BIOCHEMISTRY

Paper – 2

OCTOBER 2003

(2 ½ hours) **Total marks : 35**

SECTION – B

2. Write short answers (any 5 of 6) : **10**

a) State the principle of colorimetry and electrophoresis.

b) What are tumor markers? Give two examples.

c) Diagrammatic representation of Cori's cycle.

d) Write one reaction each involving biotin and pyridoxial phosphate.

e) What are epimers? Give two examples.

f) Write four important functions of prostaglandins.

3. Solve (any 2 of 3) : **08**

a) Dehydration.

b) Metabolic changes during starvation.

c) 53 year old male diabetic is admitted in a semicomatic condition. His fasting blood glucose level is 410 ml % with urine sugar +++ and urine ketone bodies positive.

i) Name the clinical condition.

ii) Explain the underlying cause.

iii) What is renal threshold for glucose ?

iv) Describe the test for urinary ketone bodies.

SECTION – C

4. Explain the reaction on citric acid cycle with the help of a flow chart. Add a note on its energetics and significance. Explain Anaplerotic reactions with one example. **09**

OR

Describe in detail the extra-mitochondiral de novo synthesis of palmitic acid with energetics.

5. Answer (any 2 of 3) : **08**

a) Nutritional importance and metabolism of calcium.

b) Classify liver function tests giving examples for each.

c) Give the composition and functions of any four phospholipids.