

Total Marks : 40

SECTION-B (SAQ) (24 Marks)

2. Short answer question (Any six out of seven)

- a) Explain Creatine clearance test its significance
- b) Explain how serum calcium levels are regulated
- c) Metabolic changes in diabetes mellitus
- d) Explain diagrammatically the mechanism of Group II hormones with an eg

- e) 25 year old man on treatment with anti malarial drugs, developed acute hemolytic crisis indicated by decreased Hb %, increased serum bilirubin and no bile pigment in urine
 - i) Name the defect and enzyme
 - ii) Explain the biochemical basis of development of hemolytic disease

- f) A 25 year old girl who was staying in the hostel presented with abdominal pain and vomiting. Her blood levels showed increased bilirubin levels and presence of urobilinogen in urine
 - i) what is the probable diagnosis ?
 - ii) What is the cause of this disease ? i) Which enzymes need to be estimated and what is the expected results?
 - iv) Name the test done for Bilirubin and state its principle
- g) Explain the metabolic changes observed during short term starvation.

SECTION- C LAQ (16 Marks)

3. Long answer question : (Any two out of three) (2x8=16)

- a) What is metabolic acidosis? State the causes of metabolic acidosis and explain the compensatory role of Blood buffers and Kidney
- b) Explain the hormonal regulation of blood glucose level and its significance
- c) What is Ketosis? Explain the synthesis and fate of ketone bodies