

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

P. Pages : 1

Time : Three Hours



**GUG/W/23/11242**

Max. Marks : 80

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

1. Structure and function of ribosomes. 16

**OR**

Write notes on:

- a) Types of RNA and their function. 8  
b) Post translational modifications. 8

2. Describe regulation of Gene expression in prokaryotes and eukaryotes. 16

**OR**

Write notes on:

- a) Protein targeting to Plastids. 8  
b) Introns and their significance. 8

3. Describe Bacterial gene mapping through Transformation, conjugation and transduction. 16

**OR**

Write notes on:

- a) Molecular mechanism of recombination. 8  
b) Correlation of genetic and physical maps. 8

4. Explain in details regulation of cell cycle at molecular level. 16

**OR**

Write notes on:

- a) Calcium -calmodulin cascade. 8  
b) Confocal microscopy. 8

5. Write short notes on:  
a) RNA Splicing. 4  
b) Cis trans test. 4  
c) Molecular markers. 4  
d) PCD in plants. 4

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