BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION SP2023)

CLASS: BTECH
BRANCH: CSE/AI&ML/ECE/EEE

SEMESTER : IInd
SESSION : SP/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

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			CO	BL
Q.1(a)	Draw a schematic diagram of cell cycle.	[2]	1	2
Q.1(b)	Who gave the Chemosynthetic theory for the origin of life? Describe an experiment to prove the Chemosynthetic theory of the origin of life.	[3]	2	3
Q.2(a)	Differentiate between Mitosis and Meiosis.	[2]	3	2
Q.2(b)	Who proposed cell theory? Discuss its components and limitations.	[3]	1	2
Q.3(a)	Define carbohydrates. Classify carbohydrates with examples.	[2]	3	1
Q.3(b)	Why does protein show diversity? List the functions of Protein.	[3]	4	1
Q.4(a)	Define Entropy. Does photosynthesis reduce local entropy?	[2]	4	4
Q.4(b)	Describe the process of Glycolysis. Where does it occur and what is the net production of ATP in glycolysis?	[3]	1	1
Q.5(a)	Diagrammatically differentiate plant cell and animal cell.	[2]	2	2
Q.5(b)	What are the 5 differences between aerobics and anaerobic respiration? Is there any similarity between them?	[3]	3	1

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