

3 (Sem-1/CBCS) BOT HC 1

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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144