

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

**CLASS: BE
BRANCH: BIOTECH**

**SEMESTER: VI
SESSION: SP/2020**

SUBJECT: BT6025 FOOD AND ENZYME TECHNOLOGY

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.
 6. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q1 (a) Write the chemical structure of any four amino acids and indicate is basic or acidic nature. [2]
I. Alanine
II. Tryptophan
III. Glutamic acid
IV. Lysine
V. Tyrosine
- (b) What do you understand by hydrogenation of lipids? How wax is useful in food preservation? [3]
- Q2 (a) Draw the generalized texture profile of a homogenized food. Label the main components in it. [2]
(b) Describe any four enzymes used in food industry. [3]
- Q3 (a) What is the application of Affinity chromatography in enzyme purification? [2]
(b) Draw a flowchart for isolation and purification of enzymes from bacterial cell. [3]
- Q4 (a) Give a brief idea of Classification of Enzymes. Why enzymes need to be classified? [2]
(b) What are the factors responsible for optimal enzyme activity? [3]
- Q5 (a) Define the hurdle technology? [2]
(b) What are the characteristic of food that are under consideration during food processing and preservation? [3]
- Q6 (a) What is auto-oxidation of fatty acids? What is the ideal way for long term preservation of fried snacks? [2]
(b) Give a comparative statement for Pasteurization and sterilization process. [3]

::: 28/02/2020M :::::