PG-AN-144 MBOTN–11

P.G. DEGREE EXAMINATION –
JULY, 2022.

Botany

(From CY – 2020 Onwards)

First Year

PLANT DIVERSITY — I
(ALGAE, FUNGI, LICHENS AND BRYOPHYTES)

Time : 3 hours Maximum marks : 70

PART A — ($5 \times 5 = 25$ marks)

Answer any FIVE questions each in 300 words.

1. Highlight the important characters of Algae.

2. Explain the structure and organization of Volvax.

3. Give an account on mushroom cultivation.

4. Explain the thallus organization of Lichens.

5. Write the significance of Bryophytes and justify why they are called plant amphibians.

6. Write notes on Mycorrhiza.

7. Explain the structure of Oscillatoria.

8. Give an account on the economic importance of Bryophytes.

PART B — ($3 \times 15 = 45$ marks)

Answer any THREE questions each in 1000 words.

9. Explain in detail the classification of Algae.

10. Describe the structure and reproduction of Diatoms.

11. Describe in detail classification of Fungi (C.J. Alexopolous). Add a note on the salient features of Fungi.

12. Describe the sexual reproduction in Lichens. Write the economic importance of Lichens.

13. Give a detailed account on the structure and reproduction of Anthoceros.

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PG–AN-145 MBOTN–12

P.G. DEGREE EXAMINATION —
JULY 2022.

Botany

(From CY – 2020 onwards)

First Year

PLANT DIVERSITY – II
(PTERIOPHYTES – GYMNOSPERMS AND
PALAEOBOTANY)

Time : 3 hours Maximum marks : 70

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions out of Eight Questions in 300 words.

All questions carry equal marks.

1. Write the general classification of Pteridophytes.

2. Give an account on Gymnosperms reproduction.

3. Write short notes on Podocarpus.

4. Write notes on Origin of land plants.

5. Explain fossil fuels.

6. Describe the reproduction in Pteridophytes.

7. Write Gymnosperm Origin.

8. Explain diversification of land plants.

PART B — $(3 \times 15 = 45$ marks)

Answer any THREE questions out of Five questions in 1000 words.

All questions carry equal marks.

9. Give detailed account on Isoetus.

10. Write Gymnosperm classification.

11. Write the description on Ginkgo.

12. Give details of Geological time scale.

13. Give an account on Fossil Rhynia.

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PG-AN-146 **MBOTN-13**

P.G. DEGREE EXAMINATION - JULY 2022

Botany

(From CY - 2020 onwards)

First Year

MICROBIOLOGY, IMMUNOLOGY AND PLANT PATHOLOGY

Time : 3 hours Maximum marks : 70

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions each in 300 words.

1. Explain the ultra structure of bacterium with the help of a neat diagram.

2. Discuss the reasons for food spoilage with examples.

3. Schematically explain the life cycle of virus.

4. Explain antigen-antibody reaction.

5. Write notes on host — parasite interaction.

6. Write notes on Mycorrhiza.

7. Discuss the scope, history and significance of plant pathology.

8. List out the industrial applications of microbes.

PART B — ($3 \times 15 = 45$ marks)

Answer any THREE questions each in 1000 words.

9. Explain in detail the classification of Bacteria and add a note on its reproduction.

10. Describe the role of microbes in agriculture and sewage treatment.

11. Elaborate the different structures of viruses and write the methods of virus transmission.

12. Describe in detail the different classes of immunoglobulin and its functions.

13. Give an elaborate account on the various methods of gene transfer.

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PG-AN-147 **MBOTN–14**

P.G. DEGREE EXAMINATION - JULY 2022

Botany

(From CY - 2020 onwards)

First Year

MORPHOLOGY, PLANT ANATOMY AND EMBRYOLOGY

Time : 3 hours Maximum marks : 70

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions each in 300 words

1. Differentiate simple and compound leaves with diagrams.

2. Write notes on Tunica–Corpus theory of meristem.

3. Explain dendrochronology.

4. Explain periderm.

5. Write notes on embryo rescue.

6. Explain the different types of fruits.

7. Emphasis the role of secretary tissues.

8. Explain fertilization.

PART B — (3 × 15 = 45 marks)

Answer any THREE questions each in 1000 words.

9. Explain in detail the different types of inflorescence.

10. Write an elaborate account on classification of plant tissues.

11. Describe the primary and secondary growth of dicot stem with neat diagrams.

12. Describe nodal anatomy. Draw and explain the internal structure of a dicot leaf.

13. Give an elaborate account on megasporogenesis.

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PG–AN–148 MBOTN–15

P.G. DEGREE EXAMINATION — JULY, 2022.

Botany

(From CY – 2020 Onwards)

First Year

PLANT TAXONOMY AND ECONOMIC BOTANY

Time : 3 hours Maximum marks : 70

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions. Each in 300 words

1. Explain the principles of Taxonomy.

2. Write notes on ICBN.

3. Highlight the importance of Botanical Survey of India.

4. Explain the floral characters of the family Asclepiadaceae.

5. Write notes on resins and gum with special reference to asafetida and gum arabic.

6. Explain herbarium.

7. Discuss the importance of commercial crops.

8. Explain the important family characters of poaceae.

PART B — (3 × 15 = 45 marks)

Answer any THREE questions. Each in 1000 words

9. Describe Bentham and Hooker system of plant classification.

10. Write an elaborate account on ICBN rules.

11. Write a descriptive note on the importance of molecular and numerical taxonomy in plant identification.

12. Write the family description of the following families. Draw diagram wherever necessary.

    (a) Annonaceae

    (b) Sapotaceae

13. Give an elaborate account on essential oils viz. Lemon grass, Eucalyptus and Menthol.

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