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### FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fourth Semester M.Sc Degree Examination, March /April 2019 MZOL4E03(5) – Wild Life Biology III- Wildlife Management

(2017 Admission onwards)

Time: 3 hours

Max. weightage: 36

### I. Answer all the following Make a brief note of the following

- 1. HSI
- 2. Frugivores
- 3. Vegetation cover
- 4. Abundance.
- 5. Pellet count.
- 6. Chemical immobilisation.
- 7. Lincoln index.
- 8. Remote sensing.
- 9. Karyotyping.
- 10 .Goup foraging theory
- 11. Moonlit zoo.
- 12. EIA.
- 13. Track count.
- 14. Status of Indian peafowl

 $(14 \times 1 = 14 \text{ Weightage})$ 

### II. Answer any seven of the following

- 15. List down major Indian laws regarding the management of wild life.
- 16. Write notes on nutritional deficiency diseases in animals.
- 17. What are the functions of a zoo?
- 18. How does the forage poisoning affect the herbivores?
- 19. Briefly explain the sex determination in birds.
- 20. What are the steps for preventing forest fire?
- 21. Give a brief account on indirect counting techniques in population estimation?
- 22. Explain HEP.
- 23. Comment on the significance of videogaphy in mammalian studies.
- 24. Point out the criteria of radio telemetry.

(7 x2 = 14 Weightage)

### III. Answer any two questions.

- 25. Discuss the status of Pheasant management in India
- 26. Describe the habitat management procedures.
- 27. Explain the impact of pollution on wild life.
- 28. Discuss the common methodologies followed in modern wild life studies.

(2 x 4=8 Weightage)

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#### FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

### Fourth Semester M.Sc Degree Examination, March /April 2019 MZOL4E02(5) – Wild Life Biology II- Wildlife Conservation

(2017 Admission onwards)

Time: 3 hours Max. weightage: 36

#### I. Answer the following (Weightage -1)

- 1. What is meant by shifting cultivation?
- 2. Briefly mention the various afforestation programmes of the Government.
- 3. National River Conservation Programme (NRCP)
- 4. Write notes on the problems of exotic species mentioning suitable examples.
- 5. Indian Forest Act.
- 6. Resolutions of IUCN.
- 7. Write notes on BNHS? Mention two important publications?
- 8. What is meant by compression hypothesis.
- 9. What is a wildlife corridor? Mention its significance'
- 10. Define Island Biogeography theory.
- 11. Discuss the role of WWF in promoting wildlife conservation in India.
- 12. Joint Forest Management.
- 13. Describe the Pet trade in India.
- 14. Project Hangul.

 $(14 \times 1 = 14 \text{ weightage})$ 

## ll. Answer any seven of the following (Weightage - 2)

- 15. Discuss the ecological principles of conservation.
- 16. Give an account of Sea Turtle project.
- 17. Write notes on human- animal conflict and its impacts on wildlife?
- 18. Briefly explain the conservation values and ethics.
- 19. Ecological and social importance of Sacred groves.
- 20. Distinguish between sanctuaries, national parks and Biosphere reserves.
- 21. Briefly describe the major Grass land ecosystems.
- 22. Give an account of Ramsar sites of Kerala.
- 23. Ex-situ conservation strategies.
- 24. Tribal groups in Kerala.

(7 x2 = 14 weightage)

# III. Answer any two of the following: - (Weightage - 4)

- 25. Characteristics features, importance, management, protection and Administration of National Parks in Kerala.
- 26. Write an essay on the role of Government and voluntary organization in wildlife conservation.
- 27. Give a brief account of wildlife protection Act 1972 in India and its amendments.
- 28. Write an essay on ecotourism and its impacts on wildlife.

(2x4 = 8 Weightage)

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#### FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

### Fourth Semester M.Sc Degree Examination, March /April 2019 MZOL4B09 – Immunology & Cytogenetics

(2017 Admission onwards)

Time: 3 hours Max. weightage: 36

#### I. Answer all the following questions.

- 1. Distinguish between primary and secondary lymphoid organs with suitable examples
- 2. What is immunogenicity? Mention any two factors that influence immunogenicity
- 3. Explain the principle of RIA
- 4. What is epitope? Mention any two properties of B-cell epitope
- 5. Write short notes on Type 1 hypersensitivity
- 6. Briefly discuss the role of IP3 in cell signaling
- 7. Write short notes on SCID
- 8. Enlist any four immune responses during HIV infection
- 9. Give a brief account of immunological basis of graft rejection
- 10. What is chimeric antibody?
- 11. What are cell adhesion molecules? Cite two examples
- 12. What are hemidesmosomes?
- 13. Distinguish between necrosis and programmed cell death
- 14. State the features of Adaptive immunity

(14x 1= 14weightage)

## II. Answer Any Seven questions of the following questions

- 15. Explain the features of organ specific autoimmune diseases with a suitable example
- 16. Briefly explain Hybridoma technology
- 17. Briefly describe the mechanism of agglutination reactions
- 18. Explain the composition and functions of CD3 complex
- 19. Explain the role of cytokines in immune system
- 20. Provide a brief account of cellular distribution of MHC molecules

- 21. Write notes on recombinant vector vaccines
- 22. Briefly describe the composition of extracellular matrix
- 23. Explain the features of G-protein coupled receptors and discuss its role in the signaling via cAMP
- 24. Describe the intrinsic pathway of apoptosis

(7x 2 = 14 weightage)

# III. Answer Any two of the following

- 25. With suitable diagrams discuss the molecular mechanisms involved in homologous recombination of DNA in eukaryotes
- 26. What are complements? Describe different pathways of complement activation
- 27. Describe different pathways of processing and presentation of antigens
- 28. Discuss the reasons for generation of antibody diversity

(2x 4 = 8 weightage)