

Lesson Plan - B.A. (ENGLISH General)

Semester-I

SCHEME OF EXAMINATION

Max. Marks 100
End Semester Exam 80
Internal Assessment 20
Time 3 Hours

Course Content:

Month: July-August 2019

1. Speech Sounds
2. Choosing Our Universe + Extended Grammar
3. Are Dams the Temples of Modern India + Extended Grammar
4. The Generation Gap + Extended Grammar

Month: September 2019

5. Language and National Identity + Extended Grammar
6. Wounded Plants + Extended Grammar
7. Playing the English Gentleman + Extended Grammar

Month: October 2019

8. Great Books Born out of Great Minds + Extended Grammar
9. The Responsibility of Young men + Extended Grammar
10. Bharat Mata + Extended Grammar

Month: November 2019

11. Revision

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2019

Lesson Plan - B.A. (ENGLISH General)

Semester-III

SCHEME OF EXAMINATION

**Max. Marks 100 End
Semester Exam 80 Internal
Assessment 20
Time 3 Hours**

Course Content:

Month: July-August 2019

1. Important Poetic Forms and Devices
2. Sonnet XVIII (William Shakespeare) + Extended Grammar
3. Know Then Thyself + Extended Grammar
4. Elegy Written in a Country Churchyard + Extended Grammar

Month: September 2019

5. The World is Too Much with Us + Extended Grammar
6. Ode on a Grecian Urn + Extended Grammar
7. My Last Duchess + Extended Grammar
8. When You are Old + Extended Grammar

Month: October 2019

9. Where the Minds is Without Fear + Extended Grammar
10. The Bangle Sellers + Extended Grammar
11. Another Woman + Extended Grammar

Month: November 2019

12. Revision

YR

Head

Department of English

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Lesson Plan - B.A. (ENGLISH General)
Semester-V SCHEME OF
EXAMINATION

Max. Marks 100
End Semester Exam 80
Internal Assessment 20
Time 3 Hours

Course Content:

Month: July-August 2019

1. Introduction of the Novel and the Novelist
2. Kanthapura Chapter 1 – 6
3. Word Accent and its Grammatical Functions

Month: September 2019

4. Kanthapura Chapter 7-12
5. Weak Forms in English Pronunciation
6. Introducing Intonation: Tone Groups and Tonic Syllable

Month: October 2019

7. Kanthapura Chapter 13-19
8. Sentence and its Types
9. Composition: Developing Hints into Paragraph and Story

Month: November 2019

10. Revision

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Lesson Plan - B.A. (FUNCTIONAL ENGLISH)

Semester-I

Time: 3 Hours

Course Content:

SCHEME OF EXAMINATION

Month: July-August 2019

Section-B: Remedial Grammar: (30 Marks)

1. Articles
2. Parts of Speech
3. Nouns: Singular and Plural
4. Verbs: Linking Verbs, Transitive & Intransitive Verbs
5. Agreement of Verbs and Subject
6. Tenses & their Use.
7. Tag questions.
8. Transformation.
9. Confusion of Adjectives and Adverbs.
10. Adverbial use of No, Not and None.

Max. Marks 100

End Semester Exam 60

Practical 20

(Oral/Viva)

Internal Assessment 20

Month: September-October 2019

1. Definition and Scope of Linguistics.
2. Difference between Phonetics and Phonology.
3. The Speech Mechanism.
4. Basic Concepts: Phoneme, Allophone, Vowel, Consonant, Consonant Cluster and Syllable.
5. Description of the British R.P. Speech Sounds: Vowels and Consonants.

Month: November 2019

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Lesson Plan - B.A.II (FUNCTIONAL ENGLISH)

Semester III

SCHEME OF EXAMINATION

Max. Marks 100

End Semester Exam 60

Practical 20

(Oral/Viva)

Internal Assessment 20

Time: 3 Hours

Communicative and Writing Skills:Course

Content:

Month: July-August 2019

1. Spotting the errors pertaining to nouns, pronouns, adjectives and adverbs, subject verb concord.
2. Lexis: Idioms and phrases, words often confused, one-word substitution, foreign words (A selected list), vocabulary development through synonyms, antonyms, formation of words with affixes.

Month: September-October 2019

3. Developing writing skills: Writing small paragraphs on general and current issues, events and slogan writing.
4. Technical Writing:
 - (a) Drafting memo and circular
 - (b) e-mail writing
 - (c) Resume writing, Press Report Writing
 - (d) Writing Notices, Agendas, Minutes
 - (e) Note taking
5. Editing Skills: Use of capital letters, punctuation, parentheses, square brackets, ellipsis, apostrophe and quotation marks

Month: November 2019

Revision

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Lesson Plan B.A.III (FUNCTIONAL ENGLISH)

Semester V

SCHEME OF EXAMINATION

Max. Marks 100

End Semester Exam 60

Practical 20

(Oral/Viva)

Internal Assessment 20

Time 3 Hours

Course Content:

Month: July-Aug 2019

Unit-I

"On His Blindness", "Alexander's Feast", "Epistle to Dr. Arbuthnot", "Tintern Abbey", "Kubla Khan", "Ode to the West Wind", "Stanzas Written in Dejection", "Ode on a Grecian Urn", "Ode to a Nightingale", "Ulysses", "The Lotus Eaters", "Tears Idle Tears", "My Last Duchess", "Rabbi Ben Ezra", "The Last Ride Together", "The Scholar Gypsy", "Dover Beach".

Month: September 2019

Unit-II

Business letters and faxes:

different types of formats, address, opening and closing, subject, heading, sub-heading, numbering, etc.

Unit-III

Scanning letters and faxes for specific information, acquiring familiarity with abbreviations and phrases commonly used in business correspondence.

Month: October 2019

Unit-IV


Writing letters of application with curriculum vitae/ Resume; letters of invitation, reply to invitation, Enquiry, reference, arrangements, announcing forthcoming Events, products, visits, making bookings and arrangements for conferences, trade fairs, etc., complaints and replies to complaints, apologies, thanks.


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Department of English

Month: November 2019

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27/11/2019


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Lesson Plan- B. A. I (Hons.) English

Semester I

SCHEME OF EXAMINATION

Paper-I: ENGH 101: Literature in English (1550-1660)

**Max. Marks 100 marks
End Semester Exam 80 marks
Internal Assessment 20 marks
Time 3 hours**

Course Content:

Month: July-August 2019

Unit I

Shakespeare: Comedy of Errors

Month: September 2019

Unit II

Marlowe : Doctor Faustus (Macmillan Annotated Classics Series)

Month: October 2019

Unit III

Francis Bacon: Essays 'Of Truth', 'Of Friendship' Unit

IV

Literary terms and Major Literary Movements of the period.

Month: November 2019

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Lesson Plan - B. A. I (Hons.) English

Semester 1

Paper-II: ENGH 102: Literature in English (1550-1660)

Max. Marks 100
End Semester Exam 80
Internal Assessment 20
Time 3 Hours

Course Content:

Month: July-August 2019

i) Sir Philip Sidney:

Sonnets from Astrophel and Stella:

"Love in truth, and fain in verse my love to show" (1) "It is most true that eyes are formed to serve" (V) "When Nature made her chief work, Stella's eyes" (VII) "Reason in faith thou artwell served, that still" (X) "With how sad steps, O Moon, thou climb'st the skies!" (xxxix) "Come sleep, O Sleep, the certain knot of peace" (XXXIX)

Month: September 2019

ii) William Shakespeare: Sonnets: "Shall I compare thee..." (XVIII) "When to the sessions..." (XXX) "Tir'd with all these..." (LXVI) "Thy glass will show thee..." (LXXVI) "Let me not to the marriage..." (CXVI) "My mistress' eyes are nothing..." (CXXX)

Month: October 2019

iii) John Donne: "The Good-Morrow" "The Sunne Rising" "A Valediction: Forbidding Mourning" "A Valediction Of Weeping" "Holy Sonnet: Since She whom I Love" (From Metaphysical Poets by Helen Gardner)

iv) Major Literary Works of the period by major writers as discussed in history of English Literature by William J. Long.

Month: November 2019

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Lesson Plan - B. A. II(Hons.) English

Semester-III

SCHEME OF EXAMINATION

Paper A ENGH 201: Literature in English (1750-1830)

Max. Marks 100

End Semester Exam 80

Internal Assessment 20

Time 3 hours

Course Content:

Month: July-August 2019

Unit-I

William Wordsworth:

"Daffodils"

"The Solitary Reaper"

"The World is Too Much with Us"

"Lines Composed upon Westminster's Bridge"

"Lucy"

"It's a Beauteous Evening" (From Fifteen Poets)

Month: September 2019

Unit-II

S.T. Coleridge:

"Dejection: An Ode"

"Frost at Midnight" (From Fifteen Poets)

Month: October 2019

Unit-III John

Keats

"When I Have Fears" "La Belle Dame Sans Merci" "On

First Looking into Chapman's Homer"

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"To Autumn" (From Fifteen Poets) Unit-

IV

Major Literary Movements and Trends of the period.

Month: November 2019

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Lesson Plan - B. A. II(Hons.) English

Semester-III

SCHEME OF EXAMINATION

PAPER B: ENGH 202: Literature in English (1750-1830)

Max. Marks 100
End Semester Exam 80
Internal Assessment 20
Time 3 hours

Course Content:

Month: July-August 2019

Unit-1

Oliver Goldsmith's The Vicar of Wakefield

Month: September 2019

Unit-II

Jane Austen's Pride and Prejudice

Month: October 2019

Unit-III Charles

Lamb

"Poor Relations"

"The Superannuated Man" "In Praise of Chimney Sweepers"

"Imperfect Sympathies" (From & Book of English Essays, ed. WE Williams. Penguin.)Unit-

IV

Major literary Works and Writers of the period:

William Blake P.B. Shelley

Lord Byron

Walter Scott William Harlins

Elegy Written on a Country Churchyard

The Seasons by James Thomson Lyrical Ballads

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Biographia Literaria Prometheus Unbound

Month: November 2019

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James
President
Daymond College
HSAB

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Lesson Plan - B. A. II(Hons.) English

Semester-III

SCHEME OF EXAMINATION

PAPER-C ENGH 203: Grammar and Contemporary English Usage

Max. Marks 100

End Semester Exam 80

Internal Assessment 20

Time 3 Hours

Course Content:

Month: July-August 2019

Unit-1 Essay

Unit-II

Comprehension

Month: September 2019

Unit-III

Grammar:

(a) Parts of Speech

(b) Verbs:

(i) Main and auxiliaries

(ii) Linking (or equative) intransitive and transitive

(iii) Finite and non-finite

(iv) Sequence of Tenses

(c) Adverbs, adverbial particles and adverb phrases:

(i) Their Positions

(ii) Kinds of Time, Place, Manner, Frequency, Duration and Direction

Month: October 2019

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Unit-IV

**(a) Word Order: Position and order of objects; Substitute subjects: "its" and "there";
Inversion of verb and subject after certain adverbs; Order of words in indirect questions**

(b) Adjective equivalents

(i) Nouns

(ii) Participles

(iii) Gerunds

**(c) Prepositions of time, place, direction; for and since; under, underneath; below, beneath, over
and above; between and among; describing people and their clothes; at, by, in; on, out, of**

Month: November 2019

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Lesson Plan - B. A. III (Hons.) English

Semester-V

SCHEME OF EXAMINATION

Paper-A: ENGH 301: Modern British Literature-I

Max. Marks 100

End Semester Exam 80

Internal Assessment 20

Time 3 hour

Course Content:

Month: July-August 2019

1.W.B. Yeats: "The Lake Isle of Innisfree"

"The Stolen Child"

"A Prayer for My Daughter""What

Then?"

"When You are Old"

"The Wise Old Wicked Man" (From W.B. Yeats: Selected Poetry. Ed. Norman Jeffares)

Month: September-October 2019

Unit II

2. G. B. Shaw Saint Joan

Month: November 2019

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Lesson Plan - B.A. III (Hons.) English

Semester-V

SCHEME OF EXAMINATION

Paper-B: ENGH 302: Indian Writing in English-I

Max. Marks 100

End Semester Exam 80

Internal Assessment 20

Time 3 hours

Course Content:

Month: July-August 2019

Unit I

Nissim Ezekiel:

"Enterprise", "Philosophy",

"Background", "Poet, Lover, Birdwatcher",

"Poem of the Separation" (From R.Parthasarthy, Ed Ten Twentieth Century Indian Poets)

Month: September-October 2019

Unit II

Girish Karnad: Hayavadana

Month: November 2019

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**Lesson Plan - B. A. III (Hons.) English
Scheme of Examination
Semester V
Paper-C: ENGH 303: Modern World Literature-I**

Max. Marks 100

End Semester Exam 80

Internal Assessment 20

Time 3 hours

Course Content:

Month: July-August 2019

Unit I: Essays

M.H. Abrams:

(i) "Modernism and Post-modernism", From K.Narayana

Chandran ed. Texts and their Worlds II Delhi:Foundation Books, 2005)

(ii) "Feminist Criticism" (From Texts and their Worlds II)

Month: September 2019

Unit II: Essays

a. Ngugi Wa Thiong'o: "On the Abolition of English Department" (From Texts and their Worlds II)

b. Thomas B. Macaulay: "Minute on Indian Education" (From Texts and their Worlds II)

c. Meenakshi Mukherjee: "Interrogating Post-Colonialism" (From Texts and their Worlds II)

Month: October 2019

Unit III: Poetry

a. Bertolt Brecht: "The Burning of Books"

b. Wislawa Szymborska: "The End of the Beginning"

c. Derek Walcott: "A Far Cry from Africa"

d. Pablo Neruda: "Tonight I Can Write"

e. Margaret Atwood: "Journey to the Interior"

f. Faiz Ahmad Faiz: "A Prison Evening [All from Texts and their Worlds II]Month:

November 2019

Revision

Dr. P. S. Srinivasan
Dayanand College
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Lesson Plan - B.Sc (ENGLISH)
LANGUAGE SKILLS COMPILSORY COURSE-I
Semester-I
SCHEME OF EXAMINATION

Max. Marks 100
End Semester Exam 80
Internal Assessment 20
Time 3 Hours

Course Content:

Month: July-August 2019

- Let Me Not to the Marriage of True Minds + Translation from Hindi to English
- Death Be Not Proud + Paragraph Writing
- On His Blindness

Month: September 2019

- The Retreat + Common Phrasal Verbs
- Shadwell + Prepositions
- Know Then Thyself

Month: October 2019

- The Little Black Boy + Common Errors
- Three Years She Grew...
- England In 1819
- Crossing the Bar

Month: November 2019

- Revision

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Lesson Plan - M.A. (PREVIOUS) ENGLISH

FIRST SEMESTER

COURSE 1: LITERATURE IN ENGLISH: 1550-1660 (Part-1)

Max. Marks 100
End Semester Exam 80
Internal Assessment 20
Time 3 Hours

Course Content:

Month: July-August 2019

Unit-I

Philip Sidney:

The following Sonnets from Astrophel and Stella are prescribed "Vertue alas, now let me take somerest
"Not at first sight, nor with a dribbed shot". It is most true, that eyes are formed to serve", "Reason, in
faith thou art wall serv'd, that still", "Alas have I not paine enough my friend" "Your words my friend
(right healthful Caustiks) blame, "This night while sleepe begins with heavy Wings", "Stells oft sees the
Verie face of Wo". "No more, my dear, no more these Counsels trie". "Desire, though my old Companion
art

Month: September 2019

Unit-II

John Donne:

The following poems from The Metaphysical Poets ed Helen Gardner (Penguin) are prescribed: "The Flea"
"The Good Morrow" "Song: Go and Catch a Falling Star", "The Sun Rising" "The Canonization", "A
Valediction Forbidding Mourning", "The Extasie", "Batter My Heart Three Person' d God".

