2019

BOTANY

(Honours)

Paper : BOT–HC–1016

(Phycology and Microbiology)

Full Marks : 60

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. Answer the following : 1×7=7

(a) What is the terminal electron acceptor in aerobic respiration?

(b) What is bacterial genome?

(c) Which alga is popularly named as 'rock weed'?

(d) What are cyanotoxins?

(e) What are conceptacles?

(f) Prochloron contains both chlorophylls— 'a' and 'b'. Write True or False.

(g) What is the significance of lysogeny?

2. Explain the following in brief : 2×4=8

(a) Endospore of bacteria

(b) Synzoospore of *Vaucheria*

(c) Adenoviruses

(d) Uses of diatomaceous earth

3. Write notes on any *three* of the following : 5×3=15

(a) Distinguishing features of Rhodophyta

(b) Conjugation of bacteria

(c) Viruses in bioweapons

(d) Prion

(e) Plasmids

4. Answer any *three* of the following : 10×3=30

(a) Describe a bacterial cell with diagrammatic representation.

(b) Give an account on multiplication of virus with illustrated diagram.

(c) Describe the isomorphic life cycle in reference to *Ectocarpus*.

(d) What is the difference between macrandrous and nannandrous species of oedogonium? Discuss with the help of diagram the development of sex organs in nannandrous species. 2+8

(e) Give a detailed account on the role of microbes in industry and environment.

(f) Discuss the role of algae in different aspects of agriculture.

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