1. Answer the following questions:  
   (a) Define achlorhydria and its causes.  
   (b) Mention the source and the role of aldosterone in water balance.  
   (c) Give the clinical significance of Vanden Bergh test.  
   (d) Enlist the early and late serum enzymes which increases in acute myocardial infarction.

2. Attempt any one of the following:  
   (a) Describe the water and the electrolytes composition of intracellular and extracellular compartments of the body. Describe briefly the regulatory mechanisms of water balances and the abnormalities related to it.  
   (b) Describe in detail the clinical significance and detection method related to Sodium.  
   (c) Enlist the functions of liver. Discuss in the function tests to determine and differentiate the types of jaundice.
3. Enlist the tests associated with thyroid functions. Discuss in detail the thyroid Function tests based on hormonal metabolism.

4. Write short notes on any two:
   (a) Cardiac markers.
   (b) Fractional gastric analysis.
   (c) Anatomy of kidney.
   (d) ANP.

   [200]