

Time: 2 ½ Hours

Marks: 75

- N.B.: 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Draw neat labelled diagram wherever necessary.

Q. 1 Do as directed: (any fifteen)

15 M

- 1) Define: Holoenzyme.
- 2) The class of enzymes involved in oxidation-reduction reactions are -----.
- 3) The enzyme ----- the energy of activation.
a. Increases b. Decreases
- 4) Define: Temperature coefficient.
- 5) Explain the term: Homotropic effect.
- 6) Give one example of Irreversible inhibitor.
- 7) Enzymes are -----.
a. Proteins b. Carbohydrates
- 8) What is zymogen?
- 9) The lymphocyte that produces antibodies -----
a. B cell b. T cell
- 10) The immunity in which the T lymphocytes participate is -----
a. Humoral Immunity b. Cell Mediated Immunity
- 11) Lysozyme is present in -----
a. Tears b. Sweat
- 12) A type of traditional vaccine -----
a. Live attenuated vaccine b. Peptide vaccine
- 13) Any one secondary lymphoid organ.
a. Bone marrow b. Lymph node
- 14) Anti Rh antibodies are -----
a. Complete antibodies b. Incomplete antibodies
- 15) ----- is square of standard deviation.
- 16) Define - Range.
- 17) Give the term - Data.
- 18) What is meant by class width?
- 19) Define - Standard error.
- 20) The values of variable tend to concentrate around the central value and it is the central part of distribution, they are called as -----.

Q.2 A Describe classification of enzymes with example.

8M

Q.2 B Give an account of the various factors affecting enzyme activity.

7M

OR

Q.2 C Explain mechanism of enzyme action.

8M

Q.2 D With example explain competitive inhibition.

7M

Q.3 A Explain any two mechanisms of Innate Immunity.

8M

Q.3 B Explain the structure of an antibody molecule with a neat labelled diagram.

7M

OR

Q.3 C Explain with a diagram the structure of IgA.

8M

Q.3 D Describe Hybridoma technology.

7M

Q.4 A Define – Biostatistics. Discuss the importance of biostatistics in biology. 8M

Q.4 B Explain median and compute for the following data: 7M

Income (Rs.)	100	150	80	200	250	180	Total
No. of Persons	24	26	16	20	6	30	122

OR

Q.4 C Explain representation of data using Pie charts, Histogram and Frequency Curve. 8M

Q.4 D Calculate the mode of the following frequency distribution: 7M

Height in inches	58	59	60	61	62	63	64	65	66	67	Total
No. of Persons	4	6	5	10	20	22	24	6	2	1	100

Q.5 Write short note: (Any three) 15M

- 1 Feed-back inhibition.
- 2 Active site.
- 3 Any one modern vaccine.
- 4 Any one precipitation technique.
- 5 Merits, demerits and uses of standard deviation.
