

**Total No. of Pages : 01**

**M.Sc.MLT(Biochemistry) (2015 to 2017) (Sem.-3)**

**Subject Code : MMLT-302**

**Paper ID : [E1335]**

**Max. Marks : 100**

**1. Attempt any FIVE questions out of EIGHT questions.**

**2. Each question carries TWENTY marks.**

- 1) Discuss role of vitamins in our daily life? With the help of a table classify vitamins and give their chemical name and the disease caused due to their deficiency. Give one method for the estimation of vitamin D3, its normal range and clinical significance.
- 2) a) How hormones are different from enzymes? What are the different hormones produced by thyroid gland and what are their functions.  
b) Write a note on Tumor markers.
- 3) What are allosteric inhibitors? What are various methods for the estimation of alkaline Phosphatase? Give principle, method and normal range of any one of the methods.
- 4) What is the importance of electrolytes and how their level is maintained in our body? What are various methods for the estimation of magnesium? Give principle, method, clinical significance and normal range.
- 5) a) Describe briefly how urobilinogen is formed and list the conditions leading to their abnormal levels. How these are estimated in a clinical sample? What is its normal value?  
b) Write detailed note on Turbimetry.
- 6) How automation is helpful in a biochemistry lab? Discuss the principle, working and advantages of various types of autoanalysers?
- 7) a) What is the significance of GTT? What is the procedure adopted for performing GTT? Give its interpretation.  
b) Write detailed note on urea cycle?
- 8) What do you mean by quality control? What are the different methods by which quality control in a clinical biochemistry lab can be conducted? List two phases of internal quality control.