



Total marks: 70
Time Allowed: 2.5 HOURS

Q1: A chronic alcoholic 70 yrs old man was brought to emergency by his neighbor in semiconscious state. On laboratory investigations he was diagnosed as a case of Wernicke-Korsakoff syndrome.

- a.** This syndrome is due to deficiency of which vitamin ? (2.5)
- b.** What is the active co-enzyme form of this vitamin. (2.5)
- c.** What is the biochemical role of this vitamin. (5)

Q2: compare the following : **a.** Rickets, (3.5)

- b.** Osteomalasia (3.5)
- c.** Osteoporosis (3)

Q3: What are sources of VIT-A. what is the role of this Vitamin in Vision. (2.5)

- a.** Draw visual cycle (5)
- b.** Write other Clinical manifestation of vitamin A deficiency (2.5)

Q4: A 2 year old male was brought to peds-OPD with presentation of bowed legs, frontal bossing & delayed tooth eruption. On examination child was pale looking his anterior fontanel was wide open & his wrist joints were wide.

- a.** What is the most possible diagnosis. (2.5)
- b.** Give biochemical reasons for bowed legs & delayed tooth eruption. In this child. (2.5)
- c.** Endogenous synthesis and activation of vit d and activation of calcium absorption from gut. (5)

Q5: A female patient with complain of lethargy malaise and myalgia. Also have symptoms of on/off bleeding gums & bruising on arms and buttocks. She also complain of emotional change and sleep pattern.

- a.** Diagnosis (2.5)
- b.** Causes (2.5)
- c.** Complications and treatment (5)

Q6: a. What is importance of serum enzymes diagnosis in clinical biochemistry (1)

- b.** Describe significance of ALT, amylase, LDH. Alkaline phosphates enzymes (4)
- c.** Write name and therapeutic use of some enzymes. (5)

Q7: A female baby born via normal vaginal delivery. She didn't received any vaccine or prophylaxis at birth. She was discharged. At 14 day baby developed severe bleeding at umbilical stemp

- a.** What is diagnosis and other important clinical manifestation in its deficiency. (5)
- b.** Describe deficiency of vitamin in response to 3D's, what is 3D's. (5)

