, Types and Determinants
- 2.2 Political Participation: Meaning, Types and Determinants
- 2.3 Political Socialisation: Meaning and Agents
- 2.4 Political Development: Concept and Ingredients

Unit-III: Political Dynamics: Democracy, Electoral Process and Party System

- 3.1 Theories of Democracy: Elitist and Pluralist
- 3.2 Theories of Representation: Territorial, Proportional and Functional
- 3.3 Party System: One Party, Bi-Party and Multi-Party
- 3.4 Features of Authoritarian and Democratic Regimes

Unit-IV: Emerging Issues in Comparative Politics

- 4.1 Globalisation: Meaning, Nature and Evolution
- 4.2 Women's Issues: Welfare to Empowerment
- 4.3 Climate Change: A Comparative Perspective of North and South
- 4.4 Human Rights: Meaning, Significance and Trends

Note for Paper-setter:

Theory Examination: The question paper will be divided into two sections.

Section-I: It will carry 20 marks. There will be total 08 short answer type questions in this section. Students will attempt any four questions with upper limit of 150 words in every answer. Each question will be of 5 marks.

Section-II: It will consist of 08 questions of which students will attempt 04 questions from within unit choice. The upper limit of answer to each question will be 750 words. Each question will be of 15 marks. Total marks in this section will be 60.

Internal Assessment (Total marks: 20):

Twenty (20) marks are for internal assessment in each paper on the basis of following pattern:

- | | |
|--|--------------------------|
| (i) Class Test | 10 marks |
| (ii) Two written assignments/project reports | 10 marks (05 marks each) |

Suggested Readings:

Almond, Gabriel, A., et. Al., *Comparative Politics Today*, Pearson, New Delhi, 2006.
Biswal, Tapan, et. Al., *Comparative Politics: Institutions and Processes*, Macmillan, New Delhi, 2013.
Dubash, Navroz, K. (Ed.), *Handbook of Climate Change and India: Development, Politics and Governance*, OUP, New Delhi, 2012.
Goodhart, Michael, *Human Rights: Politics and Practice*, OUP, London, 2013.
Hague, R., Haroop, M. and Breslin, S., *Comparative Government and Politics: Introduction*, Macmillan, London, 1993.
Stiglitz, Joseph E., *Globalisation and Its Discontents*, W. W. Norton, New York, 2002.
Ray, S. N., *Modern Comparative Politics: Approaches, Methods and Issues*, Prentice Hall, New Delhi, 2006.

**B.A.
Political Science
Semester-V**

Course no. PS-501

Title: International Politics

Duration of Exam.: 3 Hours

**Total Marks: 100
Theory Examination: 80
Internal Assessment: 20**

Unit-I: Meaning and Approaches

- 1.1 International Politics: Evolution, Changing Nature and Scope
- 1.2 Idealist (Woodrow Wilson) and Realist Approach (Hans J. Morgenthau)
- 1.3 Decision making approach (Richard C. Snyder) and
- 1.4 Peace Approach (Johan Galtung)

Unit-II: Key Concepts: National Power and National Interest

- 2.1 National Power: Meaning, Forms and Role
- 2.2 Elements of National Power:
Tangible: Geography, Economy, Military
Non-tangible: National Character and Morale, Political Leadership and Ideology
- 2.3 National Interest: Meaning, Nature and Kinds
- 2.4 National Interest and Foreign Policy

Unit-III: Instruments for Promotion of National Interest

- 3.1 Diplomacy: Meaning, Importance and Types
- 3.2 Imperialism and Neo-imperialism
 - Meaning and Nature of Imperialism
 - Concept of Neo-imperialism with special reference to Foreign Aid and Multi-National Corporations
- 3.3 Nonalignment: Rationale and Relevance
- 3.4 Propaganda: Techniques and Efficacy; and War: Meaning, Causes and Effects

Unit-IV: Management of Power

- 4.1 Collective Security and Collective Defence: Concept, Meaning and Distinction; Collective Security under UN Charter: Provisions, Working and Evaluation (with special reference to Korea and Kuwait Crises)
- 4.2 Balance of Power: Meaning and Devices and its Contemporary Relevance
- 4.3 Disarmament and Arms Control: Meaning and Distinction, Need for Disarmament, Major Efforts and Obstacles in achieving Disarmament
- 4.4 Emerging Global Power Structure: From Cold War to Post-Cold War Era

Note for Paper-setter:

Theory Examination: The question paper will be divided into two sections.

Section-I: It will carry 20 marks. There will be total 08 short answer type questions in this section. Students will attempt any four questions with upper limit of 150 words in every answer. Each question will be of 5 marks.

Section-II: It will consist of 08 questions of which students will attempt 04 questions from within unit choice. The upper limit of answer to each question will be 750 words. Each question will be of 15 marks. Total marks in this section will be 60.

Internal Assessment (Total marks: 20):

Twenty (20) marks are for internal assessment in each paper on the basis of following pattern:

- | | |
|--|--------------------------|
| (i) Class Test | 10 marks |
| (ii) Two written assignments/project reports | 10 marks (05 marks each) |

Suggested Readings:

Carr, E. H., *International Relations between Two World Wars: 1919-1939*, St. Martin, New York, 1969.

Calvocoressi, Peter, *World Politics since 1945*, Longman, London, 1990.

Fleming, D. F., *The Cold War and its Origins: 1917-1960*, OUP, London, 1961.

Kegley, C. W. Jr. and E. R. Wittkopf, *World Politics – Trends and Transformations*, St. Martin, New York, 1981.

Kumar, Mahendra, *Theoretical Aspects of International Politics*, Agarwal Publishers, Agra, 2001.

Morgenthau, Hans J., *Politics among Nations*, Calcutta, 1985.

Palmer, N. D. and H. C. Perkins, *International Relations: The World Community in Transition*, CBS, New Delhi, 1985.

Weigall, David, *International Relations*, OUP, London, 2002.

**B.A.
Political Science
Semester-V**

Course no. PS-601

**Title: Government and Politics in
Jammu and Kashmir**

Duration of Exam.: 3 Hours

**Total Marks: 100
Theory Examination: 80
Internal Assessment: 20**

Unit-I: Historical Background

- 1.1 Formation of J&K State: Geo-Political overview
- 1.2 Political Awakening in Kashmir: Reading Room Party, Muslim Conference and National Conference
- 1.3 Political Awakening in Jammu: Dogra Sadar Sabha and Praja Parishad
- 1.4 Instrument of Accession and its Background

Unit-II: Constitutional Structure

- 2.1 Basic Features of J&K Constitution
- 2.2 Special Status, Article 370 of Indian Constitution and Presidential Order of 1954
- 2.3 Permanent Residents of Jammu and Kashmir State and their Rights
- 2.4 Directive Principles of State Policy and Panchayati Raj in J&K

Unit-III: Governmental Structure

- 3.1 Governor: Appointment, Powers and Role (Section 92 of J&K Constitution)
- 3.2 Chief Minister and Council of Ministers: Powers and Role
- 3.3 Legislature: Composition, Powers and Functions of Legislative Assembly and Legislative Council
- 3.4 Judicial System: Powers and Functions of High Court

Unit-IV: Political Processes and Dynamics

- 4.1 Changing Nature of Party System in Jammu and Kashmir and Coalition Politics
- 4.2 Inter-regional and Intra-regional Demands and Politics
- 4.3 Ladakh Region: Demands and Politics with special reference to Hill Council
- 4.4 Displacement and Resettlement

Note for Paper-setter:

Theory Examination: The question paper will be divided into two sections.

Section-I: It will carry 20 marks. There will be total 08 short answer type questions in this section. Students will attempt any four questions with upper limit of 150 words in every answer. Each question will be of 5 marks.

Section-II: It will consist of 08 questions of which students will attempt 04 questions from within unit choice. The upper limit of answer to each question will be 750 words. Each question will be of 15 marks. Total marks in this section will be 60.

Internal Assessment (Total marks: 20):

Twenty (20) marks are for internal assessment in each paper on the basis of following pattern:

- | | |
|--|--------------------------|
| (i) Class Test | 10 marks |
| (ii) Two written assignments/project reports | 10 marks (05 marks each) |

Suggested Readings:

- Bamzai, P.N.K., *The Development of Constitution of Jammu and Kashmir*, Universal Law Agency, New Delhi, 1998
- Bazaz, P.N., *Struggle for Freedom in Kashmir*, Pamposh Publications, Delhi, 1954
- Bhushan, Vidya, *State Politics and Government*, Jay Kay, Jammu, 1998
- Puri, Balraj, *Kashmir Towards Insurgency*, Sterling, Delhi, 1992
- Campbell, Johnson, *A Mission with Mountbatten*, Roperphale, London, 1952
- Hudson, H.V., *The Great Divide: British, India and Pakistan*, Hutchison, London, 1969
- Korbel, Joseph, *Danger in Kashmir*, PUP, New York, 1954
- Khan, G.H., *Government and Politics of Jammu and Kashmir*, Srinagar, 1998
- Menon, V.P., *The Story of Integration of Indian States*, Orient Longman, New Delhi, 1957
- Russel, Brine, *Indo-Pakistan Conflicts*, Pall Mall Press, London, 1969
- Sharma, Y.R., *Political Dynamics of Jammu and Kashmir*, Radha Krishan Anand, Jammu, 2003
- Verma, P.S., *Jammu and Kashmir at Political Crossroads*, Vikas, New Delhi, 1994

SOCIOLOGY
B.A. III Semester
Examination to be held in the years 2015, 2016 and 2017

Course No. : SO-301 (Theory)

Duration: 3 hrs.

Credit : 4

Title : Foundations of Sociological Thought

Total Marks : 100

Theory Examination: 80

Internal Assessment: 20

Objectives:

- To acquaint the students with the history of Sociological theories.
- To make the students understand the contribution of pioneers of Sociology.

Unit I The Pioneers: Comte- Positivism.

1.1 Comte-Positivism

1.2 Spencer- Social Darwinism

Unit II The Classical Tradition: Durkheim.

2.1 Division of Labor

2.2 Suicide

2.3 Religion

Unit III Classical Tradition: Weber

3.1 Social Action

3.2 Ideal Types

3.3 The Protestant Ethic and Spirit of Capitalism

3.4 Authority types

Unit IV Classical Tradition: Karl Marx

4.1 Materialistic Conception of History

4.2 Class Struggle

4.3 Alienation

Unit V Neo Classical tradition:

Parsons:

5.1 AGIL

5.2 Social System

5.3 Pattern Variables

Merton

5.4 Functional Analysis

5.2 Functional Paradigm

Note for paper setting:

The question paper for each course will consist of two sections, viz, A and B.

Section A will consist of 10 long answer type questions, two from each unit with internal choice. Each question will be of 10 marks. The candidate will be required to answer 5 questions, one from each unit. Total weightage will be of $10 \times 5 = 50$. The length of each answer should be of 500 words approximately.

Section B will consist of 10 short answer type questions, two from each unit with internal choice. Each question will be of 6 marks. The candidate will be required to answer 5 questions,

one from each unit. Total weightage will be of $6 \times 5 = 30$. The length of each answer shall be of 150 words approximately.

Distribution of Internal Assessment (Total Marks: 20)

(i)	Class Test	:	10 marks	
(ii)	Two Written Assignments / Project reports	:	10 marks	(05 marks each)

Books Prescribed:

1.	Ritzer	:	Sociological theory.
2.	Max Weber	:	The Protestant Ethic & the Spirit of Capitalism.
3.	Emile Durkheim	:	The Rules of Sociological Method.
4.	Emile Durkheim	:	The Division of Labour in society.
5.	Emile Durkheim	:	Suicide.
6.	Robert K. Merton	:	Social Theory & Social Structure.
7.	Francis Abraham	:	Sociological Theory.
8.	Abraham & Morgan	:	Sociological Thought.
9.	Coser	:	Master's of Sociological Thought.
10.	Talcott Parsons	:	Structure of social action.
11.	J. H. Turner	:	The Structure of Sociological Theory.
12.	Raymond Aron	:	Main currents in Sociological Thought Vol. I & II
13.	Fletcher	:	Making of Sociology

SOCIOLOGY
B.A. IV Semester
Examination to be held in the years 2015, 2016 and 2017

Course No. : SO-401 (Theory)

Duration: 3 hrs.

Credit : 4

Title : Indian Society- Issues and problems

Total Marks : 100

Theory Examination: 80

Internal Assessment: 20

Objectives:

- To acquaint the students with the distinctive features of the Indian society;
- To make the students understand the issues & the social problems of Indian Society .

UNIT – I Basics (Concepts & approaches)

- 1.1 Concept and characteristics of social problems
- 1.2 Rural and urban social problems
- 1.3 Approaches to social problems
- 1.4 Social problems and social change in India.

UNIT – II Structural

- 2.1 Poverty
- 2.2 Inequality of caste and gender.
- 2.3 Disharmony – Religious and Regional.
- 2.4 Disharmony – Backward Classes and Dalits

UNIT – III Familial

- 3.1 Dowry
- 3.2 Divorce
- 3.3 Domestic violence
- 3.4 Child abuse and Youth unrest

UNIT-IV Developmental

- 4.1 Regional disparities
- 4.2 Displacement
- 4.3 Ecological degradation and environmental pollution
- 4.4 Terrorism

UNIT – V Disorganizational

- 5.1 Crime and Delinquency
- 5.2 Drug Addiction
- 5.3 Alcoholism
- 5.4 Corruption

Note for paper setting:

The question paper for each course will consist of two sections, viz, A and B.

Section A will consist of 10 long answer type questions, two from each unit with internal choice. Each question will be of 10 marks. The candidate will be required to answer 5 questions, one from each unit. Total weightage will be of $10 \times 5 = 50$. The length of each answer should be of 500 words approximately.

Section B will consist of 10 short answer type questions, two from each unit with internal choice. Each question will be of 6 marks. The candidate will be required to answer 5 questions,

one from each unit. Total weightage will be of $6 \times 5 = 30$. The length of each answer shall be of 150 words approximately.

