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3 (Sem-1/CBCS) BOT HC 1

2020

(Held in 2021)

BOTANY

(Honours)

Paper : BOT-HC-1016

(Phycology and Microbiology)

Full Marks : 60

Time : Three hours

***The figures in the margin indicate
full marks for the questions.***

1. Answer the following : 1×7=7
- (a) What is pyrenoid ?
 - (b) Who discovered the smallpox vaccine ?
 - (c) The sexual reproduction in *Vaucheria* is of _____ type. (*Fill in the blank*)
 - (d) What is facultative anaerobe ?
 - (e) Botulism is caused by _____.
(*Fill in the blank*)

Contd.

- (f) Who is regarded as the father of modern Phycology of India ?
- (g) What do you mean by chemoautotrophs ?
2. Write brief notes on the following : $2 \times 4 = 8$
- (a) Pasteurization
- (b) Akinetes
- (c) Capsid
- (d) Biofertilizer.
3. Write briefly on **any three** of the following :
 $5 \times 3 = 15$
- (a) Role of algae as medicine
- (b) Economic importance of diatoms
- (c) Structure of TMV
- (d) Oogamous reproduction in algae
- (e) Role of bacteria in biotechnology.

4. Answer **any three** of the following :

10×3=30

- (a) Describe the thallus range of thallus structure in Chlorophyceae.
- (b) Give an account of conjugation in bacteria.
- (c) Discuss the origin and evolution of sex in algae.
- (d) Give an account of the economic importance of viruses.
- (e) Discuss briefly about the various nutritional groups of microorganisms.
- (f) Give a detailed account on the life cycle of Polysiphonia.