CSM : 24

BOTANY PAPER - I

Time Allowed : 3 hours | Maximum Marks : 100

QUESTION PAPER SPECIFIC INSTRUCTIONS

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

There are eight (8) questions - four (4) questions each in Part A & B. Each question carries 20 marks.

Marks for each question is indicated against it.

Compulsory questions :

(a) Question No. 1 from Part-A and

(b) Question No. 5 from Part-B

[Compulsory questions No. 1 & 5 have 4 (four) Sub-questions carrying 5 marks each.]

Total No. of questions to be attempted :

5 (five) questions.

[A candidate shall attempt 2 (two) compulsory questions from Part A and B. Out of the remaining 6 (six) questions, 3 (three) are to be attempted taking at least 1 (one) but not more than 2 (two) questions from each Part]

Word Limit:

(a) Compulsory questions carrying 5 marks shall have a limit of 150 words.

(b) There shall be no word limit for the remaining questions.

PART - A

1. Write short notes on the following : **(4×5=20)**
   (a) Chemotaxonomy
   (b) Economic importance of pteridophytes
   (c) Reproduction in bacteria
   (d) Parasitism

2. With proper illustrations, describe the various modes of reproduction in fungi. **(20)**

3. With suitable examples, explain the role of pollen morphology in plant taxonomy. **(20)**

4. How does phylogenetic system differ from natural system of classification? Give the outline of Hutchinson's classification. Provide the merits and demerits of the classification. **(4+12+4=20)**

PART - B

5. Write short notes on the following : **(4×5=20)**
   (a) Double fertilization
   (b) Opening and closing of stomata
   (c) Importance of botanical gardens
   (d) Different types of embryo rescue

6. With the help of diagrams, describe the different types of endosperm. Comment on the functions of endosperm. **(16+4=20)**

7. Write a brief account on the anatomy of C_3 and C_4 plants. Discuss the unusual secondary growth pattern in monocotyledons with emphasis on *Dracaena*. **(5+15=20)**

8. What are somatic hybrids and cybrids? Explain the method used to produce somatic hybrids and cybrids and their significance in plant breeding. **(4+16=20)**

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