

Q. 2 A) Explain the Good Laboratory Practices. (10)

OR

Describe the uses of safety symbols and explain the following pictogram Flammable, Explosives and Oxidising agent

B) Write short notes on any two. (10)

- a) Biological hazards in laboratory.
- b) Histogram
- c) Percent solution
- d) Any two Temperature Scales.

Q. 3 A) What is Ex-Vivo Gene Therapy? Explain its applications in treatment of SCID. (10)

OR

Give the achievements of Biotechnology in the field of Aquaculture/ Animal Husbandry/ Medical.

B) Write short notes on any two. (10)

- a) Industrial applications of Biotechnology.
- b) In-vivo Gene therapy
- c) Cloning of Dolly.
- d) Ethical issues of transgenesis.

Q. 4 Answer any two of the following. (20)

- a) What is chromatography? Explain its principle with reference to thin layer chromatography.
- b) Explain principle and applications of electrophoresis.
- c) Explain in detail the principle and applications of pH meter.
- d) Describe the principle, types and application of centrifuge.

Q. 5 Write short notes on any four. (20)

- a) Sorenson's pH meter.
- b) Toxic and corrosive chemicals
- c) What are the landmark achievements of Biotechnology?
- d) Green fluorescent proteins (GFP).
- e) Principle of simple microscope.
- f) Scope of Biostatistics.