(DBOT21)

Total No. of Questions : 12] **[Total No. of Pages : 1**

M.Sc. DEGREE EXAMINATION, MAY – 2017

Second Year

BOTANY

Development Biology of Angiosperms & Elthanobotany

Time : 3 Hours **Maximum Marks : 70**

SECTION – A **(5 × 6 = 30)**

Answer any Five of the following

Q1) Pollen morphology

Q2) Fertilization

Q3) Secondary meristem

Q4) Xylem fibres

Q5) Root tip

Q6) Sacred grooves

Q7) Fruit development

Q8) Ethnobotanical Research in India.

SECTION – B **(4 × 10 = 40)**

Answer all of the following

Q9) a) Describe the development endosperm and embryo

OR

b) Describe polyembryony and apomixes.

Q10) a) Write an account on the internal structure of Root.

OR

b) Describe the development of Xylem and its significance.

Q11) a) Describe the concept, scope and history of traditional medicine in India.

OR

b) Write an account on the strategies to conserve the sacred grooves.

Q12) a) Describe the importance of phytochemicals in modern medicine.

OR

b) Enumerate the need for the protection of Tribal Rights.

(DBOT22)

Total No. of Questions : 12] **[Total No. of Pages : 2**

M.Sc. DEGREE EXAMINATION, MAY – 2017

(Second Year)

BOTANY

Microbiology, Mycology and Plant Diseases

Time : 3 Hours **Maximum Marks : 70**

SECTION – A **(5 × 6 = 30)**

Answer any Five questions

Q1) Role of bacteria in carbon cycle

Q2) Transmission of Viruses

Q3) Mtxomycota

Q4) Importance of Fungi

Q5) Plant disease indexing

Q6) Dispersal of plant pathogens

Q7) Little leaf of Brinjal

Q8) Rust of ground nut

SECTION – B **(4 × 10 = 40)**

Answer all questions

Q9) a) Describe the nutritional types of bacteria.

OR

b) Describe the morphology and ultra - structure of Bacteria.

Q10) a) Write an account on Zygomycotina.

OR

b) Describe how the Mushrooms are cultivated.

Q11) a) Describe the role of enzymes and toxins in pathogenesis and physiological changes in diseased plants.

OR

b) Describe the symptoms caused by plant pathogenic Fungi and Bacteria.

Q12) a) Write an account on the principles of disease control and biological control of plant disease.

OR

b) Describe the symptoms, etiology, epidemiology and control of Blast disease of Rice.

(DBOT23)

Total No. of Questions : 12] **[Total No. of Pages : 01**

M.Sc. DEGREE EXAMINATION, MAY – 2017

Second Year

BOTANY

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) Vacuoles

Q3) Principles of TEM and its applications

Q4) Cell signaling

Q5) Evolution of gene concept

Q6) Fine structure of gene

Q7) Chemical Structure of DNA

Q8) Gene regulation in Eukaryotes

SECTION – B **(4 × 10 = 40)**

Answer all questions

Q9) a) Describe the Ultrastructure and functions of Endoplasmic reticulum.

OR

b) Describe the structure and functions of Lysosomes.

Q10) a) Write an account on transposable elements.

OR

b) Describe the genetics of cancer and its control

Q11) a) Describe the genetics of Bacteria.

OR

b) Describe the genetic recombination in Phage.

Q12) a) Write an account on DNA repair mechanisms.

OR

b) Describe Translation and genetic code.

(DBOT24)

Total No. of Questions : 12] **[Total No. of Pages : 1**

M.Sc. (Second) DEGREE EXAMINATION, MAY – 2017

Second Year

BOTANY

Plant Biotechnology

Time : 3 Hours **Maximum Marks : 70**

SECTION – A **(5 × 6 = 30)**

Answer any Five questions from the following

Q1) Micropropagation

Q2) Embryogenesis

Q3) Synthetic seeds

Q4) Production of Cybrids

Q5) cDNA libraries

Q6) Amplification of DNA

Q7) RFLP

Q8) Role of biotechnology in Agriculture

SECTION – B **(4 × 10 = 40)**

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

OR

b) Describe the selection of mutants in – vitro for biotic and abiotic stress.

Q10) a) Write an account on somatic embrygenesis.

OR

b) Describe the protoplast fusion and somatic hybridization.

Q11) a) Describe the molecular analysis by blotting techniques.

OR

b) Describe the gene cloning vectors and their significance.

Q12) a) Write an account on transgenic plants.

OR

b) Describe the methods of gene transfer.