

BIOCHEMISTRY

Paper - 2

WINTER 2011

(2 ½ hours)

Total marks : 40

SECTION – B

2. Brief answer question : (any 6 of 7) :

(6x4=24)

a) Classify phospholipids along with their examples and give one importance of each.

b) Explain the biochemical changes observed in starvation metabolism.

c) A 14 year old boy, resident of a boarding school was admitted to the hospital with vomiting and yellowish discoloration of skin and sclera. Routine urine examination showed the presence of bile salts, bile pigments and urobilinogen was absent.

i) What is type of jaundice ?

ii) Which enzymes are done to confirm the diagnosis and state the normal range.

iii) What changes are expected to be seen in the serum bilirubin levels?

d) A person with untreated diabetes mellitus and acidosis was admitted to the hospital for treatment.

i) What is the type of acidosis?

ii) What is the normal bicarbonate carbonic acid ratio?

iii) How will compensation occur?

e) Mechanism of action of steroid hormones.

f) State the principle of flame photometer. Explain the different parts of instrument and give their importance.

g) Explain with examples how detoxification takes place by conjugation.

SECTION – C

3. Solve (any 2 of 3) :

(2x8=16)

a) Explain how acetyl CoA is formed from pyruvate and how it is further metabolized in the TCA cycle. Explain the amphibolic nature of TCA cycle.

b) Mention the sources, RDA, absorption, biochemical functions and deficiency manifestations of iron.

c) Explain the pathway of beta-oxidation of palmitic acid and give its energetics.

