

B.Sc. Semester - 1 (CBCS) Examination
Oct/Nov. -2019 (NEW COURSE)
BOTANY (CORE)

Time: 2:30 Hours

Marks: 70

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate marks.

Que-1 (A) Answer in very short. (04)

- (i) Which class is known as Brown algae?
- (ii) Fill in the blank: In *Sargassum*, sex organs are produced in cavities called_____.
- (iii) Name the cell of the filament producing aplanospores in *Spiraogyra*.
- (iv) Give the name of five kingdoms given by Whittkers classification of living organisms.

(B) Answer in brief (Any one): (03)

- (i) Write notes on : Algae in industries.
- (ii) Explain: Direct lateral conjugation in *Spirogyra*.

(C) Answer in detail (Any one): (07)

- (i) Give a detailed illustrated account of the female conceptacle of *Sargassum*.
- (ii) List the main division of algae and mention the diagnostic features of any two divisions.

Que-2 (A) Answer in very short. (04)

- (i) Name the scientific term for the fruiting body of ascomycotina.
- (ii) Which organic acid is produced by fermentation of sugars by *Aspergillus oryzae*.
- (iii) Name the hyphae which bears sporangium.
- (iv) What is the phenomenon called in which two somatic cells fuse during Plasmogamy?

(B) Answer in brief (Any one): (03)

- (i) Write notes on: Sporangia of *Mucor*.
- (ii) What are main features of sub-division eumycotina?

(C) Answer in detail (Any one): (07)

- (i) Explain: Internal structure of basidocarp in *Agaricus*.
- (ii) Enumerate important characteristics of Fungi.

Que-3 (A) Answer in very short. (04)

- (i) **Fill in the blank:** Bryophytes are non vascular plants, i.e. they have no _____ and _____.
- (ii) **True or false :** In class Bryopsida rhizoids are multicellular, branched with oblique septa.
- (iii) How many antheridia are present in the antheridia chamber of *Riccia*?
- (iv) Internally the thallus of *Riccia* is differentiated into two regions, Name it.

(B) Answer in brief (Any one): (03)

- (i) **Discuss:** The rhizoids and scales in Bryophytes.
- (ii) **Explain:** Vegetative reproduction in *Riccia*.

(C) Answer in detail (Any one): (07)

- (i) **Describe:** The postion and structure of sex organs in *Riccia*.
- (ii) What are Bryophytes? Write their distinguishing features.

Que-4 (A) Answer in very short. (04)

- (i) Name the place from where the sporangium opens in *Nephrolepis*.
- (ii) The Mesozoic era is divided into three periods. Name it.
- (iii) Give the name of the structure formed by the germinating *Nephrolepis* spores.
- (iv) What is the name given to the sporophyll which bears the sporangium containing smaller spores?

(B) Answer in brief (Any one): (03)

- (i) Differentiate between leptosporangiate and eusporangiate sporangia.
- (ii) **Write notes on:** Scales (Ramenta) and hydathode.

(C) Answer in detail (Any one): (07)

- (i) Describe spore bearing organ in *Nephrolepis* with diagram.
- (ii) Name the divisions of Pteridophyta proposed by Smith. Describe briefly Important characters of Pterophyta.

Que-5 (A) Answer in very short. (04)

- (i) **Fill in the blank:** Thy gymnosperms lack fruits because they lack _____.
- (ii) **True or false:** In cycadophyta, wood is relatively small and menoxylie.
- (iii) Name the terminal sterile portion of the microsporophyll of *Cycas*.
- (iv) Which type of vascular bundle is present in *Cycas* leaflet?

(D) Answer in brief (Any one): (03)

- (i) Discuss the salient features of cycadophyta.
- (ii) Differences between normal root and coroloid root in *Cycas*.

(E) Answer in detail (Any one): (07)

- (i) With the help of suitable diagrams describe the internal structure of *Cycas* leaflet.
- (ii) Give an illustrated account of the male cone in *Cycas*.
