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JV-003-001509 Seat No. _____

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

October - 2019

Botany : B - 501

(Cryptogamic Botany and Plant Pathology)

(Old Course)

Faculty Code : 003

Subject Code : 001509

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

Instructions : (1) Write answers of all questions in main answer sheet.

(2) Draw neat and labelled diagrams wherever necessary

(3) Figures to the right side indicate full marks for the questions.

1 Write short answer : **20**

(1) The female sex organ in Chara is known as _____

(2) Calamtes plant height was _____

(3) Which causal organism of whip smut of sugarcane?

(4) Who was discovered heterothallism in fungi?

(5) Sporangia of Ophiglossum are seen in the form of a _____

(6) In Pellia, archegonia of the cluster are surrounded by which part?

(7) The basal cell from where the conidiophores of aspergillus arises is known as...

(8) Non-motile spore produced internally are known as _____

(9) Rhynia belongs to geological period called _____

(10) Tikka disease is caused by _____

(11) On which side is the sporangium seen on the sporophyll in Isoetes?

(12) The masses of sterile cells located at the base of the capsule of Pellia are known as _____

(13) In diatom, the overlapping sidewalls of the two valves are called _____

(14) The spermocarp, of Coleochatae produces _____

(15) The chemical used for killing fungal pathogens are known as _____

(16) In the life cycle of ectocarpus, meiosis occurs during _____

(17) What is Nucule?

(18) Actual mechanism of disease development is known as _____

(19) The plant body of caulerpa unicellular, multinucleate is it true or false?

(20) Citrus canker is bacterial disease true or false?

2 (A) Answer in short : (Any **Three**) **6**

(1) Explain leaf scar in Lepidodendron

(2) Explain cell structure in Diatoms

(3) Draw the label diagrams: Rhizome T.S. of Marsilea

(4) Describe the V. S. of Pellia capsule structure

(5) Write note on Pathogenicity

(6) Mention agriculture use of Trichoderma

(B) Answer in Brief : (Any **Three**) **9**

(1) Explain vegetative reproduction in Chara

(2) Give the disease symptoms of Citrus canker.

(3) Explain the external features of Rhynia.

(4) Draw the label diagrams of L.S. of sporangia in Isoetes.

(5) Describe the sex evolution in algae

(6) Write the brief note on the nomenclature of fossils.

(C) Answer in detail : (Any **Two**) **10**

(1) Describe the asexual reproductive structure of Aspergillus spp.

(2) Describe the structure of the gametophyte of Sphagnum

(3) Give an account of sexual reproductive organs of Pellia

(4) Draw the T.S. of Petiole with label diagrams in Marselia

(5) Sexual reproduction in Coleochatea

3 (A) Answer in short : (Any **Three**) **6**

(1) What are the characteristics of the root of Isoetes?

(2) Draw a labelled diagram of globule of Chara in longitudinal section.

(3) Caulerpa has been placed in the order Siphonales. Why?

(4) Name two genera of bryophytes belonging to two different groups where the capsule produces sterile columella.

(5) Write the use of Trichoderma.

(6) Write short note on Sphagnum leaf

(B) Answer in Brief : (Any **Three**) **9**

(1) Give the classification of Calamites

(2) Give the classification of Caulerpa

(3) Write note on : Retort cells.

(4) Explain morphological nature of Ophioglossum spike.

(5) Write six symptoms Tikka Disease of Groundnuts

(6) Write short note on Trichoderma

(C) Answer in detail : (Any **Two**) **10**

(1) Describe different methods of Plant disease control.

(2) Explain the heterothallism in fungi

(3) Describe the cell structure of cell wall and reproduction in Diatoms

(4) Describe the anatomical structure of calamites

(5) Explain : Thallus organization in Coleochatae