Distribution of Internal Assessment (Total Marks: 20)

(i)	Class Test	:	10 marks	
(ii)	Two Written Assignments / Project reports	:	10 marks	(05 marks each)

Books Prescribed:

1.	Ram Ahuja	:	Social Problems in India.
2.	Ram Ahuja	:	Society in India.
3.	B. Kuppuswamy	:	Social change in India.
4.	Howard S. Becker	:	Social Problems A Modern Approach.
5.	Merton & Nisbet (eds.)	:	Contemporary Social Problems.
6.	Attarchand	:	Poverty And Underdevelopment: New Challenges.
7.	M.N. Srinivas	:	Social Change in Modern India.
8.	Veena Das(ed)	:	Mirrors of Violence: Communities, Riots and Survivors in South Asia.

SOCIOLOGY
B.A. V-Semester
Examination to be held in the years 2015, 2016 and 2017

Course No. : SO-501 (Theory)

Duration: 3 hrs.

Credit : 4

Title : Social Research

Total Marks : 100

Theory Examination: 80

Internal Assessment: 20

Objectives:

- To acquaint the students with different components of Social Research
- To train the students to enable them to pursue research in future career.

UNIT – I Social Research

- 1.1 Meaning, objectives and significance of research
- 1.2 Steps in Research Process
- 1.3 Hypothesis
- 1.4 Concept of Objectivity
- 1.5 Methodology

UNIT- II Types Of Research

- 2.1 Basic and Applied
- 2.2 Exploratory
- 2.3 Descriptive
- 2.4 Experimental

UNIT – III Sampling Design

- 3.1 Meaning and Significance of Sampling
- 3.2 Probability sampling—Simple random , Complex—cluster, systematic and stratified.
- 3.3 Non- Probability sampling—accidental, quota and purposive sampling

UNIT – IV Tools And Techniques Of Data Selection

- 4.1 Social Survey – (Data—primary and secondary)
- 4.2 Observation—participatory and non- participatory
- 4.3 Interview and its types
- 4.4 Schedule and questionnaire

UNIT – V Basic Statistics:

- 5.1 Meaning of Central tendency: Mean, Median, Mode
- 5.2 Presentation of data: Graphs and Histograms.

Note for paper setting:

The question paper for each course will consist of two sections, viz, A and B.

Section A will consist of 10 long answer type questions, two from each unit with internal choice. Each question will be of 10 marks. The candidate will be required to answer 5 questions, one from each unit. Total weightage will be of $10 \times 5 = 50$. The length of each answer should be of 500 words approximately.

Section B will consist of 10 short answer type questions, two from each unit with internal choice. Each question will be of 6 marks. The candidate will be required to answer 5 questions, one from each unit. Total weightage will be of $6 \times 5 = 30$. The length of each answer shall be of 150 words approximately.

Distribution of Internal Assessment (Total Marks: 20)

(i)	Class Test	:	10 marks	
(ii)	Two Written Assignments / Project reports	:	10 marks	(05 marks each)

Books Prescribed:

1.	F.N. Kerlinger	:	Methods & Issues in Social Research.
2.	K. Bailey	:	Methods of Social Research.
3.	Goode and Hatt :	:	Methods in Social Research.
4.	P.V. Young	:	Scientific Social Surveys & Research
5.	Cohen & Nagel :	:	An Introduction to Logic and Scientific Method.
6.	Kothari	:	Research Methods.
7.	Jaspal Singh	:	Introduction to Social Research.
8.	Ram Ahuja	:	Research Methodology
9.	S.P.Gupta	:	Statistical Methods

SOCIOLOGY
B.A. VI-Semester
Examination to be held in the years 2015, 2016 and 2017

Course No. : SO-601 (Theory)

Duration: 3 hrs.

Credit : 4

Title : Social Change and Development in India

Total Marks : 100

Theory Examination: 80

Internal Assessment: 20

Objectives:

- To familiarize the students of sociology about the social change & development in India.
- To make them understand different processes and dimensions of Social Change
- To acquaint them with various development schemes of Social development in India

Unit-I Modernization Of Indian Tradition

- 1.1 Indian Social Values: Traditional & Modern
- 1.2 Phases of Modernization in post independent India
- 1.3 Modernization and Resilience of tradition
- 1.4 Factors and forces : Education, legislation and mass media

Unit-II Processes of Change

- 2.1 Sanskritization
- 2.2 Westernization
- 2.3 Secularization
- 2.4 Social Movements and Mobilization

Unit-III Changes In The System Of Social Stratification

- 3.1 Meaning and Characteristic of Stratification.
- 3.2 Changing dimensions of caste structure
- 3.3 Changing dimensions of class structure
- 3.4 Changing dimensions of power structure

Unit-IV Changes In Family, Marriage And Kinship

- 4.1 Changes in the family system – (from joint to nuclear)
- 4.2 Family in the urban and industrial setting
- 4.3 Changing marriage pattern
- 4.4 Regional valuation kinship system

Unit-V Social Development In India

- 5.1 Development schemes for Scheduled Castes/Backward classes
- 5.2 Development schemes for Scheduled Tribes
- 5.3 Development schemes for women
- 5.4 Development schemes for children

Note for paper setting:

The question paper for each course will consist of two sections, viz, A and B.

Section A will consist of 10 long answer type questions, two from each unit with internal choice. Each question will be of 10 marks. The candidate will be required to answer 5 questions, one from each unit. Total weightage will be of 10 X 5 = 50. The length of each answer should be of 500 words approximately.

Section B will consist of 10 short answer type questions, two from each unit with internal choice. Each question will be of 6 marks. The candidate will be required to answer 5 questions, one from each unit. Total weightage will be of $6 \times 5 = 30$. The length of each answer shall be of 150 words approximately.

Distribution of Internal Assessment (Total Marks: 20)

(i)	Class Test	:	10 marks	
(ii)	Two Written Assignments / Project reports	:	10 marks	(05 marks each)

Books Prescribed:

1.	Ram Ahuja	:	Society in India.
2.	Yogendra Singh	:	Modernization of Indian Tradition.
3.	Kuppuswamy	:	Social Change in India
4.	G.R. Madan	:	Theoretical Sociology
5.	MacIver & Page	:	Society
6.	Yogender Singh	:	Social Change in India.
7.	M.S.A. Rao	:	Social Movements & Social Transformation.
8.	Rajender Pandey	:	Sociology

SOCIOLOGY
B.A. Semester I
Examination to be held in the years Dec 2016, 2017 and 2018

Course No. : USOTC101

Credit : 4

Title : Introduction to Sociology

Total Marks : 100

Internal Assessment Test : 20 (1 hour)

External End Semester Exam : 80 (3 hours)

Objectives:

- To introduce the students to the discipline of Sociology – its origin, growth, Perspectives and Relationship with other social sciences.
- To acquaint the students with the basic concepts and institutions of Sociology.
- To make the students understand the relationship between individual and society, culture and social change.

Unit I Nature of Sociology

- 1.1 Origin and Growth of Sociology
- 1.2 Meaning, Nature and Scope of Sociology
- 1.3 Sociological Perspectives: Functional, Conflict and Interactionist.

Unit II Basic Concepts

- 2.1 Community, Association and Society.
- 2.2 Group: Meaning and Types.
- 2.3 Social Structure: Status and Role.

Unit III Institutions:

- 3.1 Meaning, Characteristics of Institution.
- 3.2 Marriage and Family
- 3.3 Religion
- 3.4 Kinship

Unit IV Individual and Society

- 4.1 Culture, Norms and Values.
- 4.2 Socialization: Meaning, Characteristics and Agencies
- 4.3 Social Control: Meaning, Characteristics and Types
- 4.4 Social Change: Meaning and Types

Note for paper setting:

Internal Assessment Test: (20 marks)

The question paper will consist of two Sections viz A & B

Section A will consist of 2 Long Answer Type Questions one from each of the 2 units covered, out of which the candidates will be required to answer any 1 question. The question will be of 10 marks (10 x 1=10)

Section B will consist of 6 Short Answer Type Questions 3 from each of the 2 units covered, out of which the candidates will be required to answer any five.

Each question will be of two marks (2 x 5=10)

External End Semester University Exam: (80 marks)

The question paper will consist of three sections A, B & C

Section A will consist of 4 Long Answer Type Questions 2 each from the 2 units not covered in the Internal Test, out of which the candidates will be required to answer 2 questions, 1 question from each unit. Each question will be of 20 marks (20 x 2 =40)

Section B will consist of 4 Medium Answer Type Questions one from each of the 4 units, out of which the candidates will be required to answer any 3 questions. Each Question will be of 10 marks (10 x 3=30)

Section C will consist of 8 Short Answer Type Questions 2 from each of the 4 units, out of which the candidates will be required to answer any 5 questions, choosing atleast 1 question from each unit. Each Question will be of 2 marks (2 x 5 =10)

Suggested Readings:

1. Berger, P.L., & Berger, B., *Sociology: A Biographical Approach*, Penguin Books.
2. Mills, C. Wright, *The Sociological Imagination*, New York: Oxford University Press.
3. Rao, C.N. Shankar, *Sociology: Primary Principles*, S. Chand & Company Ltd.
4. Schaffer, R.T., & Lamm, R.P., *Sociology: A Brief Introduction*, New York: McGraw Hill.
5. Worsley, Peter, *Introducing Sociology*, Penguin Books.
6. Berger, Peter L., *Invitation to Sociology: A Humanistic Perspective*, Doubleday Publishers.
7. Bottomore, T.B., *Sociology: A Guide to Problems and Literature*, New York: Pantheon Books.
8. Davis, Kingsley, *Human Society*, London & New York: MacMillan & Co.
9. Giddens, Anthony, *Sociology*, Cambridge Polity Press.
10. Kar, Parimal B., *Society: A Study of Social Interaction*, Jaipur: Jawahar Publishers & Distributors.
11. Kuppuswamy, B., *Social Change in India*, New Delhi: Vikas Publications.
12. MacIver, R.M., & Page, C.H., *Society: An Introductory Analysis*, MacMillan Publishers.
13. Majumdar, D.N., & Madan, T.N., *An Introduction to Social Anthropology*, Bombay: Asia Publishing House.

SOCIOLOGY
B.A. Semester II
Examination to be held in the years May 2017, 2018 and 2019

Course No. : USOTC 201

Credit : 4

Title : Society in India

Total Marks : 100

Internal Assessment Test : 20 (1 hour)

External End Semester Exam : 80 (3 hour)

Objectives:

- To acquaint the students with the distinctive features of Indian society with special reference to the Tribal, Rural and Urban communities.
- To understand the dynamics of caste and varna.
- To learn about the distinctive features of basic institutions of Indian society.

Unit I Basic Features of Indian Society

- 1.1 Indian Society: Basic Features
- 1.2 Unity in Diversity
- 1.3 Caste and Varna
- 1.4 Meaning and Features of Tribe

Unit II Rural Society

- 2.1 Definition and features of Rural society
- 2.2 Rural-Urban Continuum
- 2.3 Community Development Programme
- 2.4 Panchayati Raj Institution

Unit III Urban Society

- 3.1 Concept of Urban, Urbanization and Urbanism
- 3.2 Classification of Urban Centers
- 3.3 Problems of Migration in Urban areas

Unit IV Basic Institutions

- 2.1 Family in India
- 2.2 Marriage in India
- 2.3 Kinship organization in India

Note for paper setting:

Internal Assessment Test: (20 marks)

The question paper will consist of two Sections viz A & B

Section A will consist of 2 Long Answer Type Questions one from each of the 2 units covered, out of which the candidates will be required to answer any 1 question. The question will be of 10 marks (10 x 1=10)

Section B will consist of 6 Short Answer Type Questions 3 from each of the 2 units covered, out of which the candidates will be required to answer any five.

Each question will be of two marks (2 x 5=10)

External End Semester University Exam: (80 marks)

The question paper will consist of three sections A, B & C

Section A will consist of 4 Long Answer Type Questions 2 each from the 2 units not covered in the Internal Test, out of which the candidates will be required to answer 2 questions, 1 question from each unit. Each question will be of 20 marks (20 x 2 =40)

Section B will consist of 4 Medium Answer Type Questions one from each of the 4 units, out of which the candidates will be required to answer any 3 questions. Each Question will be of 10 marks (10 x 3=30)

Section C will consist of 8 Short Answer Type Questions 2 from each of the 4 units, out of which the candidates will be required to answer any 5 questions, choosing atleast 1 question from each unit. Each Question will be of 2 marks (2 x 5 =10)

Suggested Readings:

1. Ahuja, Ram, *Indian Social Structure*, Jaipur: Rawat Publications.
2. Ahuja, Ram, *Society in India: Concepts, Theories, and Changing Trends*, Jaipur: Rawat Publications.
3. Bose, N.K., *Tribal Life in India*, New Delhi: National Book Trust.
4. Desai, A.R., *Rural Sociology in India*, Mumbai: Popular Prakashan.
5. Doshi, S.L., & Jain, P.C., *Rural Sociology*, Jaipur: Rawat Publications.
6. Dube, S.C., *Indian Society*, New Delhi: National Book Trust.
7. Dube, S.C., *Understanding Change: Anthropological and Sociological Perspectives*, New Delhi: Vikas Publications.
8. Ghurye, G.S., *Caste and Race in India*, Mumbai: Popular Prakashan.
9. Hasnain, Nadeem, *Tribal India*, New Delhi: Harnam Publications.
10. Mandelbaum, David G., *Society in India: Continuity and Change, Vol. 1 & 2*, London: University of California Press.
11. Srinivas, M.N., *Social Change in Modern India*, London: University of California Press.

B.A. Semester -I
(UR-101)

University of Jammu

Syllabi and courses of study in Urdu for B.A.
Semester-I For the Examinations to be held in the years
2014, 2015 & 2016.

There shall be a written paper of 100 marks and of three hours duration, 20 Marks reserved for Internal Assessment. (The distribution of marks shall be as under- One Internal Assessment class Test of 10 marks & Two written home assignments of 05 marks each.) Thus the Paper will be of 80 marks. In case of regular students, internal assessment received from the colleges will be added to marks obtained by them in the university examination and in case of private candidates, marks obtained by them in the university examination shall be increased proportionately in accordance with the statutes/ regulations.

