

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2021

B.Tech III Semester

COURSE CODE: 18B11BI311

MAX. MARKS: 35

COURSE NAME: CELL AND MOLECULAR BIOLOGY

COURSE CREDITS: 3

MAX. TIME: 2 Hours

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

1. What are transport proteins and explain with example how its defect may lead to disease? (3 Marks)
2. How does Cholesterol (LDL) uptake takes place in animal cells? (3Marks)
3. T Cell activation controls nuclear import. Briefly explain the process. (3Marks)
4. Write a note on the steps involved in the amino acid charging of tRNA by aminoacyl-tRNA synthetase. (3Marks)
5. Classify the types of RNA. (3 Marks)
6. Explain how carrier proteins regulate cytosolic pH? (5 Marks)
7. Briefly explain Tight junction that exists between lateral surfaces of cells. Mention its importance and molecules involved with a neat diagram. (5Marks)
8. Write a note on the following (Each Carry 2Marks)
 - a. G protein coupled receptors
 - b. 5'Capping of mRNA
 - c. RNA Polymerase II
 - d. Ribozyme
 - e. Cell recognition protein