

Total number of printed pages-3

**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 :  
 $10 \times 3 = 30$

(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.