***B.A. Semester-I
Paper (Ghazal & Afsana)***

Objectives :

The purpose of this course is to make the students fully conversant/accustomed with Urdu Poetry, Prose and life & works of authors/poets and enable them to appreciate it adequately. One unit in each paper will be based on objective type questions with multiple choice options. This will enhance the comprehensive ability of the students and will expose them to the new trends of exams.

This will also adjudge the ability of candidate in a precise manner.

General Information

This paper shall be of five units as detailed below:

Unit-I Poetry (GHAZAL) 10+10= 20 Marks

Five Ghazals each of the following poets:

- i. Hali ii. Shad iii. Fani iv. Hasrat
v. Firaq

The prescribed Ghazals are :

۱۔ حالی

- (۱) مجھ میں وہ تاب ضبط شکایت کہاں ہے اب
(۲) ہے جستجو، کہ خوب سے ہے خوب تر کہاں
(۳) آگے بڑھے نہ قصہٴ عشقِ بتاں سے ہم
(۴) کل مدعی کو آپ پہ کیا کیا گماں رہے
(۵) دل سے خیالِ دوست بھلایا نہ جائے گا

۲۔ شاد

- (۱) بدن میں جب تک کہ دل ہے سالم تری محبت نہاں رہے گی
(۲) تمناؤں میں الجھایا گیا ہوں
(۳) نگہ کی برجھیاں جو سہہ سکے ، سینہ اُسی کا ہے
(۴) ڈھونڈو گے اگر ملکوں ملکوں ملنے کے نہیں نایاب ہیں ہم
(۵) اگر مرتے ہوئے لب پہ نہ تیرا نام آئے گا

۳۔ فانی

- (۱) دنیا میری بلا جانے، مہنگی ہے یا سستی ہے
(۲) وہ جی گیا ، جو عشق میں جی سے گزر گیا

- (۳) کسی کے ایک اشارے میں کس کو کیا نہ ملا؟
 (۴) خوشی سے رنج کا بدلا یہاں نہیں ملتا
 (۵) شوق سے ناکامی کی بدولت کوچہ دل ہی چھوٹ گیا
 ۴۔ حسرت

- (۱) بند ایسی شورشِ غم کس دلِ مضطر میں ہے
 (۲) بھلاتا لاکھ ہوں لیکن برابر یاد آتے ہیں
 (۳) نگاہِ ناز جسے آشنائے راز کرے
 (۴) روشن جمالِ یار سے ہے انجمنِ تمام
 (۵) خوب رویوں سے یاریاں نہ گئیں

۵۔ فراق

- (۱) آج بھی قافلہٗ عشق رواں ہے کہ جو تھا
 (۲) نگاہِ ناز نے پردے اٹھائے ہیں کیا کیا
 (۳) کسی کا یوں تو ہوا کون عمر بھر؟ پھر بھی
 (۴) سر میں سودا بھی نہیں دل میں تمنا بھی نہیں
 (۵) رُکی رُکی سی شبِ مرگ ختم پر آئی

Unit-II

16 Marks

Critical questions on Ghazal with special reference to the following topics:

1. Definition and characteristics of Ghazal as Genre.
2. Characteristics of Ghazals of the Poets prescribed.
3. Life and works of the poets prescribed.
4. Popularity of Ghazal in modern times.

Unit-III PROSE (Afsana)**16 Marks**

Non-detailed study of the followings:

- | | |
|---------------------|------------------|
| 1. Panch Parmeshwar | ۱۔ پنچایت |
| Munshi Prem Chand | منشی پریم چند |
| 2. Aulaad | ۲۔ اولاد |
| Sadat Hussan Mantoo | سعادت حسن منٹو |
| 3. Kalu Bhangi | ۳۔ کالو بھنگی |
| Krishan Chander | کرشن چندر |
| 4. Lajwanti | ۴۔ لاجوتی |
| Rajinder Singh Bedi | راجندر سنگھ بیدی |
| 5. Dhakosla | ۵۔ ڈھکوسلا |
| Ismat Chughtai | عصمت چغتائی |

Unit-IV**16 Marks**

Critical questions on the authors and Prescribed short stories, particularly of the following topics.

1. Definition and characteristics of short story as a genre.
2. Prescribed authors as short story writers. (one at a time).
3. Life and works of the authors prescribed. (one at a time).
4. Critical appreciation of the short stories prescribed. (One at a time).

Unit-V**12 Marks**

Objective type questions

This unit will be based on objective type questions with multiple choice of three options. Questions will be taken from all the four units prescribed in a balanced manner to judge the intellectual abilities and skills of a student and to provide an insight to the reader.

Note for paper setting :

The question paper will have four questions in unit-I dealing with explanation with reference to the context. Two long answer questions each in Unit II, III & IV and 12 objective type questions with three options (One among them correct) from unit-V. This unit will be for non-detailed study and will have no extra load on contact hours/lectures. The candidates will be required to attempt two questions from unit-I. One question each from unit II, III & IV respectively and all the twelve objective type questions from Unit-V. The splitting of questions & marks will be as under :

Unit	Q. to be given	Q. to be attempted	Marks
I	4	2	10+10=20
II	2	1	16
III	2	1	16
IV	2	1	16
V	12 (objectives)	12	12
			80

Books Prescribed :

1. Jadeed Urdu Nisab (For B.A Sem I & II)

Published By : **Qasmi Kutub Khana**, Year 2014

2. Muntkhab Ghazalen Published by U.P. Urdu Academy year 1984

3. Intkhabe Afsana Published by U.P. Urdu Academy year 1986.

Books Recommended

1. Tareekh-e-Adab-e-Urdu by Noorul Hasan Naqvi
2. Mukhtsar Tareekh-e-Adab By Aijaz Hussain
3. Urdu Ghazal By. Dr. Yousuf Hussain Khan.
4. Urdu Afsane ka Funni Tajzia by Dr. Firdous Fatima.
5. Dastan-se-Afsane Tak by Vaqar Azim.
6. Taraqqi Pasand Tehreek Aur urdu Afsana By Dr. Mohd. Sadiq
7. Iqbal Majeed: Fan, Fiction, Fankar
by Dr. Farhat Shamim

B.A. Semester -II (UR-102)

University of Jammu

Syllabi and courses of study in Urdu for B.A. Semester-II For the Examinations to be held in the years 2015, 2016 & 2017.

There shall be a written paper of 100 marks and of three hours duration, 20 Marks reserved for Internal Assessment. (The distribution of marks shall be as under- One Internal Assessment class Test of 10 marks & Two written home assignments of 05 marks each.) Thus the Paper will be of 80 marks. In case of regular students, internal assessment received from the colleges will be added to marks obtained by them in the university examination and in case of private candidates, marks obtained by them in the university examination shall be increased proportionately in accordance with the statutes/ regulations.

Objectives :

This course propose to enable the students to fully grasp the development of Urdu Nazm in the 20th century. An effort shall be made to make the students fully conversant with the characteristics of the **NAZM** of the period concerned so as to enable them to appreciate the Genre in accordance with the requirements of the course. The course proposes to provide brief knowledge about the origin and development of urdu language & its importance in J&K. The course also intends to prepare the students for writing on a given General/literary topic and to have the

knowledge of urdu classical Genres not covered in the course of study in any class.

General Information :

This course shall be divided into five units. Unit-I will be based on poems for detailed study dealing with explanation with reference to context. This unit will have 4 questions. The candidates would be required to attempt 2 questions of 10 marks each. Unit II & III will have 2 questions and unit-IV will have 4 General/literary topics & candidates would be required to attempt only one out of four topics. Unit-V will have 12 objective type questions with three options each. These questions will be based on the syllabi for unit-I, II, & III of this paper.

The detail of syllabi will be as below :

Unit -I(NAZM) 20 Marks

Detailed study of the followings :

1. Nazir: Aadami Nama, Muflasi نظیر: آدمی نامہ، مفلسی
- 2 . Hali: Intakhab- e- Musaddas Mado-jazar-Islam, Barkha Rut حالی: انتخاب مسدس مدوجز اسلام، برکھارت
- 3 . Akbar: Madrassa-e-Aligarh, Mustaqbal. اکبر: مدرسہ علی گڑھ، مستقبل
4. Saroor: Madar-i-watan, Ganga سرور: مادر وطن، گنگا
5. Chakbast: Ramayan ka ek Sein, Phool Mala چکبست: رامن کا ایک سین، پھول مالا
6. Iqbal: Ek Arzoo, Naya Shiwala اقبال: ایک آرزو- نیا شوالہ

7. Faiz: Nisar Main tere
Galion Pe,
Subh-e-Aazadi.

فیض: نثار میں تیری گلیوں پہ،
صبح آزادی

Unit -II

16Marks

Critical questions on the following :

1. Definition and characteristics of Urdu Nazm.
2. The art of the Poets prescribed for unit -I (one at a time)
3. Life and works of the Poets Prescribed (one at a time)
4. Critical appreciation of any poem prescribed.
5. Patriotism in the poetry of prescribed poets.

Unit -III

16Marks

(URDU LANGUAGE)

1. Origin and development of urdu language.
2. Importance and future of urdu language in J&K.

Unit -IV

16Marks

(ESSAY WRITING)

Any General/Literary Topic.

Unit -V

12Marks

Objective Type questions

This unit will be based on objective type questions. with multiple choice of three given options (one correct). Question will be taken from unit-I, II & III prescribed for this paper in a balanced manner to judge the intellectual abilities, under standing of the course and skills of the students.

Note for paper setting :

The question paper will have four questions in unit-I dealing with explanation with special reference to the context. the candidate would be required to attempt two questions. Two questions will be set from Unit II & III asking the candidates to attempt one question from each unit. for Unit-IV four topics on General/literary topics will be given and the candidates would be required to write a detailed ESSAY on any one of the topics. Unit-V will be of objective type in nature based on 12 questions with three options (one of them correct). the candidates would be required to write all the correct answers in their answerbook. Thus the splitting of questions and marks will be as under :

Unit	Q. to be given	Q. to be attempted	Marks
I	4	2	10+10=20
II	2	1	16
III	2	1	16
IV	4 (Topics)	1	16
V	12 (objectives)	12	12
			80

Books Prescribed :**1. Jadeed Urdu Nisab (For B.A.Sem I & II)**

Published By : **Qasmi Kutub Khana**, Year 2014

2. Intakhab-i-Manzumat, Hissa Awwal by U.P. Urdu Academy year 1984.

3. Riyasat Jammu-o-Kashmir Mein Urdu. Mazi, Haal, Mustaqbal, by. Dr. Shohab Inayat Malik

4. جموں و کشمیر میں اُردو ادب کی نشوونما از ڈاکٹر برج پریمی

Books Recommended

مختصر تاریخ ادب اردو	از ڈاکٹر اعجاز حسین
داستانِ تاریخِ اردو	از حامد حسن قادری
تاریخ ادب اردو	از رام بابو سکسینہ
تاریخ ادب اردو	از نور الحسن نقوی
مقدمہ زبان اردو	از مسعود حسین

B.A Semester -III

(UR-103)

University of Jammu

Syllabi and courses of study in Urdu for B.A. Semester-III For the Examinations to be held in the years 2015, 2016 & 2017.

There shall be a written paper of 100 marks and of three hours duration, 20 Marks reserved for Internal Assessment. (The distribution of marks shall be as under- One Internal Assessment class Test of 10 marks & Two written home assignments of 05 marks each.) Thus the Paper will be of 80 marks. In case of regular students. internal assessment received from the colleges will be added to marks obtained by them in the university examination and in case of private candidates, marks obtained by them in the university examination shall be increased proportionately in accordance with the statutes/ regulations.

B.A. Semester -III

Paper (Qasida,, Marsiya & Drama)

OBJECTIVES:

The purpose of this Course is to make the students fully conversant with the respective genre of Urdu literature i.e. QASIDA, MARSIYA & DRAMA. An effort shall be made to enable the students to fully appreciate the prescribed Course and to understand the importance of these genres in the annals of Urdu literature. The course has been splited to five Units as per the U.G.C/University norms.

نصاب

بی۔ اے۔ - سمسٹر سوم

یونٹ ۱۔ متن کی شرح: 16 نمبرات

۱۔ شہر آشوب۔ از سودا (مکمل قصیدہ)

اب سامنے میرے جو کوئی پیرو جواں ہے

۲۔ دردِ جہادِ شاہ۔ از غالب (مکمل قصیدہ)

ہاں مہِ نوسین ہم اُس کا نام

یونٹ ۲۔ تنقیدی سوالات: 16 نمبرات

۱۔ قصیدے کی تعریف اور اس کی خصوصیات

۲۔ نصاب میں شامل قصیدہ گو شاعروں کی قصیدہ نگاری کا جائزہ

۳۔ نصاب میں شامل قصیدہ گو شاعروں کے حالات زندگی اور شعری خدمات

۴۔ نصاب میں شامل قصیدوں کا تنقیدی جائزہ

یونٹ ۳۔ مرثیہ

16 نمبرات

۱۔ نمک خوانِ تکلم ہے فصاحت میری (ابتدائی اکیس بند) انیس

۲۔ مرثیہ داغ اقبال

۳۔ مرثیہ بال گنگا دھر تلک چکبست

یونٹ ۴۔ تنقیدی سوالات 16 نمبرات

۱۔ مرثیے کی تعریف اور اس کی خصوصیات

- ۲۔ مرثیے کا فن اور روایت
 ۳۔ نصاب میں شامل مرثیہ گو شعراء کے حالاتِ زندگی اور ان کی خدمات
 ۴۔ نصاب میں شامل مرثیوں کا تنقیدی جائزہ
 یونٹ ۵۔ ڈراما خانہ جنگی۔ از پروفیسر محمد مجیب (تنقیدی جائزہ) 16 نمبرات
 نوٹ: تنقیدی سوالات
 ۱۔ پروفیسر مجیب بحیثیت ڈراما نگار
 ۲۔ نصاب میں شامل ڈرامے کا تنقیدی جائزہ
 ۳۔ نصاب میں شامل ڈرامے کی کردار نگاری
 ۴۔ ڈراما ”خانہ جنگی“ کے پلاٹ کا خلاصہ

Note for Paper setting :

This paper shall be divided into five units. The question paper shall have two questions each in unit I to V. Questions from unit Ist and Illrd shall be based on explanation with reference to context with 100% choice of the course prescribed for these units and Unit II, IV and V shall carry critical questions on the topics enumerated therein. Each unit shall carry 16 marks.

