

SEMESTER – I &II

ALLIED PRACTICALS – I : Biotechnology Practicals

Instructional Hrs. : 60 Hours

Sub. Code : 15BCUAP01

Max. Marks : CIA -20; ESE -30

Credits: 4

I. MICROBIOLOGY PRACTICALS:

- 1) Sterilization
 - a) Physical Sterilization
 - b) Chemical Sterilization
- 2) Media preparation & methods of streaking.
- 3) Isolation of bacteria from curd.
- 4) Staining methods
 - i) Simple staining
 - ii) Gram's staining
 - iii) Negative staining

II. DEMONSTRATION EXPERIMENTS:

- 1) Hanging drop technique.
- 2) Biometric measurements of plants grown in the presence of biofertilizers:
 - i) root length
 - ii) shoot length
 - iii) fresh weight
 - iv) dry weight
- 3) Sterilization of culture rooms, glasswares, equipments.
- 4) Preparation of MS medium & Test for contamination
- 5) Collection of Explant, surface sterilization, Inoculation of explants.

III. SPOTTERS:

- a) Microscope
- b) Petri plate
- c) Media
- d) Plant tissue culture
- e) Micropipette.
- f) Animal cell culture - Media

Internal evaluation :- 20 marks:-

- 1) CIA : 8 marks
- 2) Model : 8 marks
- 3) Record : 4 marks

External evaluation :- 30 marks

- 1) Experiment : 15 marks
- 2) Spotters : 2X5 = 10 marks.
- 3) Record : 5 marks

SEMESTER – III & IV
CORE BIOCHEMISTRY PRACTICAL – III

Instructional Hrs. : 120 Hrs.

Sub. Code : 15BCUCP03

Max. Marks : CIA -40; ESE -60

Credits: 4

I. ENZYME KINETICS

1. Preparation of Buffer solution – Phosphate and citrate buffer.
2. Determination of pH of buffer solution using pH meter.
3. Preparation of crude enzyme extract.
4. Effect of pH on the activity Catalase/ Acid phosphatase/ Amylase / Peroxidase .
5. Effect of substrate concentration on the activity Catalase/ Acid phosphatase/ Amylase / Peroxidase.
6. Effect of enzyme concentration on the activity of Catalase/ Acid phosphatase/ Amylase / Peroxidase .

II. ANALYTICAL METHODS

1. Circular chromatography - peptides
2. TLC – Amino acids, Sugar, Lipids

III. TITRIMETRY (Group Experiment):

1. Estimation of Ascorbic acid – Dye method.
2. Estimation of Chloride – Vanslyke's method.

DISTRIBUTION OF MARKS

Internal evaluation: 40 marks

- | | |
|-----------|------------|
| a) CIA | : 20 marks |
| b) Model | : 15 marks |
| c) Record | : 05 marks |

External evaluation: 60 marks

- | | |
|---------------|------------|
| a) Analysis I | : 20 marks |
| b) Analysis I | : 20 marks |
| c) spotters | : 10 marks |
| d) Record | : 5 marks |
| e) Viva-voce | : 5 marks |

SEMESTER IV

Allied Paper – II : MS Office 2010

Instructional Hrs: 75 Hours

Sub. Code : 15BCUA402

Max. Marks: CIA – 20; ESE : 55

Credits : 3

UNIT – I

5 Hrs

MS Word 2010 : Starting Word, Opening a saved Word document , The Word 2010 Window Entering text , Preview, Save, Print and Closing a document. Creating a folder and exiting Word. Editing a Document : Navigation, insert, delete, editing a data. Undo, redo, drag and drop to move text, Copy, cut and paste, Clear formatting.

Formatting A Document: Format and align text, Line and paragraph spacing, Add bulleted and numbered lists, Add borders and shading.

UNIT II

5 Hrs

Editing and Proofing Tools: Document views, Spell and grammar check, Find and replace text.

Layout of a Document : Adjust page margins, Change page orientation, Create headers and footers.

Inserting Elements to Word Documents : Insert a page break, page numbers, special characters (symbols), picture from a file, Resize and reposition a picture.

Working with Tables: Insert a table, Convert a table to text, Resize parts of a table, Align, Format, *Insert and delete columns and rows*, Borders and shading.

Creating Mail Merge.

UNIT III

5 Hrs

MS Excel 2010 : Introduction to MS Excel 2010, Workbook creation • Entering, Editing & Formatting data, Adding cell borders and shading, working with ranges, **managing and printing workbooks**, Perform simple calculations, *Chart creation*.

UNIT IV

5 Hrs

MS PowerPoint 2010 : Introduction, Slide Creation, Editing & Formatting slides, Insert Graphics (Tables, Charts, Shapes, Clip-Art), Work with Videos, Movie-Clips, Animations, *Transitions and sounds*, **Photo Album creation.**

UNIT V

5 Hrs

Internet Basics: Introduction to Internet • WWW • Browsers • Web site • E-Mail : Creation of E-Mail-id – Compose and send a Mail – *Reply and Forward* – attachment – download the attached document – cc & bcc - upload your resume with any one job portal • Search Engine.

TEXT BOOKS:

- 1) Joan Lambert, **MOS 2010 Study Guide For Microsoft Word Excel Powerpoint & Outlook**
PHI LEARNING PVT LTD.
- 2) Bott E.K. Krishnaswamy, Ponni Bala, **Microsoft Office 2010 Inside Out**, Publisher: PHI Learning Pvt. Ltd.

SEMESTER - IV
Allied Practicals- II : MS Office

Instructional Hrs.: 30

Sub. Code: 15BCUAP02

Max. Marks: CIA -20; ESE -30

Credits: 4

I. MS-WORD

1. Using MS word, perform the following program Change the font size to 20.
 - Change the font type.
 - Align the text to left, right, justify and center.
 - Underline the text
 - Table manipulation.
2. Illustrate the Mail merge concept to apply for a suitable job for at least 5 companies.
3. By using Equation Editor , type a context containing mathematical symbols, equations and formula.

II. MS-EXCEL

4. Worksheet preparation for electricity bill payment
5. Draw graphs to illustrate class performance.

III. MS – POWER POINT

6. Prepare an organization chart for a college environment in Power point.
7. Prepare a Power point presentation with all the slide transition facilities.

IV. INTERNET BASICS

8. Create an email-id.
9. Online Reservation of Railway Ticket.
10. To verify a university/college details by opening their websites.

DISTRIBUTION OF MARKS:

External evaluation: 30 marks

- a) program : 15 marks
b) Output : 10 marks
c) Record : 5 marks

Internal evaluation: 20 marks

- a) CIA : 08marks
b) Model : 08 marks
c) Record : 04 marks