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Name.....

Reg. No.....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION  
SEPTEMBER/OCTOBER 2004

General Biotechnology

GBT 202 MOLECULAR BIOLOGY

Maximum : 80 Marks

Time : Three Hours

Section A

*Answer any two questions.*

1. Compare and contrast the translation process in prokaryotes and eukaryotes.
2. Oncoproteins may regulate gene expression—Discuss.
3. Give a detailed account of protein targeting and degradation. (2 x 10 = 20 marks)

Section B

*Answer any ten questions.*

4. What are the enzymes and accessory proteins involved in DNA replication ?  
What is the role of Sigma factor ?  
Describe the ribozymes.  
Give an account of genomic libraries.
8. What are restriction enzymes ?
9. Compare and contrast the plasmids and cosmids.
10. Explain antibody-based screening for recombinant proteins.  
What is transcription termination ?
12. RecA triggers the SOS system—Explain.
13. What are transposons ?
14. What is the function of RNA polymerase ?  
Explain the receptor-mediated endocytosis. (10 x 5 = 50 marks)

Section C

*Answer all questions.*

17. Ubiquitin.  
RNA splicing.  
Replisome,  
SELEX  
Shine-Dalgarno sequences. (5 x 2 = 10 marks)