Books Prescribed :

- ۱۔ جدید اردو نصاب (برائے سمسٹر۔ III & IV)
 ۲۔ نقوشِ ادب از ایجوکیشنل بک ہاؤس نیو دہلی
 ۳۔ انتخابِ قصیدہ از یوپی اردو اکیڈمی لکھنؤ
 ۴۔ انتخابِ منظومات از یوپی اردو اکیڈمی لکھنؤ
 ۵۔ خانہ جنگی از پروفیسر محمد مجیب

Books Recommended :

- ۱۔ مختصر تاریخ ادب اردو از ڈاکٹر اعجاز حسین

۲۔ اردو قصیدہ نگاری کا تنقیدی جائزہ از محمود الہی
B.A Semester -IV
(UR-104)

University of Jammu

Syllabi and courses of study in Urdu for B.A. Semester-IV For the Examinations to be held in the years 2016, 2017 & 2018.

There shall be a written paper of 100 marks and of three hours duration, 20 Marks reserved for Internal Assessment. (The distribution of marks shall be as under- One Internal Assessment class Test of 10 marks & Two written home assignments of 05 marks each.) Thus the Paper will be of 80 marks. In case of regular students. internal assessment received from the colleges will be added to marks obtained by them in the university examination and in case of private candidates, marks obtained by them in the university examination shall be increased proportionately in accordance with the statutes/ regulations.

B.A. Semester -IV

Paper (Masnavi & Inshaiya)

OBJECTIVES:

The Course proposes to provide comprehensive knowledge of beginning and development of Masnavi & Inshaiya in Urdu Language. An effort shall be made to enable the students to read the Masnavis prescribed so that they are in a position to appreciate both the Genres fully.

General Information :

The paper shall be divided into five units. Fifth Unit

shall be based on un-seen passage and objective type questions. Both these parts shall carry six marks each.

Unit-I Detailed study of the following Masnavis :

16 marks

- ۱۔ مثنوی سحرالبیان (تلخیص) از میر حسن
- ۲۔ مثنوی گلزارِ نسیم (تلخیص) از دیا شنکر نسیم
- ۳۔ مثنوی میرے گھر کا حال از میر تقی میر

Unit II: Critical Questions on the following :

16marks

- i) Critical appreciation of the Masnavis prescribed for Unit-I.
- ii) Life and works of the poets prescribed for Unit-I.
- III) Definition of Masnavi and characteristics of the Masnavis prescribed.
- iv) The art of the poets prescribed in the light of the syllabus for unit I.
- v) Summary of the Masnavis prescribed for unit I.

Unit III. For Textual reading :

16 Marks

- ۱۔ کاہلی سر سید احمد خان
- ۲۔ سیرِ زندگی محمد حسین آزاد
- ۳۔ برج بانو کنہیا لال کپور
- ۴۔ ہاسٹل میں پڑھنا پطرس
- ۵۔ گواہ رشید احمد صدیقی

Unit -IV

تنقیدی سوالات:

- i. Definition and characteristics of Inshaiya.
- ii. Critical appreciation of the Inshaiyas prescribed for unit-II.

iii. Characteristics of the Inshaiyas writing of the authors prescribed with special reference to the course prescribed.

iv. Summary of the Inshaiyas prescribed (One at a time).

v. Life and works of the authors prescribed for Unit-III.

Unit-V

This Unit Contains two parts. (8+8)= 16 Marks

Part-I: One un-seen passage shall be given and the students shall be asked two questions given at the end of the passage and all the candidates will be required to attempt both the questions. Each question shall carry four marks.

Part II. Objective type questions will be based on the syllabus prescribed from unit I to IV. Each part shall carry one mark. In this Unit eight questions with three possible options (one correct) shall be asked. Each part of this unit shall carry eight marks.

Note for Paper Setting :

This paper shall be divided into five units. The question paper shall have two questions each in unit I to IV. The candidate shall be required to attempt one question from each Unit (I to IV). Questions from Unit Ist and IIIrd shall be based on explanation with reference to context with 100% choice of the course prescribed for these Units. Unit-V contains two parts. Part-I is un-seen passage and part-II is based on Eight objective type questions. In part-I two questions will be asked from the un-Seen passage given at the end and the candidates will be required to attempt the both questions. Each question

shall carry 4 marks. In Part-II of this Unit, Eight questions with three possible options (one Correct) shall be set. In this Unit each question shall be of one mark.

Books Prescribed :

- ۱۔ جدید اردو نصاب (برائے سمسٹر۔ IV & III)
- ۲۔ مثنوی سحر البیان از میر حسن مرتبہ رشید حسن خان، مکتبہ جامعہ نئی دہلی
- ۳۔ مثنوی گلزارِ نسیم از دیا شنکر نسیم ایضاً
- ۴۔ مثنوی میرے گھر کا حال میر تقی میر (کلیات میر)
- ۵۔ پطرس کے مضامین پطرس بخاری

Books Recommended :

- ۱۔ مختصر تاریخ ادب اردو از ڈاکٹر اعجاز حسین
- ۲۔ تاریخ ادب اردو از نور الحسن نقوی
- ۳۔ اردو قصیدہ نگاری کا تنقیدی جائزہ از محمود الہی
- ۴۔ اردو مرثیہ کا ارتقاء از مسیح الزماں
- ۵۔ اردو اسٹیج ڈراما (تاریخ و تنقید) از ڈاکٹر وجے دیوسنگھ
- ۶۔ اردو ڈرامے کا ارتقاء از عشرت رحمانی
- ۷۔ پروفیسر محمد مجیب بطور ڈراما نگار از ڈاکٹر وجے دیوسنگھ

B.A. Semester -V
(UR-105)

University of Jammu

Syllabi and courses of study in Urdu for B.A. Semester-V For the Examinations to be held in the years 2016, 2017 & 2018.

There shall be a written paper of 100 marks and of three hours duration, 20 Marks reserved for Internal Assessment. (The distribution of marks shall be as under- One Internal Assessment class Test of 10 marks & Two written home assignments of 05 marks each.) Thus the Paper will be of 80 marks. In case of regular students. internal assessment received from the colleges will be added to marks obtained by them in the university examination and in case of private candidates, marks obtained by them in the university examination shall be increased proportionately in accordance with the statutes/ regulations.

Semester -V

Paper (Ghazal, Nazm & Novel)

OBJECTIVES:

The Course intends to provide knowledge of Medieval Ghazals, pre-independence Nazm and Urdu Novel. The Course also intends to make the students conversant with the development of the Ghazal of this period, contribution of Iqbal's poetry (Nazm) towards patriotism and the emergence of Novel in Urdu.

General Information :

This paper shall be based on five Units as below:

Unit No. 1 (Ghazal)

16 marks

1. Detailed Textual study of the following Ghazal :

دلی:

- ۱۔ شغل بہتر ہے عشق بازی کا
- ۲۔ جسے عشق کا تیر کاری لگے
- ۳۔ ہوش کھوتی ہے نازنیں کی ادا
- ۴۔ مفلسی سب بہار کھوتی ہے
- ۵۔ کیا مجھ عشق نے ظالم کوں آبِ ہستہ آہستہ

میر:

- ۱۔ ہمارے آگے تیرا جب کسوں نام لیا
- ۲۔ جس سر کو غرور آج ہے یاں تاج وری کا
- ۳۔ اشک آنکھوں میں کب نہیں آتا
- ۴۔ پتّا پتّا بوٹا بوٹا حال ہمارا جانے ہے
- ۵۔ فقیرانہ آئے صدا کر چلے

آتش:

- ۱۔ سُن تو سہی جہاں میں ہے تیرا فسانہ کیا
- ۲۔ تصور سے کسی کے میں نے کی ہے گفتگو برسوں
- ۳۔ دہن پر ہیں ان کے گماں کیسے کیسے
- ۴۔ یہ آرزو تھی تجھے گل کے روبرو کرتے
- ۵۔ حسن پری اک جلوہ مستانہ ہے اُس کا

غالب:

- ۱۔ یہ نہ تھی ہماری قسمت کہ وصال یار ہوتا
- ۲۔ عرضِ نیازِ عشق کے قابل نہیں رہا
- ۳۔ آہ کو چاہئے اک عمر اثر ہونے تک
- ۴۔ کسی کودے کے دل کوئی نواسخ فغاں کیوں ہو
- ۵۔ دلِ ناداں تجھے ہوا کیا ہے؟

داغ:

- ۱۔ غضب کیا تیرے وعدے پہ اعتبار کیا
- ۲۔ بات میری کبھی سنی ہی نہیں
- ۳۔ عشق کا لطف ہم سے اٹھتا ہے
- ۴۔ سبق ایسا پڑھا دیا تو نے
- ۵۔ عذر آنے میں بھی ہے اور بلاتے بھی نہیں

Unit No. 2

16 marks

Critical questions based on following topics.

یونٹ نمبر ۱ میں شامل نصاب شعراء کے حالات زندگی اور ان کی ادبی خدمات

1. Life and works of the poets prescribed for unit. I

Unit No. 3

16 marks

For detailed textual study.

Nazm "Tasveer-e-Dard" by Allama Iqbal.

نظم تصویر درد از علامہ اقبال

Unit No. 4

16 marks

Critical question based on the following topics:

- ۱۔ اقبال کے حالاتِ زندگی اور ان کی شعری خدمات
- ۲۔ اقبال اور وطن کا تصور
- ۳۔ اقبال کی حب الوطنی کا جائزہ (نصاب میں شامل نظم کے حوالے سے)
- ۴۔ نصاب میں شامل نظم کا تنقیدی جائزہ
- ۵۔ نصاب میں شامل نظم کا خلاصہ

Unit No. 5

16 marks

Novel for detailed study

ناول ”شکست“ کرشن چندر

تنقیدی سوالات:

- ۱۔ اردو ناول کی تعریف اور آغاز و ارتقاء
- ۲۔ نصاب میں شامل ناول کا تنقیدی جائزہ، پلاٹ، کردار نگاری اور موضوع۔

Note for Paper Setting :

This paper shall be divided into five units as specified above and the paper setter shall set two questions from each Unit asking candidates to attempt only one question from each Unit totalling five in all in this paper. Question from Unit Ist and IIIrd shall be based on explanation with reference to context with 100% choice of the course prescribed for these Units and Unit II, IV & V shall be critical questions on the topics enumerated therein. All the questions shall carry 16 marks in each Unit.

Books Prescribed :

- ۱۔ جدید اردو نصاب (برائے سمسٹر۔ V & VI)
- ۲۔ منتخب غزلیں از یو پی اردو اکیڈمی لکھنؤ
- ۳۔ بانگ درا/ کلیاتِ اقبال از اقبال

- ۴۔ شکست از کرشن چندر
- Books Recommended :**
- ۱۔ مختصر تاریخ ادب از ڈاکٹر اعجاز حسین
- ۲۔ تاریخ ادب اردو از نور الحسن نقوی
- ۳۔ جدید غزل از رشید احمد صدیقی
- ۴۔ بیسویں صدی میں اردو ناول از یوسف سرمست
- ۵۔ اردو غزل از ڈاکٹر یوسف حسین خان
- ۶۔ ترقی پسند تحریک اور اردو ناول از ڈاکٹر ریاض احمد
- ۷۔ اردو ناول تفہیم و تعبیر از ڈاکٹر محمد ریاض

B.A. Semester -VI
(UR-106)

University of Jammu

Syllabi and courses of study in Urdu for B.A. Semester-VI For the Examinations to be held in the years 2017, 2018. & 2019.

There shall be a written paper of 100 marks and of three hours duration, 20 Marks reserved for Internal Assessment. (The distribution of marks shall be as under- One Internal Assessment class Test of 10 marks & Two written home assignments of 05 marks each.) Thus the Paper will be of 80 marks. In case of regular students. internal assessment received from the colleges will be added to marks obtained by them in the university examination and in case of private candidates, marks obtained by them in the university examination shall be increased proportionately in accordance with the statutes/ regulations.

B.A. Semester -VI
Paper (Literature & Criticism)

OBJECTIVES:

This Course proposes to provide knowledge of literary criticism and history of urdu literature to the students. In order to achieve the end of an effort shall be made to inculcate in them the critical ability so as to enable them to enrich their literary taste.

General Information :

The paper shall be divided into five Units as given

below. Fifth Unit shall be further divided into two parts.

Unit 1

16 marks

Literary Criticism : The following topics:

i) What is literature, Principles of Literary Criticism, and its relation with literary criticism.

۱۔ ادب کیا ہے؟ ادبی تنقید کے اصول، ادب اور تنقید کا آپسی تعلق۔

ii) Ancient, Greek and Eastern Views of literature.

۲۔ ادب کے بارے میں قدیم یونانی اور مشرقی نظریات

iii) Various movements and ideologies in literature.

۳۔ ادب میں مختلف تحریکیں اور نظریات

Unit No. 2

16 marks

i) Art for the sake of Art

۱۔ ادب برائے ادب

ii) Progressive writers movement.

۲۔ ترقی پسند تحریک

iii) Romantic Movement.

