

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?

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- (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 :  $2 \times 4 = 8$
- (a) Endospore of bacteria
- (b) Synzoospore of *Vaucheria*
- (c) Adenoviruses
- (d) Uses of diatomaceous earth
3. Write notes on any *three* of the following :  $5 \times 3 = 15$
- (a) Distinguishing features of Rhodophyta
- (b) Conjugation of bacteria
- (c) Viruses in bioweapons
- (d) Prion
- (e) Plasmids
4. Answer any *three* of the following :  $10 \times 3 = 30$
- (a) Describe a bacterial cell with  
diagrammatic representation.
- (b) Give an account on multiplication of  
virus with illustrated diagram.

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- (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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