

L.Q . Attempt these questions .All parts carry equal marks:

- I.** Discuss and draw life cycle of HIV .
- II.** Describe the specific steps that occur during the process of Replication.
- III.** Describe Meselson-Stahl experiment as an evidence of semiconservative replication of DNA.Also draw flow diagram of the experiment.
- IV.** Discuss how Darwin's theory of evolution by natural selection explains the origin of new species.
- V.** Explain chemiosmosis and photophosphorylation with the help of diagram
- VI.** Make a proper reactions of glycolysis in steps and also mention enzymes.
- VII.** Discuss general characteristics of Bryophytes with proper points and discuss in detail:
- VIII.** Discuss Nitrogen Cycle by making diagram:
- IX.** Discuss general characteristics of class mammalia ;
- X.** Explain Xerarch succession in detail;
- XI.** Describe the events of ovaries and uterus in human menstrual cycle and explain its hormonal regulation.
- XII.** Explain ABO blood group system in detail:
- XIII.** Describe epistasis with the example of a dog labrador retriever;
- XIV.** Describe the formation, structure and functions of the lysosomes. Interpret the storage diseases with reference to the malfunctioning of lysosomes.
- XV.** Explain the movement of sugars within plants.
- XVI.** Define lipids and describe the properties and roles of acylglycerol ,phodpholipids terpenes and waxes.
- XVII.** How would you relate the opening and closing of stomata with potassium ion? Explain.
- XVIII.** Discuss feedback inhibition in detail with diagram:
- XIX.** Discuss the properties of water:
- XX.** Discuss the different reproduction methods in bacteria: