

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

**CLASS: BE
BRANCH: BIOTECH**

**SEMESTER: IV
SESSION : SP/2019**

SUBJECT : BT4025-IMMUNOLOGY

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) Define the term immunity. [2]
(b) Discuss the mechanism of cell mediated immune response with proper illustration. [3]
- Q2 (a) Define Immune System. [2]
(b) Write short notes on different types of immunity. [3]
- Q3 (a) Draw a neat labelled sketch of antibody. [2]
(b) Describe the method for monoclonal antibody production. [3]
- Q4 (a) What are catalytic antibodies? [2]
(b) How are antibodies classified? Give brief detail of each. [3]
- Q5 (a) What are antigen and Haptens? [2]
(b) What are the different features of an Immunogens? [3]
- Q6 (a) What do you mean by Prozone effect? [2]
(b) Discuss about Precipitation type of Ag-Ab interaction and its applications. [3]

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