۳۔ رومانی تحریک

Unit No. 3

16 marks

i) Contribution of Fort William College with Special reference to :

1. Dr. John Gilchrist
2. Mir Amman Dehlavi.
3. Mir Sher Ali Afsos

ii) Contribution of Delli College with special Reference to :

1. Master Ram Chander
2. Zaka-ullah
3. Mohd Hussain Azad

Unit No. 4

16 marks

Aligarh Tahreek with special reference to :

1. Sir Syed Ahmad Khan
2. Altaf Hussain Hali
3. Shibli Noumani.
4. Deputy nazir Ahmad

Unit No. 5

8+8=16 marks

This unit shall be divided into two parts :

Part (i) General Study of the following genres :

1. Urdu mein Khaka Nigari
2. Urdu Sahafat .
3. Urdu Nasr Mein Tanz-o-Mizah

Part- (ii) Objective type general questions from the Course prescribed for the paper. In this part, eight objective type questions with three options (one correct) shall be asked. The students are required to attempt all questions.

Note for Paper Setting :

This paper shall be divided into five units. The question paper shall have two questions each in Unit I to IV. The candidates shall be required to attempt one question from each Unit (I to IV). The Vth Unit is divided into two parts i.e. part-i and part-ii. In part-i two questions shall be asked and the candidates are required to attempt only one question; where as in part-ii all the eight objective type questions shall be attempted.

Books Prescribed :

- ۱۔ جدید اردو نصاب (برائے سمسٹر-V & VI)
- ۲۔ جدید اردو تنقیدی، اصول و نظریات پروفیسر شارب ردو لوی

Books Recommended :

- ۱۔ تاریخ ادب اردو از رام بابو سکینہ
- ۲۔ علی گڑھ تحریک نمبر (علی گڑھ میگزین) مرتب نسیم قریشی
- ۳۔ اردو ادب میں ترقی پسند تحریک از ڈاکٹر خلیل الرحمن اعظمی

- ۴۔ اردو تنقید کی تاریخ از ڈاکٹر مسیح الزماں
- ۵۔ انٹر لکھنوی کی نثری خدمات از ڈاکٹر دلجیت ورما
- ۶۔ ترقی پسند تحریک اور اردو ناول از ڈاکٹر ریاض احمد
-

Semester-I

Examination to be held on Dec.2016,2017,2018

Ability enhancement compulsory course (AECC) of **Urdu Language** as communication skill.

Course No: UURTC/01

Credits: 04

Title : Urdu Communication

Internalassessment :20 Marks

Theory : 80 Marks

Total : 100 Marks

Objectives:

To enable the students to :

- Know and understand the origin, development and importance of Urdu language & literature.

Unit-I

اُردو زبان

- ۱۔ اُردو زبان کا مختصر اُتعارف
- ۲۔ آغاز و ارتقاء اور اس کی اہمیت

Unit-II

اُردو شاعری

غزلیات:

۱۔ میر

پتا پتا بوٹا بوٹا حال ہمارا جانے ہے
جانے نہ جانے گل ہی نہ جانے باغ تو سارا جانے ہے

۲۔ غالب

کوئی اُمید بر نہیں آتی کوئی صورت نظر نہیں آتی

● منظومات:

۱۔ نظیر اکبر آبادی روٹیاں

۲۔ علامہ اقبال مکڑا اور مکھی

Unit-III

- ۱۔ غزل کی تعریف و خصوصیات
- ۲۔ نظم کی تعریف و اہمیت
- ۳۔ شامل نصاب شعراء کی حیات و شاعری

Unit-IV

اردو افسانہ

- ۱۔ افسانے کی تعریف اور اجزائے ترکیبی
- ۲۔ شامل نصاب افسانہ نگاروں کی حیات اور افسانہ نگاری
- ۳۔ شامل نصاب افسانوں کا اپنے الفاظ میں خلاصہ
- ۴۔ بڑے گھر کی بیٹی۔ منشی پریم چند
- ۵۔ خود گشتی۔ سعادت حسن منٹو

Instructions for Paper Setter

ممتحن کے لیے ہدایات :

پہلے یونٹ سے دو تنقیدی سوال ہوں گے۔ ایک سوال کرنا ضروری ہوگا۔ دوسرے یونٹ سے تشریح کے دو سوالوں میں سے ایک کرنا لازمی ہوگا۔ تیسرے اور چوتھے یونٹ سے دو دو تنقیدی سوال ہوں گے اور ان میں سے ایک ایک سوال کرنا ضروری ہوگا۔

Semester-II

Examination to be held on May.2017,2018,2019

Ability enhancement compulsory course (AECC) of **Urdu Language** as communication skill.

Course No: UURTC/02

Credits: 04

Title : Urdu Communication

Internalassessment :20 Marks

Theory : 80 Marks

Total : 100 Marks

Objectives:

To enable the students to :

Know and understand the origin, development and importance of Urdu language & literature.

Unit-I

اُردو نثر

- ۱۔ فورٹ ولیم کالج _____ قیام و خدمات
- ۲۔ علی گڑھ تحریک کی خدمات

Unit-II

- ۱۔ انشائیہ _____ تعریف و خصوصیات
- ۲۔ شاملِ نصاب انشائیہ اور انشائیہ نگاروں پر تنقیدی سوالات
- ۳۔ سر سید احمد خان _____ بحث و تکرار
- ۴۔ پطرس بخاری _____ بانسائیکل

Unit-III

اُردو شاعری

غزلیات:
۱۔ آتش

یہ آرزو تھی تجھے گل کے رو برو کرتے
ہم اور بلبل بیتاب گفتگو کرتے

۲۔ شاد عظیم آبادی

تمناؤں میں اُلجھایا گیا ہوں
کھلونے دے کے بہلایا گیا ہوں

منظومات:

۱۔ الطاف حسین حالی ___ اچھی عادتیں

۲۔ چکبست ___ کشمیر

Unit-IV

۱۔ غزل ___ ایک مطالعہ

۲۔ جدید نظم ___ ایک تعارف

۳۔ شاملِ نصاب شعراء کی حیات و شاعری

Instructions for Paper Setter

ممتحن کے لیے ہدایات :

پہلے یونٹ سے دو تنقیدی سوال ہوں گے۔ ایک سوال کرنا ضروری ہوگا۔ دوسرے یونٹ سے دو سوالوں میں سے ایک کرنا لازمی ہوگا۔ تیسرے یونٹ سے تشریح کے دو سوالوں میں سے ایک کرنا لازمی ہے۔ چوتھے یونٹ سے دو تنقیدی سوال ہوں گے اور ان میں سے ایک سوال کرنا ضروری ہوگا۔

B.Sc. Semester III

Course No. ZO-301 (Theory)

Time Duration: 3 Hrs

Maximum Marks: 100

Internal: 20

External: 80

UNIVERSITY Of JAMMU

Syllabi and Course of Study in Zoology

for the Examination to be held in the Years 2015, 2016 and 2017.

There shall be one written paper of 100 marks and one practical paper of 50 marks. Theory paper shall be of three hours duration and the practical paper shall be of four hours duration. 20% of the marks shall be reserved for internal assessment in theory paper and 50 % in the practical paper. Theory paper will be set for 80 marks and the practical paper for 25 marks. In case of the regular students internal assessment received from the college will be added to the marks obtained by them in the university examination and in case of private candidates marks obtained by them in the University examination shall be increased proportionately in accordance with the statutes / regulation.

1.	Course /Paper Title	:	Chordate Life, Diversity and Functions
2.	Total Contact Hours	:	90 hrs.
3.	Maximum Marks	:	100
	i) External (Univ. Exam.)	:	80
	ii) Internal Assessment	:	20
4.	Minimum Pass Marks		
	i) External	:	29
	ii) Internal	:	07
5.	Duration of Univ. Exam.	:	3 Hrs.

OBJECTIVES

The paper deals with chordate diversity and in each group from fishes to mammals, evolutionary terminals along specific lines of evolution, indicating organizational perfection along such specialized lines, can be recognized. Nevertheless, the converse, picture of emerging and continuing evolution can be appreciated in perfection to tetrapod through amphibia from fishes and birds and mammals from reptiles. The diversity of these large animals adds to the fascinations of the biosphere.

SYLLABUS

UNIT I

- 1.1 Chordates – Origin of chordates
- 1.2 General characters and classification of chordates upto class level.
- 1.3 Hemichordata
 - 1.3.1 Affinities and systematic position of *Balanoglossus*
- 1.4 Urochordata (type: *Herdmania*)
 - 1.4.1 Digestive system
 - 1.4.2 Circulatory system
 - 1.4.3 Reproductive system
 - 1.4.4 Affinities
- 1.5 Cephalochordata (type: *Amphioxus*)
 - 1.5.1 Digestive system
 - 1.5.2 Circulatory system
 - 1.5.3 Nervous system
 - 1.5.4 Affinities of *Amphioxus*

UNIT II **Agnatha and Pisces**

- 2.1 General characters and outline classification of Agnatha and Pisces upto order level.
- 2.2 Type: *Petromyzon*
 - 2.2.1 Digestive system and feeding
 - 2.2.2 Reproductive system
 - 2.2.3 Ammocoete larva
- 2.3 Type: *Scoliodon*
 - 2.3.1 Digestive system
 - 2.3.2 Respiratory system
 - 2.3.3 Urinogenital system
 - 2.3.4 Central nervous system

UNIT III **Amphibians and Reptilia**

- 3.1 General characters and classification of amphibians and reptiles upto order level
- 3.2 Amphibia (Type : Frog)
 - 3.2.1 Digestive system
 - 3.2.2 Respiratory system
 - 3.2.3 Circulatory system
 - 3.2.4 Urinogenital system
 - 3.2.5 Central nervous system
- 3.3 Reptile (Type : *Calotes*)
 - 3.3.1 Digestive system
 - 3.3.2 Respiratory system
 - 3.3.3 Circulatory system

- 3.3.4 Urinogenital system
- 3.3.5 Central nervous system

UNIT IV Aves and Mammalia

- 4.1 General characters and classification of Aves and Mammalia upto order level
- 4.2 Aves (Type : Pigeon)
 - 4.2.1 Digestive system
 - 4.2.2 Respiratory system
 - 4.2.3 Circulatory system
 - 4.2.4 Urinogenital system
 - 4.2.5 Central nervous system
- 4.3 Mammalia (Type: Rabbit)
 - 4.3.1 Digestive system
 - 4.3.2 Respiratory system
 - 4.3.3 Circulatory system
 - 4.3.4 Urinogenital system
 - 4.3.5 Central nervous system

UNIT V

- 5.1 Types of scales and fins in fishes
- 5.2 Migration in fishes
- 5.3 Parental care in fishes
- 5.4 Parental care in Amphibians
- 5.5 Migration in birds
- 5.6 Flight adaptation in birds
- 5.7 Skin, its derivatives and uses in mammals (Horns, digital tips and antlers)
- 5.8 Jaw suspension in vertebrates.

Note for the paper setters:

Section .A: 10 very short answer question are to be set. The maximum length of answer shall be 50 words. All tie questions are compulsory. Each question will carry 2 marks, total weightage being 20 marks

Section B: This section will comprise of ten long answer type questions, with two questions from each unit. Candidate will have to attempt 5 questions selecting one question from each Unit Each question will, carry 12 marks and the total weightage being 60 marks.

Books Recommended

1. Chordate Zoology- N. Arumugam, Vol. 2. Saras Publication
2. Text book of Zoology-Hymen series McGraw Hills
3. Chordate Zoology-E.L.Jordan & P.S. Verma. S. Chand Limited
4. Chordate zoology- P.S. Dhami & J.K. Dhami (1981) (R. Chand & Co.)
5. Principles of anatomy and physiology-G.J.Tortora & N.P. Anagnostakos (1984) (Harper & Row Publ., N.Y.).
6. Textbook of zoology, Vertebrates-A.J. Marshall (1995) (The McMillan Press Ltd., UK).
7. Chordate zoology- E.L. Jordan & P.S. Verma (1998) (S. Chand & Co.)

8. Modern textbook of Zoology (Vertebrates) -R.L.Kotpal (2000). (Rastogi Publ., Meerut).
9. Functional Anatomy of the Vertebrates: An Evolutionary Perspective- Liem, Karel F., William E. Bemis, Warren F. Walker, Lance Grande (2001). Brooks Cole.
10. Advanced Chordate Zoology-Gurdarshan Singh & H. Bhaskar (2002). Campus Books.

B.Sc. Semester III

Course No. ZOI-301 (Practical)

Maximum Marks: 25

Syllabi and Course of Study in Zoology for the Examination to be held in the Years 2015, 2016 and 2017

1. Study of external features of the following types:

Amphioxus:	With special reference to oral hood, Velum, branchial wall, section through various regions.
Herdmania:	with special reference to test, test spicules, branchial basket, neural gland.
Balanoglossus:	With particular stress on anterior region through sagittal sections.
Cyclostoma:	<i>Petromyzon, Myxine</i>
Elasmobranchi:	<i>Scoliodon</i>
Teleostomi:	<i>Cyprinus carpio</i>
Amphibia:	Frog, Salamander
Reptiles:	<i>Uromastix</i> , turtle
Birds:	Columba, Fowl
Mammals:	Rabbit, Squirrel

2. Distinguishing characters and classifications of protochordate through chordate (upto orders only) exemplified through following animal types:

- 2.1 *Pyrosoma, Botryllus, Salpa, Ammocoetus* larva
- 2.2 *Zygaena, Stegostoma, Dasyatis, Heptanchus, Charchardon, Pristis, Tarpedo, Rhinobatis, Chimera*
- 2.3 *Protopterus, Acipenser, Lepidosteus, Amia*
- 2.4 *Salmo, Barbus, Cyprinus, Schizothorax, Clarias, Heteropneustes, Glyptothorax, Botia, Nemachueilus, Ophiocephalus, Exocoetus, Pleuronectus, Anguilla, Gambusia, Anabas, Pterois, Echeneis*
- 2.5 *Ichthyophis, Oerotyphlus, Ambystoma, Axolotl* larva, *Amphiuma, Salamander Siren, Pipa, Hyla, Bufo, Rana*
- 2.6 *Chelonia, Trionyx, Kachuga, Testudo, Sphenodon, Hemidactylus, Chameleon, Draco, Heloderma, Calotes, Phrynosoma, Ophisaurus, Typhlops, Python, Bungarus, Naja, Viper, Hydrophis, Crotalus, Zamenis, Crocodilus, Gavialis*

- 2.7 *Archaeopteryx, Penguin, Struthio, Apteryx, Milvus, Eudynamys, Psittacula, Buba, Coracias, Dinopium, Passer, Carvus, Ardaa, Anas, Pavo, Cotumix, Pheasants*
- 2.8 *Echidna, Didelphis, Macrophus, Talpa, Echinosorex, Pteropus, Desmodus, Lampur, Tersius, Armadiles, Manis, Rabbit, Rattus rattus, Funadamulus hystrix, Whale, Dolphin, Hyaena, Panthera, Civet, Cat, Canis, Vulpes, Herpestes, Phoca, Otario, Elephus, Halicore, Mantiees, Equas, Rhinoceros, Sus, Hippopotamus, Dicotyles, Cow, Buffalo, Sheep, Goat*
- 3. Dissect the fish to study the following systems:
 - 3.1 Digestive system
 - 3.2 Nervous System
 - 3.3. Taking out Pituitary and Weberian ossicles
- 4 Study of the following skeleton:
 - 4.1 Skull of frog and Varanus
 - 4.2 Axial and Appendicular skeleton of Frog and Varanus

B.Sc. Semester IV

Course No. ZO-401 (Theory)

Time Duration: 3 Hrs

Maximum Marks: 100

Internal: 20

External: 80

UNIVERSITY Of JAMMU

Syllabi and Course of Study in Zoology

for the Examination to be held in the Years 2016, 2017 and 2018.

