



**RN-003-1015037**

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

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

**February - 2019**

**Botany : Paper - 501**

*(Cryptogamic Botany and Plant Pathology)*

*(New Course)*

**Faculty Code : 003**

**Subject Code : 1015037**

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

[Total Marks : 70

- Instructions :** (1) Attempt all the questions.  
(2) Draw neat and labelled diagram wherever necessary.  
(3) Figures to the right side indicate total marks for the questions

- 1 (A) Answer the following Objective type questions : 4
- (1) How many tube cells are present in the nucule of Chara?
  - (2) Coleochetae thallus have a long unbranched cytoplasmic thread, called :
  - (3) \_\_\_\_\_ species of Chara shows vegetative reproduction by amorphous bulbils.
  - (4) In some species of Ectocarpus, the female gametes produce a chemical called \_\_\_\_\_ to attract male gametes.
- (B) Answer in brief : (Any **One** out of Two) 2
- (1) Give the classification of Caulerpa with reasons.  
**OR**
  - (2) Write about the cell structure of Ectocarpus.
- (C) Answer in detail : (Any **One** out of Two) 3
- (1) Explain globule of Chara with diagram.  
**OR**
  - (2) Describe the internal structure of Caulerpa thallus.

- (D) Write a note on : (Any **One** out of Two) 5  
(1) Describe sexual reproduction in Coleochetae.  
**OR**  
(2) Explain asexual reproduction in Ectocarpus.
- 2 (A) Answer the following Objective type questions : 4  
(1) Fruiting body of Peziza is called \_\_\_\_\_  
(2) Early blight of potato is caused by:  
(3) Write early symptoms of early blight of potato.  
(4) Mention true or false: In Peziza, ascogenous hyphae developed after fertilization.
- (B) Answer in brief : (Any **One** out of Two) 2  
(1) Explain the life cycle of Peziza with the help of schematic presentation only.  
**OR**  
(2) Write vegetative structure of Alternaria.
- (C) Answer in detail : (Any **One** out of Two) 3  
(1) Give classification of Peziza with reasons.  
**OR**  
(2) Explain sexual reproduction in Alternaria.
- (D) Write a note on : (Any **One** out of Two) 5  
(1) Describe - Apothecium of Peziza.  
**OR**  
(2) Describe different spores of fungi.
- 3 (A) Answer the following Objective type questions : 4  
(1) In Pellia, the neck of archegonium is made of \_\_\_\_\_ vertical row of cells.  
(2) What do you mean by gametophytic phase of bryophyte?  
(3) In Sphagnum, the antheridia are borne in \_\_\_\_\_ succession on antheridial branches.  
(4) Name two species of Pellia found in India.

- (B) Answer in brief : (Any **One** out of Two) **2**
- (1) Draw a labelled diagram about the internal structure of *Pellia* thallus.
- OR**
- (2) Give the systematic position of *Sphagnum*.
- (C) Answer in detail : (Any **One** out of Two) **3**
- (1) Explain internal structure of *Sphagnum* axis.
- OR**
- (2) Write the external features of *Pellia*.
- (D) Write a note on : (Any **One** out of Two) **5**
- (1) Describe the sex organs of *Pellia*.
- OR**
- (2) Explain the internal structure of mature sporophyte.
- 4 (A) Answer the following Objective type questions : **4**
- (1) In *Cingularia*, bracts were present \_\_\_\_\_ the sporangiophores.
- (2) Write the occurrence of *Marsilea*.
- (3) What type of stele is found in *Ophioglossum* root?
- (4) How many flagella are present in each antherozoid of *Ophioglossum*?
- (B) Answer in brief : (Any **One** out of Two) **2**
- (1) Explain internal structure of *Marsilea* leaf.
- OR**
- (2) Write the morphology of *Ophioglossum*.
- (C) Answer in detail : (Any **One** out of Two) **3**
- (1) Write a note on Spermocarp of *Marsilea*.
- OR**
- (2) Describe the internal structure of *Rhynia* stem.

(D) Write a note on : (Any **One** out of Two) **5**

(1) Explain - Internal structure of Marsilea petiole.

**OR**

(2) Describe the spore producing organs of Ophioglossum.

**5** (A) Answer the following Objective type questions : **4**

(1) Bordeaux mixture consists of :

(2) Disappearance of chlorophyll in infected plants is called \_\_\_\_\_

(3) The disease symptoms give a burnt appearance in :

(4) Write the causal organism of red rot of sugarcane.

(B) Answer in brief : (Any **One** out of Two) **2**

(1) Write important symptoms of red rot of sugarcane.

**OR**

(2) Write controlling measures of Leaf curl of Papaya.

(C) Answer in detail : (Any **One** out of Two) **3**

(1) Describe whip smut of sugarcane.

**OR**

(2) Describe Citrus canker.

(D) Write a note on : (Any **One** out of Two) **5**

(1) Explain - Tikka disease of ground nut.

**OR**

(2) Describe White smut of sugarcane.

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