

M.Sc. (Final) DEGREE EXAMINATION, DECEMBER – 2015

(Examination at the end of Second Year)

BOTANY

Paper - V : Development Biology of Angiosperms and Ethnobotany

Time : 3 Hours

Maximum Marks: 80

SECTION-A

Answer any Five questions

(5×8=40)

- 1) Process of Fertilization.
- 2) Megasporangium.
- 3) Root.
- 4) Phloem.
- 5) Scope of ethnobotany.
- 6) Ethnobotanical significance.
- 7) Sacred Groves significance.
- 8) Modern medicine.

SECTION-B

Answer all questions

(4×10=40)

- 9) a) Give a detailed account on male gametophyte?

OR

- b) What is polyembryony? Explain in detail?

10) a) Discuss the meristems and their significance in plants?

OR

b) Give an account on Anomalous secondary growth?

11) a) With the account on sacred Groves and their strategies to conservation?

OR

b) Discuss the Importance of Ethnobotany and scope.

12) a) Discuss the Importance of Phytochemicals in modern medicine?

OR

b) Discuss the who to protection of Tribal Rights?



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Second Year

BOTANY

Paper - VI : Microbiology, Mycology and Plant Diseases

Time : 3 Hours

Maximum Marks: 80

SECTION-A

Answer any Five of the following

(5×8=40)

- 1) Bacterial cell wall.
- 2) Heterotrophs.
- 3) Capsid.
- 4) Myxomycota.
- 5) Forecasting.
- 6) Establishment of pathogens of plant.
- 7) Rust of groundnut.
- 8) Biological control of plant diseases.

SECTION-B

Answer all of the following

(4×10=40)

- 9) a) Explain the role of Bacteria in nitrogen and phosphorous cycle?

OR

- b) Discuss the types of Nutritional in Bacteria?

10) a) General account on Ascomycotina?

OR

b) Economic importance of fungi?

11) a) Describe the morphological and physiological changes in plants?

OR

b) Describe the role of enzyme, toxins and phytoalexins in pathogenesis in plants.

12) a) Explain Biopesticides in disease control?

OR

b) Discuss the Blast disease of Rice and whip smut of sugarcane?



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Paper - VII : Cell Biology And Molecular Biology

Time : 3 Hours

Maximum Marks: 80

SECTION-A

Answer any Five of the following

(5×8 = 40)

- 1) Mitochondria.
- 2) Chloroplast.
- 3) Cancer.
- 4) Transposable elements.
- 5) Conjugation.
- 6) Fine structure of gene.
- 7) Genetic code.
- 8) Transcription.

SECTION-B

Answer all of the following

(4×10 =40)

- 9) a) Explain the structure of plasma membrane?

OR

- b) Describe the structure of Golgi complex?

10) a) Explain the working model of Electron Microscopy?

OR

b) Give an account on Genetics of cancer?

11) a) Describe the DNA as genetic material?

OR

b) Describe Evolution of gene concept?

12) a) Give an account on DNA repair mechanism?

OR

b) Write the account on gene Regulation in Eukaryotes?



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Paper – VIII : Plant Biotechnology

Time : 3 Hours

Maximum Marks: 80

SECTION-A

(5 × 8 = 40)

Answer Any five of the following

- 1) Scope of plant biotechnology
- 2) Meristem culture
- 3) Protoplast fusion
- 4) Somatic embryo
- 5) CDNA library
- 6) Cloning vectors
- 7) RAPD
- 8) Transgenic plant [Golden rice]

SECTION-B

(4 × 10 = 40)

Answer all of the following

- 9) Write about various aspects involved in plant tissue culture.

OR

Give a detailed account on embryogenesis.

- 10)** Write an essay as cell suspension culture for the production of secondary metabolites.

OR

Give a detailed account on somatic hybridization.

- 11)** Give a detailed account on ai-vitro genetic engineering by r-DNA technology.

OR

Write about amplication of DNA by polymerace chain reaction.

- 12)** Explain the gene transfer methods in Agrobacterium mediated gene transfer.

OR

Describe different types of direct gene transfer methods.

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