

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT  
TEST -2 EXAMINATIONS April 2019

B.Tech (Bioinformatics) 1<sup>st</sup> year

Course Code: 10B11BI411

Course Name: Molecular Genetics

Course Credits: 04

MAX. MARKS: 25

MAX. 1.5 hrs

*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. Marks are indicated in brackets against each question.*

1. Discuss followings:- (5)
  - a. Structural features of tRNA
  - b. Chargaff's rules
2. Design and discuss an experiment to prove semi-conservative model of replication. (5)
3. Explain followings modes of replication (5)
  - a. theta
  - b. rolling circle
4. Describe rho-independent transcription termination in bacteria. (5)
5. How the lac operon controls lactose metabolism in E. coli? (5)