PG Even Semester Examination, May 2025

LIFE SCIENCE & BIOINFORMATICS

4th Semester

Course No. : LS - 653 (Z)

(Applied Biology)

Full Marks : 70

Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

(Answer all questions)

1. What are monoclonal antibodies? Describe how monoclonal antibodies are produced by hybridoma technology. [2+12=14]

OR

2. Write short notes on the following: [2x7=14]
   (a) ELISA
   (b) Immuno-diffusion

3. Discuss about the principle, types and applications of biosensors. [14]

OR

4. What is risk? Discuss about the various steps involved in risk assessment. [2+12=14]

(Turn Over)

5. Define wild life. Describe the important provisions of wild life (protection) act and their relevance. [2+12=14]

OR

6. Write short notes on the following: [2x7=14]
   (a) Endemism
   (b) Conservation breeding.

7. Elucidate different habitats of parasites in vertebrate hosts citing suitable examples. Add a note on the physiological and metabolic dependance of a parasite on its host. [10+4=14]

OR

8. Write short notes on the following: [2x7=14]
   (a) Host parasite interaction with reference to immunity and resistance.
   (b) Mosquito and house fly as vectors of human diseases.

9. Describe the life cycle, pathogenesis and control of plasmodium falciparum. [14]

OR

10. Write short notes on the following: [2x7=14]
    (a) Life cycle of fasciola hepatica
    (a) Life cycle of ancylostoma duodenale

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