

M.Sc.(Zoology) CBCS Pattern Semester-II
PSCZOOT07 - Paper-III : Molecular Biology and Biotechnology

P. Pages : 1

Time : Three Hours



GUG/W/23/11226

Max. Marks : 80

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

1. Describe structure and forms of DNA in Eukaryotes. **16**

OR

Write notes on.

- a) Regulation of Prokaryotic DNA replication.
- b) Types and causes DNA damage.

2. Explain molecular mechanism of Prokaryotic transcription. **16**

OR

Write notes on.

- a) Prokaryotic translation.
- b) Mobile DNA.

3. Explain isolation and sequencing of DNA by Maxam-Gilbert method. **16**

OR

Write notes on.

- a) Cloning vectors.
- b) Southern hybridization techniques.

4. Explain Monoclonal antibodies and Hybridoma technology. **16**

OR

Write notes on.

- a) RFLP.
- b) Biofertilizers.

5. Attempt the following. **16**
(4x4)

- a) Cot $\frac{1}{2}$
- b) Codon.
- c) Restriction Endonuclease.
- d) Single cell Protein.