Unit-III

John Milton: Paradise Lost, Book-I

Month: October 2019

Unit-IV

William Shakespeare: Twelfth Night

Month: November 2019

Revision

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Lesson Plan - M.A. (PREVIOUS) ENGLISH

FIRST SEMESTER

COURSE-II: LITERATURE IN ENGLISH: 1660-1798 (Part-1)

Max. Marks 100
End Semester Exam 80
Internal Assessment 20
Time 3 Hours

Course Content:

Month: July-August 2019

Unit-I

John Dryden Absalom and Achitophel

Month: September 2019

Unit-II

Alexander Pope: The Rape of the Lock.

Month: October 2019

Unit-III

William Congreve: The Way of the world

Unit-IV

Richard Sheridan: The School for Scandal

Month: November 2019

Revision

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Lesson Plan - M.A. (PREVIOUS) ENGLISH

FIRST SEMESTER

COURSE-III: LITERATURE IN ENGLISH: 1798-1914 (Part-1)

**Max. Marks 100
End Semester Exam 80
Internal Assessment 20
Time 3 Hours**

Course Content:

Month: July-August 2019

Unit-I

William Wordsworth

"To the Cuckoo", "The Solitary Reaper", "Daffodils", "Tintern Abbey", "Ode on Intimations of Immortality", "Lucy Gray", "Simon Lee, The old Huntsman", "The Tables Turned".

Unit-II John

Keats

"On First Looking into Chapman's Homer", "When I have Fears that I may Cease to Be", "Ode to a Nightingale", "Ode on a Grecian Urn", "Ode on Melancholy", "To Autumn", "To Psyche".

Month: September 2019

Unit-III

Charles Dickens: Oliver Twist

Month: October 2019

Unit-IV

George Eliot: The Mill on the Floss

Month: November 2019

Revision

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Lesson Plan - M.A. (PREVIOUS) ENGLISH

FIRST SEMESTER

Course IV: LITERATURE IN ENGLISH: 1914-2000 (Part-1)

Max. Marks 100

End Semester Exam 80

Internal Assessment 20

Time 3 Hours

Course Content:

Month: July-August 2019

Unit I:

TS Eliot: The Waste Land

Month: September 2019

Unit II:

Philip Larkin:

"No Road", "Poetry of Departures",

"Going, Going", "Deceptions", "Next Please", "If

My Darling", "Reasons for Attendance"

"Wedding Wind", "Church Going", "The Old Fools"

"Church Going", "Whitsun Weddings"

Unit III:

Kingsley Amis: Lucky Jim

Month: October 2019

Unit IV:

EM. Forster: A Passage to India

Month: November 2019

Revision

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COURSE-V: STUDY OF A GENRE (OPTION-1) FICTION (PART -1)

Max. Marks 100
End Semester Exam 80
Internal Assessment 20
Time 3 Hours

Course Content:

Month: July-August 2019

Unit-I

E.M. Forster: Aspects of the Novel

Unit-II

Jane Austen: Pride and Prejudice

Month: September 2019

Unit-III

Nathaniel Hawthorne: The Scarlet Letter

Month: October 2019

Unit-IV

James Joyce: A Portrait of the Artist as a Young Man

Month: November 2019

Revision

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LESSON PLAN - M.A. (FINAL) ENGLISH

THIRD SEMESTER

COURSE-XI: Critical Theory (PART-I)

Max. Marks 100

End Semester Exam 80

Internal Assessment 20

Time 3 Hours

Course Content:

Month: July-August 2019

Unit-I

Aristotle: Poetics

Month: September 2019

Unit-II

**Bharatmuni: Natyashastra (Ed. Dr. N.P. Unni) Chapter-1: The Origin of Drama
Chapter-VI: Sentiments; Chapter-VII: The Exposition of Emotion**

Unit-III

Horace: Ars Poetica

Month: October 2019

Unit-IV

Dr. Johnson: Preface to Shakespeare

Month: November 2019

Revision

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COURSE-XII: American Literature (PART-I)

Max. Marks: 100

End Semester Exam: 80

Internal Assessment: 20

Time: 3 Hours

Course Content:

Month: July-August 2019

Unit-I

Walt Whitman: "One's Self I Sing", "There was a Child Went Forth", "When Lilacs last in the Dooryard Bloom'd", "Crossing Brooklyn Ferry, "On the Beach at Night", "Song of Myself" (Section 6 and Section 321

Month: September 2019

Unit-II

Emily Dickinson: "This is My Letter to the World", "Success is Counted Sweetest", "Much Madness is Divinest Sense", "Because I could not stop for Death", "A Narrow Fellow in the Grass", "The Heart Asks Pleasure First", "I Never Saw a Moor", "A Bird Came down the Walk".

Unit-III

Mark Twain: The Adventures of Huckleberry Finn

Month: October 2019

Unit-IV

Henry James: The Portrait of a Lady

Month: November 2019

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Dr. J. S. Singh
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COURSE-XIII: Indian Writing in English (Part-1)

Max. Marks: 100

End Semester Exam: 80

Internal Assessment: 20

Time: 3 Hours

Course Content:

Month: July-August 2019

Unit-1

Sri Aurobindo: Savitri, Book IV

Month: September 2019

Unit-II

Kamala Das: The following Poems from R. Parthasarathy. Ed., Ten Twentieth Century Indian Poets. "The Freaks", "My Grandmother's House", "A Hot Noon in Malabar" "The Sunshine Cat", "The Invitation", "The Looking Glass".

Month: October 2019

Unit-III

Jayant Mahapatra: "The Logic", "A Missing Person", "Glass", "The Whorehouse in a Calcutta Street", "Indian Summer" "Lost"

Unit-IV

Mulk Raj Anand: Coolie

Month: November 2019

Revision

Dr. Anand K. S.
Dr. Anand K. S.
Head
Department of English

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Head
Department of English

COURSE-XIV: (Option-ii): English Language (Part-1)

Max. Marks 100
End Semester Exam 80
Internal Assessment 20
Time 3 Hours

Course Content:

Month: July-August 2019

Unit-I

Phonetics: Speech Mechanism, Role of different organs of speech, Sounds of English, Description of Sounds, Syllable and Stress, Intonation and its functions

Unit-II

a) Transcribing words phonemically with primary stress (using the symbols of Oxford Advanced Learner's Dictionary, 7th edition)

b) Marking stress and tones (falling/rising/falling-rising) in sentences

Month: September 2019

Unit-III

History of English Language: Old English, Middle English, Latin, Celtic and Scandinavian Influence on Old English, Renaissance and the English Language, Change from Old to Modern English.

Month: October 2019

Unit-IV

(a) Word formation process: Coinage; Borrowing; Compounding; Blending Clipping; Back formation; Conversion; Acronyms; Derivation; Prefixes; Suffixes; Affixes

(b) Translation: Hindi to English

Month: November 2019

Revision

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COURSE-XV: (Option-1) Literature and Gender (Part-1)

Max. Marks 100
End Semester Exam 80
Internal Assessment 20
Time 3 Hours

Course Content:

Month: July-August 2019

Unit-I

Charlotte Bronte: Jane Eyre

Month: September 2019

Unit-II

Virginia Woolf: To the Lighthouse

Unit-III

Virginia Woolf: A Room of One's Own

Month: October 2019

Unit-IV

Doris Lessing: The Golden Notebook

Month: November 2019


Revision

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Head of Institution

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Department of English

Lesson Plan w.e.f. 16 July, 2019

Name of Institute		Dayanand College, Hisar
Name of Teacher with Designation		Dr. Vikramjit Singh Associate Professor
Department		Political Science
Class/Section		B.A. Part I, 1 st semester
Paper		<i>POL 101: Indian Constitution</i> <i>Option-1</i>
Month	Unit/Topic/ chapter covered	Test/ Assignment
July	Indian Constitution-Evolution, Sources and Features, Preamble	
August	Fundamental Rights and, Fundamental Duties and Directive Principles of State Policy. Union Executive-President, Vice-President Prime Minister, Council of Ministers; State Executive-Governor, Chief Minister and Council of Ministers	
September	Union Legislature- Parliament-Composition and Functions; Speaker of Lok Sabha, Amendment Process State Legislature-Vidhan Sabha, Vidhan Parishad Panchayati Raj Institutions.	Assignment
October	History, Basic Features and 73rd and 74th Amendments Judiciary-Supreme Court, High Courts, Judicial Review and Activism.	Assignment
November	Redressal and Grievances Institutions; RTI, Lokpal and Lokyaukat	Test


 Head of Department
 Dr. Vikramjit Singh
 Department of Political Science

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Lesson Plan w.e.f. 16 July, 2019

Name of Institute		Dayanand College, Hisar	
Name of Teacher with Designation		Dr. Vikramjit Singh Associate Professor	
Department		Political Science	
Class/Section		B.A. 3 rd , 5 th Sem	
Paper		POL 302 International Relations Option II	
Month	Unit/Topic/ chapter covered	Test/ Assignment	
July	Definition, Nature, Scope and Development of the International		
August	Relations; and Autonomy Debate regarding International Relations. Approaches to the Study of International Relations: Idealist, Realist		
September	Approaches to the Study of International Relations; System and Marxist- Leninist National Power: Definition, Elements & Assessment;	Assignment	
October	Limitation of National Power: International Law, International Morality and World Public Opinion Major Concepts: Balance of Power, Collective Security,	Assignment	
November	Environmentalism and Globalisation	Test	

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Head of Department
Dr. Vikramjit Singh
Department of Political Science

Lesson Plan w.e.f. 16 July, 2019

Name of Institute		Dayanand College, Hisar
Name of Teacher with Designation		Dr. Ramesh Kumar Assistant Professor
Department		Political Science
Class/Section		B.A. Part 1, 1 st semester
Paper		<i>POL 101: Indian Constitution</i> <i>Option -1</i>
Month	Unit/Topic/ chapter covered	Test/ Assignment
July	Indian Constitution-Evolution, Sources and Features, Preamble	
August	Fundamental Rights and, Fundamental Duties and Directive Principles of State Policy. Union Executive- President, Vice-President Prime Minister, Council of Ministers; State Executive-Governor, Chief Minister and Council of Ministers	
September	Union Legislature- Parliament-Composition and Functions; Speaker of Lok Sabha, Amendment Process State Legislature-Vidhan Sabha, Vidhan Parishad Panchayati Raj Institutions.	Assignment
October	History, Basic Features and 73rd and 74th Amendments Judiciary-Supreme Court, High Courts, Judicial Review and Activism.	Assignment
November	Redressal and Grievances Institutions; RTI, Lokpal and Lokyaukat	Test



 Head of Department
 Dr. Vikramjit Singh
 Department of Political Science

Principal
 Dayanand College
 HISAR

Lesson Plan w.e.f. 16 July, 2019

Name of Institute		Dayanand College, Hisar	
Name of Teacher with		Sumit Kumar	
Designation		Assistant Professor	
Department		Political Science	
Class/Section		B.A. 2 nd , 3 rd semester	
Paper		POL 202: Indian Political Thinker	
		Option- II	
Month	Unit/Topic/ chapter covered	Test/ Assignment	
July	Raja Ram Mohan Roy		
August	Swami Dayanand Saraswati and Swami Vivekanand		
September	Aurbind Ghosh And Lala Lajpat Rai	Assignment	
October	Bal Gangadhar Tilak and Dadabhai Naoroji	Assignment	
November	Gopal Krishan Gokhale	Test	
	Revision		

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 Head of Department
 Dr. Vikramjit Singh
 Department of Political Science

Lesson Plan w.e.f. 16 July, 2019

Name of Institute		Dayanand College, Hisar	
Name of Teacher with Designation		Sumit Kumar Assistant Professor	
Department		Political Science	
Class/Section		B.A. 3 rd , 5 th Sem	
Paper		POL 302 International Relations Option II	
Month	Unit/Topic/ chapter covered	Test/ Assignment	
July	Definition, Nature, Scope and Development of the International		
August	Relations; and Autonomy Debate regarding International Relations. Approaches to the Study of International Relations: Idealist, Realist		
September	Approaches to the Study of International Relations; System and Marxist-Leninist National Power: Definition, Elements & Assessment;	Assignment	
October	Limitation of National Power; International Law, International Morality and World Public Opinion Major Concepts: Balance of Power, Collective Security,	Assignment	
November	Environmentalism and Globalisation	Test	


Head of Department

Dr. Vikramjit Singh

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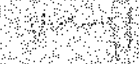
Lesson Plan w.e.f. 16 July, 2019

Name of Institute		Dayanand College, Hisar
Name of Teacher with Designation		Miss Kriti Assistant Professor
Department		Political Science
Class/Section		B.A. Part I, 1 st semester
Paper		<i>POL 101: Indian Constitution</i> <i>Option-1</i>
Month	Unit/Topic/ chapter covered	Test/ Assignment
July	Indian Constitution-Evolution, Sources and Features, Preamble	
August	Fundamental Rights and, Fundamental Duties and Directive Principles of State Policy. Union Executive.-President,Vice-President Prime Minister, Council of Ministers; State Executive-Governor,Chief Minister and Council of Ministers	
September	Union Legislature- Parliament-Composition and Functions; Speaker of Lok Sabha, Amendment Process State Legislature-Vidhan Sabha, Vidhan Parishad Panchayati Raj Institutions.	Assignment
October	History, Basic Features and 73rd and 74th Amendments Judiciary-Supreme Court, High Courts, Judicial Review and Activism.	Assignment
November	Redressal and Grievances Institutions; RTI, Lokpal and Lokyaukat	Test


Head of Department

Dr. Vikramjit Singh

Department of Political Science


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Lesson Plan w.e.f. 16 July, 2019

