

M.Sc. (Botany) (NEP Pattern) Semester-I
NEP-04-1 / 01MSCB4.1 Paper-IV - Molecular Biology and Plant Biotechnology-I

P. Pages : 1

Time : Three Hours



GUG/W/24/15064

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Illustrate your answer with suitable example and diagram.

1. What is cell wall? Write about structure of cell wall & its functions. 16

OR

Write note on:

- a) Fluid Mosaic Model. 8
b) Structure & role of plasmodesmata. 8

2. What is mitosis? Write about various phases of mitosis & its significance. 16

OR

Write notes on-

- a) Mitochondria. 8
b) Golgi complex 8

3. Write details about ultra-structure and functions of Nucleus. 16

OR

Write notes on-

- a) Semi-conservative type of DNA replication. 8
b) DNA damage & repair. 8

4. Write in detail about Electron Microscopy. 16

OR

Write notes on-

- a) Electrophoresis. 8
b) FISH & GISH 8

5. Write short notes on-
- a) Pumps & aquaporins 4
b) Flagellar movements. 4
c) RNA structure. 4
d) Ion-Exchange chromatography. 4
