



Seat No. \_\_\_\_\_

**HAJ-003-2015037**

**B. Sc. (Sem.-V) (CBCS) Examination**

**May - 2023**

**B-501 : Botany**

*(Cryptogamic Botany and Plant Pathology)*

*(New Course)*

**Faculty Code : 003**

**Subject Code : 2015037**

Time :  $2\frac{1}{2}$  Hours / Total Marks : 70

- Instructions :**
- (1) This question paper contains five questions. All questions are compulsory.
  - (2) Write answers of all the questions in main answer sheet.
  - (3) Draw neat and labelled diagram wherever necessary.
  - (4) Figures to the right side indicate full marks for the question.

- 1** (a) Objective type questions : **4**
- (1) Define Spermocarp of Coleochaete.
  - (2) Write the name of order in which Caulerpa belongs.
  - (3) Give the scientific name of algae which is also known as stonewort.
  - (4) True or false: In Chara, Nodes of main axis contains cortical cells.
- (b) Answer in brief : (any **one**) **2**
- (1) Give the systematic position of Coleochaete.
  - (2) Write any two names of Caulerpa species.
- (c) Answer in detail : (any **one**) **3**
- (1) Write a note on vegetative reproduction in Chara.
  - (2) Describe sexual reproduction in Caulerpa.

- (d) Write a note on : (any **one**) 5  
 (1) Describe methods of reproduction in Ectocarpus.  
 (2) Explain sex organs of Chara with labelled diagram.
- 2 (a) Objective type questions : 4  
 (1) Colocasia blight is caused by \_\_\_\_\_.  
 (2) True or False : Bordeaux mixture is mainly used as insecticide.  
 (3) Write name of disease caused by *A. solani*.  
 (4) Write the name of fungi which produces Haustorium.
- (b) Answer in brief : (any **one**) 2  
 (1) What is target board effect ?  
 (2) Write classification of Peziza.
- (c) Answer in detail : (any **one**) 3  
 (1) Explain direct and indirect germination in Phytophthora.  
 (2) Vegetative structure of Alternaria.
- (d) Write a note on : (any **one**) 5  
 (1) Explain different types of spores found in fungi with diagram.  
 (2) Describe ascocarp of Peziza with labelled diagram.
- 3 (a) Objective type questions : 4  
 (1) \_\_\_\_\_ belongs to order Jungermanniales.  
 (2) Pellia sporophyte wholly develops from \_\_\_\_\_ cell.  
 (3) Which bryophyte is known as peat moss ?  
 (4) What is gametophores ?
- (b) Answer in brief : (any **one**) 2  
 (1) Write the name of any two species of Pellia found in India.  
 (2) Write the classification of Sphagnum.
- (c) Answer in detail : (any **one**) 3  
 (1) Write a note on internal structure of Sphagnum axis/stem.  
 (2) Explain internal structure of Pellia thallus with diagram.
- (d) Write a note on : (any **one**) 5  
 (1) Explain sporophytic phase of *Sphagnum*.  
 (2) Describe sex organs of *Pellia*.

- 4 (a) Objective type questions : 4
- (1) Give the example of pteridophyte you studied showing Heterospory.
  - (2) Stigmarian roots are characteristic feature of \_\_\_\_\_.
  - (3) Who discovered Rhynia ?
  - (4) Stylocalamites shows which type of branching pattern in stem ?
- (b) Answer in brief : (any **one**) 2
- (1) Give the systematic position of Calamites.
  - (2) Why Ophioglossum is known as Adder's tongue ?
- (c) Answer in detail : (any **one**) 3
- (1) Write in brief about external morphology of Marsilea.
  - (2) Write a short note on T.S. of Rhynia stem with diagram.
- (d) Write a note on : (any **one**) 5
- (1) Explain internal structure of Marsilea spermocarp.
  - (2) Describe sporophytic generation in Ophioglossum.
- 5 (a) Objective type questions : 4
- (1) Write the causal organism of citrus canker.
  - (2) Define epidemiology.
  - (3) True or False : In sporadic disease, pathogen affects only a few plants in a large population of host plants and others remain unaffected.
  - (4) Write the names of types of Mildew.
- (b) Answer in brief : (any **one**) 2
- (1) Write the symptoms of Red rot of sugarcane.
  - (2) Write controlling measures of Leaf curl of Papaya.
- (c) Answer in detail : (any **one**) 3
- (1) Write a note on the symptoms and control of Citrus canker.
  - (2) Describe in brief: different methods of plant disease control.
- (d) Write a note on : (any **one**) 5
- (1) Explain general symptoms of plant disease.
  - (2) Describe the symptoms and control of Tikka disease of groundnut.