Name of Institute		Dayanand College, Hisar
Name of Teacher with		Miss Kriti
Designation		Assistant Professor
Department		Political Science
Class/Section		B.A. 2 nd , 3 rd semester
Paper		POL 202: Indian Political Thinker Option- II
Month	Unit/Topic/ chapter covered	Test/ Assignment
July	Raja Ram Mohan Roy	
August	Swami Dayanand Saraswati and Swami Vivekanand	
September	Aurbind Ghosh And Lala Lajpat Rai	Assignment
October	Bal Gangadhar Tilak and Dadabhai Naoroji	Assignment
November	Gopal Krishan Gokhale Revision	Test

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Department of Political Science

DAYANAND COLLEGE, HISAR
Department of Biotechnology

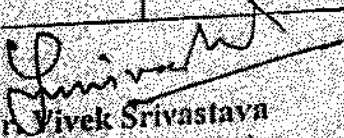
Lesson plan (2019-2020)
Semester- III (B. Sc. -II) year

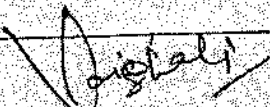
Biotechnology Paper VII
Molecular Biology
(BIT 301 L)

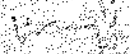
Sr. No.	Month	Topics
1	July 22 to July 27, 2019	Molecular Biology: Introduction to molecular aspects of life. DNA as the genetic material – experiments proving DNA and RNA as genetic material. Nucleic acids: Structure, function and properties of DNA and RNA. Watson and Crick model of DNA.
2	July 29 to Aug 3, 2019	DNA forms (A, B and Z), their characteristic. Different types of RNA, their structure and function. Eukaryotic genomes: Chromosomal organization and structure. Euchromatin, heterochromatin, centromere, telomere. Chromatin structure (nucleosome), histone and non-histone proteins.
3	Aug 5, 2019	Solve doubts and problems.
4	Aug 6 to Aug 8, 2019	DNA Replication: Central dogma of molecular biology. Semi-conservative mode of DNA replication, experimental proof. Unidirectional and bidirectional mode of DNA replication, theta model.
5	Aug 9-13, 2019	DNA replication in prokaryotes and eukaryotes, different stages, proteins and enzymes involved. DNA damage and repair: causes of DNA damage, mutations. Repair mechanisms- photo reactivation, excision repair, mismatch repair.
6	Aug 14, 2019	Class test and assignment taken

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7	Aug 16-17, 2019	Seminar taken
8	Aug 19-23, 2019	Transcription in prokaryotes and eukaryotes, diff. stages, mechanism, promoters, transcription factors, RNA polymerases. Post transcriptional modifications- 5' cap formation, 3'-end processing/polyadenylation and gene splicing and generation of mature mRNA.
9	Aug 26, 2019	Class test.
10	Aug 27-31, 2019	Inhibitors of transcription. Genetic Code: concept, elucidation or cracking of genetic code, features of genetic code, Wobble hypothesis. Structure of gene- introns/exons, regulatory sequences, structure of prokaryotic gene
11	Sept 1, 2019	Problem taken.
12	Sept 2-7, 2019	Translation/Protein synthesis: Mechanism of initiation, elongation and termination of protein synthesis in prokaryotes and eukaryotes. Inhibitors of translation.
13	Sept 9-13, 2019	Post-translational modifications. Regulation of Gene Expression in prokaryotes and eukaryotes, induction and repression, positive and negative regulation. Operon model- lac, ara, trp, catabolite repression, transcription attenuation.
14	Sept 14, 2019	Assignment and Problem taken


 Vivek Srivastava
 Associate Professor
 Head, Dept. of Biotechnology


 Ms Vaishali Rana
 (Assistant Professor)
 Subject Tutor


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DAYANAND PG College, HISAR

Lesson Plan of Year 2019-2020

Department- Mathematics

Course Name- Algebra:CML-106/BAMH111

Programme Name-B.Sc.(Non Med, Electronics, Comp. Science)/B.A. I

Teachers-Ms. Heena Rani, Ms. Manisha, Ms. Ila Dhingra

SEM-I

Month	Week	Topic	Assignment/ Test
L J Y U	3rd	1. symmetric, skew symmetric	
	4th	2. Hermitian and skew-Hermitian.	
A U G	1st	1. Elementary operation on matrices, Rank of a matrix. Inverse of a matrix.	1st Assignment
	2nd	2. Linear dependence and independence of rows and columns of matrices, Row rank and column rank of a m	
	3rd	3. Eigen values, eigen vectors and the characteristic equation of a matrix, Minimal polynomial of a matrix.	
	4th	4. Cayley Hamilton theorem and its use in finding inverse of a matrix.	
S E P T	1st	1. Application of matrices to a system of linear (both homogenous and non-homogenous) equations.	Minor Test
	2nd	2. Theorems on consistency of a system of linear equations	
	3rd	3. Unitary and Orthogonal Matrices, Bilinear and Quadratic forms.	
	4th	4. Descarte's rule of signs, Relations between the roots and coefficients of general polynomial equation in one variable.	
O C T	1st	1. Solution of polynomial equations having conditions on roots, Common roots and multiple roots.	2nd Assignment
	2nd	2. Transformation of equations, Nature of the roots of an equation.	
	3rd	3. Descarte's rule of signs, Solution of cubic equations (Cardan's method).	
	4th	Revision, Test	

COURSE: CALCULUS: CML-107/BAMH112

Programme Name- B.Sc.(Non Med, Electronics, Comp. Science)/B.A I

Teacher- Dr. Inderjit Singh, Dr. Neeru Bala, Mr. Kuldeep Singh, Ms. Heena Rani

SEM-I

Month	Week	Topic	Assignment/ Test
JULY	3rd	Definition of the limit of a function, Basic properties of limits, Continuous functions and classification of discontinuity	
	4th	Differentiability, Successive differentiation.	
AUG	1st	Leibnitz theorem, Maclaurin and Taylor series expansions	1st Assignment
	2nd	Asymptotes in Cartesian coordinates, Intersection of curve and its asymptotes	
	3rd	Asymptotes in polar coordinates, Curvature	
	4th	Radius of curvature for Cartesian curves, parametric curves, polar curves, Newton's method	
	1st	Radius of curvature for pedal curves, Tangential polar equations.	
	2nd	Centre of curvature, Circle of curvature, Chord of curvature, evolutes	

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SEPT	3rd	Tests for concavity and convexity, Point of inflexion, Multiple points, Cusps, nodes and conjugate points, Type of cusps	Minor 1
	4th	Tracing of curves in Cartesian, parametric and polar co-ordinates.	
OCT	1st	Reduction formulae, Rectification.	2nd Assignment
	2nd	Intrinsic equations of curve, Quadrature (area) Sectorial area	
	3rd	Area bounded by closed curves, Volumes and Surfaces of solids of revolution	
	4th	Theorems of Pappus and Guilden.	
		Revision	

COURSE: PRACTICAL IN PROGRAMMING IN C: CMP110/BAMH 113

Programme Name- B.Sc (Non Med, Electronics, Comp. Science)/B.A. I
Teacher- Dr. Neeru Bala, Ms. Ridhi Pal

Month	Week	SEM-I Topics
JULY	3rd	Program To Calculate Simple Interest, Program to calculate Compound Interest.
	4th	Program To Calculate Arithmetic Mean Of Three Numbers
AUG	1st	Program To Calculate Area And Parameter Of A Circle
		Program To Calculate Area Of Triangle By Heron's Formula
	2nd	Program To Check Wheather The Number Is Odd or Even
		Program to Calculate Greatest Of Three Numbers
	3rd	Program To Find The Roots Of A Quadratic Equation
SEPT		Program to Reverse The Digits Of A Positive Number
	4th	Program to Convert Decimal To Binary
	1st	Program To Generate First n Prime Numbers
	2nd	Program to Check Wheather The Number Is Prime or not
OCT	3rd	Program To Check A Year Is Leap Or Not
	4th	Program To Find The Sum Of First n Natural Numbers
	1st	Program to Generate Pyramid
	2nd	Program to find simple interest using switch statement
	3rd	Program to prepare Electricity Bill,
	4th	Program to Calculate Gross salary of an Employee
		Practical File Completion

COURSE NAME: NUMERICAL ANALYSIS: CML-307/BAMH202

PROGRAM NAME- B.Sc (Non Med, Electronics, Comp. Science)/B.A III
TEACHERS- Mr. Manjeet, Mr. Naresh, Ms. Renu, Ms. Ridhi Pal

SEM-III

Month	Week	Topic	Test/Assign.
J U L Y	3rd	Finite difference operators and their relation, finding the missing terms and effect of error in a difference tabular values	
	4th	interpolation with equal intervals, Newton's forward and backward interpolation formulae	
A U G	1st	Newton's divided difference, Lagrange's Interpolation formulæ, Hermite formulæ	Assignment
	2nd	central difference : Gauss forward and backward interpolation formulæ, Sterling, Bessel formulæ	

S E P T	3rd	Binomial, Poisson, normal distribution, Numerical differentiation	Minor Test
	4th	Eigen value problems: Power method, Jacobi's method, Given's method,	
	1st	Numerical Integration: Newton-Cole's formula, trapezoidal rule, Simpson's rule	
	2nd	Gauss quadrature formula, chebychev formula	
3rd	Numerical solution of ordinary differential equations: single step method, picards method, Taylor series method		
4th	Euler's method, Runge-Kutta method		
O C T	1st	Multiple step methods, Predictor-Corrector method	
	2nd	Modified Euler's method, Milne Simpson's method	
	3rd	Revision, Group Discussion	
	4th	Test	

Course Name- Advanced Calculus- CML306/BAMH201

Programme Name- B.Sc.(Non Med, Electronics, Comp. Science), B.A II

Teacher- Ms. Nisha, Ms. Ila Dhingra, Mr. Kuldeep Singh

SEM-III

Month	Week	Topic	Test/Assign.	
J U L Y	3rd	Continuity, Sequential continuity, properties of continuous functions, Uniform continuity.	Assignment	
	4th	Chain rule of differentiability, Mean value theorems, Rolle's theorem and Lagrange's mean value theorem and their geometrical interpretations.		
A U G	1	Taylor's theorem with various form of remainders.		
	2nd	Darboux intermediate value theorem for derivatives, Indeterminate forms.		
	3rd	Limit and continuity of real valued functions of two variables.		
	4th	Partial differentiation, Total differentials.		
S E P T	1st	Composite functions and implicit functions, Change of variables, Homogeneous functions.		Test
	2nd	Euler's theorem on homogeneous functions, Taylor's theorem for functions of two variables.		
	3rd	Differentiability of real valued functions of two variables. Schwarz and Young's theorem, Implicit function theorem.		
	4th	Maxima, Minima and saddle points of two variables. Lagrange's method of multipliers		
O C T	1st	Curves: Tangents, Principal normals, Binormals.		Assignment
	2nd	Serret-Frenet formulae, Locus of the centre of curvature. Spherical curvature		
	3rd	Locus of centre of Spherical curvature. Involutes, Evolutes, Bertrand curves.		
	4th	Revision and Group Discussion		

Course Name- Maths Lab-III-CMP310/BAMH203

Programme Name- B.Sc.(Non Med, Electronics, Comp. Science), B.A II

Teacher- Dr. Neeru Bala, Dr. Inderjit Singh, Ms. Kusum Beniwal

Month	Week	Topic
J U L Y	3rd	To interpolate the data using Newton's forward interpolation formula
	4th	To interpolate the data using Newton's backward interpolation formula
	1st	To interpolate the data using Gauss's forward interpolation formula

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A U G	2nd	To interpolate the data using Gauss's backward interpolation formula
	3rd	To interpolate the data using Lagrange's interpolation formula
	4th	To find the roots of algebraic and transcendental equations using Bisection method
S E P T	1st	To find the roots of algebraic and transcendental equations using Regula-Falsi method.
	2nd	To find the roots of algebraic and transcendental equations using Secant method.
	3rd	To find the roots of algebraic and transcendental equations using Newton-Raphson's method.
	4th	To solve the system of linear equations using Gauss-elimination method.
O C T	1st	To solve the system of linear equations using Gauss-Seidal iteration method.
	2nd	To solve the system of linear equation using Gauss-jordan method.
	3rd	To find the largest eigen value of a matrix by Power-method.
	4th	To integrate numerically using Trapezoidal rule.
V O N	1st	To integrate numerically using Simpson's one-third rule.
	2nd	To integrate numerically using Simpson's three-eighth rule.

Course Name- Groups & Rings:BM352

name Name- BA/BSc.(Non Med, Electronics, Comp. Science) III

Dr. Inderjeet Singh, Ms. Kusum, Ms. Manisha, Ms. Shashi Saini

SEM-V

Month	Week	Topic	Assignment/ Test
J U L	3rd	Definitions of a Group, Examples of Abelian and Non Abelian groups.	
	4th	The group Z_n of integers under addition modulo n & group $U(n)$, Cyclic Groups	
A U G	1st	Subgroups and Criteria, Cosets and Properties	1st Assignment
	2nd	Index of Subgroup, Coset decomposition, Lagrange's Theorem and its Consequences	
	3rd	Normal Subgroups,	
	4th	Quotient Groups, Homomorphisms	
S E P T	1st	Isomorphisms, Automorphisms on Group,	Minor Test
	2nd	Permutation Groups, Alternating Groups	
	3rd	Centre of a group, Class equation of group, Introduction to Rings.	
	4th	Subrings, Integral Domains and Fields.	
O C T	1st	Characteristics of Ring, Ideals (Prime, Prime and Maximal)	2nd Assignment
	2nd	Ring Homomorphism, Theorem on Ring Homomorphism	
	3rd	Quotient Ring, Field of Quotients of an Integral Domain	

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	4th	Euclidean Ring	
N O V	1st	Polynomial Rings, Polynomial over Rational Field,	Revision Tests
	2nd	Einstein Criteria of Irreducibility, PID, UFD	

COURSE: REAL ANALYSIS: BM351

PROGRAM NAME- B.Sc(Non Med, Electronics, Comp. Science)/B.A III

TEACHERS - Ms. Riddhipal, Ms. Renu, Mr. Manjeet, Ms. Kusum, Mr. Ajay Singh

SEM-V

Month	Week	Topic	Test/Assign.
J U L Y	3rd	Riemann integral, Integrability of continuous and monotonic functions	
	4th	The Fundamental theorem of integral calculus.	
A U G	1st	Mean value theorems of integral calculus.	Assignment
	2nd	Improper integrals and their convergence, Comparison tests, Abel's and Dirichlet's tests, Frullani's integral,	
	3rd	Integral as a function of a parameter. Continuity, Differentiability	
	4th	Integrability of an integral of a function of a parameter	
S E P T	1st	Definition and examples of metric spaces, neighborhoods, limit points, interior points, open and closed sets, closure and interior	T e s t
	2nd	boundary points, subspace of a metric space, equivalent metrics, Cauchy seq.	
	3rd	Cantor's intersection theorem, Baire's category theorem, contraction Principle	
	4th	Continuous functions, uniform continuity, compactness for metric spaces, sequential compactness,	
O C T	1st	Bolzano-Weierstrass property, total boundedness, finite intersection property, continuity in relation with compactness	
	2nd	connectedness, components, continuity in relation with connectedness.	
	3rd	Revision, Group Discussion	
	4th	Test	

Course - Numerical Analysis - BM353

PROGRAMME NAME- B.A/BSc.(Non Med, Electronics, Comp. Science)III

TEACHERS- Mr. Chander Mohan, Mr. Manjeet, Mr. Naresh, Ms. Heena Rani

SEM-V

Month	Week	Topic	Test/Assign.
J U L Y	3rd	Finite Differences operators and their relations. Finding the missing terms and effect of error in a difference tabular values	
	4th	Interpolation with equal intervals: Newton's forward and Newton's backward interpolation formulae.	
	1st	Interpolation with unequal intervals: Newton's divided difference, Lagrange's Interpolation formulae, Hermite Formula.	Assignment
	2nd	Central Differences: Gauss forward and Gauss's backward interpolation formulae,	

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AUG	3rd	Sterling, Bessel Formula.	Test	
	4th	Probability distribution of random variables, Binomial distribution, Poisson's distribution, Normal distribution: Mean, Variance and Fitting.		
SEPT	1st	Numerical Differentiation: Derivative of a function using interpolation formulae		
	2nd	Eigen Value Problems: Power method, Jacobi's method, Given's method		
	3rd	House-Holder's method, QR method, Lanczos method		
	4th	Numerical Integration: Newton-Cote's Quadrature formula, Trapezoidal rule		
OCT	1st	Simpson's one-third and three-eighth rule, Chebychev formula		
	2nd	Gauss Quadrature formula. Numerical solution of ordinary differential equations: Single step methods		
	3rd	Picard's method, Taylor's series method, Euler's method		
	4th	Runge-Kutta Methods.		
NOV	1st	Multiple step methods; Predictor-corrector method, Modified Euler's method		Assignment
	2nd	Milne-Simpson's method.		

