

**FACULTY OF SCIENCE**

**M.Sc. III Semester Examination, May/June 2012**

**BIOCHEMISTRY**

**Paper I**

(Molecular Biology)

Time : 3 Hours]

[Max. Marks : 80

Answer **all** questions.

**Section A** – (Marks: 8 x 4 = 32)

1. Different modes of replication.
2. What are Replication deficient mutants? Give examples.
2. DNA repair by Photoreactivation
4. Site Specific recombinations.
5. DNA polymerases I and II
6. Inhibitors of translation
7. Xenopus oocyte micro injection system of in vitro translation ribosomal protein.
8. Non-ribosomal protein synthesis.

**Section B** – (Marks : 4 x 12 = 48)

9. (a) Write in detail the composition and functions of eukaryotic DNA polymerases.  
Or  
(b) Write short notes on:
    - (i) Telomerases
    - (ii) Replicative transposition
    - (iii) Prokaryotic transposomes.
  10. (a) Discuss the homologous recombination in detail.  
Or  
(b) Give an account of SOS mutagenesis and its consequences.
  11. (a) Discuss the mechanism involved in initiation elongation and termination of transcription process.  
Or  
(b) Write about the composition and functions of eukaryotic polymerases. Add a note on enhancers.
  12. (a) Discuss the structure and function of r ibosomes.  
Or  
(b) Discuss the inhibitors of transcription.
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