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2 SEM TDC BOT M 1

2017

(May)

BOTANY

(Major)

Course : 201

(Plant Pathology and Bryophytes)

Full Marks : 48
Pass Marks : 19/14

Time : 2 hours

The figures in the margin indicate full marks for the questions

1. *(a)* Answer the following as directed : 1×4=4

(i) Development of sporophyte directly from the gametophyte tissue is called apogamy/apospory/synogamy/parthenogenesis.
(Choose the correct option)

(ii) The antherozoids of *Riccia* are having uniflagellate/ biflagellate/ triflagellate/multiflagellate.
(Choose the correct option)

(iii) The time-interval between infection of a plant and the first appearance of disease symptoms is known as _____ period. (Fill in the blank)

(iv) Grey blight of tea is caused by the causal organism _____. (Fill in the blank)

(b) Answer/Write notes on the following : 2½×4=10

(i) What do you mean by localized and systemic infection?

(ii) Distinguish between susceptibility and immunity.

(iii) Ecological significance of *Sphagnum*

(iv) Gemma cup and its function

2. Answer *either (a)* and *(b) or (c)* and *(d)* of the following :

(a) Write briefly on various biological methods of plant disease management. What is 'quarantine' regulation? 3+2=5

(b) Write about the economic importance of bryophytes. 5

(c) "The sporophyte of *Riccia* is the simplest among the bryophytes." Justify the statement. 5

(d) Describe various methods by which pathogens are disseminated. 5

(Continued)

3. Mention the symptoms, name of the causal organism, disease cycle and control measures of the following diseases (any *two*) : (1+1+2+2)×2=12

(a) Ergot of rye

(b) Rust of wheat

(c) Grey blight of tea

(d) Mosaic disease of tobacco

4. Describe briefly the progressive evolution of the sporophytes of bryophytes that you have studied. Give diagram. 8+4=12

Or

What do you mean by alternation of generations? Explain it with reference to the life history of *Polytrichum*. How are the spores dispersed in the plant? 2+8+2=12

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