

1(CCE-M)4

BOTANY - I

[4]

Time : 3 Hours

Maximum Marks : 300

INSTRUCTIONS:

- i) Answer 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 there of should begin on a fresh page.
- iv) Your answer 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 five Questions No's 1 and 5 are compulsory.
- vii) If you encounter any typographical error, please read it as it appears in the textbook.
- 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.

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- b) Describe the salient features of the family Euphorbiaceae
- c) Compare the floral characters of Malvaceae and Cucurbitaceae (3×20=60)
- 7. a) Describe organogenesis and its importance.
- b) Explain the techniques involved in tissue culture
- c) What is somatic hybridization and add a note on its applications. (3×20=60)
- 8. Write short notes on any six of the following. (6×10=60)

- a) TMV
- b) Sexual incompatibility
- c) Azolla
- d) Mycorrhiza
- e) Grain smut of Sorghum
- f) Parasitism
- g) Dwarf shoot.
- h) Totipotency
- i) Pollen grains
- j) Biocides.

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- 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.*
- xii) *No programmable calculator is allowed.*
- xiii) *No stencil(With different markings) is allowed.*

SECTION-A

1. Write notes on any six of the following. (6×10=60)
- a) Sandal Spike
 - b) Pud-18
 - c) Gemma cup
 - d) Synthetic seeds
 - e) Storage organs in Cruciferae
 - f) Water blooms
 - g) Basidiocarps
 - h) Gnetum
2. a) What are fungal toxins? Explain with examples.
- b) 'The rusts and cereals are polymorphic in nature'. Explain
- c) What are Microbes? Describe its Importance in agriculture and medicine. (3×20=60)

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3. a) Discuss the role of algae in human welfare.
- b) Describe the Gametophytes in Bryophyte in detail
- c) Explain Sexual reproduction in Gymnosperms (3×20=60)
4. a) What is Polyembryony? Describe its types and causes of Polyembryony.
- b) Describe the secondary growth in Dicot stem and root.
- c) Give an account of structure of cycas ovule and compare it with that of an angiosperm. (3×20=60)

SECTION-B

5. Write short notes on any six of the following. (6×10=60)
- a) Haploids and its significance.
 - b) Flower of Asclepiadaceae
 - c) Types of Stomata
 - d) Red algae
 - e) Dikaryotization
 - f) Spadix and Spikelet
 - g) Monocot seed
 - h) Engler and Prantl.
6. a) Give a comparative account of Musaceae and Orchidaceae.

4-1 (3)

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