

2019

Part – II

ZOOLOGY

(Honours)

Paper – III

Full Marks – 90

Time : 3 Hours

*The figures in the right-hand margin indicate marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

Answer any **two** questions from the following :

2×15

1. Describe the life cycle of *Entamoeba histolytica*. Add a note on the pathogenecity and control measure of the disease caused by the said species. 8+4+3
2. What is FAP ? Differentiate innate and learned behaviour. Explain altruistic behaviour. State the advantages of social grouping ? 3+4+2+6

P.T.O.

3. Writes notes on the following :
- (a) Ecological succession. 5+5+5
  - (b) Biological rhythm.
  - (c) Different types of induced breeding of IMC.
4. How pyramid of biomass differs from pyramid of energy. Explain y-shaped energy flow model.  
Give a comparative account of grazing and detritus food chain with examples. 3+6+6
5. What are the basic differences between monoclonal and polyclonal antibodies ? Define toxoid vaccine and passive immunization. What do you mean by immuno suppression ? Differentiate passive and active immunization. 5+4+2+4

### Group – B

Answer any **five** questions from the following :  $5 \times 8$

6. With suitable diagram describe the life cycle of *Wuchereria bancrofti*. 6+2
7. Define pest and write a short account on biological control of insect pest. 2+6
8. Name two Fishery Research Institutes of India. What are exotic carps? What is the basic principle of polyculture. 2+2+4

9. Give Scientific names of different bees cultured in India. Mention various diseases of honey bee along with their causative agents. 4+4
10. Who coined the term 'Biodiversity'. State the significant of biodiversity conservation. 2+6
11. Expand IUCN and CITES. Differentiate vulnerable and threatened species. 2+2+4
12. Distinguish between Reserve Forest and National Parks. What do you mean by core area? Differentiate in-situ and ex-situ conservation. 3+2+3
13. What are bacterial diseases of poultry. Name three asiatic breeds of fowl. 4+4
14. Give the scientific names of various species of silkworm reared in India. Write a short account on diseases of Silkworm. 3+5

### Group – C

Answer any **five** questions from the following : 5×4

15. What is haptan and why an adjuvant is necessary? 4
16. What is ELISA. State its working principle. 1+3
17. Describe the structure of a silk gland and state the functions of different parts of the said gland. 2+2

18. What is xenobiotics ? Differentiate  $LC_{50}$  and  $LD_{50}$ . 1+3
19. Write a short account on air pollution. 4
20. Define niche. Differentiate allopatric and sympatric species. 1+3
21. What are survivorship curves and state what do you mean by the term 'biotic potential'. 3+1
22. Write a note on Wildlife Protection Act 1972. 4
23. Differentiate thermoperiodism and photoperiodism with examples. 4
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