

B.Sc Part I 2020
(Under 1+1+1 Regulations)
BOTANY HONOURS
PAPER I

Time 4 hours

FM 100

1. Answer the following questions:

1x10

- a) What is carrageenan?
- b) Name one potential algal genus used as a source of biodiesel.
- c) What is physiological anisogamy?
- d) What are mollicutes?
- e) Name an amylase producing bacteria.
- f) where are clamp connection formed?
- g) What are anamorphic fungi?
- h) What is 'Hartig net'?
- i) What is primary inoculum?
- j) Name an inducer of systematic acquired resistance.

2. Answer any six questions:-

5x6

- a) Describe the development of auxospores in Diatoms
- b) Describe, in brief, structure and functions of heterocyst.
- c) Describe the one step growth curve of Bacteriophage.
- d) Write down the structure and function of bacterial endospore.
- e) Briefly describe the process of sexual degeneration in fungi.
- f) Write down the specialized structures associated with lichen thallus.
- g) Write short notes on phytoalexins.
- h) Describe in brief disease triangle.

3. Write down any six questions:-

6x10

- a) Describe the sexual reproduction of nannandrous species of *Oedogonium*. 10
- b) Describe the lifecycle of *Ectocarpus* with labeled diagram. 10
- c) What is transduction? Describe the mechanism of generalized transduction 2+8
- d) Write short notes on i) Bacterial plasmids and ii) biopesticides 5+5
- e) Describe the cultivation process of *Pleurotus* sp. 10
- f) Describe sexual reproduction in a heterothallic species of *Rhizopus*. 10
- g) What is mycorrhiza? Describe different types of mycorrhiza. 2+8
- h) Describe the symptoms, disease cycle and control measures of Late blight of potato. 3+3+4