

BIOCHEMISTRY 2
SUMMER 2017

SECTION - B (SAQ)

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

- a) Dehydration.
- b) Diagnostic uses of radioactive isotopes
- c) Paper chromatography
- d) Creatinine clearance test and its interpretation
- e) A 10 year old girl presented with excessive tiredness, poor appetite, inability to concentrate and tingling sensations. On examination there was pallor, Lab investigations revealed decrease in haemoglobin, ferritin and MCV. Total iron binding capacity (tIBC) and transferrin were increased.

- i) What is your diagnosis ?
- ii) What are the causes of deficiency?
- iii) What is the daily requirement of the deficient substance ?
- iv) What are the dietary sources of the deficient substance ?

A 32 year old woman was hospitalized with acute myocardial infarction. Her plasma cholesterol was found to be 420 mg%, but her plasma triglyceride was normal. Her LDL level was highly elevated. Coronary angiography revealed the presence of severe atherosclerosis in all three coronary arteries. Her father and brother were also found to have hypercholesterolemia.

- f)
- i) What is the Diagnosis ?
- ii) What is the role of increased LDL in causing the condition ?
- iii) What treatment is given to reduce cholesterol levels ?
- j) g) Oncogenes
- k)

SECTION -C-(LAQ)

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

- p) a) Describe the hmp shunt pathway and its regulation. Add a note on the significance of the pathway.
- q) b) Describe cholesterol synthesis and its regulation.
- s) c) Describe renal mechanism of acid base balance regulation. Discuss causes of metabolic acidosis.
- t)
- u)
- v)