

2123
B.A./B.Sc. (General) Fifth Semester
Biochemistry
Paper -B: Applied Biochemistry – I

Max. Marks: 45

Time allowed: 3 Hours

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) Define Respiratory quotient of carbohydrates and lipids.
- b) What is Protein Energy malnutrition?
- c) Define Specific Dynamic action of foods?
- d) How is cytochrome P450 enzyme system important in detoxification?
- e) What is chemical nature of Vitamin D? How does activation of Vitamin D occur?
- f) Write the general mechanism involved in action of hormones acting through intracellular receptors. (6x1½)

UNIT - I

- II. a) What is the biochemical role of coenzymes of Niacin? (6,3)
b) Describe biochemical role of folic acid.
- III. a) Discuss the role of Vitamin A in visual cycle. (6,3)
b) Describe important biological functions of Vitamin K.

UNIT - II

- IV. Describe in detail Starvation and obesity. (9)
- V. Define BMR. Explain various factors influencing BMR. (9)

UNIT - III

- VI. Describe various types of Phase I and Phase II conjugation reactions involved in detoxification. (9)
- VII. Explain the mechanism of Carbamate and organophosphate toxicity. (9)

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(2)

UNIT - IV

- VIII. Describe the mechanism of action of insulin and Growth hormones. (9)
- IX. Discuss the main features and mode of action of steroidal hormones. (9)

x-x-x