

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

**CLASS: BE
BRANCH: ALL**

**SEMESTER: III
SESSION : MO/2018**

SUBJECT : BT3021 BIOLOGICAL SCIENCE

TIME: 1.5 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The total marks of the questions are 30.
2. Candidates may attempt for all 30 marks.
3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. The missing data, if any, may be assumed suitably.

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- Q1 (a) Write any four characteristic features of living things. [2]
(b) What is chemosynthetic theory of origin of life? Explain briefly. [3]
- Q2 (a) Draw a systematic flow diagram for the biological organization starting from cell. [2]
(b) Write a short note on Whittaker's classification. [3]
- Q3 (a) Draw the structure of Glucose and Maltose. [2]
(b) Write the biological applications of proteins and carbohydrates. [3]
- Q4 (a) What is vitamin? Write the importance of any two vitamins. [2]
(b) What is protein? Write a short note on structure of protein. [3]
- Q5 (a) What is oxidation-reduction reaction? Explain with biological reactions. [2]
(b) What is beta-oxidation? Write the balance sheet for the beta-oxidation of plamitic acid. [3]
- Q6 (a) Write a short note on the fate of pyruvate. [2]
(b) Write the various steps of Kreb's cycle. [3]

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