Programme Name- BCom. I

Course Name-Business Mathematics-I:BC-105

Teachers-Ms.Shashi Saini, Mr. Ajay Singh, Mr. Chander Mohan Bishnoi

SEM-I

Month	Week	Topics	Assignment/Test
L J Y U	3rd	Logarithm	
	4th	Anti-logarithm	
AUG	1st	Arithmetic Progression	1st Assignment
	2nd	Geometric Progression	
	3rd	Simple derivative of different functions	
	4th	Rules of differentiation	
SEPT	1st	Maxima and Minima of functions of one variable,	Minor Test
	2nd	Definition and Types of matrix.	
	3rd	Algebra of matrices, Properties of determinant.	
	4th	Adjoint of matrices, Elementary row and column operation, Finding inverse of matrices.	
OCT	1st	Solution of a system of linear equations having unique solution and involving not more than three variables.	2nd Assignment Revision Tests
	2nd	Certain different types of interest rates. Concept of present value And amount of sum.	
	3rd	Types of annuities, Present value and amount of an annuity.	
	4th	Valuation of simple loans and debentures, Problems relating to sinking funds.	

PROGRAMME NAME-B.B.A I
TEACHER-Mr. Kuldeep Singh

COURSE NAME:ELEMENTS OF BUSINESS MATHEMATICS:BBA-105

SEM-I

Month	Week	Topic	Test/Assign.
J U	3rd	Theory of sets- Meaning, elements, types, presentation and equality of sets	

L Y	4th	Union, Intersection, complement and difference of sets, venn diagram	Assignment
	1st	Cartesian product of two sets, application of set theory	
	2nd	Indices and logarithms, arithmetic and geometric progressions and their bussiness applications	
	3rd	Sum of first n natural numbers, sum of squares and cubes of first n natural number	
S E P T	4th	Permutations	Minor test
	1st	Combinations	
	2nd	Binomial theorem, Quadratic equations	
	3rd	Matrices-Types, Properties, Addition, Multiplication, Transpose, Inverse	
O C T	4th	Properties of determinants, solution of simultaneous linear equation	
	1st	Differentiation and Integration	
N V O	2nd	Bussiness application of Matrices	

Programme Name-M.Sc. I
Teacher-Ms. Ridhipal

Course Name- Algebra-MAL:511
Sem-I

Month	Week	Topic	Assignment/ Test
J U L	3rd	Zassenhaus's lemma, normal and subnormal series, composition series	
	4th	Scheiers theorem, Jordan -Holder theorem, commutators and their prop	
A U G	1st	Three subgroup lemma of P.Hall, central series, nilpotent groups	Assignment
	2nd	Upper and Lower central series and their properties, invariant and chief series	
	3rd	Solvable groups, derived series, field theory, Prime fields	
	4th	Extension fields, Algebraic and Transcendental extensions and their theorems	
S E P T	1st	Algebraically closed field, Conjugate elements	Minor Test
	2nd	Normal extensions, Separable and Inseparable extensions	
	3rd	Perfect fields, Construction with ruler and compass	
	4th	Finite Fields, Roots of unity, Cyclotomic polynomial, Primitive elements	
O C T	1st	Automorphisms of extensions, Galois extension, Fundamental theorem of Galois theory	
	2nd	Solutions of polynomial equations by radicals, insolvability of the general equation of degree five by radicals	
	3rd	Group Discussion, Revision	
	4th	Doubt session	

Programme Name-M.Sc. I
Teacher-Ms. Mamta

Course Name- Real Analysis-MAL:512
Sem-I

Month	Week	Topic	Assignment/ Test
J U	3rd	Definition and existence of Reimann-Stieltjes integral, properties of the integral, Integration and differentiation	

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A U G	4th	Fundamental theorem of calculus, integration of vector valued function	Assignment
	1st	Sequences and series of function, pointwise and uniform convergence, cauchy criterion for uniform convergence	
	2nd	Weierstrass M-Test, Abel's and Dirichlet's tests, Uniform convergence and continuity	
	3rd	Uniform convergence and Riemann-Stieltjes Integration, Weierstrass Approximation theorem	
S E P	4th	Power series, Uniqueness theorem for power series, Abel's Theorems	Minor Test
	1st	Functions of several variables, linear transformations, derivatives in an open subset, partial derivatives, derivatives of higher orders	
	2nd	Taylor's theorem, Inverse function theorem, Implicit function theorem, Jacobians, Lagrange's multiplier method	
	3rd	extremum problems with constraints, Set functions	
O C T	4th	Intuitive idea of measure, Elementary properties of measure, Measurable sets and their fundamental properties	
	1st	Lebesgue measure of sets of real numbers, algebra of measurable sets, Borel sets	
	2nd	Equivalent formulation of measurable sets in terms of open, closed, Non Measurable sets	
	3rd	Group Discussion, Revision	
	4th	Doubt session	

Programme Name- M.Sc. I
Teacher- Ms. Kusum Beniwal

Course Name- MECHANICS- MAL:513
SEM-I

Month	Week	Topic	Assignment/ Test
J U L	3rd	Moments and products of Inertia, Theorems of parallel and perpendicular axes, principal axes	
	4th	The momental ellipsoid, Equimomental systems, Coplanar distributions, G	
A U G	1st	Holonomic and non holonomic systems, Scleronomic and Rheonomic systems, Lagrange's equations for a holonomic system	Assignment
	2nd	Lagrange's equations for a conservative and impulsive forces, Kinetic energy as quadratic function of velocities, Generalized potential, Hamilton's variables	
	3rd	Hamilton's variables, Donkin's theorem, Hamilton canonical equations, Cyclic coordinates, Routh's equations, Jacobi-Poisson theorem	
	4th	Hamilton's Principle, Principle of least action, Poincare Cartan integral invariant, Whittaker's equations, Hamilton-Jacobi equation, method of separation of variables	
S E P	1st	Lagrange's brackets, condition of canonical character of transformation in terms of Lagrange brackets and poisson brackets	Minor Test
	2nd	Invariance of Lagrange brackets and poisson brackets under canonical transformations	
	3rd	Gravitation: Attraction and potential of rod, disc, spherical shells and sp	

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	4th	Laplace and Poisson equations, Work done by self attracting systems	
O C T	1st	Distributions for a given potential, Equipotential surfaces, surface and solid harmonics	
	2nd	surface density in terms of surface harmonics	
	3rd	Group Discussion, Revision	
	4th	Doubt session	

Programme Name-M.Sc. I
Teacher- Ms. Kusum Hatria

COURSE NAME: ORDINARY DIFFERENTIAL EQUATIONS-MAL:514
SEM-I

Month	Week	Topic	Assignment/ Test
J U L Y	3rd	Initial value problem and the equivalent integral equation, ϵ -approximate solution, Cauchy-Euler construction of an ϵ -approximate solution, Ascoli-Arzelà theorem	
	4th	Cauchy-Peano existence theorem, Lipschitz condition, Picard-Lindelöf theorem	
A U G	1st	solution of initial-value problems by Picard method, Approximate methods of solving first-order equations: Power series method, Numerical methods	Assignment
	2nd	Continuation of solutions, maximum interval of existence, Extension theorem, Dependence of solutions on initial conditions	
	3rd	Matrix method for homogeneous first order systems, nth order equations	
	4th	Total differential equations: Conditions of integrability, methods of solution	
S E P T	1st	Gronwall's differential inequality, comparison theorems involving differential inequalities	Minor Test
	2nd	Zeros of solutions, Sturm's separation and comparison theorems, Oscillatory and non oscillatory equations	
	3rd	Riccati's equations and its solution, Prüfer transformation	
	4th	Sturm-Liouville boundary value problems	
O C T	1st	Lagrange's identity and Green's formula for second order equation	
	2nd	properties of eigen values and eigen functions	
	3rd	Group Discussion, Revision	
	4th	Doubt session	

Programme Name-M.Sc. I
Teacher- Ms. Manisha

COURSE NAME: COMPLEX ANALYSIS-I-MAL:515
Sem-I

Month	Week	Topic	Assignment/ Test
L J Y U	3rd	Cauchy Riemann equations, Analytic functions, Reflection principle	
	4th	Complex Integration, Antiderivatives, Cauchy Goursat theorem	
A U G	1st	Simply and multiply connected domains, Cauchy Integral formula, Higher order derivatives	
	2nd	Moire's theorem, Cauchy's Inequality, Liouville's theorem	

Manisha

J U L Y	3rd	The fundamental theorem of Algebra, Maximum Modulus principle, Schwarz lemma	Minor Test
	4th	Poisson's formula, Taylor's series, Laurent's series	
S E P T	1st	Isolated singularities, Meromorphic functions, Argument principle	
	2nd	Rouche's theorem, Residues, Cauchy's residue theorem	
	3rd	Evaluation of Integrals, Mittag-Leffler's expansion theorem	
O C T	4th	Branches of many valued functions with special reference to $\arg z$, $\log z$	
	1st	Bilinear transformations, their properties and classification	
	2nd	Examples of conformal mapping	
	3rd	Group Discussion, Revision	
	4th	Doubt session	

Programme Name- M.Sc. I
Teacher- Ms. Shashi Saini

COURSE NAME: PROGRAMMING WITH FORTRAN (THEORY)-MAL:516
SEM-I

Month	Week	Topic	Assignment/ Test
J U L Y	3rd	Computer Programming in FORTRAN 90/95: Numerical constants and variables, arithmetic expressions, implicit declaration, named constants, input/output	Assignment
	4th	list directed input/output statements, Format specifications	
A U G	1st	Declaration including KIND specifications, use of complex variables	Assignment
	2nd	Logical expressions and control flow, conditional flow, IF structure, Block DO loop	
	3rd	Counted controlled loops, arrays, input/output of arrays, arrays with variable size using ALLOCATABLE statement	
	4th	arrays handling functions, multidimensional arrays	
S E P T	1st	Strings, declaration of character variables, character handling functions	Minor Test
	2nd	operators on strings, Subprograms, Types of Subprograms	
	3rd	Significance functions, subroutines, procedures with array arguments, Rec	
	4th	Derived types, Elements of derived type, arrays and derived type Processing files	
O C T	1st	Sequential file, Direct Access file, creating and closing a file	D
	2nd	Pointers and Accessing elements using pointers with example	
	3rd	Group Discussion, Revision	
	4th	Doubt session	

Programme Name- MSc I
Teacher- Ms. Shashi Saini

COURSE : PROGRAMMING WITH FORTRAN (PRACTICAL)-MAL:517
SEM-I

Month	Week	Topics
L J Y U	3rd	Program To find area of circle
	4th	Program to find area of triangle by Heron's formula
A	1st	Program To check leap year
	2nd	Program To find sum of digits of a number Program To find sum of sine series

Shashi

A U G	2nd	Basic properties of limits, continuous functions and classification of discontinuities	1st Assignment
	3rd	Derivatives of a functions, derivatives of logarithmic, exponential, trigonometric, inverse trigonometrically and hyperbolic functions	
	4th	higher order derivatives	
	1st	Addition, multiplication of matrices, laws of matrix algebra	
S E P T	2nd	Singular and non singular matrices, inverse and rank of a matrix	Minor Test
	3rd	Rank of the product of two matrices, system of linear equation	
	4th	Characteristic equations of a square matrix, Cayley Hamilton theorem	
	1st	Eigen values and eigen vectors	
O C T	2nd	Eigen values and eigen vectors of symmetric and skew-symmetric, hermitian and skew-hermitian	2nd Assignment
	3rd	Group Discussion, Revision	
	4th	Doubt session	

N O V	1st	Euler's theorem on the Existence of Eulerian Paths and circuits, Directed Graphs, Indegree and outdegree of a vertex.	
	2nd	Weighted undirected Graphs, Strong Connectivity and Warshall's Algorithm, Directed Trees, Search Trees, Tree Traversals.	
	3rd	Group Discussion, Revision	
	4th	Doubt session	

Programme Name- Misc
Teacher- Mrs. Kiran

COURSE: PROGRAMMING WITH MATLAB (PRACTICAL)-MAP634
SEM-III

Month	Week	Topics
A U G	3rd	Program for calculating roots, polynomial value at a point
	4th	Program to find addition, multiplication and division
S E P	1st	Program To find derivative of a polynomial
		Program for solving a non-linear equation
	2nd	Program To find maximum and minimum values of a polynomial
	3rd	Program To calculate numerical integration of function
O C T		Program to fit a polynomial of degree three & plot it
	4th	Program for curve fitting with function other than polynomials
	1st	Program to find value of y between points using interpolation
	2nd	Program to find coordinates x, y, z are given as function of parameter t
N O V	3rd	Program To convert temperature from Fahrenheit to Celsius
	4th	Program To solve ODE using Euler's method
	1st	Program to solve the function using Runge Kutta method
	2nd	Program to solve a 1st order ordinary differential equation
	3rd	Revision

