

M.Sc. (Botany) (NEP Pattern) Semester-II
02MSCB-4.1 - Paper-VIII - Molecular Biology and Plant Biotechnology-II

P. Pages : 1

Time : Three Hours



GUG/S/25/15344

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw diagrams wherever necessary.

- 1.** What are Ribosomes? Write about structure and functions in detail. **16**
- OR**
- Write on
- a) Structure and role of tRNA. **8**
- b) Post – translational modification. **8**
- 2.** Explain in detail about regulation of gene expression in prokaryotes. **16**
- OR**
- Write on –
- a) Fine structure of gene. **8**
- b) Protein targeting to mitochondria. **8**
- 3.** Write in detail about transformation of Bacterial gene mapping. **16**
- OR**
- Write on –
- a) Independent assortment and crossing over. **8**
- b) Somatic cell-genetics-an alternative approach to gene mapping. **8**
- 4.** What is cell cycle and apoptosis? Write about role of cyclins and cyclin dependent kinases. **16**
- OR**
- Write on –
- a) Sucrose sensing mechanism. **8**
- b) Phospholipid signaling. **8**
- 5.** Write short notes on –
- a) mRNA transport. **4**
- b) Protein targeting to Nucleus. **4**
- c) Chromosome mapping. **4**
- d) Diversity in Protein kinases and phosphatases. **4**
