

U.G. 1st Semester Examination - 2020

BOTANY

[PROGRAMME]

Course Code : BOT-G-CC-T-01

Full Marks : 40

Time : 2½ Hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

Answer all the questions.

1. Answer any **five** of the following: 2×5=10
 - a) What is capsid? Name one plant virus having DNA as genetic material.
 - b) Define alga with two of its most important basic characteristics.
 - c) Distinguish between ectomycorrhiza and endomycorrhiza.
 - d) Why fungi are heterotrophs? Mention one basic chemical constituent of its cell wall.
 - e) Mention four basic traits which early plants acquired during their transition to land.
 - f) Define microphyllous leaves. Where do you find it?
 - g) What is gemmae cup? Mention its significance.

- h) Who are Gymnosperms? Mention one economically important member of this group.
2. Answer any **two** of the following: 5×2=10
 - a) With labelled diagram, describe one plant RNA virus. 3+2
 - b) Give a short note on reproduction of lichens.
 - c) Draw and properly label the life cycle of *Puccinia* sp. 3+2
 - d) What are the amphibian nature of bryophytes?
 3. Answer any **two** of the following: 10×2=20
 - a) Illustrate different types of sexual reproduction in *Oedogonium* sp. What is akinete? 8+2
 - b) With suitable labelling, draw the L.S. of capsule of *Funaria* sp. 5+5
 - c) Mention the plant/microbes where do you find the following features: 2×5=10
 - i) Indusium,
 - ii) Conjugation tube,
 - iii) Carinal canal,
 - iv) Floridean starch,
 - v) Transfusion tissue
 - d) With suitable sectional diagrams, discuss the sporophyte of *Pteris* sp with special emphasis on sorus.
