**Dr Mohd Abu Zaid**

**3nd Assignment for B.Sc. Medical Lab technology (pathology) Semester 4 subject - Clinical Enzymology and BSc MLT 3rd year subject Clinical Biochemistry-II**

**Fill ups**

1. Number of active sites in a functional Leucine Amino Peptidase is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Metal needed for activity of Leucine Amino Peptidase
3. Lambda max of L-Leucinamide is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Optimal pH of LAP is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a constituent metal ion of alkaline phosphatase
6. ALP found in kidney is a product of gene present on chromosome\_\_\_\_\_\_\_\_\_\_\_
7. The bone, liver, and kidney Alkaline phosphatases differ in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. The reference range of ALP in normal adult male is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Short notes**

1. Explain the function of Leucine Amino Peptidase.
2. Explain what do you mean by self-indicating substrates used in enzyme assay.
3. Give the function of Leucine Amino peptidases
4. Write a note on Fluorometric Assay of LAP.
5. Describe different types of buffer that effects alkaline phosphatase and explain how
6. How can we differentiate between different ALP isozymes by electrophoretic techniques?
7. Explain the effect of neuraminidase on different isozymes of ALP
8. Explain the origin and formation of different isoforms of Alkaline phosphatases.

**Essay type questions**

1. Discuss the clinical effects of Leucine Amino Peptidase.
2. Describe in detail the assay of total ALP activity in serum.
3. Explain how activity of LAP is estimated in lab.
4. Discuss the Clinical significance of Alkaline phosphatase.