There shall be one written paper of 100 marks and one practical paper of 50 marks. Theory paper shall be of three hours duration and the practical paper shall be of four hours duration. 20% of the marks shall be reserved for internal assessment in theory paper and 50 % in the practical paper. Theory paper will be set for 80 marks and the practical paper for 25 marks. In case of the regular students internal assessment received from the college will be added to the marks obtained by them in the university examination and in case of private candidates marks obtained by them in the University examination shall be increased proportionately in accordance with the statutes / regulation.

1.	Course /Paper Title	:	Comparative Physiology of animals
2.	Total Contact Hours	:	90 hrs.
3.	Maximum Marks	:	100
	i) External (Univ. Exam.)	:	80
	ii) Internal Assessment	:	20
4.	Minimum Pass Marks		
	i) External.	:	29
	ii) Internal	:	07
5.	Duration of Univ. Exam.	:	3 Hrs.

OBJECTIVES

It deals broadly with animal functions, embryology and environmental biology. The student is introduced to some important functional aspects of endocrinology and reproductive biology. Some topics on the developmental biology have also been included in the course to acquaint the students with different patterns of development in animals. This paper also introduces a student to the emerging and all important concepts of environmental biology so that he/she develops not only environmental awareness and understands hazards of depleting environment but also carry this message for the society in general. For this reason the student is exposed to a syllabus which aims at projecting the ecosystem

concept magnifying the wholesomeness, its homeostasis and delicate balance that exists therein. Besides, the study deals with human interferences resulting in expression of environmental pollution.

SYLLABUS

UNIT I

1.1 Nutrition, feeding and digestion

- 1.1.1 Types of nutrition and Feeding mechanisms (Microphagy ; macrophagy, Filter feeding)
- 1.1.2 Digestion – extracellular and intercellular types.
- 1.1.3 Enzymatic digestion
- 1.1.4 Hormonal control of digestion
- 1.1.5 Symbiotic digestion.

1.2 Respiration

- 1.2.1 Types of respiration ; Cutaneous respiration; branchial respiration; pulmonary and tracheal respiration
- 1.2.2 Respiratory pigments and their role
- 1.2.3 Mechanism of gas exchange and its transport in mammals
- 1.2.4 Regulation of respiration in mammals

UNIT II

2.1 Circulation

- 2.1.1 Closed and open circulatory systems
- 2.1.2 Types of heart and Patterns of blood flow: Chambered type, tubular type, pulsatile vessels, ampullary type.
- 2.1.3 Pace maker, myogenic and neurogenic type of heart
- 2.1.4 Thermoregulation

2.2 Excretion

- 2.2.1 Excretory organs and nitrogenous wastes
- 2.2.2 Ammonotelism, Ureotelism and Uricotelism

2.3 Osmoregulation

- 2.3.1 Osmoregulation in fresh water, marine, estuarine and terrestrial environment

UNIT III Endocrinology of Reproduction

- 3.1 General organization of pituitary gland in mammals
- 3.2 Hypothalamo-hypophyseal axis
- 3.3 Pituitary hormones
- 3.4 Pituitary-gonadial axis
- 3.5 Gonadial hormones and their functions
- 3.6 Menstruation in primates
- 3.7 Oestrous cycle in primates

UNIT IV Developmental Biology

- 4.1 Gametogenesis (Spermatogenesis and Oogenesis), Types of eggs.
- 4.2 Fertilization: Egg sperm interaction, Acrosome reaction activation and polarity of egg Cleavage: Types and patterns; Elementary concepts of inner cell mass and stem cells
- 4.3 Process of Blastulation and fate-map construction in frog
- 4.4 Gastrulation in Frog upto the formation of three germinal layers
- 4.5 Development of Amphioxus upto formation of coelom
- 4.6 Extra embryonic membrane of chick
- 4.7 Placentation in mammals
- 4.8 Retrogressive metamorphosis in Ascidians (*Herdmania*)

UNIT V Ecology: Ecosystem concept and energetic

- 5.1 Ecology – its definition and relation to humanity
- 5.2 Ecological niche, habitat, biosphere, biome, ecotone
- 5.3 Ecosystem concepts and Homeostasis
 - 5.3.1 Energy flow in ecosystem
- 5.4 Primary productivity
- 5.5 Food chains: grazing food chains and detritus food chains
- 5.6 Food webs
- 5.7 Trophic structure and ecological pyramids such as pyramids in number, biomass and energy.
- 5.8 Analysis and evaluation of an ecosystem**
 - 5.8.1 Abiotic and biotic factors
 - 5.8.2 Population and community structure
 - 5.8.3 Ecological succession
- 5.9 Human activity and natural resources**
 - 5.9.1 Deleterious influence on wildlife resources and its conservation
 - 5.9.2 Endangered Species (Overview)
 - 5.9.3 Pollution:
 - 5.9.3.1 Air pollution
 - 5.9.3.2 Water pollution
 - 5.9.3.3 Noise pollution
 - 5.9.4 Conservation of natural resources (Overview)

Note for the paper setters:

Section .A: 10 very short answer question are to be set. The maximum length of answer shall be 50 words. All tie questions are compulsory. Each question will carry 2 marks, total weightage being 20 marks

Section B: This section will comprise of ten long answer type questions, with two questions from each unit. Candidate will have to attempt 5 questions selecting one question from each Unit Each question will, carry 12 marks and the total weightage being 60 marks.

Books recommended:

1. Text book of zoology – Parker and Haswell Vol. II
2. Chordate Zoology and Elements of Animal Physiology –E.L. Jordon and Verma, P.S.
3. Zoology and Chordates by H.C. Nigam, Vishal Publications, Jalandhar
4. Comparative Anatomy- M.D.L. Srivastava
5. Comparative Anatomy – Kingley
6. Life of Mammals – J.Z. Young
7. Fundamentals of Ecology – Odum
8. Ecology by Kermondy
9. Field Biology – Benten and Wegner
10. Wildlife of India – Sahasia
11. Animals and Environment – Vernberg
12. Wildlife Ecology –Aeron
13. Wildlife Management – Dasmann
14. Manual of Zoology Vol II Chordata – Ayyar, E.K., T.N. Anorthakrishnan
15. Chordate structure and function – Waterman, A.N. and Others
16. General and Comparative Physiology – W.S. Hoar
17. Principles of Animal Physiology – Wood, D.W.
18. Animal physiology –Eckert
19. An Introduction to Embryology –Balinsky
20. Biology of Developing System – Grant
21. Developmental Biology – Gilbert.

B.Sc. Semester IV

Course No. ZO-401 (Practical)

Maximum Marks: 25

Syllabi and Course of Study in Zoology for the Examination to be held in the Years 2016, 2017 and 2018

This paper deals with practical pertaining to animal diversity (Chordate); Comparative anatomy (Protochordates through chordate)

1. Preparation of permanent mounts of the following:
 - 1.1 Velum, Oral hood and Pharyngeal of Amphioxus
 - 1.2 Ampullae of Lorenzini, Placoid scale, Ctenoid scale of fish, stripped muscles of frog from pectoral girdle or thigh
2. Study of following skeleton:
 - 2.1 Skull of Fowl and Rabbit
 - 2.2 Axial and Appendicular skeleton of fowl and rabbit
3. Study of types of eggs (Frog, Reptiles and Birds)
4. Study of chick embryology through stained mounts (18 Hrs.; 24 Hrs.; 36 Hrs.; 48 Hrs.; 72 Hrs.)
5. Simple lab. Tests for detection of protein carbohydrate, fats
6. Action of Enzymes (Amylase and Pepsin)
7. Blood smear, Leishman's stain, prepared slides for making different leucocyte count through Arneith's count methods
8. Study of histology of different endocrine glands from prepared slides (pituitary and Gonads)
9. Demonstration of different types of Placenta in mammals through models or preserved specimens.
10. Study of types of feet and claws, feathers and beaks in birds.
11. Viva-voce.

B.Sc. Semester V

Course No. ZO-501 (Theory)

Time Duration: 3 Hrs

Maximum Marks: 100

Internal: 20

External: 80

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Syllabi and Course of Study in Zoology

for the Examination to be held in the Years 2016, 2017 and 2018.

There shall be one written paper of 100 marks and one practical paper of 50 marks. Theory paper shall be of three hours duration and the practical paper shall be of four hours duration. 20% Of the marks shall be reserved for internal assessment in each theory paper and 50 % in the practical paper. Theory paper will be set for 80 marks and the practical paper for 25 marks. In case of the regular students internal assessment received from the college will be added to the marks obtained by them in the university examination and in case of private candidates marks obtained by them in the University examination shall be increased proportionately in accordance with the statutes / regulation.

1. Course / PaperTitle	:	PARASITOLOGY
2. Total Contact Hours	:	90 hrs.
3. Maximum Marks	:	100
i) External (Univ. Exam.)	:	80
ii) Internal Assessment	:	20
4. Maximum Pass Marks		
i) External	:	29
ii) Internal	:	07
5. Duration of Univ. Exam.	:	3 Hours

OBJECTIVES

The Course is designed to introduce the student to the fundamental of parasitology so that the knowledge thus gained could be useful to them in the later walk of life as extension specialists or as scientific investigations. The course entails a broad view of morphology biology and bionomics of the parasites specific to man.

SYLLABUS

UNIT I

- 1.1 Scope and definition of parasitology.
- 1.2 Symbiotic relationship and its types
- 1.3 Concept of susceptibility.
- 1.4 Concept of Immunity.
- 1.5 Vector and host types and interdependence.
- 1.6 Types of parasitic relationships in animal kingdom.
- 1.7 Parasitic adaptation

UNIT II

- 2.1 Structure of virus with special reference to bacteriophage.
- 2.2 Classification of viruses.
- 2.3 Study of following diseases caused by viruses in man, their symptoms, mode of transmission and preventive measures.
 - 2.3.1 AIDS
 - 2.3.2 RABIES
 - 2.3.3 MEASLES
- 2.4 Structure of Bacteria
- 2.5 Study of following bacterial diseases of man, their symptoms, mode of transmission and preventive measures.
 - 2.5.1 Tuberculosis
 - 2.5.2 Typhoid
 - 2.5.3 Cholera

UNIT III

Habit, Habitat, general morphology, specific adaptability, mode of transmission, life cycle, pathogenesis and prophylaxis of the following protozoan parasites of man

- 3.1.1 *Giardia*
- 3.1.2 *Trypanosoma*
- 3.1.3 *Entamoeba*
- 3.1.4 *Plasmodium*
- 3.1.5 *Leishmania*
- 3.1.6 *Balantidium coli*

UNIT IV

- 4.1 Habit, habitat, general morphology, specific adaptability mode of transmission, life cycle, pathogenesis and prophylaxis of the following parasites of the man.
 - 4.1.1 *Schistosoma*
 - 4.1.2 *Fasciolopsis buski*
 - 4.1.3 *Diphyllobothrium*
 - 4.1.4 *Echinococcus*
 - 4.1.5 *Wuchereria*
 - 4.1.6 *Ancylostoma*
 - 4.1.7 Acanthocephala : General organization and economic Importance

UNIT V

- 5.1 Gastro – intestinal tract as habitat of protozoan and helminth parasites of man
- 5.2 Blood and lymph as habitat of nematode parasites of man.
- 5.3 Reticulo-endothelial system as habitat of protozoan parasite of man
- 5.4 Host – parasite specificity

NOTE FOR PAPER SETTING

Section .A: 10 very short answer question are to be set. The maximum length of answer shall be 50 words. All the questions are compulsory. Each question will carry 2 marks, total weightage being 20 marks

Section B: This section will comprise of ten long answer type questions, with two questions from each unit. Candidate will have to attempt 5 questions selecting one question from each Unit Each question will, carry 12 marks and the total weightage being 60 marks.

Books Recommended

1. Cemeron, D. Parasites and Parasitism
2. Kudo, P.R. Protozoology
3. Greal, K.G Protozoology, Springer- Variog, Budlin
4. Baker Parasitic Protozoa – Hutchinson Lib. Series
5. Hyman, H. The Invertebrate Protozoa Through Ctenophora
6. Gynab .L.H. (1951) the Invertebrates Planthyheminthes, Vol.III
7. Ben Daves (1968) The trematoda, Cambridge Univ. Press
8. Thomas Chang (1964) The Biology Of animal Parasites Toppan Co Ltd. Tokyo , Japan

SEMESTER-V
Laboratory Course No. ZO-501 (PRACTICAL)

Marks: 25

SYLLABI AND COURSES OF STUDY IN ZOOLOGY
FOR THE EXAMINATION TO BE
HELD IN THE YEARS 2016, 2017 AND 2018.

