

**R09**

**Code No: C0302**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**M.Tech I Semester Examinations, March/April 2011**

**MOLECULAR BIOLOGY AND VIROLOGY**

**(BIOTECHNOLOGY)**

**Time: 3hours**

**Max. Marks: 60**

**Answer any five questions  
All questions carry equal marks**

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1. Explain the steps involved in DNA replication. [12]
2. Mention the different classes of RNA & their functions. [12]
3. Briefly describe transcription process in eukaryotes. [12]
4. Comment on.  
a) CPG islands  
b) Disruption of RNA structure & capping [12]
5. Write about the molecular mechanism of anti sense RNA in gene regulation. [12]
6. Write short notes on  
a) Transposable elements [6]  
b) Retro viruses in transformation [6]
7. What are ribozymes? Explain the strategies for designing ribozymes? [12]
8. Explain in detail the replication of bacteriophages. [12]

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