

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

CLASS: B. Tech  
BRANCH: Biotech

SEMESTER: III/ADD  
SESSION: MO/2025

SUBJECT: BE24243 BIOCHEMISTRY

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) | Mention salient features of monosaccharides?                         | [2] 1 | 1  |
| Q.1(b) | Provide the structure of glucose and maltose?                        | [3] 1 | 2  |
| Q.2(a) | Define different types of homopolysaccharides?                       | [2] 1 | 2  |
| Q.2(b) | Elucidate different steps of glycolysis?                             | [3] 2 | 3  |
| Q.3(a) | Discuss the key enzymes involved in gluconeogenesis?                 | [2] 1 | 1  |
| Q.3(b) | Illustrate different properties of amino acids?                      | [3] 2 | 3  |
| Q.4(a) | Propose a schematic representation of amino acid metabolism?         | [2] 2 | 3  |
| Q.4(b) | What do you understand by Oxidative deamination?                     | [3] 1 | 1  |
| Q.5(a) | Discuss various bonding patterns involved in stability of a protein? | [2] 2 | 2  |
| Q.5(b) | Evaluate different levels of protein organization?                   | [3] 2 | 3  |

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