1. Study of Sea – anemone and Hermit crab as an example of commensalism.
2. Prepare a permanent mount of *Trichonympha* from the gut of termites as an example of mutualism.
3. Preparation of stained slides and identification of bacteria from the curd culture.
4. Study of the following protozoan parasites through prepared slides
 - 1) *Leishmania* 2) *Trypanosoma*
 - 3) *Entamoeba* 4) *Plasmodium*
 - 5) *Balantidium*
5. Morphometry and identification of locally available carps and cat fishes.
6. Preparation of permanent mount and identification of metazoan parasites of fish.
7. Study of parasites (bed bug and lice) in relation to their adaptations.
8. Study of ticks and mites from prepared slides
9. A visit to sericulture farm.
10. A visit to fish farm/aquarium
11. A visit to University Zoological Park
12. Viva-voce.

B.Sc. Semester VI

Course No. ZO-601 (Theory)

Time Duration: 3 Hrs

Maximum Marks: 100

Internal: 20

External: 80

UNIVERSITY OF JAMMU

Syllabi and Course of Study in Zoology

for the Examination to be held in the Years 2017, 2018 and 2019.

There shall be one written paper of 100 marks and one practical paper of 50 marks. Theory paper shall be of three hours duration and the practical paper shall be of four hours duration. 20% Of the marks shall be reserved for internal assessment in each theory paper and 50 % in the practical paper. Theory paper will be set for 80 marks and the practical paper for 25 marks. In case of the regular students internal assessment received from the college will be added to the marks obtained by them in the university examination and in case of private candidates marks obtained by them in the University examination shall be increased proportionately in accordance with the statutes / regulation.

1. Course / PaperTitle	:	ECONOMIC ZOOLOGY
2. Total Contact Hours	:	90 hrs.
3. Maximum Marks	:	100
iii) External (Univ. Exam.)	:	80
iv) Internal Assessment	:	20
4. Maximum Pass Marks		
iii) External	:	29
iv) Internal	:	07
5. Duration of Univ. Exam.	:	3 Hours

Objective

The course deals broadly with Economics zoology besides providing an insight into the relative usefulness of animals as human food. The course introduces the students to some important economic aspects of Zoology, a line which they may ultimately choose to develop for their self –employment (whole time or part time).

SYLLABUS

UNIT I:- AQUACULTURE

- 1.1 Definition and scope of Aquaculture
- 1.2 Monoculture
 - 1.2.1 Prawn culture

- 1.2.2 Pearl culture
- 1.2.3 Carp culture
- 1.2.4 Trout culture
- 1.3 Polyculture (Composite fish culture)
- 1.4 Induced Breeding in fishes
- 1.5 Economic importance of fishes

UNIT II: APICULTURE SERICULTURE AND LAC CULTURE

2.1 Apiculture :

- 2.1.1 General morphology of honey bees, laying special stress on mouth parts and appendages of workers
- 2.1.2 Life cycle of Honey –bee
- 2.1.3 Uses of honey & Bee – Wax; composition of honey
- 2.1.4 Methods use in Apiculture
- 2.1.5 Predators and Parasites of honey bee
- 2.1.6 Bee Venom as medicine

2.2 Sericulture

- 2.2.1 Life Cycle of silk worm
- 2.2.2 Silk producing insects in India and kinds of silk fibers produced
- 2.2.3 Economic Importance of Silk worm
- 2.2.4 Mulberry cultivation for sericulture
- 2.2.5 Principles of silk worm rearing
- 2.2.6 Pebrine Disease, Its Genesis Pathogenesis And Prophylaxis

2.3 Lac Culture

- 2.3.1 Life Cycle of Lac Insect
- 2.3.2 Lac Cultivation, Formation, its processing and Uses

UNIT III Poultry and cattle farming

3.1 Poultry farming

- 3.1.1 Breeds of Poultry birds and their characteristics; Rhode island red ; white- Leghorn; Black Minorca; Aseel , Chittagong
- 3.1.2 Poultry breeding and rearing
- 3.1.3 Poultry diseases: causes, symptoms, mode of transmission and prophylaxis of the following poultry diseases, Ranikhet, Coccidiosis and Avian tuberculosis.

3.2 Cattle Farming

- 3.2.1 Breeds of dairy cattle and their characteristics Red Sindhi, Sahiwal, Red Dane, Holstein–Friesian, Jersey
- 3.2.2 Cattle diseases: Mastitis, Anthrax, Foot and Mouth diseases
- 3.2.3 Integrated animal farming

UNIT –IV : Animal Pests

- 4.1 Nematode parasite of potato, tomato and wheat.
- 4.2 Insect Pests:
 - 4.2.1 Insect pests of stored food : diagnostic features, extent of damage and control measures.
 - 4.2.1.1 *Sitophilous oryze* (Rice – Weevil)
 - 4.2.1.2 *Tribolium castenum* (red – flour beetle)
 - 4.2.1.3 *Rhizopertha dominica*
- 4.3 Insect Pests of standing crops
 - 4.3.1 *Leptocorsia vericornis* (Rice- Gundhi Bug)
 - 4.3.2 *Pectinophora gossypiella* (Pink- boll worm of Cotton)
 - 4.3.3 *Diacrisia obliqa* (Bihar – hairy Caterpillar)
- 4.4 Insects as vectors of human diseases
- 4.5 Ticks and mites: their harms, role and control
- 4.6 Snakes
 - 4.6.1 Poisonous snakes and venom
 - 4.6.2 Role of snakes in rodent pest control
- 4.7 Birds :
 - 4.7.1 Birds as pest
 - 4.7.2 Role of birds in pest control

UNIT V : BIOTECHNOLOGY

- 5.1 General concepts of Biotechnology
- 5.2 Biotechnology in live stock:
 - 5.2.1 in-vitro fertilization
 - 5.2.2 Artificial insemination
 - 5.2.3 Surrogate mothers : embryo transfer technology
 - 5.2.4 Cloning (basic concept)
- 5.3 Applications of Biotechnology
 - 5.3.1 Biogas
 - 5.3.2 Biofertilizers
 - 5.3.3 Bioinsecticides
 - 5.3.4 Antibiotics

NOTE FOR PAPER SETTING

Section .A: 10 very short answer question are to be set. The maximum length of answer shall be 50 words. All tie questions are compulsory. Each question will carry 2 marks, total weightage being 20 marks

Section B: This section will comprise of ten long answer type questions, with two questions from each unit. Candidate will have to attempt 5 questions selecting one question from each Unit Each question will, carry 12 marks and the total weightage being 60 marks.

Books Recommended

1. Ullal S.R. and Narsimabanna
2. Technology of fishes , Acad. Press London
3. Singh V P and Ramachandran , V (1985), Fresh Water fish culture ICAR New Delhi
4. Stickney , R R (1979) Principle of warm water aquaculture , John Willey & Sons New Delhi
5. Jhingran, VP (1982) Fish and Fisheries of India Hindustan Pub. Corp. (India) New Delhi
6. Kurian C V and Sebastian V C , Prawns and prawn Fisheries of India Hindustan Publ Corp (India) New Delhi
7. Prave P Faust I sitting W & Sukatsch , D A (1987) fundamental Of Biotechnology VCH Pub Germany
8. Higgim , I J best DJ and Jones J (1985), Biotechnology Principle and Application Blackwell Scientific Publ. Oxford
9. Banerjee, G C (1982), Poultry , Oxford and IBM Publ
10. Naik K K Anathakrishnan , T N and David B V, Poultry , Oxford and IBM Publ.
11. Matcalf C.L. and Flint, W.P. Useful and destructive insects. Tata McGraw hill Publ. New Delhi
12. Roberts. S.O. Veterinary Obaterrics and genital diseases
13. Shukla and Upadhya Economic Zoology
14. Kovaleve ,P.A. Silkworm breeding stocks Central Silk Broad, Marine , Drive Bombay
15. Roger , A Morse, The ABC and XYZ of Bee Culture A.I. Root & Co Medina , Ohia

B.SC. SEMESTER-VI
Laboratory Course No. ZO-601 (PRACTICAL)

Marks: 25

SYLLABI AND COURSES OF STUDY IN ZOOLOGY
FOR THE EXAMINATION TO BE
HELD IN THE YEARS 2017, 2018 AND 2019.

1. Morphology of Head, Wings, Legs, Thorax and Abdomen of Honey bee
2. Preparation of permanent / temporary mount of mouth parts, sting apparatus and hind legs of Honey bee
3. Study of life history of Honey bee
4. Study of life history of *Bombyx mori*.
5. Study of type of silk fibers from prepared slides
6. Candling of egg of fowl for differentiation of the fertilized eggs from the unfertilized eggs
7. Study of the following insect pest
 - i) Rice-weevil
 - ii) Red flour beetle
 - iii) Lesser Grain borer
 - iv) Rice-Gundi bug
 - v) Pink ball worm of cotton
 - vi) Bihar hairy caterpillar
8. Collection and preservation of insects and preparation of insectarium.
9. Identification and culture of fish food organism (protozoa and rotifers)
10. A visit of apiculture farm.
11. A visit to poultry farm.
12. A visit to dairy farm
13. Study of common poisonous snakes from specimens
14. Aquaculture: identification of cultivable
 - i. Prawn, crab, lobster,
 - ii. Clams, mussel and oyster
 - iii. Cold Water Fishes
 - iv. Ornamental and exotic fishes
15. Study of predatory insects (praying mantis and dragon fly) in relation to their adaptations.
16. Viva-voce.

B.SC. SEMESTER-I

Core Course No. : UZOTC 101

Core Course Title: ANIMAL DIVERSITY

CREDITS : 4

UNIVERSITY OF JAMMU

Syllabi and Course of Study in Zoology

For the examination to be held in the years Dec 2016, 2017 and 2018

UNDER CHOICE BASED CREDIT SYSTEM

1. Course /Paper Title	:	Animal Diversity (Theory)
2. Maximum Marks	:	100
i) External (Univ. Exam.)	:	80
ii) Internal Assessment	:	20
4. Minimum Pass Marks		
i) External	:	29
ii) Internal	:	07
5. Duration of Univ. Exam.	:	3 Hrs.

Unit 1: Protista, Porifera and Cnidaria 13 Hrs

- 1.1 Introduction to kingdoms of organisms (Five kingdom system -a brief overview viz. Monera, Protista, Fungi, Plantae & Animalia).
- 1.2 Protista
 - 1.2.1 General characters and classification up to class level
 - 1.2.2 Locomotory Organelles and locomotion in Protozoa
- 1.3 Porifera
 - 1.3.1 General characters and classification up to class level.
 - 1.3.2 Canal System in Sponges
- 1.4 Cnidaria
 - 1.4.1 General characters and classification up to class level.
 - 1.4.2 Polymorphism in Cnidaria: Hydrozoa, Siphonophora
 - 1.4.3 Corals & Coral reefs

Unit 2: Helminthes and Annelida 13 Hrs

- 2.1 Helminthes
 - 2.1.1 Platyhelminthes
 - 2.1.1.1 General characters and classification up to class level.
 - 2.1.1.2 Structure, reproduction, life cycle and pathogenesis of *Taeniasolium*
 - 2.1.2 Nemathelminthes
 - 2.1.2.1 General characters and classification up to class level.
 - 2.1.2.2 Structure, reproduction, life cycle, parasitic adaptations and pathogenesis of *Ancylostomaduodenales*
- 2.2 Annelida
 - 2.2.1 General characters and classification up to class level.

2.2.2 Metamerism in Annelida

Unit 3: Arthropoda, Mollusca and Echinodermata 13 Hrs

- 3.1 Arthropoda
 - 3.1.1 General characters and classification up to class level.
 - 3.1.2 Eye structure and Vision in Arthropoda
 - 3.1.3 Metamorphosis in Insects
- 3.2 Mollusca
 - 3.2.1 General characters and classification up to class level.
 - 3.2.2 Torsion in gastropods
 - 3.2.3 Shell in mollusca
- 3.3 Echinodermata
 - 3.3.1 General characters and classification up to class level.
 - 3.3.2 Water-vascular system in Asteroidea
 - 3.3.3 Trochophore larval: Structure and Significance

Unit 4: Protochordates, Agnatha, Pisces and Ambhibia 13 Hrs

- 4.1 Origin of Chordates
- 4.2 Protochordates: General features and Phylogeny.
- 4.3 Agnatha
 - 4.3.1 General features of Agnatha and classification of cyclostomes up to class level.
- 4.4 Pisces
 - 4.4.1 General features and Classification up to order level.
 - 4.4.2 Osmoregulation in Fishes
- 4.5 Amphibia
 - 4.5.1 General features and Classification up to order level.
 - 4.5.2 Parental care in Amphibians

Unit 5: Reptiles, Aves and Mammals 13 Hrs

- 5.1 Reptiles
 - 5.1.1 General features and Classification up to order level.
 - 5.1.2 Poisonous and non-poisonous snakes.
 - 5.1.3 Biting mechanism in snakes
- 5.2 Aves
 - 5.2.1 General features and Classification up to order level.
 - 5.2.2 Flight adaptations in birds
- 5.3 Mammals
 - 5.3.1 Classification up to order level.
 - 5.3.2 Origin of mammals

Note: 1 There shall be one written theory paper of 100 marks and one practical paper of 100 marks. 20% (20 marks) of the marks shall be reserved for internal assessment in theory paper and 50 % (50 marks) in the practical paper. Theory paper will be set for 80 marks and the practical paper for 50 (40 marks for paper and 10 for viva-voce). Daily evaluation of practical records/viva voce/attendance etc. will be of 50 marks (including 20% (10 marks) for attendance, 20% (10 marks) for viva voce and 60% for the internal test and day to day performance (15 marks

each) In case of the regular students internal assessment received from the college will be added to the marks obtained by them in the university examination and in case of private candidates marks obtained by them in the University examination shall be increased proportionately in accordance with the statutes / regulation.

