## BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI (MID SEMESTER EXAMINATION MO/2023)

CLASS: BTECH/IMSC/BHMCT SEMESTER: I
BRANCH: BT/CIVIL/CHEMICAL/MECH/PIE/FT/PHYSICS/HMCT SESSION: MO/2023

SUBJECT: BE101 BIOLOGICAL SCIENCE FOR ENGINEERS

TIME: 02 Hours FULL MARKS: 25

## **INSTRUCTIONS:**

- 1. The question paper contains 5 questions each of 5 marks and total 25 marks.
- 2. Attempt all questions.
- 3. The missing data, if any, may be assumed suitably.
- 4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates

.....

Q.1(a) Q.1(b)	What are the various stages of biological organization? Describe Miller Urey experiment with its significance.	[2] [3]	CO 1 3	BL 1 2
Q.2(a) Q.2(b)	Write the sources and disorder caused by vitamin A and vitamin B1. Compare plant cell and animal cell with diagram.	[2] [3]	2 2	2
Q.3(a) Q.3(b)	Describe the classification of carbohydrates. Describe the stages of mitosis cell division.	[2] [3]	2	1 2
Q.4(a) Q.4(b)	What are the levels of protein structure? Describe the steps of glycolysis pathway with diagram.	[2] [3]	2 3	2
Q.5(a) Q.5(b)	What is Gibbs Free Energy? Write note on aerobic and anaerobic respiration and its location in cell.	[2] [3]	2 3	2

:::::19/10/2023:::::