

**2020**

**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) Choose the correct answer of the following : 1×4=4

(i) In bryophytes, diploid chromosome number occurs in

1. spore mother cells
2. gamete nuclei
3. gametes
4. spores

(ii) The antherozoids of *Riccia* are having

1. one flagellum
2. two flagella
3. four flagella
4. many flagella

(iii) Aflatoxin is produced by

1. bacterium
2. virus
3. fungus *Aspergillus flavus*
4. nematode

(iv) Due to the attack of the parasite, an abnormal outgrowth is formed on host which is called as

1. pustule
2. ball
3. cyst
4. gall

(b) Write short accounts of the following :

$$2\frac{1}{2} \times 4 = 10$$

(i) Susceptibility and immunity of a plant towards pathogen

(ii) Pathogen and pathogenesis

(iii) Ecological importance of bryophytes

(iv) General characters of bryophytes

2. Write short accounts/Answer either [(a) and (b)] or [(c) and (d)] of the following :  $5 \times 2 = 10$

(a) Biological methods of plant disease management and its significance 5

(b) Give an account of the classification of Bryophyta. 5

(c) What do you mean by host-parasite relationship? Discuss briefly the role of enzymes on disease development.  $1+4=5$

(d) Describe briefly about the spore dispersal mechanisms in Moss. 5

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

(a) Ergot of rye

(b) Red rot of sugarcane

(c) Grey blight of tea

(d) Loose smut of wheat

4. Give a comparative account of the sporophytes of *Riccia*, *Marchantia* and *Anthoceros* with labeled diagram. 6+6=12

Or

With labeled sketch, describe the evolution of saprophyte in bryophyte. 6+6=12

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