

(b) What is an artificial seed ? Discuss the importance of somatic embryogenesis.

(c) Define Micropropagation and add a note on its applications.

3×20=60

8. Write short notes on any **six** of the following :

(a) Fusogen

(b) Organogenesis

(c) ICBN

(d) Advantages of Numerical taxonomy

(e) Rhizopus

(f) Ginkgo

(g) Nematode Root Knot of Rice

(h) Economic importance of algae

(i) Dissemination of viruses

(j) Microbes in Medicines.

6×10=60

Total No. of Printed Pages : 4

Roll No.

1[CCE.M]1

Botany-I

(04)

Time : Three Hours

Maximum Marks : 300

INSTRUCTIONS

- (i) Answers must be written in English.
- (ii) The number of marks carried by each question is indicated at the end of the question.
- (iii) The answer to each question or part thereof should begin on a fresh page.
- (iv) Your answers should be precise and coherent.
- (v) The part/parts of the same question must be answered together and should not be interposed between answers to other questions.
- (vi) Candidates should attempt question nos. **1** and **5** which are compulsory and any **three** out of the remaining questions, selecting at least **one** question from each section.
- (vii) If you encounter any typographical error, please read it as it appears in the text book.
- (viii) Candidates are in their own interest advised to go through the General Instructions on the back side of the title page of the Answer Script for strict adherence.

- (ix) No continuation sheets shall be provided to any candidate under any circumstances.
- (x) Candidates shall put a cross (X) on blank pages of Answer Script.
- (xi) No blank page be left in between answer to various questions.

SECTION–A

1. Write notes on any **six** of the following :
 - (a) Apomixis
 - (b) Pollen tetrad
 - (c) Crucifer type of embryogenesis
 - (d) Ascocarps
 - (e) Aflatoxin
 - (f) Aleurone Layer
 - (g) Polyembryony
 - (h) Oscillatoria. 6×10=60
2. (a) Describe various methods of Transmission of Viral diseases in plants.
- (b) How are bacterial diseases in plants controlled ? Explain in detail.
- (c) Describe the role of micro-organisms in controlling pollution. 3×20=60
3. (a) Give a general account of Bryophytes ? Why are they called plant amphibians ?

- (b) Write about Bacillariophyceae, specifying its economic importance.
- (c) What are water ferns ? Describe any one studied by you. 3×20=60

4. (a) Define Palynology and its application in different branches of Botany.
- (b) Write about the secondary growth in Boerhaavia.
- (c) Give a general account of Pinaceae and add a note on its economic importance. 3×20=60

SECTION–B

5. Write short notes on any **six** of the following :
 - (a) Totipotency
 - (b) Floral Character of sapotaceae
 - (c) Tissue culture
 - (d) Laticiferous tissues
 - (e) Heart wood
 - (f) Bisporic embryo-sac
 - (g) Hibiscus Pollen Grains
 - (h) Difference between Rust and Smut. 6×10=60
6. (a) Give a comparative account of Verbenaceae and Solanaceae.
- (b) Describe in detail the pollination mechanism in Asclepiadaceae.
- (c) Compare the floral characters of Fabaceae with Asclepiadaceae. 3×20=60
7. (a) Explain anther culture. Add a note on its importance in haploid production.