

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2023

B.Tech-I Semester (BT/BI)

COURSE CODE (CREDITS): 18B11BT111 (3)

MAX. MARKS: 25

COURSE NAME: Fundamental Biology

MAX. TIME: 1 Hour 30 Minutes

COURSE INSTRUCTORS: Dr. Tyson

Note: (a) All questions are compulsory.

(b) Marks are indicated against each question in square brackets.

(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

1. Find out what the terms 'algal bloom' and 'red tides' signify. [CO -2] (2 Marks)
2. Explain in brief about the bacterial cell wall. [CO-2] (2 Marks)
3. Why is the plasma membrane described as a "protein iceberg in the sea of lipids"? [CO-2] (2 Marks)
4. Describe Importance of Mitosis and Meiosis in an Individual. [CO -4] (2 Marks)
5. Salient features of Watson and Crick model of DNA. [CO-5] (2 Marks)
6. Give a detailed account of the classes of Kingdom Fungi under the following: [CO-2] (3 Marks)
 - i. Mode of nutrition
 - ii. Mode of reproduction
7. Describe the different phases occurring in meiotic prophase – I. Also, mention the chromosomal events during each stage. [CO-4] (4 Marks)
8. Describe the structure and functions of the organelles stated below- [CO-3] (4 Marks)
 - i. nucleus
 - ii. mitochondria
 - iii. plastid
9. Explain the machinery of prokaryotic transcription. [CO-5] (4 Marks)