Code: R7222304

R07

B.Tech II Year II Semester (R07) Supplementary Examinations, April/May 2013

## **MOLECULAR BIOLOGY**

(Biotechnology)

Time: 3 hours Max. Marks: 80

Answer any FIVE questions All questions carry equal marks

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- 1. Describe Watson & Crick model of DNA. Explain DNA denaturation.
- 2. Explain the process of DNA replication in E.coli.
- 3. What do you mean by "End Replication Problem" in Eukaryotes? Explain the mechanism of action and role of Telomerase.
- 4. Explain structure & function of the following:
  - (a) Clover leaf model of tRNA.
  - (b) Eukaryotic mRNA.
- 5. Describe the mechanism and importance of RNA splicing.
- 6. With labeled diagrams explain the process of protein synthesis in prokaryotes.
- 7. Explain post translational modifications. Add a note on protein synthesis inhibitors.
- 8. Classify mutations. Explain the types and action of mutagens.

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