

BOTANY **(Paper II)**

Time Allowed : Three Hours

Maximum Marks : 300

QUESTION PAPER SPECIFIC INSTRUCTIONS

(Please read each of the following instructions carefully before attempting questions)

There are EIGHT questions divided in two Sections.

Candidate has to attempt FIVE questions in all.

Question Nos. 1 and 5 are compulsory and out of the remaining, any THREE are to be attempted choosing at least ONE question from each Section.

All questions carry equal marks.

Wherever any assumptions are made for answering a question, they must be clearly indicated.

Word limit in questions, wherever specified, should be adhered to.

SECTION 'A'

1. Answer any three of the following. Each part should answer in not more than 200 words:
 - (a) With the help of a diagram, throw light on the organization of a cell
 - (b) Mitochondria as “powerhouse” of the cell
 - (c) CAM Pathway
 - (d) Greenhouse gases
2. Explain why do you expect differences among cells arising from meiosis and not among those from mitosis.
3. What is polyploidy? How would you differentiate between different kinds of polyploidy?
4.
 - (a) Discuss in brief the structure of DNA and compare it with that of RNA.
 - (b) What do you understand by the term allopatry and sympatry? How are they connected with speciation?

SECTION 'B'

5. Answer any three of the following. Each part should be answered in not more than 200 words:
 - (a) Anti-transparent
 - (b) Differentiate between co-factors and co-enzymes
 - (c) Male sterility in plants
 - (d) Energy plantations
6. How is a seed attributed to be dormant? Give a test of seed viability.
7. Write short notes on:
 - (a) Conservation of ecosystem
 - (b) Endangered plants
 - (c) Characteristics of desert plants
8. Write botanical names, their respective families [?] one important use of the following:
 - (a) Flax
 - (b) Mahogany

- (c)** Saffron
- (d)** Cocoa
- (e)** Aspirin
- (f)** Opium
- (g)** Lavender
- (h)** Senna
- (i)** Hops
- (j)** Indigo