

Roll No.

U – 327

B. Sc. (First Year)

EXAMINATION, 2018

INDUSTRIAL MICROBIOLOGY

Paper – II

**MICROBIAL BIOCHEMISTRY AND
IMMUNOLOGY***Time : Three Hours**Maximum Marks : 40 (For Regular Students)**Maximum Marks : 50 (For Private Students)***Note-** Attempt *all* questions. Question no. 1
is compulsory.

1. Attempt any *five* questions. (Not more than
50 words each)– $2 \times 5 = 10$
- Define vaccine.
 - Functions of carbohydrate.
 - Define polysaccharide.
 - What are purine and pyrimidines ?
 - Write down properties of amino acids.
 - Discuss co-enzyme and cofactors.

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- Describe agglutination reaction.
- Write down a note on types of antigens.
- What do you understand by abnormal immunoglobulin ?
- Describe nucleic acids.

Unit – I

2. What are carbohydrates ? Write down the
classification of carbohydrate. 6/8

Or

Describe the chemical structure and
properties of monosaccharides,
oligosaccharides and polysaccharides.

Unit – II

3. Describe the structure and types of nucleic
acids. 6/8

Or

What are Lipids ? Write down classification,
properties and functions of lipids.

Unit – III

4. Write down the classification and properties
of proteins. 6/8

Or

Describe primary secondary and tertiary structure of protein.

Unit - IV

5. Define Enzymes. Discuss mechanism of enzyme action and factors affecting enzyme action. 6/8

Or

What is enzyme inhibition ? Describe competitive and non-competitive inhibition.

Unit - V

6. What are antibodies ? Describe the structure and types of antibodies with its function. 6/8

Or

Write in detail about production of monoclonal antibodies.