Internal Assessment Test

One long answer type question of 10 marks and five short answer type questions of 2 marks each

Note 2: For paper setters:

External End Semester University Exam

Section A: 10 very short answer type questions are to be set. The maximum length of answer shall be 50 words. All the questions are compulsory. Each question will carry 2 marks, total weightage being 20 marks.

Section B: This section will comprise of ten long answer type questions, with two questions from each unit. Candidate will have to attempt 5 questions selecting one question from each unit. Each question will, carry 12 marks and the total weightage being 60 marks.

Books Recommended

1. Text book of Zoology-Hymen series McGraw Hills.
2. Protozoology-Kudo, Books & Periodicals Corporation (India).
3. Text-book of Zoology-Sedwick series. Central Book Depot.
4. Text-book of Zoology-Parker and Haswell Vol. I. Mac Millan & Co. 1986, New York.
5. Protozoology-Mackinen and Hawez, Canb University.
6. Treatise in Zoology-Lankester series.
7. Parasitic protozoa-Baker. Allen & Unwin, Inc. USA.
8. Human Helminthology-Faust, E.C, Lee and Febiger, Philadelphia.
9. Medical Parasitology- K. D. Charterjee
10. Helminthology- Kotpal
11. Arthropod Anatomy-Snodgrass. Principles of insect morphology (1935) Snodgrass, R.E. McGraw Hill London, New York.
12. Invertebrate-Bordale and Potts. C.L.
13. Integrated principles of Zoology by Hickman, C.P. Jr., F.M. Hickman & L.S. Roberts. (Mosby College Publ. St. Louis.).
14. Manual of Zoology Vol. I (invertebrata) part I and II. Ayyar, E.K. & T.N. Ananlha-Krishnan (S. Vishwanathan, Printers & Publ. Pvt. Ltd. Madras).
15. Invertebrate Zoology-Jordan, E.L. & P.S. Vemla (S. Chand & Co. Ltd. Madras).
16. Chordate Zoology- N. Arumugam, Vol. 2. Saras Publication
17. Chordate Zoology-E.L. Jordan & P.S. Verma. S. Chand Limited
18. Chordate zoology- P.S. Dhama & J.K. Dhama (1981) (R. Chand & Co.)
19. Principles of anatomy and physiology-G.J. Tortora & N.P. Anagnostakos (1984) (Harper & Row Publ., N.Y.).
20. Textbook of zoology, Vertebrates-A.J. Marshall (1995) (The McMillan Press Ltd., UK).
21. Modern textbook of Zoology (Vertebrates) -R.L. Kotpal (2000). (Rastogi Publ., Meerut).
22. Functional Anatomy of the Vertebrates: An Evolutionary Perspective- Liem, Karel F., William E. Bemis, Warren F. Walker, Lance Grande (2001). Brooks Cole.
23. Advanced Chordate Zoology-Gurdarshan Singh & H. Bhaskar (2002). Campus Books.

B.SC. SEMESTER-I

Core Course No. : UZOPC 101

Core Course Title: ANIMAL DIVERSITY (PRACTICAL)

CREDITS : 2

1. Study of external features of the following:

- 1.1 *Nereis*: External features with special emphasis on Head & Parapodia and Heteronereis phase.
- 1.2 Prawn: External morphology & Appendages
- 1.3 Cockroach: Mouthparts
- 1.4 *Pila*, *Unio*: External morphology of Shell.
- 1.5 *Amphioxus*: With special reference to oral hood, Velum, branchial wall, section through various regions.

2. Distinguishing characters & classifications of the following animals:

- 2.1 *Euglena*, *Plasmodium*, *Paramecium*
- 2.2 *Sycon*, *Hyalonema*, and *Euplectella*.
- 2.3 *Hydra*, *Obelia*, *Millipora*, *Sertularia*, *Physalia*, *Velella*, *Porpita*, *Aurelia*, *Tubipora*, *Metridium*.
- 2.4 *Planaria*, *Fasciola*, *Echinococcus*, *Taenia solium*, *Ascaris lumbricoides*, *Ancylostoma*, *Enterobius*
- 2.5 *Aphrodite*, *Tubicola*, *Chaetopterus*, *Serpula*, *Arenicola*, *Pheretima*, *Pontobdella*,
- 2.6 *Balanus*, *Lepas*, *Cray fish*, *Palaemon*, *Cancer*, *Limulus*, *Palaemon*, *Scolopendra*, *Julus*, *Periplaneta*, *Apis*.
- 2.7 *Chiton*, *Mytilus*, *Dentalium*, *Pila*, *Unio*, *Loligo*, *Sepia*, *Octopus*
- 2.8 *Pentaceros*, *Ophiura*, *Echinus*, *Cucumaria* and *Antedon*
- 2.9 *Balanoglossus*, *Herdmania*, *Branchiostoma*
- 2.10 *Petromyzon*, *Myxine*, *Sphyrna*, *Pristis*, *Torpedo*, *Chimera*, *Protopterus*, *Amia*, *Salmo*, *Labeo*, *Exocoetus*, *Anguilla*, *Barbus*, *Cyprinus*, *Clarias*, *Heteropneustes*, *Ophiocephalus*, *Anabas*, *Echeneis*
- 2.11 *Ichthyophis/Ureotyphlus*, *Salamandra*, *Axolotl larva*, *Bufo*, *Hyla*
- 2.12 *Chelone*, *Trionyx*, *Kachuga*, *Testudo*, *Sphenodon*, *Hemidactylus*, *Chamaeleon*, *Draco*, *Calotes*, *Typhlops*, *Python*, *Bungarus*, *Vipera*, *Naja*, *Crocodylus*, *Hydrophis*, *Gavialis*,
- 2.13 Any six common birds from different orders,
- 2.14 *Echidna*, *Macropus*, *Manis*, *Ursus*, *Bat*, *Funambulus*, *Loris*

3. Dissection of the following animals to expose and study the various systems:

- 3.1 Earthworm: Alimentary canal, Reproductive system
- 3.2 *Palaemon*: Alimentary canal, Nervous system

4. Preparation of permanent stained mounts of the following:

Obelia, Parapodium of *Neries*, Nephridium of Earth worm, Ovary of Earthworm,
Mouthparts of Cockroach, mouth parts of mosquito and radula of *Pila*.

5. Key for Identification of poisonous and non-poisonous snakes

- 6.** An “**animal album**” containing photographs, cut outs, with appropriate write up about the above mentioned taxa. Different taxa/ topics may be given to different sets of students for this purpose.

B.SC. SEMESTER-II

Core Course No. : UZOTC 201

Core Course Title: COMPARATIVE ANATOMY AND DEVELOPMENTAL BIOLOGY OF VERTEBRATES

CREDITS : 4

UNIVERSITY OF JAMMU

Syllabi and Course of Study in Zoology

For the examination to be held in the years May 2017, 2018 and 2019

UNDER CHOICE BASED CREDIT SYSTEM

1. Course /Paper Title	:	Comparative anatomy and developmental biology of Vertebrates (Theory)
2. Maximum Marks	:	100
i) External (Univ. Exam.)	:	80
ii) Internal Assessment	:	20
4. Minimum Pass Marks		
i) External	:	29
ii) Internal	:	07
5. Duration of Univ. Exam.	:	3 Hrs.

Unit 1: Integumentary Skeletal System 13 Hrs

- 1.1 Integument System
 - 1.1.1 Integument: Structure and Function
 - 1.1.2 Derivatives of integument:
 - 1.1.2.1 Glands
 - 1.1.2.2 Scales and Scutes
 - 1.1.2.3 Digital Cornifications
 - 1.1.2.4 Horns
 - 1.1.2.5 Feathers
 - 1.1.3 Comparative account of Integument in different classes of chordates
- 1.2 Skeletal System
 - 1.2.1 Evolution of visceral arches
 - 1.2.2 Jaw suspension in vertebrates.

Unit 2: Digestive and Respiratory System 13 Hrs

- 2.1 Digestive System
 - 2.1.1 Comparative account of alimentary canal and digestive glands in vertebrates.
- 2.2 Respiratory System

- 2.2.1 Brief account of Gills, lungs in Vertebrates
- 2.2.2 Accessory Respiratory Organs in Vertebrates
 - 2.2.2.1 Swim Bladder
 - 2.2.2.2 Air Sacs

Unit 3: Circulatory and Urinogenital System 13 Hrs

- 3.1 Circulatory System
 - 3.1.1 Evolution of heart in vertebrates
 - 3.1.2 Evolution and modifications of aortic arches in vertebrates
 - 3.1.3 Venous system in vertebrates and its significance
- 3.2 Urinogenital System
 - 3.2.1 Origin and types of Vertebrate Kidney
 - 3.2.2 Evolution of Urinogenital ducts in vertebrates

Unit 4: Nervous System and Sense Organs 13 Hrs

- 4.1 Comparative account of vertebrate brain
- 4.2 Classification of Sensory Receptors
- 4.3 Photoreception in Vertebrates

Unit 5: Development Biology 13 Hrs

- 5.1 Gametogenesis: Spermatogenesis and oogenesis in mammals.
- 5.2 Fertilization
 - 5.2.1 Types of fertilization: External & Internal
 - 5.2.2 Capacitation, Acrosome Reaction, Penetration and Activation of Ovum, Migration of Pronuclei and amphimixis.
- 5.3 Cleavage: Planes and patterns, Blastulation and fate maps in Frog
- 5.4 Gastrulation in Frog up to formation of three germ layers, types of morphogenetic movements
- 5.5 Extraembryonic membranes of chick
- 5.6 Placentation in mammals
- 5.7 Metamorphic events in frog life cycle and its hormonal regulation.

Note: 1 There shall be one written theory paper of 100 marks and one practical paper of 100 marks. 20% (20 marks) of the marks shall be reserved for internal assessment in theory paper and 50 % (50 marks) in the practical paper. Theory paper will be set for 80 marks and the practical paper for 50 (40 marks for paper and 10 for viva-voce). Daily evaluation of practical records/viva voce/attendance etc. will be of 50 marks (including 20% (10 marks) for attendance, 20% (10 marks) for viva voce and 60% for the internal test and day to day performance (15 marks each) In case of the regular students internal assessment received from the college will be added to the marks obtained by them in the university examination and in case of private candidates marks obtained by them in the University examination shall be increased proportionately in accordance with the statutes / regulation.

Internal Assessment Test

One long answer type question of 10 marks and five short answer type questions of 2 marks each

Note 2: For paper setters:

External End Semester University Exam

Section A: 10 very short answer type questions are to be set. The maximum length of answer shall be 50 words. All the questions are compulsory. Each question will carry 2 marks, total weightage being 20 marks.

Section B: This section will comprise of ten long answer type questions, with two questions from each unit. Candidate will have to attempt 5 questions selecting one question from each unit. Each question will, carry 12 marks and the total weightage being 60 marks.

Books recommended:

1. Text book of zoology – Parker and Haswell Vol. II
2. Chordate Zoology and Elements of Animal Physiology –E.L. Jordon and Verma, P.S.
3. Zoology and Chordates by H.C. Nigam, Vishal Publications, Jalandhar
4. Comparative Anatomy- M.D.L. Srivastava
5. Comparative Anatomy – Kingley
6. Manual of Zoology Vol II Chordata – Ayyar, E.K., T.N. Anorthakrishnan
7. Chordate structure and function – Waterman, A.N. and Others
8. General and Comparative Physiology – W.S. Hoar
9. Principles of Animal Physiology – Wood, D.W.
10. Animal physiology –Eckert
11. An Introduction to Embryology –Balinsky
12. Biology of Developing System – Grant
13. Developmental Biology – Gilbert.
14. Animal Physiology-Nagabhushnam
15. Chordate Zoology- N. Arumugam, Vol. 2. SarasPublication
16. Chordate Zoology-E.L.Jordan& P.S. Verma. S. Chand Limited
17. Chordate zoology- P.S. Dhami&J.K. Dhami (1981) (R. Chand & Co.)
18. Principles of anatomy and physiology-G.J.Tortora&N.P. Anagnostakos (1984) (Harper & Row Publ., N.Y.).
19. Textbook of zoology, Vertebrates-A.J. Marshall (1995) (The McMillan Press Ltd., UK).
20. Modern textbook of Zoology (Vertebrates) -R.L.Kotpal (2000). (Rastogi Publ., Meerut).
21. Functional Anatomy of the Vertebrates: An Evolutionary Perspective- Liem, Karel F., William E. Bemis, Warren F. Walker, Lance Grande (2001). Brooks Cole.
22. Advanced Chordate Zoology-Gurdarshan Singh & H. Bhaskar (2002). Campus Books.

B.SC. SEMESTER-II

Core Course No. : UZOPC 201

**Core Course Title: COMPARATIVE ANATOMY AND DEVELOPMENTAL BIOLOGY
OF VERTEBRATES (PRACTICAL)**

CREDITS : 2

1. Preparation of permanent mounts of the following:
 - 1.1 Velum, Oral hood and Pharyngeal region of Amphioxus
 - 1.2 Ampullae of Lorenzini, Placoid scale, Ctenoid scale of fish, stripped muscles of frog from pectoral girdle or thigh
2. Study of following skeleton:
 - 2.1 Skull of Fowl and Rabbit
 - 2.2 Axial and Appendicular skeleton of Fowl and Rabbit
 - 2.3 Carapace and plastron of turtle /tortoise
3. Frog - Study of developmental stages - whole mounts and sections through permanent slides – cleavage stages, blastula, gastrula, neurula, tail bud stage, tadpole external and internal gill stages.
4. Study of chick embryology through stained mounts (18 Hrs.; 24 Hrs.; 36 Hrs.; 48 Hrs.; 72 Hrs.)
5. Demonstration of different types of Placenta in mammals through models or preserved specimens.
6. Study of histological sections of mammalian placenta through permanent slides or photomicrographs.
7. Examination of gametes - frog/rat - sperm and ova through permanent slides or photomicrographs.
8. Study of types of feet and claws, feathers and beaks in birds.
10. Dissect a locally available fish to study the following systems:
 - 10.1 Digestive system
 - 10.2 Nervous System
 - 10.3 Taking out Pituitary and Weberian ossicles