

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

CLASS: BTECH  
BRANCH: BIOTECH

SEMESTER : III  
SESSION : MO/2022

SUBJECT: BE204 BIOCHEMISTRY AND ENZYME TECHNOLOGY

TIME: 3:00 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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Q1	(a) Define the functions of essential amino acids?	[2] 1	a,c	1
Q1	(b) Illustrate the significance of polysaccharides?	[3] 3	a,c,f	2
Q1	(c) Investigate the structural properties of proteins?	[3] 5	f,h	5
Q2	(a) Explain the role of biological membrane?	[2] 2	b,d,e	3
Q2	(b) Mention the significance of gluconeogenesis?	[3] 4	f,l,j	5
Q2	(c) Demonstrate the significance beta-oxidation?	[5] 5	f,h	6
Q3	(a) Examine the regulation of carbohydrate metabolism?	[2] 1	a, c	5
Q3	(b) Explain the process of deamination	[3] 3	a,c,f	3
Q3	(c) Elucidate the mechanism of urea detoxification?	[5] 5	f,h	4
Q4	(a) Define the properties of biological catalyst?	[2] 2	b,d,e	1
Q4	(b) Illustrate the significance of feedback regulation?	[3] 5	f,h	2
Q4	(c) Differentiate between kinetics of non-regulatory and regulatory enzymes?	[5] 6	d,g,j,l	4
Q5	(a) Provide the significance of turn over number of enzymes?	[2] 3	a,c,f	1
Q5	(b) Examine the applications of enzymes in textile and detergent industries?	[3] 4	f,l,j	5
Q5	(c) Evaluate different methods of enzyme immobilization?	[5] 6	d,g,j,l	6

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