Programme Name-BCA I
Teacher- Mrs. Namrata

COURSE: ELEMENTS OF MATHEMATICAL FOUNDATIONS-BCA-PC(L)112
SEM-I

Month	Week	Topic	Assignment/ Test
A U G	3rd	Sets, subsets and operations on sets	
	4th	Venn-Diagram of sets, power sets, equivalence relations on sets	
S E P	1st	Partition of a sets, partially ordered sets, boolean algebra	1st Assignment
	2nd	Basic properties of limits, continuous functions and classification of discontinuities	
	3rd	Derivatives of a functions, derivatives of logarithmic, exponential, trigonometric, inverse trigonometrically and hyperbolic functions	
	4th	Higher order derivatives	
O C T	1st	Addition, multiplication of matrices, laws of matrix algebra	Minor Test
	2nd	Singular and non singular matrices, inverse and rank of a matrix	
	3rd	Rank of the product of two matrices, system of linear equation	
	4th	Characteristic equations of a square matrix, Cayley Hamilton theorem	
N O V	1st	Eigen values and eigen vectors	2nd Assignment
	2nd	Eigen values and eigen vectors of symmetric and skew-symmetric, hermitian and skew-hermitian	
	3rd	Group Discussion, Revision	
	4th	Doubt session	

COURSE-ORDINARY DIFFERENTIAL EQUATIONS & LAPLACE TRANSFORMS-CML206/BAMH121

Programme Name-B.Sc(Non Med, Electronics, Comp. Science) /B.A I

Teachers-Dr. Inderjit Singh, Ms. Suman, Ms. Riddhi, Ms. Rekha Rani

SEM-II

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CURRICULUM PLANNING 2019-2020
Semester I (B. Sc -I) year

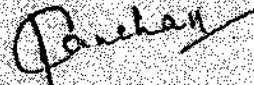
Biotechnology Paper II
Biochemistry-I
(BIT 102 L)

Sr. No.	Month	Topics
1	Sept 16-21, 2019	Biochemistry: Introduction, History and major landmarks in the development of biochemistry, Chemical Foundations of Life - biomolecules and biological chemistry. Interactions in biological systems: Intra and intermolecular forces, Electrostatic and hydrogen bonds, Disulfide bridges, Hydrophobic and hydrophilic molecules and forces, Water and weak interactions, pH and buffers.
2	Sept 23-28, 2019	Carbohydrates: Structure, Function and properties of biologically important monosaccharides, disaccharides and polysaccharides.
3	Sept 30, 2019	Assignment
4	Oct 1-5, 2019	Homo & Hetero Polysaccharides, Mucopolysaccharides, Bacterial cell wall polysaccharides, Glycoproteins and their biological functions.
5	Oct 7-12, 2019	Amino acids and Proteins: Structure and properties of amino acids, Essential amino acids, rare and non-protein amino acids, acid base behaviour/zwitterions: pKa value and titration curve. proteins.
6	Oct 14-19, 2019	Proteins: Peptide bond, Structure and function of some biologically important peptides Types of proteins and their classification, Forces stabilizing protein structure and shape. Different Level of

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		structural organization of
7	Oct 21-26, 2019	Lipids: Introduction and Classification – simple and complex lipids, Fatty acids – structure and nomenclature, soap value, acid value, iodine number, rancidity.
8	Oct 28-31, 2019	Essential fatty acids, A general account of structure and function of Triacylglycerols, Phospholipids, Glycolipids
9	Nov 2, 2019	Assesment test
10	Nov 4-9, 2019	Nucleotides and Nucleic acids: Building blocks: bases, sugars and phosphates. Structure and nomenclature of nucleosides and nucleotides; polynucleotides,
11	Nov 11-15, 2019	DNA (A, B, Z-DNA) and RNA (rRNA, mRNA, tRNA). Properties of DNA – absorption, denaturation, renaturation, hybridization, T _m /Cot values. Biological importance of ATP and GTP


 Dr. Vivek Srivastava
 (Associate Professor)
 Head, Dept. of Biotechnology


 Dr. Kanchan Kamra
 (Assistant Professor)
 Subject Tutor

Principal
 Durgam Ch. Esra,
 BLSAR

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Department of Biotechnology

CURRICULUM PLANNING 2019-2020
Semester I (B. Sc. -I) year

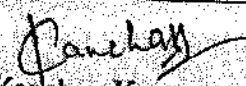
Paper BIT 101 L
Subject: Introduction to Biotechnology


Sr. No.	Month	Topics
1	July 22 to July 27, 2019	Introduction to Biotechnology: History and major landmarks in the development of biotechnology, Introduction to gene and genomes, Proteins and proteome,
2	July 29 to Aug 3, 2019	Fermentation technology: General introduction, basic technique and applications, Plant Tissue Culture:
3	Aug 5, 2019	Solve doubts and problems.
4	Aug 6 to Aug 10, 2019	General introduction, basic technique and applications, Animal Tissue Culture: General introduction, basic technique and applications
5	Aug 12, 2019	Class test and problem taken.
6	Aug 13-17, 2019	Genetic Engineering: Introduction and history, Recombinant DNA technology, Genetically modified organisms (GMOs), DNA finger printing and forensic analysis.
7	Aug 19, 2019	Assignment submission.
8	Aug 20-24, 2019	Applications of biotechnology: Applications of biotechnology in agriculture, animal husbandry.

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		veterinary sciences, food & feed industry, chemical industry, environment,
9	Aug 26, 2019	Class test.
10	Aug 27-31, 2019	bioremediation & waste water treatment, solid waste management, biofuels, human health and medicine (Monoclonal antibodies, hybridoma technology and embryo transfer technology)
11	Sept 1, 2019	Problem taken.
12	Sept 2-7, 2019	Bio-safety and Ethics: Biotechnology research in India, Biotechnology in context of developing world,
13	Sept 9, 2019	Assessment test
14	Sept 10-14, 2019	Brief account of safety guidelines and risk assessment in biotechnology, Ethics in Biotechnology, Intellectual property rights. Nanotechnology: Introduction, history and scope (Brief account)

Dr. Vivek Srivastava
(Associate Professor)
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Dr. Kanchan Kamra
(Assistant Professor)
Subject Tutor


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Department of Biotechnology

CURRICULUM PLANNING 2019-2020
Semester I (B. Sc. -I) year

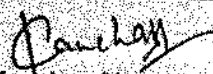
Biotechnology Paper II
Biochemistry-I
(BIT 102 L)

Month	Topics
Sept 16- 21, 2019	Biochemistry: Introduction, History and major landmarks in the development of biochemistry, Chemical Foundations of Life – biomolecules and biological chemistry. Interactions in biological systems: Intra and intermolecular forces, Electrostatic and hydrogen bonds, Disulfide bridges, Hydrophobic and hydrophilic molecules and forces, Water and weak interactions, pH and buffers.
Sept 23-28, 2019	Carbohydrates: Structure, Function and properties of biologically important monosaccharides, disaccharides and polysaccharides.
Sept 30, 2019	Assignment
Oct 1-5, 2019	Homo & Hetero Polysaccharides, Mucopolysaccharides, Bacterial cell wall polysaccharides, Glycoprotein's and their biological functions.
Oct 7-12, 2019	Amino acids and Proteins: Structure and properties of amino acids, Essential amino acids, rare and non-protein amino acids, acid base behaviour/zwitterions; pKa value and titration curve. proteins.
Oct 14-19, 2019	Proteins: Peptide bond, Structure and function of some biologically important peptides Types of proteins and their classification, Forces stabilizing protein structure and shape. Different Level of

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		veterinary sciences, food & feed industry, chemical industry, environment.
9	Aug 26, 2019	Class test.
10	Aug 27-31, 2019	bioremediation & waste water treatment, solid waste management, biofuels, human health and medicine (Monoclonal antibodies, hybridoma technology and embryo transfer technology)
11	Sept 1, 2019	Problem taken.
12	Sept 2-7, 2019	Bio-safety and Ethics: Biotechnology research in India, Biotechnology in context of developing world.
13	Sept 9, 2019	Assessment test
14	Sept 10-14, 2019	Brief account of safety guidelines and risk assessment in biotechnology, Ethics in Biotechnology, Intellectual property rights, Nanotechnology: Introduction, history and scope (Brief account)

Dr. Vivek Srivastava
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Department of Biotechnology

CURRICULUM PLANNING 2019-2020
Semester I (B. Sc. -1) year

Biotechnology Paper II
Biochemistry-I
(BIT 102 L)

Sr. No.	Month	Topics
1	Sept 16-21, 2019	Biochemistry: Introduction, History and major landmarks in the development of biochemistry, Chemical Foundations of Life – biomolecules and biological chemistry. Interactions in biological systems: Intra and intermolecular forces, Electrostatic and hydrogen bonds, Disulfide bridges, Hydrophobic and hydrophilic molecules and forces, Water and weak interactions, pH and buffers.
2	Sept 23-28, 2019	Carbohydrates: Structure, Function and properties of biologically important monosaccharides, disaccharides and polysaccharides.
3	Sept 30, 2019	Assignment
4	Oct 1-5, 2019	Homo & Hetero Polysaccharides, Mucopolysaccharides, Bacterial cell wall polysaccharides, Glycoprotein's and their biological functions.
5	Oct 7-12, 2019	Amino acids and Proteins: Structure and properties of amino acids, Essential amino acids, rare and non-protein amino acids, acid base behaviour/zwitterions; pKa value and titration curve. proteins.
6	Oct 14-19, 2019	Proteins: Peptide bond, Structure and function of some biologically important peptides Types of proteins and their classification, Forces stabilizing protein structure and shape. Different Level of

		structural organization of
7	Oct 21-26, 2019	Lipids: Introduction and Classification – simple and complex lipids, Fatty acids – structure and nomenclature, soap value, acid value, iodine number, rancidity.
8	Oct 28-31, 2019	Essential fatty acids, A general account of structure and function of Triacylglycerols, Phospholipids, Glycolipids
9	Nov 2, 2019	Assesment test
10	Nov 4-9, 2019	Nucleotides and Nucleic acids: Building blocks: bases, sugars and phosphates, Structure and nomenclature of nucleosides and nucleotides; polynucleotides,
11	Nov 11-15, 2019	DNA (A, B, Z-DNA) and RNA (rRNA, mRNA, tRNA). Properties of DNA – absorption, denaturation, renaturation, hybridization, T _m /Cot values. Biological importance of ATP and GTP

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Dr. Ranchan Kamra
(Assistant Professor)
Subject Tutor

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CURRICULUM PLANNING (2019-2020)
Semester- III (B. Sc. -II) year

Biotechnology Paper VIII
Bio-analytical Techniques
(BIT 302 L)

Sr. No.	Month	Topics
1	Sept 16- 21, 2019	Microscopy: Simple microscopy, phase contrast microscopy
2	Sept 23-28, 2019	Florescence and electron microscopy (TEM and SEM), pH meter.
3	Sept 30-Oct1, 2019	Seminar taken
4	Oct 3-5, 2019	Spectroscopy: Principle and law of absorption, colorimetry
5	Oct 7-11, 2019	Spectrophotometry (visible, UV, infrared)
6	Oct 12-16, 2019	cell fractionation techniques, isolation of sub-cellular organelles and particles.
7	Oct 17-19, 2019	Seminar and assignment taken.
8	Oct 21-26, 2019	Chromatography: Principle of chromatography, Paper chromatography, thin layer chromatography, column chromatography, silica and gel filtration, affinity and ion exchange chromatography, gas chromatography, HPLC
9	Oct 30, 2019	class test

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10	Oct 31 - Nov 4, 2019	Electrophoresis: Introduction to electrophoresis. Starch-gel, polyacrylamide gel (native and SDS-PAGE), agarose-gel electrophoresis, pulse field gel electrophoresis, immuno-electrophoresis, isoelectric focusing, Western blotting
11	Nov 5-9, 2019	DNA (A, B, Z-DNA) and RNA (rRNA, mRNA, tRNA). Properties of DNA - absorption, denaturation, renaturation, hybridization, Tm/Cot values. Biological importance of ATP and GTP

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 Head, Dept. of Biotechnology

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Ms Vaishali Rana
 (Assistant Professor)
 Subject Tutor

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CURRICULUM PLANNING 2019-2020
Semester III (B. Sc. -II) year

Paper VI
Subject: Immunology

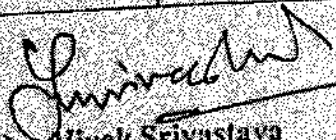
Sr. No.	Month	Topics
1	July 22 to July 26, 2019	Introduction & Orientation Immunology: Introduction, History and Scope. Terminology of immune system.
2	July 27 to Aug 3, 2019	Immunity: Definition, types of Immunity- Innate, Adaptive/acquired (active, passive, natural/artificial, Humoral and Cell mediated immunity). Features of Immune Response - memory, cell specificity/diversity, recognition of self and non-self. Organs of the Immune System: Primary and Secondary Lymphoid organs- Thymus, Spleen, Lymph nodes.
3	Aug 5, 2019	Solve doubts and problems.
4	Aug 6 to Aug 16, 2019	Cells of the Immune System - B and T cells (types and receptors), Null cells, Monocytes, Polymorphs. Antigens: Concept, Types of Antigens, Antigenic determinants/epitopes, Hapten. Antigen and Immunogen. Antigenicity and


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		Immunogenicity. Factors affecting antigenicity. Antibodies: Structure, Types/Classes, properties and functions of immunoglobulins. Production of antibodies. Antibody diversity (a brief account only).
5	Aug 17, 2019	Class test and problem taken.
6	Aug 19-23, 2019	Antigen – Antibody Interactions: Binding sites, Binding forces, Affinity, Avidity, Cross reactions. Precipitation and Agglutination reaction RIA, ELISA etc. techniques Role of MHC molecules, Antigen presenting cells. Factors influencing antibody formation. Cell mediated immunity- Cells involved in CMI, (T-cell subset and surface markers, T-dependent and T-independent antigens, recognition of antigens by T-cells.
7	Aug 26, 2019	Assignment submission.
8	Aug 27-30, 2019	Role of MHC and MHC restriction), cytokines and lymphokines, functions of cell mediated immunity. Immune Response: Introduction, Humoral Immunity – Primary and Secondary immune response – B cells in antibody formation (differentiation, maturation and activation of B cells).
9	Aug 31, 2019	Class test.

10	Sept 2-4,2019	Cell mediated immunity- Cells involved in CMI, (T-cell subset and surface markers, T-dependent and T-independent antigens, recognition of antigens by T-cells, role of MHC and MHC restriction), cytokines and lymphokines, functions of cell mediated immunity.
11	Sept 5,2019	Problem taken.
12	Sept 6-9,2019	Complement system: Structure, components, properties and functions. Major Histocompatibility Complex- Class I and Class II MHC molecules, functions of MHC.
13	Sept 10,2019	Class test.
14	Sept 11-14,2019	Hypersensitivity and allergic reactions. (Brief only) Autoimmunity, immunological tolerance. Vaccines: concept, types of vaccines- Inactivated, Attenuated and Recombinant vaccines (Peptide and DNA vaccines).
15		Revision and problem taken.


