

BACHELOR OF SCIENCE (BIOTECHNOLOGY) (CBCS-2021 COURSE)
B.Sc. (Biotechnology) Sem - I : WINTER :- 2021
SUBJECT: PLANT SCIENCE

Day : Saturday
Date 29-01-2022

W-24850-2021

Time : 10:00 AM-01:00 PM
Max. Marks: 60

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw a labeled diagram **WHEREVER** necessary.
- 4) Answer to both the sections to be written in **SAME** answer book.

SECTION – I

- Q.1** Attempt **ANY FIVE** of the following: **(10)**
- a) Any two economic importance of Lichen.
 - b) What is parasitic algae? Give examples.
 - c) Draw the structure of *Chlorella*.
 - d) What is Plasmogamy and Gametic copulation?
 - e) What is atheridium and archegonium?
 - f) Define protandrous and protogynous.
 - g) Give two examples each for dioecious and monoecious plants.
- Q.2** Attempt **ANY TWO** of the following: **(10)**
- a) Explain in detail life cycle of *Aspergillus*.
 - b) Write different characteristics of Phanerogams.
 - c) Describe external structure of *Funaria* thallus.
- Q.3** Write short notes on **ANY TWO** of the following: **(10)**
- a) Modification of stem
 - b) Female cone of *Pinus*
 - c) Differentiate between Thallophytes and Bryophytes

SECTION – II

- Q.4** Attempt **ANY FIVE** of the following: **(10)**
- a) What is apomixes? Give suitable examples.
 - b) Define fruit and enlist its types.
 - c) Enlist essential whorls of flower.
 - d) Draw the structure of monocot seed.
 - e) What is Vernalization? Give its significance.
 - f) What is nitrogen fixation? Write its importance.
 - g) Enlist viral diseases in plants.
- Q.5** Attempt **ANY TWO** of the following: **(10)**
- a) Explain in detail cymose type of inflorescence.
 - b) Define seed and describe different methods of seed germination.
 - c) Give detail account of reproductive organs of higher plants.
- Q.6** Attempt **ANY TWO** of the following: **(10)**
- a) Significance of anatomy in ecological interpretation.
 - b) Phytohormones and their role in plant growth and development.
 - c) Differentiate between photosynthesis and respiration.