

# BIOCHEMISTRY

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## Paper - 2

24<sup>th</sup> OCTOBER, 2002

(2 ½ hours)

Total marks : 35

### SECTION – B

#### 2. Write short answers : (Any 5) :

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- a) Name two radio isotopes and mention their applications in medicine.
- b) State the principle of flame photometry.
- c) State the factors affecting iron absorption.
- d) Draw a representation of the action of phospholipases on lecithin.
- e) Give a diagrammatic representation of mechanism of steroid hormone action.
- f) Give four examples of detoxication by conjugation.

#### 3. Answer in short : (any 2)

08

- a) i) State the enzyme deficient and major clinical manifestations in Von Gierke's disease.  
ii) Explain the defect in Wilson's disease, state the clinical manifestations
- b) i) Explain the role of various enzymes in liver function tests.  
ii) Explain glucose-6-phosphate de-hydrogenase (G6PD) deficiency.
- c) A person presents with untreated diabetes mellitus. He is treated for acidosis.
  - i) What is the type of acidosis?
  - ii) What is the normal bicarbonate: Carbonic acid ratio? What will happen to the ratio in this patient?
  - iii) How will compensation occur?
  - iv) What is the role of kidney in correcting the acidosis?

### SECTION – C

4. What is gluconeogenesis? Describe the reactions of gluconeogenesis. State the fate of the precursors of this pathway. How is gluconeogenesis regulated? **09**

**OR**

Explain the three major stages of cholesterol synthesis. How is this regulated ?

5. Attempt (any 2) :

- a) Elcosanoids.
- b) Chromatography.
- c) Mechanism of hormonal action for any two hormones.

**10**

