

**B.Sc. Semester - 5 (CBCS) Examination****Oct/Nov. - 2018****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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- Q-1(A) Answer in detail: (Attempt any one) (07)
- (i) Give in detail the organization of thallus and sexual reproduction in coleochaete.
  - (ii) Give an account of the asexual reproduction in Ectocarpus.
- Q-1(B) Answer in brief: (Attempt any one) (04)
- (i) Explain the structure of globule with diagram.
  - (ii) Describe the sex evolution in algae.
- Q-1(C) Answer in very short : (attempt any three) (03)
- (i) Which structure is produced due to post-fertilization changes in coleochaetae?
  - (ii) Fill up the blanks: The oogonium of chara is known as \_\_\_\_\_
  - (iii) True or False: In Ectocarpus alternation of generation is isomorphic type.
  - (iv) Name the species of caulerpa is growing as epiphytes on the roots of mangroves.
  - (v) What type of life cycle is met in chara?
- Q-2(A) Answer in detail: (Attempt any one) (07)
- (i) Describe the morphology and reproduction in Alternaria. Name some important diseases caused by it.
  - (ii) Write a notes on spores of fungi.
- Q-2(B) Answer in brief: (Attempt any one) (04)
- (i) Explain: Peziza Apothecium.
  - (ii) What are imperfect fungi? Enumerate their important characteristics.
- Q-2(C) Answer in very short : (attempt any three) (03)
- (i) What is the nature of the spores formed in ascus?
  - (ii) Which fungi have been included in the division deuteromycotina?
  - (iii) Fill up the blanks: Two nuclei of dikaryon fuse to form a diploid nucleus which is called \_\_\_\_\_.
  - (iv) True or False: The conidia of alternaria are multicellular structure.
  - (v) Fill up the blanks: The number of ascospores in the ascus of peziza is\_\_\_\_\_.
- Q-3(A) Answer in detail: (Attempt any one) (07)
- (i) Give an account of sexual reproductive organs of Pellia.
  - (ii) Give an account of internal structure of sphagnum sporophyte.
- Q-3(B) Answer in brief: (Attempt any one) (04)
- (i) Describe the saprophyte of Pellia.
  - (ii) Write a note on Sphagnum leaf.

- Q-3(C) Answer in very short : (attempt any three) (03)
- (i) Fill up the blanks: In Pellia archegonia of the luster are surrounded by \_\_\_\_\_.
  - (ii) What is the function of retort cells present in the axis of sphagnum?
  - (iii) How will you differentiate between the antheridial and archegonial branches of sphagnum?
  - (iv) True and False: Sphagnum grows in water or marshy land and yet it shows xerophytic features.
  - (v) Name one monoecious and protandrous species of Pellia.
- Q-4(A) Answer in detail: (Attempt any one) (07)
- (i) Describe external and internal structure of ophioglossum spike.
  - (ii) Give the morphology and anatomy of lepidodendron.
- Q-4(B) Answer in brief: (Attempt any one) (04)
- (i) Draw the T.S. of Rhizome with labelled diagram in marsilea.
  - (ii) Write a note on the internal structure of stem in calamites.
- Q-4(C) Answer in very short : (attempt any three) (03)
- (i) Fossils of rhynia were 1<sup>st</sup> discovered from which locality?
  - (ii) Name the form genus of the underground part of lepidodendroids.
  - (iii) What comes out after the dehiscence of sporocarp of marsilea?
  - (iv) Fill up the blanks: In ophioglossum, the gametophyte is always\_\_\_\_\_.
  - (v) True and False: Calamites was a small herbaceous plant attaining a height of only few centimeters.
- Q-5(A) Answer in detail: (Attempt any one) (07)
- (i) Describe the main symptoms, nature of causal organism, predisposing factor and control of citrus canker.
  - (ii) Describe Anatomical and morphological symptoms on host.
- Q-5(B) Answer in brief: (Attempt any one) (04)
- (i) What are fungicides? Give an account of systemic fungicides.
  - (ii) Give the disease symptoms, causal organism of red rot of sugarcane.
- Q-5(C) Answer in very short : (attempt any three) (03)
- (i) Name of fungus causing 'whip smut of sugarcane'.
  - (ii) What is the effect of infection on the rate of photosynthesis in the host tissues?
  - (iii) Give name of the pathogen responsible for leaf curl of popaya.
  - (iv) Fill up the blanks: Bordeaux mixture consists of \_\_\_\_\_.
  - (v) True and False: Crop rotation helps in the control of soil borne diseases.

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