

1(CCE-M)6  
BOTANY - II  
[04]

Time Allowed -3 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 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. Questions No's.1 and 5 and compulsory and remaining THREE questions selecting at least ONE from each section.**
- vii) If encounter any typographical error, please read it as it appears in the text book.
- viii) Candidates are in their 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 will be left in between answer to various questions.
- xii) No programmable Calculator is allowed.
- xiii) No stencil (with different marking) is allowed.
- xiv) In no circumstances help of scribe will be allowed.

**SECTION-A**

1. Write short notes on any **SIX** of the following : **(6×10=60)**
  - a) Peroxisome
  - b) Chiasmata
  - c) Gene
  - d) Polytene chromosome
  - e) Seed dormancy

- f) Point mutation
- g) Fermentation
- h) Essential oil

2. a) What are the physiological changes occur in plants due to the length of day or night ? (3×20=60)
- b) Describe Restriction endonuclease ?
- c) Explain gene expression ?
3. a) Write in detail about sex linked inheritance ? (3×20=60)
- b) How nutrients are transported in plants ?
- c) Explain oil and fiber yielding plants ?
4. a) Explain in details about Meiosis and cell cycle ? (3×20=60)
- b) Describe ecological succession ?
- c) What are plant hormones? Explain plant growth hormones in details?

#### SECTION-B

5. Write short notes on any **SIX** of the following (6×10=60)
- a) Fruit ripening
  - b) Plasmodesmata
  - c) Prokaryotic cell wall
  - d) Chi - square analysis
  - e) Afforestation
  - f) Rubisco
  - g) Photorespiration
  - h) Seed germination
6. a) Describe in detail about nitrogen fixation ? (3×20=60)
- b) Explain light reaction and carbon fixation reaction of Photosynthesis ?
- c) How many types of forest are there in India ? Explain in details ?
7. a) What is phenylketonurea ? Describe in details about protein synthesis ? (3×20=60)

- b) Write in details about pollution and its controlling methods ?
- c) Describe in details about enzymes ?

8. Write the botanical name, systemic position and economic importance of the following :

(10×6=60)

- a) Rubber
  - b) Turmeric
  - c) Fennel
  - d) Cedar wood
  - e) Pine
  - f) Rye
  - g) Madagascar periwinkle
  - h) Cashew nut
  - i) Pea
  - j) Jackfruit
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