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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Fourth Semester M.Sc Zoology Degree Examination, April 2024

**MZL4C09 – Immunology & Cytogenetics**

(2022 Admission onwards)

Time: 3 hours

Max. Weightage : 30

**Section A**

**I. Answer Eight of the following**

**(1 x 8 = 8 Weightage)**

1. Comment on factors influencing immunogenicity.
2. Distinguish between apoptosis and necrosis.
3. What is antibody engineering?
4. Write notes on antigen presenting cells.
5. Enumerate the significance of calcium in neurotransmission.
6. Mention cell signalling by nitric oxide.
7. Write a note on SCID.
8. Immunological reasons for graft rejection?
9. How do lysosomes preserve its acidic environment internally?
10. Comment on the significance of Cadherins.
11. Enlist immunological responses during malaria and tuberculosis.
12. Write notes on inheritance of MHC.
13. Explain cell mediated immunity

**Section B**

**II. Answer Four of the following**

**(4 x 3 = 12 Weightage)**

14. Explain Toll-like receptors with example.
15. Write short notes on antibody diversity.
16. Comment on endogenous antigen presentation.
17. Distinguish between RIA and ELISA.
18. Describe activation and differentiation of B-cells.
19. Explain the structure and function of IgM.

**Section C**

**III. Answer Four of the following**

**(2 x 5 = 10 Weightage)**

20. Write a brief essay on Complement activation and regulation
21. Describe the primary and secondary immunodeficiency diseases.
22. Write an essay on the process and regulation of Apoptosis.
23. Describe immunological basis of graft rejection and specific immunosuppressive therapy.

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Fourth Semester M.Sc Zoology Degree Examination, April 2024  
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. Why is it important to conserve mangrove ecosystem?
2. What is Environmental and demographic stochasticity ?
3. Differentiate between afforestation and reforestation
4. Sea turtle project
5. Joint forest management
6. Minimum viable population
7. What are the problems due to the introduction of exotic flora & fauna?
8. TRAFFIC
9. What are the IUCN Red list criteria
10. National river conservation programme.
11. Sustainable development
12. Social Forestry

(8x1=8 Weightage)

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

13. Importance of tourism in wild life conservation
14. Write a short note on the impact of hydal projects in Kerala
15. What are the causes of depletion of wild life resources?
16. Role of WWF in wildlife conservation
17. Human wildlife conflict
18. Briefly explain Wild Life Protection Act 1972 with its latest amendments.
19. Write an account on the marine sanctuaries and national parks of India

(4x3= 12 Weightage)



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

20. Explain the tiger conservation scheme Project Tiger
  21. What are National parks and sanctuaries. Give an account on the national parks in Kerala.
  22. Explain the importance, ecosystem structure and management of Man and biosphere reserves in India.
  23. Briefly explain any five environmental organizations in Wildlife conservation
- (2x5 =10 Weightage)**

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Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
 Fourth Semester M.Sc Zoology Degree Examination, April 2024  
 MZL4E03(5) – Wild Life Biology III Wildlife Management  
 (2022 Admission onwards)

Time: 3 hours

Max. Weightage : 30

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

1. What is the significance of wildlife photography?.
2. Describe sonogram and its evaluation.
3. Describe the cranes of endangered category.
4. What is meant by Vegetation Profile? How is it prepared?.
5. Describe the features of Forest conservation Act of India.
6. What are the various habitat evaluation procedures?
7. Give a short account of importance of environmental sanitation.
8. Describe the sampling methods for amphibians.
9. Give an account on group foraging behaviour.
10. What are the thrust areas of waterfowl management?
11. Give an account of Wildlife health programmes.
12. Describe the indirect count method of wildlife estimation.

(8x1=8)

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

13. Describe the pheasant management projects of India.
14. Write on the software platforms for modeling.
15. Explain the Mark – recapture method of population estimation.
16. Describe the methods to analyse the food habits of an animal.
17. Write notes on chemicals used for immobilization of animals.
18. Describe the habitat utilization pattern of wildlife.
19. Describe the importance of genetic analysis of Wildlife.

(4x3=12)

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

20. Write an essay on Zoo management.
21. Describe the outbreaks of microbial diseases on Indian Wildlife.
22. Explain the remote sensing and telemetry studies of Wildlife.
23. Explain the impacts and management of forest fire.

(2x5=10)