MODEL QUESTION COURSE

B. Sc DEGREE EXAMINATION
SEMESTER: I
Course 1: Fundamentals of Microbes and Non-vascular Plants

Time: 3Hrs. **Max. Marks: 75**

SECTION - A

Answer any 5 questions. Each question carries 5 marks **5 x 5 =25M**

1. (a) Prions (b) Viroids
2. Archaebacteria
3. (a) Basidiocarp (b) Ascocarp
4. Economic importance of Lichens
5. Reserve food material in Algae
6. (a) Scalariform conjugation (b) Lateral conjugation
7. General characteristics of Bryophytes
8. Anatomy of thallus in *Marchantia*

SECTION - B

Answer all the questions. Each question carries 10 marks **5X10 =50M**

9. a) Describe the structure of TMV and Gemini virus with neat labeled diagrams.

(OR)

b)Write a general account on symptoms of plant diseases caused by Viruses.

10. a)Describe the cell structure of a eubacterium with neat labeled diagram.

(OR)

b)Discuss the economic importance of bacteria in agriculture and industrial sectors with suitable examples.

11. a)Explain the life cycle in *Puccinia* with the help of a schematic diagram.

(OR)

b) Discuss the economic uses of fungi in food industry, pharmacy and agriculture.

12. a)Write an essay on sexual reproduction in *Polysiphonia*.

(OR)

b) Discuss the economic importance of Algae with suitable examples.

13. a)Describe the sexual reproduction in *Funaria* with neat labeled diagrams.

(OR)

b)Write an essay on classification of Bryophytes upto classes.

MODEL QUESTION COURSE

B. Sc DEGREE EXAMINATION
SEMESTER: II
Course2 : Basics of Vascular plants and Phytogeography

Time: 3Hrs. **Max. Marks: 75**

SECTION - A
Answer any 5 questions. Each question carries 5 marks **5 x 5 =25M**

1. a) Eusporangium (b) Leptosporangium
2. Geological time scale.
3. Binomial system
4. (a) Synandrous condition (b) Syngenesious condition
5. Essential organs in flower of Acepiadaceae family
6. Economic importance of Arecaceae family
7. (a) Wides (b) Discontinuous species
8. Vegetation types in Andhra Pradesh

SECTION - B
Answer all the questions. Each question carries 10 marks **5X10 =50M**

9.a) Describe the sexual reproduction in Lycopodium with neat labeled diagrams.

(OR)

b)Explain the stellar evolution in Pteridophytes with neat labeled diagrams and suitable examples.

10. a)Write an essay on general characteristics of Gymnosperms.

(OR)

b)Discuss the structure of ovule in *Gnetum* with a neat labeled diagram.

11. a) What is a herbarium? Explain the techniques of herbarium.

(OR)

b)Discuss the vegetative and floral characters of Annonaceae family. Add a note on economic importance of that family.

12. a) Discuss the vegetative and floral characters of Asteraceae family.

(OR)

b) Discuss the vegetative and floral characters of Poaceae family. Add a note on economic importance of that family.

13. a)Explain different types Endemism and causes for it.

(OR)

b) Describe different phytogeographic regions of India with examples of flora.

MODEL QUESTION COURSE

B. Sc DEGREE EXAMINATION

SEMESTER: III

Course 3: Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity

Time: 3Hrs. **Max. Marks: 75**

SECTION - A

Answer any 5 questions. Each question carries 5 marks **5 x 5 =25M**

1. (a) Xylem tracheids (b) Xylem vessels
2. (a) Periplasmodial tapetum (b) Glandular tapetum
3. (a) Helobial endosperm (b) Ruminate endosperm
4. Pyramids of numbers
5. (a) Ecotypes (b) Ecads
6. P/R ratio
7. Earth Summit.
8. Role of NBPGR in conservation of Biodiversity

SECTION - B

Answer all the questions. Each question carries 10 marks **5X10 =50M**

9. a)Write an essay on organization of apical meristems with theories proposed.

(OR)

b)Discuss the anomalous secondary growth in stem of *Boerhaavia* with the help of a neat labeled diagram.

10. a)Explain monosporic and bisporic types of embryosac development in angiosperms.

(OR)

b) Describe the embryogeny in a dicot plant with neat labeled diagrams.

11. a) Explain various effects of light factor plants and their communities?

(OR)

b) Define ecological succession. Discuss hydrosere with suitable diagrams and examples.

12. a) Describe Raunkiaer's life forms with suitable examples.

(OR)

b) Write an essay on primary productivity.

13.a)Write an essay on value of biodiversity with appropriate examples.

(OR)

b)Define biodiversity hotspot. Discuss the biodiversity in Western Ghats of India.

MODEL QUESTION COURSE

B. Sc DEGREE EXAMINATION
SEMESTER: IV
Course 4: Plant Physiology and Metabolism

Time: 3Hrs. **Max. Marks: 75**

SECTION - A
Answer any 5 questions. Each question carries 5 marks **5 x 5 =25M**

1. (a) Diffusion (b) Imbibition

2. (a) Macro nutrients (b) Micro nutrients

3. (a) Anaerobic respiration (b) Aerobic respiration

4. (a) Absorption spectrum (b) Action spectrum

5. C2 pathway

6. Fatty acids

7. Physiological effects of Brassinisteroids

8. Sigmoid growth curve

SECTION - B
Answer all the questions. Each question carries 10 marks **5X10 =50M**

9. a) Explain how ascent of sap occur in plants with suitable theory.

(OR)

b) Discuss the phloem transport in plants. Add a note on source-sink relationship.

10.a) Write an essay on classification of enzymes.

(OR)

b) Describe the Krebs cycle with the help of schematic diagram.

11. a) Define photophosphorylation. Explain the non-cyclic photophosphorylation with the help of a schematic diagram.

(OR)

b) Discuss the carbon assimilation in CAM plants.

12. a) Write an essay on biological nitrogen fixation.

(OR)

b) Describe the Glyoxylate cycle with the help of a schematic diagram.

13. a) Define photoperiodism. Write an essay on role of phytochrome in photoperiodic responses of plants.

(OR)

b) Discuss the physiological changes in plants during water stress.

MODEL QUESTION COURSE

B. Sc DEGREE EXAMINATION
SEMESTER: IV
Course 5: Cell Biology, Genetics and Plant Breeding

Time: 3Hrs. **Max. Marks: 75**

SECTION - A
Answer any 5 questions. Each question carries 5 marks **5 x 5 =25M**

1. Differences between prokaryotic and eukaryotic cells.
2. (a) Karyotype (b) Ideogram
3. (a) Incomplete dominance (b) Co-dominance
4. Maternal inheritance
5. Double helical structure of DNA
6. Genetic code
7. Objectives and scope of plant breeding
8. Plant introduction

SECTION - B
Answer all the questions. Each question carries 10 marks **5X10 =50M**

9. a) Describe the ultrastructure of cell wall.

(OR)

b) Write an essay on plastid DNA with a well labeled diagram.

10. a) Discuss the structure of a eukaryotic chromosome with a neat labeled diagram.

(OR)

b) Explain the organization of DNA in chromosomes with suitable theories.

11.a) Discuss complementary and duplicate gene interactions with suitable examples.

(OR)

b) Explain mapping of genes with the help of 3-point test cross.

12. a) Describe the semi-conservative mode of DNA replication.

(OR)

b) Define an operon. Explain the regulation of Lac-operon.

13.a) Write an essay on procedure; applications and uses; advantages and limitations mass selection.

(OR)

b) Give an account of utilization of RFLP and RAPD in molecular plant breeding.