 Dr. Vivek Srivastava
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 Head, Dept. of Biotechnology


 Ms. Vaishali
 (Assistant Professor)
 Subject Tutor

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Department of Biotechnology
CURRICULUM (2019-2020)

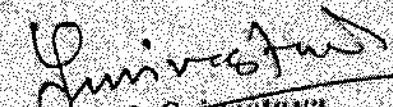
Semester- V (B. Sc. -III) year
 Semester- V


Paper XII. Plant Biotechnology

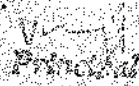
Sr. No.	Month	Syllabus
1.	July 22 to July 27, 2019	Orientation and Introduction, Introduction/Concept, History, Scope and Applications along with major Achievements. Plant Tissue Culture Laboratory: Layout and organization, different work areas, infrastructure/equipments and instruments and other requirements.
2	July 29 to Aug 3, 2019	Aseptic Techniques: General sanitation/cleanliness of PTC laboratory and precautions regarding maintenance of aseptic conditions. Washing, drying and sterilization of glassware, sterilization of media, surface sterilization, aseptic work station.
3	Aug 5, 2019	Solving Doubts and Difficulties.
4	Aug 6 to Aug 9, 2019	Culture Media: Nutritional requirements for plant tissue culture, role of different media components, plant growth regulators, different culture media viz. MS, B ₅ Nitsch and White's medium. Preparation of culture media. In-vitro methods in plant tissue culture: Explants, their cellular characteristics, dedifferentiation and redifferentiation, cellular totipotency, organogenesis & and somatic embryogenesis.
	Aug 10, 2019	Assignment
5	Aug 12-16, 2019	Micro propagation/clonal propagation of elite species (different routes of multiplication-axillary bud proliferation, somatic embryogenesis, organogenesis). Synthetic seeds (a brief account) Callus and suspension culture techniques: Introduction, principle, methodology, applications and limitations. Somaclonal variation. Organ culture: Anther & Pollen culture, ovary, ovule, embryo and endosperm culture – concept, technique, applications and limitations. Embryo rescue. Protoplast culture: Protoplast isolation, viability test, protoplast culture.

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6	Aug 19, 2019	Solving Doubts and Difficulties.
7	Aug 20-24, 2019	Somatic hybridization – Protoplast fusion techniques (chemical and electro-fusion), selection of hybrids, production of symmetric and asymmetric hybrids and cybrids. Practical applications of somatic hybridization And cybridization. Production of secondary metabolites in vitro: introduction, technique and utilities. Biotransformation (a brief account only). Plant germ plasm conservation and cryopreservation.
8	Aug 26, 2019	Assessment test
9	Aug 27-31, 2019	Genetic Engineering in plants: Introduction, Plant transformation by <i>Agrobacterium tumefaciens</i> and <i>A. rhizogenes</i> . Ti plasmid. Strategies for gene transfer to plant cells. Binary and co-integrate vectors. Gene targeting in plants. Use of plant viruses as vectors (brief account only). Direct DNA transfer/Physical methods of gene transfer in plants - micro projectile bombardment, electroporation, liposome mediated, Calcium phosphate mediated etc.
10	Sept 2-7, 2019	Transgenic Plants: Introduction and applications. Developing insect resistance, bacterial and Fungal disease resistance, virus resistance and abiotic stress tolerance in plants
10	Sept 9-14, 2019	Improving food Quality – nutritional enhancement of plants (carbohydrates, seed storage proteins and vitamins). Plants as Bioreactors: antibodies, polymers, industrial enzymes. Edible vaccines


 Dr. Vivek Srivastava
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 Dr. RAJ RANI
 (Assistant Professor)
 Subject Tutor


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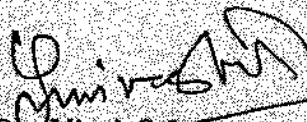
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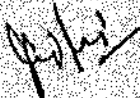
CURRICULUM (2019-2020)
Semester- V (B. Sc. -III) year
Paper XI. Animal Biotechnology

Sr.No.	Month	Syllabus
1.	Sept 16- 21, 2019	Orientation and Introduction, Principles & practice. History and Development of animal cell culture. Scope and Applications. Culture Media: Media components, Serum containing and serum free media. Natural media-Plasma clot, biological fluids, tissue extracts.
2	Sept 23-28, 2019	Growth factors required for proliferation of animal cells. Chemically defined media, balanced salt solutions. Physical requirements for growing animal cells in culture. Washing, drying, sterilization practices, various instruments and their uses in animal cell culture practices.
	Sept 30, 2019	Class test
3	Oct 1-5 ,2019	Primary Cell Culture techniques: Initiation of cell culture-substrates (glass, plastic, metals) their preparation and sterilization. Isolation of tissue explants, disaggregation- enzyme disaggregation and mechanical disaggregation of the tissue
4	Oct 7-12 ,2019	. Development of primary culture and cell lines. Subculture. Contamination.. Suspension culture, Growth curve of animal cells in culture.
5	Oct 14 ,2019	Problem taking and assignment submission
6	Oct 15-19 ,2019	Secondary cell culture – transformed cell and continuous cell lines. Finite and infinite cell lines. Cell lines: Insect and animal cells. Commonly used cell lines- their organization and characteristics.
7	Oct 21-26 ,2019	Transfection of animal cells: transfection methods. Methods for cell fusion, Selectable markers, HAT selection and Antibiotic resistance. Cloning and expression of foreign genes in animal cells: Expression vectors..
8	Oct 28-31 ,2019	Over production and preparation of the final product i.e. expressed proteins. Production of vaccines in animal cells. Hybridoma Technology: Production of

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		monoclonal antibodies and their applications. Embryo transfer technology- technique, its applications.
9	Nov 2, 2019	Assignment submission.
10	Nov 4-9, 2019	Artificial insemination. Animal clones Transgenic Animals: transgenic sheep, cow, pig, goat etc., applications of gene targeting. Production of transgenic mice, ES cells can be used for gene targeting in mice
11	Nov 11-15, 2019	Therapeutic products through genetic engineering - blood proteins, insulin, growth hormone etc. Gene Therapy: introduction, types of gene therapy, vectors in gene therapy, major achievements, problems and prospects.


 Dr. Vivek Srivastava
 (Associate Professor)
 Head, Dept. of Biotechnology


 Dr. RAJRANI
 (Assistant Professor)
 Subject Tutor


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 HISAR

Lesson plan for the Semester started w.e.f. 16.07.2019

Name of Institute : Dayanand College, Hisar
 Name of the Teacher: Dr. Mahender Singh (Associate Professor)
 Department : History
 Section : B.A – V Sem. (Section- D & H)

Month	Class	Topic/Chapter Covered	Test/Assignment
July	BA- V Sem	Transition from Feudalism to Capitalism in Europe Renaissance: Origins, Emergence and Results	
August	BA- V Sem	Reformation: Origins, Emergence and Results Shift of Economic Balance from the Mediterranean to Atlantic Region Early Colonial System: Motives, Process and Consequences of Colonization of Americas Map Work	Assignment- I
September	BA- V Sem	Mercantile Revolution: Origins and Results Scientific Revolution: Origins and Impact Glorious Revolution: Origins and Results Map Work	Internal Test
October	BA- V Sem	Industrial Revolution: Origins, Progress and Impact Agricultural Revolution: Origins, Progress and Impact Map Work	Assignment- II
November	BA- V Sem	Revision	


Head of Department

Lesson plan for the Semester started w.e.f. 16.07.2019

Name of Institute : Dayanand College, Hisar
 Name of the Teacher: Dr. Suruchi Sharma
 Department : History
 Section : B.A – V Sem. (Section- A & B)

Month	Class	Topic/Chapter Covered	Test/Assignment
July	BA- V Sem	Transition from Feudalism to Capitalism in Europe Renaissance: Origins, Emergence and Results	
August	BA- V Sem	Reformation: Origins, Emergence and Results Shift of Economic Balance from the Mediterranean to Atlantic Region Early Colonial System: Motives, Process and Consequences of Colonization of Americas Map Work	Assignment- I
September	BA- V Sem	Mercantile Revolution: Origins and Results Scientific Revolution: Origins and Impact Glorious Revolution: Origins and Results Map Work	Internal Test
October	BA- V Sem	Industrial Revolution: Origins, Progress and Impact Agricultural Revolution: Origins, Progress and Impact Map Work	Assignment- II
November	BA- V Sem	Revision	


Head of Department

Lesson plan for the Semester started w.e.f. 16.07.2019

Name of Institute : Dayanand College, Hisar
Name of the Teacher: Dr. Mahender Singh (Associate Professor)
Department : History
Section : B.A – III Sem. (Section- D & H)

Month	Class	Topic/Chapter Covered	Test/Assignment
July	BA- III Sem	Establishment of the Mughal Empire: Babur Sher Shah Suri and His Administration	
August	BA- III Sem	Akbar: Expansion of Empire and Religious Policy Aurangzeb: Expansion of Empire and Religious Policy Relations of Mughals with the Rajputs Deccan Policy of the Mughals Map Work	Assignment- I
September	BA- III Sem	Mughal Administration and Revenue System Institutions: Mansabdari and Jagirdari Decline of the Mughal Empire MapWork	Internal Test
October	BA- III Sem	Rivalry between the French and the British in India Founding of the British Empire: Battles of Plessey & Buxer Consolidation of the British Empire: Subsidiary Alliance System and Doctrine of Lapse; Map Work	Assignment- II
November	BA- III Sem	Annexation of Punjab Uprising of 1857: Causes, Events and Consequences Revision	


Head of Department

Lesson plan for the Semester started w.e.f. 16.07.2019

Name of Institute : Dayanand College, Hisar
Name of the Teacher: Dr. Joginder Singh
Department : History
Section : B.A – III Sem. (Section- E & G)

Month	Class	Topic/Chapter Covered	Test/Assignment
July	BA- III Sem	Establishment of the Mughal Empire: Babur Sher Shah Suri and His Administration	
August		Akbar: Expansion of Empire and Religious Policy Aurangzeb: Expansion of Empire and Religious Policy Relations of Mughals with the Rajputs Deccan Policy of the Mughals Map Work	Assignment- I
September	BA- III Sem	Mughal Administration and Revenue System Institutions: Mansabdari and Jagirdari Decline of the Mughal Empire Map Work	Internal Test
October	BA- III Sem	Rivalry between the French and the British in India Founding of the British Empire: Battles of Plessey & Buxer Consolidation of the British Empire: Subsidiary Alliance System and Doctrine of Lapse; Map Work	Assignment- II
November	BA- III Sem	Annexation of Punjab Uprising of 1857: Causes, Events and Consequences Revision	


 Head of Department

Lesson plan for the Semester started w.e.f. 16.07.2019

Name of Institute : Dayanand College, Hisar
 Name of the Teacher: Dr. Suruchi Sharma
 Department : History
 Section : B.A – I Sem. (Section- A & C)

Month	Class	Topic/Chapter Covered	Test/Assignment
July	BA- I Sem	Meaning and Scope of History Sources of Ancient Indian History Pre-Historic Age: Hunter Gatherers, Concept of Neolithic	
August	BA- I Sem	Harappan Civilization: Origins, Extent, Town Planning, Economy, Society, Arts, Political Organization and causes of decline. Vedic Culture and Literature: Polity, Society & Religion Map Work	Assignment- I
September	BA- I Sem	Social Institutions: Varna, Caste and Untouchability Emergence of Sixteen Mahajanpas and the Rise of Magada Empire Religious Movements: Causes of Rise of Religious movement, Buddhism and Jainism. Map Work	Internal Test
October	BA- I Sem	Mauryan Empire: Polity and Economy, Administration, Ashoka's Dhamma Post-Mauryan Empires: Kushanas and Satvahanas Gupta Map Work	Assignment- II
November	BA- I Sem	Gupta Empire: Establishment and Expansion, Administration, Society, Economy, Art and Architecture Map Work Revision	


Head of Department

Lesson plan for the Semester started w.e.f. 16.07.2019

Name of Institute : Dayanand College, Hisar
 Name of the Teacher: Dr. Joginder Singh
 Department : History
 Section : B.A – I Sem. (Section- B, D, G)

Month	Class	Topic/Chapter Covered	Test/Assignment
July	BA- I Sem	Meaning and Scope of History Sources of Ancient Indian History Pre-Historic Age: Hunter Gatherers, Concept of Neolithic	
August		Harappan Civilization: Origins, Extent, Town Planning, Economy, Society, Arts, Political Organization and causes of decline. Vedic Culture and Literature: Polity, Society & Religion Map Work	Assignment- I
September	BA- I Sem	Social Institutions: Varna, Caste and Untouchability Emergence of Sixteen Mahajanpas and the Rise of Magada Empire Religious Movements: Causes of Rise of Religious movement, Buddhism and Jainism. Map Work	Internal Test
October	BA- I Sem	Mauryan Empire: Polity and Economy, Administration; Ashoka's Dhamma Post-Mauryan Empires: Kushanas and Satvahanas Gupta Map Work	Assignment- II
November	BA- I Sem	Gupta Empire: Establishment and Expansion, Administration, Society, Economy, Art and Architecture Map Work Revision	


Head of Department

Lesson planning for the semester started w.e.f. 16.07.2019

Name of Institute : Dayanand College, Hisar
Name of The teacher : Mr. Pramod Kumar (Assistant Professor)
Department : Defence Studies
Class & Section : BA – I Sem. (H) (Theory & Practical)

Month	Class	Topic/Chapter (Theory & Practical)	Test Assignment
July	BA - I Sem	Theory: Defence studies: Concept, Scope, and Importance. Practical: Map: Its definition, characteristics, classification, Management Information of Toposheet and its utility for Military.	
August	BA - I st Sem	Theory: Defence Studies: Its relations with other disciplines -Geography, Economics, Political Science, History, Psychology and Sociology. Meaning and Concept of War, Strategy and Tactic. Practical: Conventional Sign: Military & Geographical. Grid System: Four Figure and Six Figure Map References. Sheet Number: Million Sheets, 'Quarter-Inch Sheets', 'Half-inch Sheet', 'One-inch Sheet' and 'Index of Sheets'.	Assignment-I
September	BA - I st Sem	Theory : Principal of War; ABC warfare (Atomic, Biological, or chemical) Practical: Scale: Definition, Three Methods of representing Scale Inter-Conversion of Statement into R.F. Constructions of Simple Scale Line, Time and Diagonal Scale; Methods of Finding North Direction.	Test
October	BA - I st Sem.	Theory: Defence Mechanism of India & Rank Structure of Armed Forces. Practical: Liquid Prismatic Compass – Functions of its various Parts, Rank Structure of Armed Forces.	Assignment-II
November	BA - I st Sem	Revision	


