

Roll No. ....

**D-3680**

**B. Sc. (Part II) EXAMINATION, 2020**

**BIOCHEMISTRY**

Paper First

**(Enzymology)**

*Time : Three Hours ]*

*[ Maximum Marks : 50*

**Note :** Answer all the *five* questions. *One* question from each Unit is compulsory. All questions carry equal marks.

**Unit—I**

1. What are different class of enzymes ? Explain the significance of each digit of E. C. number.

*Or*

What is the difference between cofactors and prosthetic group ? Write a detailed note on importance of Vitamins.

**Unit—II**

2. Write a detailed note on the functions and significance of  $\text{NAD}^+$ , FAD and co-enzyme A in metabolism.

*Or*

Explain in detail the mechanism of action of Carboxypeptidase.

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**Unit—III**

3. What is the general procedure for isolation and purification of enzymes ?

*Or*

Describe the methods of enzyme purification by ion exchange and column chromatography.

**Unit—IV**

4. Write a detailed note on the effects of enzyme concentration, temperature, pH and substrate concentration on enzyme activity.

*Or*

Derive the Michaelis-Menten equation for unisubstrate reactions.

**Unit—V**

5. Describe about the different methods used for immobilization of enzymes.

*Or*

Explain in detail about the use of enzymes in diagnostics with examples.