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## M.Sc. DEGREE (C.S.S.) EXAMINATION, OCTOBER 2019

First Semester

Faculty of Science

Branch VI-Botany

## MICROBIOLOGY AND PHYCOLOGY

(2012 to 2018 Admissions)

Time: Three Hours

Maximum Weight: 30

- I. Answer any six of the following in not less than 50 words each. Weight 1 each:
  - 1 What are T-phages?
  - 2 What are algal blooms? Name one factor influencing it.
  - 3 What is meant by heterotrichous habit?
  - 4 What are photolithotrophs?
  - 5 What are virusoids?
  - 6 What is Cystocarp? Name the alga in which it is seen.
  - 7 What are the photosynthetic pigments in algae?
  - 8 Name two algal biofertilizers.

 $(6 \times 1 = 6)$ 

- II. Answer any seven of the following in not less than 100 words each. Weight 2 each:
  - 9 Explain lysogenic cycle in viruses.
  - 10 Mention the industrial uses of algae.
  - 11 How algae act on indicators of pollution?
  - 12 What are extremophiles?
  - 13 Explain capsid and their arrangement in viruses.
  - 14 Explain transduction in bacteria.
  - 15 Describe the ultrastructure of HIV.

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- 16 Write notes on mycoplasmas.
- 17 Mention the characteristics of phaeophyta.
- 18 Mention the use of algae in expenonential studies.

 $(7 \times 2 = 14)$ 

- III. Answer any two of the following in not less than 250 words each. Weight 5 each:
  - 19 Give an account of the methods of isolating micro-organisms.
  - 20 Explain viral oncogenesis.
  - 21 Explain the importance and methods of algal culture.

 $(2 \times 5 = 10)$ 

