

1M4A25234

(Pages : 1)

Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fourth Semester M.Sc Zoology Degree Examination, April 2025

MZL4C09 – Immunology & Cytogenetics

(2022 Admission onwards)

Time: 3 hours

Max. Weightage : 30

**I. Answer any eight of the following: -(Weightage -1)**

1. Comment on receptor desensitization
2. What is apoptosis? Add notes on genes involved in it
3. Explain the cell signalling through intracellular receptors
4. Write about ELISA and its applications
5. Briefly describe immunoprecipitation
6. Comment on the cellular distribution of MHC molecules
7. What are synthetic peptide vaccines? Write one example
8. Write notes on phagocytosis
9. Distinguish between autograft and allograft
10. Write short notes on adaptive immunity with one example
11. Explain the factors influencing immunogenicity
12. Comment on immunological basis of graft rejection **(8x1 = 8 weightage)**

**II. Answer any four of the following: -(Weightage - 3)**

13. Explain the molecular organisation of cell membrane
14. Write notes on the general principles of cell communication
15. What are monoclonal antibodies? Add notes on hybridoma technology
16. Describe the structure of a typical IgG molecule with the help of a labelled diagram
17. Comment on the activation and differentiation of B and T-cells
18. Distinguish between humoral and cell mediated immunity
19. Write notes on the followings
  - a) Cytokines
  - b) Autoimmune disease **(4x3 = 12 weightage)**

**III. Answer any two of the following: - (Weightage - 5)**

20. Describe the primary immunodeficiency diseases with suitable examples
21. Write an essay on antigen-antibody interactions
22. Discuss the different pathways involved in the complement activation and regulation
23. Explain the endogenous and exogenous pathway of antigen processing and presentation **(2x5= 10 weightage)**

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Fourth Semester M.Sc Zoology Degree Examination, April 2025

MZL4E02(5)– Wild Life Biology II Wildlife Conservation

(2022 Admission onwards)

Time: 3 hours

Max. Weightage : 30

**I. Answer any eight of the following questions (Weightage 1)**

1. Write a note on illegal wildlife Trade.
2. Comment on reforestation.
3. Write a note on NRCP
4. Comment on gene banking
5. What do you mean by MAB?
6. Give a brief account on Indian Forest Act.
7. Comment on IUCN.
8. Write an account on Sea turtle project.
9. Mention about compression hypothesis.
10. What do you mean by demographic stochasticity?
11. Comment on BNHS.
12. Give a short note on Ranganathittu Bird Sanctuary

(8 x 1 = 8 weightage)

**II. Answer any four of the following questions (Weightage 3)**

13. Differentiate between *insitu* and *exsitu* conservation of wildlife.
14. Give an account on reasons for deforestation
15. Give a short note on conservation values of wildlife.
16. Comment on Red Data book.
17. Briefly explain Earth Summit.
18. Discuss about Project Tiger.
19. Comment on administrative setup and statutory bodies for wildlife protection.

(4 x 3 = 12 weightage)

**III. Answer any two of the following questions (Weightage 5)**

20. Write an essay on the causes of the depletion of wildlife resources.
21. Briefly explain the Hydel project and their impact with special reference in Kerala.
22. Write an essay on different National Parks of India with special reference to Kerala.
23. Explain the role of tribals in wildlife conservation and mention about tribal groups in Kerala.

(2 x 5 = 10 weightage)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

**Fourth Semester M.Sc Zoology Degree Examination, April 2025**

**MZL4E03(5)– Wild Life Biology II Wildlife Management**

(2022 Admission onwards)

Time: 3 hours

Max. Weightage : 30

**I. Answer any eight of the following questions. (Weightage-1) (8x1=8)**

1. Explain optimal foraging theory
2. What is Zoonosis? Explain with examples
3. Comment on audio recording techniques in wildlife population estimation. .
4. Write notes on remote sensing.
5. Comment on conventions related to wetland management
6. Briefly explain food selection and patterns of habitat utilization.
7. Describe capturing techniques in wildlife.
8. Briefly explain captive breeding.
9. Comment on EIA.
10. Review on major viral diseases of Indian wild mammals.
11. Discuss forage poisoning.
12. Briefly explain policies and laws in wildlife management.

**II. Answer any four of the following questions. (Weightage-3) (4x3=12)**

13. Write a short essay on chemical immobilization.
14. Describe basic considerations for designing a modern Zoo.
15. Briefly explain impacts of pollution on wildlife.
16. Write notes on nutritional deficiency diseases of wild animals.
17. Describe various software platforms for modelling
18. Discuss Sampling methods for Food habit analysis.
19. Write notes on pedigree analysis and karyotype techniques in wildlife study.

**III. Answer any two of the following questions. (Weightage-5) (2x5=10)**

20. Discuss the direct and indirect methods for the wildlife population estimation.
21. Write an essay on management of Indian Cranes. Comment on impact of pollution on wetland birds.
22. Briefly explain "Radio telemetry" and "digital tagging" in Wildlife study.
23. Explain the impacts of forest fire on wildlife. Add notes on fire control and suppression procedures.