

If the questions attempted are in excess of the prescribed number, only the questions attempted first up to the prescribed number shall be valued and the remaining ones ignored.

Answers may be written either in English or in Bengali but all answers must be in one and the same language.

Group-A

Answer any four of the following questions

1. Write brief notes on any four of the following :-
 - (a) Endemism.
 - (b) Virioids.
 - (c) Lichens.
 - (d) Mycorrhiza.
 - (e) Plasmids.
 - (f) Phytoremediation. 10x4

2. Distinguish between any four of the following :
 - (a) Endemic and epidemic diseases.
 - (b) Flagella and pilli.
 - (c) Plesiomorphy and apomorphy.
 - (d) Apospory and apogamy.
 - (e) Habitat and niche.
 - (f) Disease triangle and disease cycle. 10x4

3. Explain any four of the following :
 - (a) Korper-Kappe theory of root apex.
 - (b) Development of endosperm in angiosperms.
 - (c) Conservation of biodiversity.
 - (d) Distinguishing features of Archaea and Bacteria.
 - (e) Ovule types of angiosperms.
 - (f) Colonisation and rise of early land plants. 10x4

4. Comment on any four of the following :
 - (a) Metallophytes.
 - (b) Endospore.
 - (c) Alpha - and omega taxonomy.
 - (d) Hyphal forms in fungi.
 - (e) Evolution of stelar types. 10x4
 - (f) Biofertilizer.

5. Discuss any four of the following :

- (a) Disease cycle in Late Blight of Potato.
- (b) Evolution of sporophytes in Bryophytes.
- (c) Structural features of Lyginopteris.
- (d) Micro sporogenesis and microgametogenesis.
- (e) Ecological succession.
- (f) Ontogeny of trachea.

10x4

Group - B

Answer any two questions

- 6. (a) Describe the role of Bryophytes in plant succession. 10
- (b) Write in brief about the origin of alternation of generations in Bryophytes. 10
- 7. (a) Describe geological time scale with dominant plant groups through ages. 10
- (b) Describe evolutionary significance of fossil pteridophytes. 10
- 8. (a) Describe the ultrastructure and chemical composition of plant cell wall. 10
- (b) Why does anomalous secondary growth occur in some dicot stem ? Describe the structural anomalies in secondary growth observed in Boerhaavia stem. 4+6

