

Total No. of Questions : 12]

**DBOT21**

**M.Sc. (Final) DEGREE EXAMINATION, JUNE/JULY - 2019**

**(Second Year)**

**BOTANY**

**(Paper - V) : Developmental Biology of Angiosperms and Ethnobotany**

**Time : 3 Hours**

**Maximum Marks : 70**

**SECTION – A**

**(5 x 6 = 30)**

Answer any Five Questions from the following

**Q1)** Incompatibility.

**Q2)** Polyembryony.

**Q3)** Meristems.

**Q4)** Leaf.

**Q5)** Ethnobotany and its scope.

**Q6)** Sacred groves in Guntur district.

**Q7)** Ethnology of Yanadi tribe.

**Q8)** Tribal rights.

**SECTION – B**

**(4 x 10 = 40)**

Answer all questions

**Q9)** a) Describe megasporangium.

OR

b) Describe the structure and development of endosperm.

**Q10)** a) Describe the anatomy of root-stem transition.

OR

b) Describe the anomalous secondary growth in dicot stem.

**Q11)** a) Trace the history of traditional medicine in India.

OR

b) How do you conserve sacred groves?

**Q12)** a) How do you evaluate the medicinal plants used by tribals scientifically?

OR

b) Explain the present status of ethnobotanical research in India.



Total No. of Questions : 12]

**DBOT22**

**M.Sc. (Final) DEGREE EXAMINATION, JUNE/JULY - 2019**

**(Second Year)**

**BOTANY**

**(Paper-VI) : Microbiology, Mycology and  
Plant Diseases**

**Time : 3 Hours**

**Maximum Marks : 70**

**SECTION – A**

**(5 x 6 = 30)**

Answer any Five Questions from the following

**Q1)** Bergey's classification of bacteria.

**Q2)** Phototrophs.

**Q3)** Mycelium.

**Q4)** Mushroom cultivation.

**Q5)** Phytoalexins.

**Q6)** Plant diseases forecasting.

**Q7)** Powdery mildew of Cucurbits.

**Q8)** TMV.

**SECTION – B**

**(4 x 10 = 40)**

Answer all questions

**Q9)** a) Explain the role of bacteria in carbon cycle.

OR

b) Give a general account of viruses. Classify them. Explain their transmission and control.

**Q10)** a) Give a general account of Myxomycotina.

OR

b) Describe the economic importance of fungi.

**Q11)** a) Classify plant diseases and describe symptoms caused by plant pathogens.

OR

b) Describe the factors affecting the out break of plant diseases.

**Q12)** a) Give an account of diseases in rice caused by various pathogens.

OR

b) How do you control plant diseases biologically?



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**DBOT23**

**M.Sc. (Final) DEGREE EXAMINATION, JUNE/JULY - 2019**

**(Second Year)**

**BOTANY**

**(Paper-VII) : Cell Biology and Molecular Biology**

**Time : 3 Hours**

**Maximum Marks : 70**

**SECTION – A**

**(5 × 6 = 30)**

Answer any Five Questions from the following

**Q1)** Plasma membrane.

**Q2)** Golgi complex.

**Q3)** Electron microscope.

**Q4)** Signal transduction.

**Q5)** Transformation.

**Q6)** Fine structure of gene.

**Q7)** Gene regulation in prokaryotes.

**Q8)** Genetic code.

**SECTION – B**

**(4 x 10 = 40)**

Answer all questions

**Q9)** a) Describe the ultra structure of plant cell.

OR

b) Describe the structure and functions of chloroplast.

**Q10)** a) Give an account of genetics of cancer.

OR

b) Write an essay on transposable elements.

**Q11)** a) How do you prove DNA as genetic material?

OR

b) Explain the evolution of gene concept.

**Q12)** a) Describe the DNA replication.

OR

b) Give an account of DNA repair mechanisms.



Total No. of Questions : 12]

**DBOT24**

**M.Sc. (Final) DEGREE EXAMINATION, JUNE/JULY - 2019**

**(Second Year)**

**BOTANY**

**(Paper-VIII) : Plant Biotechnology**

**Time : 3 Hours**

**Maximum Marks : 70**

**SECTION – A**

**(5 × 6 = 30)**

Answer any Five Questions from the following.

**Q1)** Culture media.

**Q2)** Sterilization techniques.

**Q3)** Cybrids.

**Q4)** Somatic hybridization.

**Q5)** c-DNA library.

**Q6)** rDNA molecule.

**Q7)** RELP.

**Q8)** Agrobacterium mediated gene transfer.

**SECTION – B**

**(4 x 10 = 40)**

Answer all questions

**Q9)** a) Describe the protocol for the production of haploids through anther culture.

OR

b) How do you select mutants in vitro for biotic and abiotic stress?

**Q10)** a) Explain the methods for the production of secondary metabolites through tissue culture.

OR

b) Write an essay on protoplast fusion and somatic hybridization.

**Q11)** a) Describe gene cloning vectors.

OR

b) Describe the amplification of DNA by polymerase chain reaction.

**Q12)** a) Explain the role of biotechnology in agriculture.

OR

b) Give an account of direct gene transfer methods.

