



**HCL-003-001509**

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

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

**October - 2017**

**Botany : B - 501**

***(Cryptogamic Botany & Plant Pathology)***

**Faculty Code : 003**

**Subject Code : 001509**

Time :  $2\frac{1}{2}$  Hours]

[Total Marks : 70

- Instructions :** (1) This question paper contains three 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 Objective type questions : 20**

- (1) Name one species of Coleoehetae in which heterotrichous habitat is well represented.
- (2) Who discovered the phenomenon of heterothallism?
- (3) Define - Zoospore.
- (4) What is the name of fruiting body of Aspergillus?
- (5) Disappearance of chlorophyll in infected plant is \_\_\_\_\_
- (6) What is necrosis?
- (7) Give the common name of Isoetes.

- (8) What are the characteristics of the rhizoids of Chara?
- (9) Write the dominant phase of the life - cycle of Pellia.
- (10) Which type of stele is observed in Marsilea rhizome?
- (11) \_\_\_\_\_ chemical used for killing fungal pathogens.
- (12) The antheridia are borne in \_\_\_\_\_ succession in the antheridial branch of Sphagnum.
- (13) The archegonium of Ophioglossum has \_\_\_\_\_ neck canal cells.
- (14) Fossils of Rhynia are discovered from which locality?
- (15) Give the names of the branches which are found in Sphagnum.
- (16) Name the bryophyte in which retort cells are found.
- (17) Name the reserve food material which is found in Ectocarpus.
- (18) \_\_\_\_\_ type of chloroplast is present in Chara.
- (19) The aerial shoots in Calamites originated from the \_\_\_\_\_ of the underground rhizome.
- (20) The members of Bacillariophyceae are popularly known as \_\_\_\_\_

**2** (A) Answer in short : (any **three**)

**6**

- (1) Give the classification of Caulerpa with reasons.
- (2) Write the causal organism and any two disease symptoms of Whip smut of Sugarcane.
- (3) Mention agriculture uses of Trichoderma.
- (4) How the fertilization process occurs in Pellia.
- (5) Write morphological features of axis of Isoetes.
- (6) Explain : Spermocarp of Coleochetae.

- (B) Give the Answers : (any **three**) **9**
- (1) Aspergillus has been placed under Ascomycotina and Plectomycetes. Why?
  - (2) Explain the asexual reproduction in Coleochetae.
  - (3) Give an account of the internal structure of Sphagnum axis.
  - (4) Draw a labelled diagram of Ophioglossum root.
  - (5) Give the disease symptoms of Red rot of Sugarcane.
  - (6) Explain the internal structure of Pellia thallus.
- (C) Answer in detail : (any **two**) **10**
- (1) Describe asexual reproduction in Aspergillus.
  - (2) Give an account of sex organs of Pellia.
  - (3) Explain biological control of plant pathogens.
  - (4) Describe the internal structure of Isoetes leaf.
  - (5) Describe the cell structure of diatoms.
- 3** (A) Answer in short : (any **three**) **6**
- (1) Write any four economic importance of diatoms.
  - (2) By means of labelled diagram only illustrate the life history of Marsilea.
  - (3) Write note on ascocarp of Aspergillus.
  - (4) Explain the structure of Sphagnum leaf.
  - (5) Write a note on: Different spores of fungi.
  - (6) Write the occurrence of Caulerpa.
- (B) Give the Answers : (any **three**) **9**
- (1) Explain Ectocarpus cell structure.
  - (2) Write a note on: Dehiscence of capsule in Sphagnum.

- (3) Give the disease symptoms of Citrus canker.
- (4) Describe the morphological features of Ophioglossum spike.
- (5) Explain the structure of globule with diagram.
- (6) Write a short note on Lepidocarpon.

(C) Answer in detail : (any **two**) **10**

- (1) Give an account of internal structure of Sphagnum sporophyte.
  - (2) Write an essay on heterothallism in fungi.
  - (3) Describe internal structure of Marsilea petiole.
  - (4) Explain the asexual reproduction in Ectocarpus.
  - (5) Describe the symptoms, causal organism and control of Tikka disease of groundnut.
-