

M.Sc. - II (Botany) (CBCS Pattern) Semester-III  
**PSCBOTT10 - Paper-X - Cell and Molecular Biology-II**

P. Pages : 1

Time : Three Hours



**GUG/W/24/11242**

Max. Marks : 80

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

- 1.** Describe the Structure and function of Ribosome in detail. **16**
- OR**
- a) Eukaryotic Transcription **8**  
b) mRNA splicing **8**
- 2.** Describe the Prokaryotic Gene expression in detail. **16**
- OR**
- a) Vesicles and coat proteins **8**  
b) Protein targeting to Plastid and Mitochondria. **8**
- 3.** Describe the Bacterial gene mapping through transformation. **16**
- OR**
- a) Role of RecA and RecBCD enzymes. **8**  
b) Molecular mechanism of Recombination. **8**
- 4.** Give the detail mechanism on Programmed Cell Death in Plants. **16**
- OR**
- a) Immuno techniques in confocal microscopy. **8**  
b) Diversity of protein kinases and phosphatases. **8**
- 5.** Write short notes on- **16**
- a) tRNA- Structure  
b) Vesicles  
c) Somatic cell genetics  
d) Electrophoresis

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