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Cluster University of Srinagar

Subject: Botany

UG 1st Semester

Section A

Objective Type Questions:

- 1) Multiplication of T-even bacteriophages in their host cells is an example of:
 - a) Lytic cycle
 - b) Lysogenic cycle
 - c) Both of these
 - d) None of these

- 2) Lichens are well known combination of an alga and a fungus where fungus has:
 - a) A saprophytic relationship with an alga
 - b) An epiphytic relationship with an alga
 - c) A parasitic relationship with an alga
 - d) A symbiotic relationship with an alga

- 3) Phycology is the study of:
 - a) Bryophytes
 - b) Algae
 - c) Fungi
 - d) Bacteria

- 4) Cap cell formation is the characteristic feature of:
 - a) Nostoc
 - b) Oedogonium
 - c) Vaucheria
 - d) Ectocarpus

- 5) In Funaria, a long filamentous structure formed after spore germination is known as:
 - a) Capsule
 - b) Foot
 - c) Seta
 - d) Protonema

- 6) Gemma cups are found in:
 - a) Pellia
 - b) Anthoceros
 - c) Sphagnum
 - d) Marchantia

- 7) The fossil Pteridophyta Rhynia was discovered by:
- a) Fritsch
 - b) Kidston & Lang
 - c) Campbell
 - d) Scott
- 8) Coralloid roots are found in:
- a) Cycas
 - b) Pinus
 - c) Ephedra
 - d) Gnetum

(1x8=8)

Section B

Problem Solving Questions: (Attempt any four)

- 1) Which name is given to the fruiting body of Agaricus? Discuss its structure with labelled diagram.
- 2) Discuss the stage in Chlamydomonas which is non-motile and produced under adverse conditions.
- 3) Which group of plants are called amphibians of plant kingdom? Name the group and discuss.
- 4) What name is given to the female gametophore of Marchantia? Explain its structure with suitable diagram.
- 5) Give the scientific name of the gametophyte of Dryopteris and also discuss its structure with labelled diagram.
- 6) By which phenomenon several embryos are produced from a single zygote. Explain it with reference to Pinus.

(4x4=16)

Section C

Long Answer Type Questions: (Attempt any four)

- 1) Draw the labelled diagram of tobacco mosaic virus and write an account of its multiplication.
- 2) Name the disease caused by *Venturia inaequalis*? Describe its complete life cycle with the help of diagrams.
- 3) What is an isomorphic type of alternation of generation? Explain it with reference to life cycle of *Ectocarpus*.
- 4) Describe the process of cystocarp formation in *Batrachospermum* with suitable figures.
- 5) Give an illustrated account of the sporophyte of *Funaria*.
- 6) What is heterospory? Discuss its importance in the origin & evolution of seed habit.

(4x8=32)