

CRYPTOGAMIC BOTANY AND PLANT PATHOLOGY (CORE)

Time: 2:30 Hours

Marks: 70

Instructions:

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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Que-1 (a) Answer in detail : (Any 1 out of 2) (07)

1. Describe asexual reproduction in *Coleochetae*.
2. Describe globule and nucule of *Chara*.

(b) Answer in brief: (Any 1 out of 2) (04)

1. Describe vegetative reproduction in *Chara*.
2. Explain cell structure of *Ectocarpus*.

(c) Answer the following Objective type questions: (Any 3 out of 5) (03)

1. *Caulerpa* contain _____ distinctive xanthophyll pigment.
2. The long colourless neck of *Coleochetae* archegonia is known as _____
3. Name one species of *Coleochetae* in which heterotrichous habitat is well represented.
4. What are the characteristics of the rhizoids of *Chara*?
5. Write the occurrence of *Chara*.

Que-2 (a) Answer in detail : (Any 1 out of 2) (07)

1. Describe – Apothecium of *Peziza*.
2. Explain reproduction in *Alternaria*.

(b) Answer in detail: (Any 1 out of 2) (04)

1. Write the occurrence of *Peziza*.
2. Give only schematic representation of life cycle of *Alternaria*.

(c) Attempt any three. (Out of five) (03)

1. *Peziza* belongs to which fungal classes?
2. Which fungus is known as cup fungi?
3. Fruiting body of *Peziza* is called _____
4. Mention true or false: *Peziza* is saprophytic fungus.
5. Where we can found the *Alternaria*?

Que-3 (a) Answer in detail. (Any 1 out of 2) (07)

1. Explain internal structure of *Sphagnum* sporophyte.
2. Describe *Pellia* thallus.

(b) Answer in brief: (Any 1 out of 2) (04)

1. Explain *Pellia* archegonia.
2. Explain external morphology of *Sphagnum*.

- (c) Answer the following Objective type questions : (Any 3 out of 5) (03)
1. Sphagnum is commonly known as _____.
 2. Explain the term – Coma.
 3. Name the bryophyte in which retort cells are found.
 4. The capsule of *Pellia* dehisces into:
 5. Spore mother cell of *Sphagnum* is _____. (diploid/haploid)
- Que-4 (a) Answer in detail: (Any 1 out of 2) (07)
1. Explain internal structure of *Marsilea* sporocarp.
 2. Describe external features of *Rhynia*.
- (b) Answer in brief: (Any 1 out of 2) (04)
1. Explain internal structure of *Ophioglossum* rhizome.
 2. Write the morphology of *Marsilea*.
- (c) Answer the following Objective type questions : (Any 3 out of 5) (03)
1. How many number of microspores produced per microsporangium in *Marsilea*?
 2. How many flagella are present in each antherozoid of *Ophioglossum*?
 3. *Calamites* possess _____. height.
 4. *Ophioglossum* belongs to _____.order.
 5. Mention True or False: *Marsilea* is generally found in water logged soil.
- Que-5 (a) Answer in detail : (Any 1 out of 2) (07)
1. Describe Citrus canker.
 2. Describe the symptoms, causal organism and control of Tikka disease of Groundnut.
- (b) Answer in brief: (Any 1 out of 2) (04)
1. Write important symptoms of Leaf curl of Papaya.
 2. Write controlling measures of Red rot of sugarcane.
- (c) Answer the following Objective type questions : (Any 3 out of 5) (03)
1. Write early symptoms of Red rot of Sugarcane.
 2. Disappearance of chlorophyll in infected plants is called _____.
 3. The chemical used for killing fungal pathogens are known as _____.
 4. Write the causal organism of whip smut of sugarcane.
 5. Define – Necrosis.
