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SIIS 217 B-2K12
B.Sc. IIIrd Semester Degree Examination
Biotechnology Optional
Molecular Biology
Paper - 3.5

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

- i) *Answer all questions*
- ii) *Draw diagram wherever necessary.*

I. Answer the following in one word or in one sentence each.

(15×1=15)

- 1) Exons
- 2) What are Is elements?
- 3) What is Recon
- 4) TATA box
- 5) Suppressor gene
- 6) Mention the components of operon.
- 7) Terminator codons
- 8) Cistron
- 9) Define Mutation.
- 10) Feedback inhibition
- 11) Polymerases
- 12) Central Dogma
- 13) What is crossing over?
- 14) Define Transduction
- 15) Ligases.

II. Answer any five of the following

(5×5=25)

- 16) Describe the properties of Genetic code.
- 17) Types and functions of RNA.

- 18) Explain catabolic repression.
- 19) Give a note on types of transposons.
- 20) Give a note on sos repair
- 21) Induced Mutations-write a note.
- 22) Conjugation-Explain.

III. Answer any **four** of the following

(4×10=40)

- 23) Lac operon concept in E.Coli
 - 24) Replication of DNA in Eukaryotes
 - 25) Give a note on structural organization of genome.
 - 26) Give a note on gene transfer in Micro organisms.
 - 27) Describe the process of transcription in prokaryotes.
 - 28) Describe post translational regulation of gene expression.
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