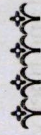


8. Write the botanical names, systematic position and economic importance of the following: any six (6×10=60)

- a) Saffron
- b) Cotton
- c) Opium
- d) Soyabean
- e) Clove
- f) Ginger
- g) Wheat
- h) Coffee
- i) Sacred basil.
- j) Mustard.



1(CCE-M)4

BOTANY - II

[04]

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 thereof 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 Q No: 1 and 5 are compulsory
- 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.
- 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) Chloroplast
  - b) Auto radiography.
  - c) Polytene chromosome
  - d) Recombinant DNA technology.
  - e) Polymerase chain reaction.
  - f) Photorespiration.
  - g) Vernalization.
  - h) Endangered plants
2. Describe the process of meiosis and its significance **(3×20=60)**
  - a) Explain in detail the Nucleosome model of DNA
  - b) What is Aneuploidy? Describe the types of Aneuploidy.
  - c) Write an account of ascent of sap in plants. **(3×20=60)**
3. Discuss the basic differences among tactic, tropic and nastic movements in plants.
  - a) What is photophosphorylation? Give an account of cyclic and non-cyclic photophosphorylation.

04 - II (2)

4. a) Describe the types of structural changes in chromosome. **(3×20=60)**
  - b) Explain the operon model for regulation of gene activity.
  - c) Describe the characteristics of Genetic code.

**SECTION-B**

5. Write notes on any Six of the following: **(6×10=60)**
  - a) Karyotype and Idiogram.
  - b) Xero sere
  - c) Shola vegetation
  - d) Alkaloids
  - e) Organic evolution.
  - f) Arena curvature test.
  - g) Photosynthetic pigments
  - h) Respiratory Quotient.
6. a) Define the term pollution. Write an essay on types of pollution and its control methods. **(3×20=60)**
  - b) What is male sterility? Describe the types of male sterility in plants.
  - c) Describe the significance of biological Nitrogen Fixation.
7. a) Explain the wood and fiber yielding plants. **(3×20=60)**
  - b) What is gene transfer? Explain Agrobacterium tumefaciens mediated gene transfer.
  - c) What is pedigree analysis? How are pedigree charts used in human genetics? Explain.

04 - II (3)

[Turn Over