

2122

B.A./B.Sc. (General) Fifth Semester

Biochemistry

Paper -B: Applied Biochemistry – I

Time allowed: 3 Hours

Max. Marks: 45

**NOTE:** Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit.

x-x-x

I. Attempt the following:-

- a) Give the role of niacin and biotin as coenzyme.
- b) What is biochemical role vitamin E as antioxidant?
- c) Define BMR. Write various factors influencing BMR.
- d) Define pesticide toxicity and write down the mechanism of organophosphate toxicity.
- e) Define detoxification. What is the role of glycine in detoxification reactions?
- f) What is the role of Diacylglycerol in hormone action? (6x1½)

### UNIT - I

- II. Describe the structure, mechanism of action and biochemical function of Vitamin C and vitamin K. (9)
- III. Describe the role and biochemical functions of Vitamin D. Also explain the mechanism of action. (9)

### UNIT - II

- IV. Discuss biochemical role of carbohydrates and lipids. How is the metabolism affected during starvation? (9)
- V. Define Protein energy malnutrition. Discuss the two diseases caused by PEM. (9)

### UNIT - III

- VI. Describe various types of Phase I and Phase II reactions involved in detoxification. (9)
- P.T.O.

(2)

- VII. What is meant by physio chemical properties of toxic chemicals? Discuss how xenobiotic toxicity is influenced by nutritional status and metabolic induction.

(9)

#### UNIT - IV

- VIII. Describe the mechanism of action of steroidal hormones.

(9)

- IX. Explain the main features and mode of action of Hypothalamic hormones.

(9)

x-x-x