 In-Charge

Dept of Defence Studies

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 Dayanand College
 Hisar

**Lesson planning for the semester started
w.e.f. 16.07.2019**

Name of Institute : Dayanand College, Hisar
Name of the Teacher : Mr. Pramod Kumar (Assistant professor)
Department : Defence Studies
Class & Section : B.A – III Sem (B) (Theory)

Month	Class	Topic/Chapter (Theory)	Test/Assignment
July	BA- III Sem	Meaning of National Defence and Security; Essential of national defence: geographical factors, economic factors, international political condition, defence mechanism of modern state.	
August	BA- III Sem	India's defence problem in 21 st century; India's defence policy; Nuclear policy of India.	Assignment-I
September	BA - III Sem	Civil Military Relations of India; Civil Defence ; Military Aid to Civil Administration	Test
October	BA - III Sem	War Finance Taxation, Borrowing And Inflation; Cost Of War and Economic Mobilization In War.	Assignment-II
November	BA- III Sem	Revision	


In-Charge

Dept of Defence Studies

V. Singh
13/07/2019
Dayanand College,
Hisar

Lesson planning for the semester started w.e.f. 16.07.2019

Name of Institute : Dayanand College, Hisar
Name of the teacher : Ms. Vipula
Department : Defence Studies
Class & Section : B.A - IIIrd Sem. (B) (Practical)

Month	Class	Topic/Chapter (Practical)	Test/Assignment
July	BA- III Sem	Sand Model Meaning, Importance and Preparing.	
August	BA- III Sem	Detailed study of an infantry platoon including Organisation, Weapon And Equipments. Study of field crafts with reference to ground, cover, camouflage, concealment and observation.	Assignment
September	BA- III Sem	Application of fire fire control and fire control orders, practical formations – section and platoon.	Test
October	BA- III Sem	Verbal orders; 400-800 words essay on any topics of the contemporary and current strategic issues related with Internal Security Of India	Assignment
November	BA- III Sem	Revision	


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Dept of Defence Studies

Vipula
 Ms. Vipula
 Dayanand College
 Hisar

Lesson planning for the semester started w.e.f. 16.07.2019

Name of Institute : Dayanand College, Hisar
Name of The teacher : Ms. Vipula (Assistant professor)
Department : Defence Studies
Class & Section : B.A – V Sem. (C) (Theory & Practical)

Month	Class	Topic/Chapter (Theory & Practical)	Test/ Assignment
July	BA - V Sem.	Theory: Science and Technology: Definition and concept; Emerging Technology and its impact and weapons; Electronic warfare: Concept and application. Lab Work: IT: Network LAN, WAN, Military sensor etc; RADAR and its signification, Types, Posts	
August	BA - V Sem.	Theory: RADAR and its significance, Basic types application, Information Technology and its impact on warfare (i) Communication Tech. (ii) Military Tech. DRDO : Its role in weapons development (a) Armoured Vehicles : Tanks and APC's (b) Aircraft UAV's (c) Submarine and Aircraft Carrier (d) Missiles : Range, Introductions, Parts and Specification . Prithvi, Brahmos Agni, K – 4, SLBM. Lab Work: Electronic Warfare in terms of Lasers, ECM, ECCM ; Cyber Security : Information, Images, Techniques of cyber Attack	Assignment
September	BA - V Sem.	Theory: Cyber Warfare / Security (i) Introduction to cyber Technology, Network, LAN, WAN (ii) Types of Cyber Crime : Hacking, Password Crack, Theft etc. (iii) Impact of Cyber Crimes on National Security, Impact of Cyber Crime on Armed Forces, National Economy / Market and Citizen Security. (iv) Cyber Law: National Cyber Security policy 2013; India ,s position in Science and Technology : War Technology and development . Lab Work : Ballistic Missiles : SSM, SAM, SLBM, SRBM, IRBM, ICBM; Project Report / Field visit	Test
October	BA - V Sem.	Theory: War Finance Taxation, Borrowing And Inflation; Cost Of War and Economic Mobilization In War. Lab Work: Space technology: Various Satellite in space for military use, Military importance of Satellite, characteristics of Military Satellite.	Assignment
November	BA - V Sem.	Revision	


In-Charge

Dept of Defence Studies

LESSON PLAN

Name of the Assistant Prof. : Preeti

Class and Section : B.A 3rd (5th Sem) C

Subject : Music Vocal (MUSV 301)

Lesson Plan : From July to Nov.2019

July 2019
<ul style="list-style-type: none">• Introduction to raag bhimpalasi
<ul style="list-style-type: none">• Detailed description of raag bhimpalasi
<ul style="list-style-type: none">• Tal dhamar with dugun , tigon and chaugun layakaries
<ul style="list-style-type: none">• Thekas of tal suttal with dugun tigon layakaries

August 2019
<ul style="list-style-type: none">• Origin and development of notation system
<ul style="list-style-type: none">• Merits and demerits of notation system
<ul style="list-style-type: none">• Introduction of lalit kala in music
Class test and Assignment

Sept. 2019
<ul style="list-style-type: none">• Introduction of time theory of ragas and importance of time
<ul style="list-style-type: none">• Detailed study of the time theory of ragas
Lalit kalaon me sangeet ka sthan

Oct. 2019
<ul style="list-style-type: none">• Contribution of Acharya K.C.D. Brihaspati in music
<ul style="list-style-type: none">• Raga Bhimpalasi with teen taal

Nov. 2019
<ul style="list-style-type: none">• Contribution of P. T. Vinayak Rao Patwardhan and Lal Mani Mishra in music
<ul style="list-style-type: none">• Test and Revision

Principal
Dyanand College
HISAR

(Signature)
Teacher
Dept. of music

LESSON PLAN

Name of Assistant Prof. : Preeti

Class and Section : B.A. 2nd (3rd

Sem.)Subject : Music Vocal (MSUV 201)

Lesson Plan : From August to Nov.2019

August 2019
• Introduction of Raag Malkauns with their importance
• Detailed description of Raag Malkauns
• Thekas of Deepchandtal with dugun and chaugun

September 2019
• Detailed study of Dhrupad , Dhamar
• Detailed study of Khayal , Thumri and tappa
• Shorts notes of Avirbhav , Tpo bhav , Nayak – Nayaki and jatie of Ragas
• Contribution of shrimati amonker kishori in music

Oct.2019
• Importance of film music
• Importance of classical music
• Detailed study of Raga Jai-jalwanti
• Thekas of Ada chautal with dugun and chaugun

Nov.2019
• Role of film music in popularizing classical music
• Contribution of Ustad bade gulam alkhar in music
• Test and Revision

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(5)
Teacher
Dept. of Music

संस्कृत-विभागः
दयानन्द कॉलेज, हिसार

नाम :- सीमा चौधरी
पद :- प्रवक्ता
कक्षा :- बी.ए. प्रथम वर्ष
सत्र :- Ist विषय :- संस्कृत

संस्कृत-पाठ-योजना (जुलाई '19 से नवम्बर '19)

मास	कक्षा	पाठ शीर्षक/ व्याकरण	कक्षा परीक्षा / परियोजना कार्य
जुलाई 2019	बी.ए. प्रथम वर्ष	पाठ्यक्रम -परिचय हितोपदेश-परिचय और प्रश्नोत्तर	
अगस्त 2019		हितोपदेश : प्रस्ताविका (कथामुख) व्याकरण:- धातु रूप ।	परियोजना-कार्य- I
सितम्बर 2019		हितोपदेश : मित्रलाभःकथा 1.कपोतराज-मूषिकराजयोः 2.वृद्धव्याघ्र-सुधविप्रयोः 3.मृगशृगालयोः 4.वृद्ध-गृध्र-माजरियोः व्याकरण:- शब्दरूपाणि ।	परियोजना -कार्य- II कक्षा -परीक्षा
अक्टूबर 2019		नीतिशतकम् -प्रश्नोत्तरपरिचय नीतिशतकम् :-स्तोक(1-50) व्याकरण :- अच् सन्धिः ,हल् सन्धि,विसर्ग सन्धि ।	सत्रात्मक -परीक्षा
नवम्बर 2019		पुनरावृत्ति	

प्रवक्ता हस्ताक्षर एवं दिनांक



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संस्कृत -विभागः
दयानन्द कॉलेज ,हिसार

नाम :- सीमा चौधरी
पद :- प्रवक्ता संस्कृत
कक्षा :- बी.एस.सी 2nd yr.
सत्र :- 3rd Sem विषय :- संस्कृत

संस्कृत -पाठ -योजना (जुलाई 19 से नवम्बर '19)

मास	कक्षा	पाठशीर्षक/ व्याकरण	कक्षा परीक्षा / परियोजना कार्य
जुलाई 2019	बी.एस.सी	पद्यपाठ-परिचय (0-1) 1. ईशस्तवः।	परियोजना -कार्य
अगस्त 2019		पद्यपाठ (2-5) 2. वयंत्वाभजामः 3. धर्मज्ञः रामः 4. साधुव्रतंचर 5. विभीषणस्य विलाप।	परियोजना -कार्य
सितम्बर 2019		गद्यपाठ-परिचय(1-3) 1. अनुशासनम् 2. सद्वृत्तम् 3. बुद्धिर्यस्य बलंतस्य। व्याकरण:- शब्दरूपाणि	परियोजना -कार्य । कक्षा - परीक्षा
अक्टूबर 2019		गद्यपाठ (4-5) 4. नीलवर्णः शृगालः 5. शशकस्य चातुर्यम् व्याकरण :- अक्सन्धिः (यण् , गुण ,अयादि ,वृद्धि)	सत्रात्मक -परीक्षा
नवम्बर 2019		पुनरावृत्ति	

प्रवक्ता हस्ताक्षर एवं दिनांक

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संस्कृत विभागः
दयानन्द कॉलेज , हिसार

नाम : सीमा चौधरी
पद : प्रवक्ता
कक्षा : बी.ए. द्वितीय वर्ष
सत्र : तृतीय, विषय - संस्कृत

संस्कृत -पाठ -योजना (जुलाई '2019 से नवम्बर '2019)

मास	कक्षा	पाठ शीर्षक / व्याकरण	कक्षा परीक्षा / परियोजना कार्य
जुलाई 2019	बी.ए. द्वितीय वर्ष	पाठ्यक्रम -परिचय भास : जीवन परिचय, पञ्चरात्रम् - प्रथमअंक	
अगस्त 2019		पञ्चरात्रम् - प्रथमअंक, प्रश्नोत्तर। व्याकरण :- समास पारिभाषिकशब्द।	परियोजना-कार्य- I
सितम्बर 2019		पञ्चरात्रम् - द्वितीयअंक, संस्कृत साहित्य का इतिहास व्याकरण :- प्रत्यय	परियोजना-कार्य- II कक्षा - परीक्षा
अक्टूबर 2019		पञ्चरात्रम् - तृतीयअंक, व्याकरण : प्रत्याहार, पत्र -लेखन	सत्रात्मक -परीक्षा
नवम्बर 2019		पुनरावृत्ति	

प्रवक्ता हस्ताक्षर एवं दिनांक

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संस्कृत -विभागः
दयानन्द कॉलेज, हिसार

नाम : सीमा चौधरी
पद : प्रवक्ता
कक्षा : बी.ए. तृतीय वर्ष
सत्र : पंचम, विषय - संस्कृत
संस्कृत -पाठ -योजना (जुलाई '2019 से नवम्बर '2019)

मास	कक्षा	पाठ शीर्षक / व्याकरण	कक्षा परीक्षा / परियोजनाकार्य
जुलाई 2019	बी.ए. तृतीय वर्ष	पाठ्यक्रम - परिचय कालिदास : जीवन परिचय, काल विवेचन अभिज्ञान शाकुन्तलम् - प्रथमअंक	
अगस्त 2019		अभिज्ञान शाकुन्तलम् - प्रथम अंक, द्वितीय अंक, प्रश्नोत्तर, व्याकरण : कारक-प्रकरण	परियोजना-कार्य- I
सितम्बर 2019		अभिज्ञान शाकुन्तलम् - तृतीयअंक, संस्कृत साहित्य का इतिहास व्याकरण :- अलंकार	परियोजना -कार्य- II कक्षा - परीक्षा
अक्टूबर 2019		अभिज्ञान शाकुन्तलम् - चतुर्थअंक, संस्कृत साहित्य का इतिहास	सत्रात्मक -परीक्षा
नवम्बर 2019		पुनरावृत्ति	

प्रवक्ता हस्ताक्षर एवं दिनांक

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संस्कृत-विभाग
दयानन्द कॉलेज, हिसार

नाम :- पूनम कुमारी
विषय :- संस्कृत
कक्षा :- बी.एस.सी. द्वितीय वर्ष (ए 1, बी, सी, डी, ई, एफ)
सत्र :- तृतीय
" संस्कृत, पाठ योजना (2019-20) "

मास	कक्षा	विषय/अध्याय	परीक्षा/प्रदत्त कार्य
जुलाई 19	बी. एस. सी. द्वितीय वर्ष	पाठ्यक्रम परिचय ईशस्तवः वयं त्वां भजामः धर्मज्ञ रामः व्याकरणः शब्द रूप	
अगस्त 19	बी. एस. सी. द्वितीय वर्ष	साधुव्रतं चर विभीषणस्य विलापः गद्य पाठ परिचय अनुशासनम् सद्वृत्तम्	प्रदत्त कार्य
सितम्बर 19	बी. एस. सी. द्वितीय वर्ष	बुद्धिर्व्यस्यबलं तस्य नीलवर्णः श्रृगालः शशकस्य चातुर्यम्	कक्षा परीक्षा
अक्टूबर 19	बी. एस. सी. द्वितीय वर्ष	व्याकरणः सन्धि	प्रदत्त कार्य
नवम्बर 19	बी. एस. सी. द्वितीय वर्ष	पुनरावृत्ति	



DAYANAND COLLEGE, HISAR
 Department of Biotechnology
 Lesson Plan 2019-2020
 Semester I (M. Sc. – Ist Year)
 Paper -MBL-511
SUBJECT: Introductory Biotechnology

