

Total Marks: 40 (2 and 1/2 hrs)

SECTION -B (SAQ)

2. Short answer question (Any six out of seven) (6x4=24)

- a) Genetic code.
- b) Substrate level phosphorylation
- c) Biologically important peptides
- d) A 5 year old boy brought to the pediatric OPD was found to have pallor, jaundice and splenomegaly. Investigations revealed presence of sickle shaped RBCs on peripheral blood smear examination.
 - (i) Mention the cause of jaundice and comment on serum bilirubin levels in this patient.
 - (ii) Explain the molecular basis of sickling.
- e) Hyperuricemia
- f) Antioxidants.
- g) Explain the role of dietary fiber.

SECTION - C LAQ (16 Marks)

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

- a) Describe sources daily requirement functions and deficiency manifestations of Vitamin D
- b) Describe the inborn errors of metabolism of phenylalanine and tyrosine
- c) Define enzymes and explain factors affecting enzyme activity