1. Metabolic acidosis.
2. Protein buffer system.
3. Insulin.
5. Pregnancy test.
7. Pentosuria.
8. Lactate dehydrogenase.

9. a) Describe the mechanism involved in the maintenance of acid-base equilibrium in the body.

   OR

   b) Explain the electrolyte balance and give the composition of extracellular fluid and intra cellular fluid.
10. a) What are the elements of neuro endocrine system and how the neuroendocrine system is regulated?
    OR
    b) Name the hormones involved in regulation of blood glucose and mechanism of action.

11. a) How does the Automation and quality assurance in clinical laboratory is essential? Explain with examples.
    OR
    b) Explain, how the genetic counseling helps in reducing the burdens of genetic disorders and methods followed for diagnosis.

12. a) Discuss the clinical significance of various enzymes of pancreas and heart in detail. Write on the role of various enzymes of pancreas and heart with clinical importance.
    OR
    b) What are the methods involved in detection of inborn errors of metabolism?