Sr. No.	Date	Topics
1	AUG 1-3, 2019	Biotechnology: An overview-definition, scope and importance of Biotechnology
2	AUG 5-8, 2019	, Concept of Recombinant DNA technology and Gene Cloning
3	AUG 9-14, 2019	Microbial Biotechnology: A brief account of microbes in industry and agriculture, Metabolic engineering for over production of metabolites.
5	AUG 16-17, 2019	Plant Biotechnology: Introduction to plant tissue culture and its applications, Gene transfer methods in plants.
6	AUG 19-21, 2019	Medical Biotechnology: (A brief account) Biotechnology in medicine
7	AUG 22-26, 2019	Animal Biotechnology: <i>In-vitro</i> fertilization and embryo transfer in humans and livestock.
8	AUG 27-31, 2019	Transfection techniques and transgenic animals, Animal Cloning
9	SEP 2-4, 2019	Transgenic plants (A brief introduction), Chloroplast and mitochondria engineering.
10	SEP 6-9, 2019	, Vaccines, Diagnostic, Forensic, Gene therapy, Nano Medicine & Drug Delivery Cell & Tissue Engineering, Stem Cell therapy.
11	SEP 10-14, 2019	Presentations
12	SEP 16-18, 2019	Environmental Biotechnology: (A brief account) Role of biotechnology in pollution control, Sewage treatment, Energy management.
13	SEP 19-21, 2019	Bioremediation, Restoration of degraded lands and Conservation of biodiversity
14	SEP 23-25, 2019	Nano Science & Technology: An Overview, Insights and intervention into the Nano world, Important
15	SEP 26-28, 2019	Assessment test

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16	SEP 30, 2019	Developments, Societal implications & Ethical issues in Nanotechnology,
17	OCT 1, 2019	Applications of Nanobiotechnology in different areas
18	OCT 3-5, 2019	Bioinformatics: (A brief account) Importance, Scope of Bioinformatics, world wide web as a tool,
19	OCT 7-12, 2019	Presentations
20	OCT 14-19, 2019	Bioinformatics institutes and databases, Bioinformatics training & limitations.
21	OCT 22- 26, 2019	Bio-business and Bio-safety, Biotechnology for developing countries and IPR
22	OCT 28-31, 2019	Revision test
23	NOV 1-2, 2019	Problems taken
24	NOV 4-9, 2019	Presentations
25	NOV 11-15, 2019	Revision Classes

Vivek Srivastava
 Dr. Vivek Srivastava
 (Associate Professor)
 Head, Dept. of Biotechnology

Jyoti Taunk
 Dr. Jyoti Taunk
 (Assistant Professor)

Principal
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DAYANAND COLLEGE, HISAR

Department of Biotechnology

Lesson Plan 2019-2020

Semester I (M. Sc. - 1st Year)


Paper -MBL-512

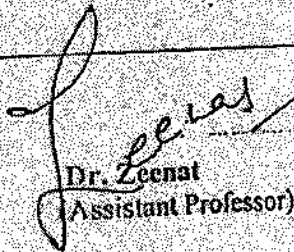
SUBJECT: Biomolecules and Metabolism

r. No.	Date	Topics
1	AUG 1-3, 2019	Biomolecules: An introduction, General structure of biomolecules, Fundamental principles governing structure of biomolecules
2.	AUG 5-8, 2019	Carbohydrates: Structure and function of biologically important mono, di and poly-saccharides, glycoproteins & glycolipids.
3	AUG 9-14, 2019	Metabolism of carbohydrates-Glycolysis, Feeder pathways, Citric acid cycle,
5	AUG 16-17, 2019	Importance of covalent and non covalent bonds. Gluconeogenesis, Glyoxylate and Pentose phosphate pathways and their regulations
6	AUG 19-21, 2019	Proteins: Structure of amino acids, non-protein and rare amino acids.
7	AUG 22-26, 2019	A brief account of amino acid biosynthesis and degradation, Urea cycle
8	AUG 27- 31, 2019	Structural organization of proteins, Reverse turns and Ramachandran plot
9	SEP 2-4, 2019	Supra-molecular complexes of proteins. Chemical synthesis of peptides and small proteins
10	SEP 6-9, 2019	Protein sequencing Lipids: Structure of fatty acids, Classification of lipids.
11	SEP 10-14 , 2019	Structure and functions of major lipid subclasses- Acylglycerols.
12	SEP 16-18, 2019	Fatty acids biosynthesis, degradation and their regulations.
13	SEP 19-21 , 2019	Ketone bodies synthesis..
14	SEP 23-25, 2019	Phospholipids, Glycolipids, Sphingolipids, Waxes, Terpenes and Sterols
15	SEP 26-28, 2019	Presentations
16	SEP 30, 2019	Assessment test

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17	OCT 1, 2019	Biosynthesis of TAG, Cholesterol, Phospholipids and Glycolipids
18	OCT 3-5, 2019	Presentations
19	OCT 7-12, 2019	Nucleic Acids: Structure and properties of nucleic acid bases, nucleosides and nucleotides.
20	OCT 14-19, 2019	Biosynthesis and degradation of purines and pyrimidines, Salvage pathway.
21	OCT 22- 26, 2019	Vitamins: Structure and biochemical roles of fat and water-soluble vitamins and their co-enzymes.
22	OCT 28-31, 2019	Presentations
23	NOV 1-2, 2019	Presentations
24	NOV 4-9, 2019	Problems taken
25	NOV 11-15, 2019	Revision


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 Department of Biotechnology
 Lesson Plan 2019-2020
 Semester I (M. Sc. - Ist Year)
 Paper - MBL-513

SUBJECT: Cell Biology

No.	Date	Topics
1	AUG 1-3, 2019	Structural organization and function of intracellular organelles: Cell wall
2.	AUG 5-8, 2019	Membrane structure and function: Structure of model membrane
3	AUG 9-14, 2019	Structural organization and function of intracellular organelles: Cell wall
5	AUG 16-17, 2019	Membrane structure and function: Structure of model membrane
6	AUG 19-21, 2019	Structural organization and function of intracellular organelles: Cell wall
7	AUG 22-26, 2019	Cell division and cell cycle: Mitosis and meiosis
8	AUG 27-31, 2019	Cell signaling Hormones and their receptors
9	SEP 2-4, 2019	Cell division and cell cycle: Mitosis and meiosis
10	SEP 6-9, 2019	Cell signaling Hormones and their receptors and pathway.
11	SEP 10-14, 2019	Cellular communication: general principles of cell communication
12	SEP 16-18, 2019	Cancer Genetic rearrangements in progenitor cells
13	SEP 19-21, 2019	Cellular communication: general principles of cell communication
14	SEP 23-25, 2019	Cancer Genetic rearrangements in progenitor cells
15	SEP 26-28, 2019	Presentations
16	SEP 30, 2019	Assessment test

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17	OCT 1, 2019	Photosynthesis and Respiration: Photosynthetic apparatus, light reaction,
18	OCT 3-5, 2019	Presentations
19	OCT 7-12, 2019	Nucleic Acids: Structure and properties of nucleic acid bases, nucleosides and nucleotides.
20	OCT 14-19, 2019	cyclic and noncyclic photoinduced electron flow, C3 and C4 cycle and their regulation and CAM pathway,
21	OCT 22-26, 2019	Photorespiration, dark phase of photosynthesis
22	OCT 28-31, 2019	Presentations
23	NOV 1-2, 2019	Presentations
24	NOV 4-9, 2019	Problems taken
25	NOV 11-15, 2019	Revision

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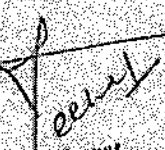
DAYANAND COLLEGE, HISAR
 Department of Biotechnology
 Lesson Plan 2019-2020
 Semester I (M. Sc. - 1st Year)
 Paper -MDL-513
 SUBJECT: General & Applied Microbiology

Sr. No.	Date	Topics
1	AUG 1-3, 2019	Introduction to Microbiology: Historical background and scope of Microbiology. Ubiquitous nature of microorganisms. Impact of microbes on human affairs. Structure of prokaryotic and eukaryotic cell. Differences between Eubacteria
2	AUG 5-8, 2019	Ubiquitous nature of microorganisms. Impact of microbes on human affairs.
3	AUG 9-14, 2019	Structure of prokaryotic and eukaryotic cell. Differences between Eubacteria
5	AUG 16-17, 2019	Archaeobacteria and Eukaryotes. Salient features of different groups of microorganisms such as bacteria, fungi,
6	AUG 19-21, 2019	protozoa and algae including their morphological features
7	AUG 22-26, 2019	Nutrition and Classification: Principles of microbial nutrition- Chemototrophs, chemoheterotrophs, photoautotrophs and photoheterotrophs.
8	AUG 27- 31, 2019	Basic principles and techniques used in bacterial classification.
9	SEP 2-4, 2019	Phylogenetic and numerical taxonomy. New approaches of bacterial classification including DNA hybridization
10	SEP 6-9, 2019	ribosomal RNA sequencing and characteristics of primary domains. Major groups of bacteria based on latest edition of Bergey's

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11	SEP 10-14, 2019	Viruses: General characteristics, structure, and classification of plant, animal and bacterial viruses, Replication of viruses
12	SEP 16-18, 2019	Lytic and lysogenic cycle in bacteriophages. A Brief account of Retroviruses, Viroid's, Prions and emerging viruses such as HIV, Avian and swine flu viruses
13	SEP 19-21, 2019	Microbial Growth: The definition of microbial growth. Growth in batch culture. Mathematical representation of bacterial growth
14	SEP 23-25, 2019	Bacterial generation time. Specific growth rate. Monoauxic, Diauxic and synchronized growth curves. Measurement of microbial growth.
15	SEP 26-28, 2019	Presentations
17	OCT 1, 2019	Test
18	OCT 3-5, 2019	Control of Microorganism: Control of Microorganism by physical and chemical agents. Antiseptics and disinfectants.
19	OCT 7-12, 2019	Narrow and broad spectrum antibiotics. Antifungal antibiotics. Mode of action of antimicrobial agents. Antibiotic resistance mechanisms.
20	OCT 14-19, 2019	Microbial Ecology: Microbial flora of soil, Interaction among microorganisms in environment. Symbiotic associations- types, functions and establishment of symbiosis. Brief account of biological nitrogen fixation
21	OCT 22- 26, 2019	Presentations
22	OCT 28-31, 2019	Problems taken
24	NOV 4-9, 2019	Revision
25	NOV 11-15, 2019	Revision


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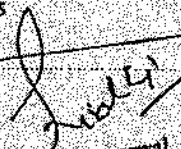
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 Department of Biotechnology
 Lesson Plan 2019-2020
 Semester III (M. Sc. - II Year)
 Paper -MBL-532
 SUBJECT: Enzymology & Enzyme Technology

Sr. No.	Date	Topics
1	AUG 1-3, 2019	Introduction: Historical background, Enzymes vs Chemical catalyst.
2	AUG 5-8, 2019	Enzyme nomenclature and classification, Units of activity
3	AUG 9-14, 2019	, Methods for enzyme assays, Extraction and purification of enzymes
5	AUG 16-17, 2019	Cofactors and coenzymes
6	AUG 19-21, 2019	Enzyme Specificity: Substrate and reaction specificity, Lock & key hypothesis,
7	AUG 22-26, 2019	Induced Fit hypothesis, Wrong way binding hypothesis, Three point attachment hypothesis,
8	AUG 27- 31, 2019	Induced Fit hypothesis, Wrong way binding hypothesis, Three point attachment hypothesis,
9	SEP 2-4, 2019	Presentations
10	SEP 6-9, 2019	Presentations
11	SEP 10-14 , 2019	Mechanism of action of selected enzymes i.e. chymotrypsin, trypsin, papain, lysozyme, ribonuclease
12	SEP 16-18, 2019	Enzyme Kinetics: Factors affecting velocity of enzyme catalyzed reactions,
13	SEP 19-21 , 2019	Michaelis-Menten hypothesis, Transformation of Michaelis- Menten equation and determination of Km and Vmax,
14	SEP 23-25, 2019	Haldane relationship, Multireactant enzymes,
15	SEP 26-28, 2019	Assessment test
16	SEP 30, 2019	Enzymes inhibition i.e., reversible and Irreversible inhibition, Competitive, Non-competitive and uncompetitive inhibition.

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	OCT 1, 2019	Regulatory Enzymes: Allosteric enzymes, Sequential and symmetry models, covalently regulated enzymes.
	OCT 3-5, 2019	Enzyme Technology: Large scale production of enzymes, Uses of isolated enzymes in food and chemical industries, Therapeutic & medicinal use of enzymes.
19	OCT 7-12, 2019	Presentations
20	OCT 14-19, 2019	Protein Engineering: Concept and Methods, Site directed mutagenesis, Active site mapping, Nature of the active site,
21	OCT 22- 26, 2019	Identification of functional groups at the active site, Immobilized enzymes-methods and applications.
22	OCT 28-31, 2019	Revision test
23	NOV 1-2, 2019	Problems taken
24	NOV 4-9, 2019	Presentations
25	NOV 11-15, 2019	Revision Classes


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Department of Biotechnology

Lesson Plan 2019-2020

Semester IIInd (M. Sc. – IIInd Year)

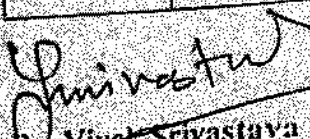
Paper -MBL-535

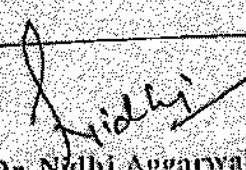
SUBJECT: PRINCIPLES OF NANOBIO TECHNOLOGY

Sr. No.	Date	Topics
1	AUG 1-3, 2019	Introduction, recent advances and future aspects of nanotechnology.
2.	AUG 5-8, 2019	Applications of nanotechnology in agriculture, medical, space, defence and food processing. Societal implications.
3	AUG 9-14, 2019	Thermal analysis, Scanning Probe Microscopy- principle of operation, instrumentation and probes, XRD (Powder/Single crystal),
5	AUG 16-17, 2019	AFM, Scanning Tunneling Microscopy (STM), Particle size analyzer and Zeta Sizer.
6	AUG 19-21, 2019	Nanomaterials- Properties, synthesis and applications; Carbon Nanotubes applications in biotechnology and biomedicine;
7	AUG 22-26, 2019	Nanowires- synthesis methods, physical properties, applications, Smart materials.
8	AUG 27-31, 2019	Assignments Taken
9	SEP 2-4, 2019	Doubts & Queries Session
10	SEP 6-9, 2019	Seminars taken
11	SEP 10-14, 2019	Micro/Nanofabrication Techniques- MEMS and NEMS.
12	SEP 16-18, 2019	Fabrication techniques and applications of Microdevices.

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13	SEP 19-21, 2019	Nanodevices
14	SEP 23-25, 2019	Micro fluidics devices.
15	SEP 26-28, 2019	Material aspects for Micro fluidic devices,
16	SEP 30, 2019	Class Tests
17	OCT 1, 2019	Class Tests
18	OCT 3-5, 2019	Assignments Taken
19	OCT 7-12, 2019	Active and smart passive Micro fluidics devices,
20	OCT 14-19, 2019	Lab-on-a-chip for Biochemical analysis.
21	OCT 22- 26, 2019	Seminars taken
22	OCT 28-31, 2019	Nanomedicine
23	NOV 1-2, 2019	Nanotechnology in Cancer Therapy and Detection
24	NOV 4-9, 2019	Drug Delivery
25	NOV 11-15, 2019	Revision Classes


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