



MAJ-003-001509

Seat No. _____

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

October / November – 2016

Botany : B - 501

(Cryptogamic Botany & Plant Pathology)

(New 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 book.
(2) Draw neat and labelled diagrams wherever necessary.
(3) Figures to the right side indicate full marks for the questions.

1 Answer in very short : 20

- (1) What type of life cycle is met in chara ?
- (2) What is the source of diatomite ?
- (3) Give one example which show physiological anisogamy.
- (4) Name sexually produced, non-motile spores of endogenous origin in fungi.
- (5) In which of the following the thallus is coenocytic, branched and diploid ?
- (6) Name the toxins produced by *Aspergillus flavus* in seeds of groundnut.
- (7) The phenomenon of heterothallism was discovered by _____.
- (8) Name the branches which bear conidia in *Aspergillus* ?
- (9) The life-cycle of a bryophyte is divisible into two distinct generations. Name them.
- (10) Name one monoecious and protandrous species of *Pellia*.
- (11) Retort cells are found in _____.
- (12) Name the central sterile tissue found in certain capsules of Bryophytes.

- (13) What is the position of velum present in the leaf of Isoetes ?
- (14) What comes out after the dehiscence of sporocarp of Marsilea ?
- (15) Rhynia is a _____ pteridophyte.
- (16) Name the form genus of the underground part of Lepidodendrids.
- (17) What is pathogenesis ?
- (18) Name of fungus causing 'whip smut of sugarcane'.
- (19) What is the effect of infection on the rate of photosynthesis in the host tissues ?
- (20) Bordeaux mixture consists of _____.

- 2** (a) Answer in short : (any three) **6**
- (1) Write brief note on Amylum star.
 - (2) Whom do diatoms move ?
 - (3) Write a note on ascocarp.
 - (4) Write short note on Sphagnum leaf.
 - (5) Give the classification of calamites.
 - (6) Write the four symptoms : citrus canker.
- (b) Answer in brief : (any three) **9**
- (1) Why is chara known as stonewort ?
 - (2) Write brief note on plurilocular sporangia.
 - (3) Who discovered the phenomenon of heterothallism ?
 - (4) Write note on : Dehiscence of capsule in Pellia.
 - (5) Give the disease symptoms of 'Tikka Disease of Groundnuts'.
 - (6) Explain : Objectives of geological time scales.
- (c) Answer in detail : (any two) **10**
- (1) Give in detail the organization of thallus and sexual reproduction in coleochaete.
 - (2) Write a detailed account of the evolution of sex in algae.
 - (3) Write an essay on heterothallism in fungi.
 - (4) Describe different methods of plant disease control.
 - (5) Give the morphology and anatomy of Lepidodendron.

- 3 (a) Answer in short : (any three) 6
- (1) Write brief note on alternation of generations in Ectocarpus.
 - (2) Write brief note on the Globule.
 - (3) What is multiple-allele heterothallism ?
 - (4) Write the use of Trichoderma.
 - (5) Describe the leaf sec in Lepidodendron.
 - (6) Write note on : Pathogenicity.
- (b) Answer in brief : (any three) 9
- (1) Write a note on the affinities of coleochaete.
 - (2) Describe the method of sexual reproduction in Aspergillus.
 - (3) Write a short note : Sporophyte of sphagnum.
 - (4) Give the anatomy of leaf in ophioglossum with labelled diagrams.
 - (5) Give the classification of Rhynia.
 - (6) Give the disease symptoms of red rot of sugarcane.
- (c) Answer in detail : (any two) 10
- (1) Describe sexual reproduction in Caulerpa.
 - (2) Describe the general characters and cell structure of diatoms.
 - (3) Describe the structure of sex organ in Pellia.
 - (4) Draw the T.S. of Rhizome with labelled diagram in Marsilea.
 - (5) Describe the anatomical structure of calamites.
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