

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY

T2 Examination - April 2018

B.Tech (2nd Semester)

Course Code: 10B11BI411

Course Name: Molecular Genetics

Course Credit: 04

Max. Marks: 25

Max. Time: 1Hr. 30Min.

All questions are compulsory. Be precise in answers.

1. Why was Mendel successful? Discuss his conclusions in detail. (3)
2. Discuss read-through mutations and non-sense mutations. Discuss their examples also. (3)
3. Draw and discuss the structure of tRNA. Name various unusual bases present in tRNA. (3)
4. Give mechanism of telomere length maintenance. (3)
5. Discuss mismatch DNA repair mechanism. (3)

6. Discuss various modes of replication. (5)
7. Discuss following two experiments in detail that prove DNA is the genetic material. (5)
 - a. Griffith experiment.
 - b. Avery, MacLeod and McCarty experiment.