

2 SEM TDC BOT M 2

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(May)

BOTANY

(Major)

Course : 201

(Plant Pathology and Bryophytes)

Full Marks : 48

Pass Marks : 19

Time : 2 hours

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

1. (a) Write the correct answers of the following : 1×2=2

(i) Plant diseases which spread widely but occur periodically are called endemic / epidemic / sporadic / None of the above.

(ii) The archegonium of Riccia is a spherical / flask-shaped / funnel-shaped / conical structure.

(2)

(b) Fill in the blanks : $1 \times 2 = 2$

- (i) Ergot of rye is caused by —.
- (ii) Spores of Sphagnum are dispersed by means of —.

2. Write short notes on the following : $2\frac{1}{2} \times 4 = 10$

- (a) Spore producing organs of Polytrichum
- (b) Peristome of moss
- (c) Susceptibility and immunity of a plant towards pathogen
- (d) Significant differences between localised and systematic diseases

3. Answer either [(a) and (b)] or [(c) and (d)] :

- (a) What do you mean by host-parasite relationship? Discuss briefly about the post-penetration stages caused by plant pathogens. $1+4$
- (b) Give an account of the classification of Bryophyta. 5
- (c) Describe briefly the biological control of plant disease and its ecological importance. $4+1$
- (d) Write a short account on the ecological and economic importance of Sphagnum. $2+3$

(3)

4. Discuss the symptoms, disease cycle and control measures of the following diseases mentioning the names of their causal organisms (any two) : $(2+1+2+1) \times 2 = 12$

- (a) Late blight of potato
- (b) Loose smut of wheat
- (c) Red rot of sugarcane
- (d) Citrus canker

5. Give a comparative account of the gametophytes of Riccia, Marchantia and Polytrichum with neat labelled diagrams. $9+3$

Or

Describe with sketches the life history of Anthoceros and indicate its evolutionary importance. $3+7+2$
