

2016

Full Marks : 40

Time : 2 hours

*All Question carry equal marks.
Answer any **four** questions from any
one group as per your specialization.*

Group - A

(Plant Morphology, Structure and Reproduction)

1. (a) Give an account of range of thallus structure and reproduction of cyanophyta. Mention the economic importance of cyanophyta to humankind.
(b) Differentiate between the gametophytic and sporophytic phases of bryophyte.
2. (a) Describe the characteristic features based on which fungus has been classified as an unique group of organisms. What are their beneficial and detrimental roles ?
(b) Illustrate how the sex organs of bryophytes are evolved.
3. (a) Give an account of classification of pteridophytes.
(b) Describe the process of fossilization. How fossilization helps in correlating the phylogeny.
4. (a) How vascular tissues are evolved in pteridophytes ? Explain with suitable diagrams.
(b) Describe the wood anatomy and embryogeny of coniferales.

(Turn over)

(2)

5. (a) Give an account of origin of angiosperm. Mention different theories pertaining to the origin of angiosperm.
(b) Give an account of affinities of umbelliferae.
6. (a) Give a schematic account of Bentham and Hooker classification. Write additional notes on its merit and demerits.
(b) Give a botanical description of Glumiflorae. Add note on its economic importance.

Group - B
(Biology of Non-Chordata)

1. (a) Describe the mode of locomotion in Protozoa.
(b) What is Parthenogenesis ? Explain with suitable examples.
 2. (a) Describe the process of sexual reproduction in Scypha.
(b) Write the process early embryonic development in Porifera.
 3. (a) Discuss the metamorphosis of Diphyra into Aurelia.
(b) What is polymorphism ? Explain it with examples of Obliacolony.
 4. (a) Write the affinities of Ctenophora.
(b) Write short notes on (i) Elephantiasis
(ii) Fascioloiasis
 5. (a) Discuss the water vascular system of Echinoderm tea.
(b) Describe the structural features of Gastrotricha.
 6. (a) Present the structural features of Brachiopods.
(b) Elaborate the methods of Pearlculture.
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