

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Fourth Semester M.Sc Degree Examination, March 2018  
ZO4CT10 – Biotechnology & Microbiology  
(2016 Admission onwards)

Max. Time: 3 hours

Max. weightage: 36

**I. Answer all the following questions.**

1. What is bioremediation?
2. Explain electroporation?
3. Outline biosensors.
4. Comment on RNAi.
5. Explain chromosome walking.
6. Define VNTR.
7. What is forensic medicine?
8. Write notes on candidiasis.
9. What are the general structural properties of viruses?
10. Write notes on microbial resistance.
11. What are the different methods of measurement of cell mass?
12. Distinguish between spread plate and pour plate techniques.
13. What is gram staining?
14. Explain bacterial motility.

**(14x1 = 14 weightage)****II. Answer any seven of the following.**

15. Describe DNA fingerprinting.
16. Explain the role of transgenic animals for human welfare.
17. Enumerate the advantages and disadvantages of cloning.
18. Describe FISH and GISH.
19. What are molecular markers? Describe any two of them.
20. Explain the structure and mode of action of antibiotics.
21. Describe the detailed structure of bacterial cell wall.
22. Explain the influence of environmental factors on microbial growth.
23. Write about biogas plants.
24. Describe various types of media used for culture of microbes.

**(7x2 = 14 weightage)**

III. Answer any *two* of the following.

25. Explain the mechanism of PCR. Describe various types and their applications.
26. Discuss the recent technologies in pollution control.
27. Explain microbial characteristics and treatment of waste water.
28. Write an essay on human diseases caused by bacteria.

(2x4 = 8 weightage)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Fourth Semester M.Sc Degree Examination, March 2018  
ZO4ET11 – Wild Life Biology II- Wildlife Conservation  
(2016 Admission onwards)

Max. Time: 3 hours

Max. weightage: 36

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

1. Agastyavanam Biosphere reserve.
2. IUCN criteria and definition regarding extinct (EX) and critically endangered (CE).
3. Resource depletion and Sustainable development.
4. Write notes on the problems of exotic species mentioning suitable examples.
5. Wildlife Protection Act -1972 with its latest amendments.
6. Man and Biosphere reserves (MAB) in India.
7. Write notes on BNHS? Mention two important publications?
8. Ecological impacts of shifting cultivation.
9. What is a wildlife corridor? Mention its significance.
10. Role of tribals in Wildlife conservation.
11. Illegal Wildlife Trade in India and related issues.
12. Gir Lion Project.
13. UN conferences on Environmental Issue.
14. National River Conservation Programme (NRCP).

(14 x 1 = 14 weightage)

**II. Answer any seven of the following (Weightage - 2)**

15. Hydel projects and their impacts, case studies in Kerala.
16. Give an account of Crocodile breeding project.
17. Write notes on human- animal conflict and its impacts on wildlife?
18. Describe the major plant species of Indian forests.
19. Describe the ecological, genetic, economic and Philosophic reasoning of Conservation.
20. Distinguish between sanctuaries, national parks and Biosphere reserves.
21. Conservation and management of Sacred Groves.
22. Ecodevelopment Projects.
23. Ex-situ conservation strategies.
24. Write a short essay on Ranganathitoo Bird Sanctuary

(7 x 2 = 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 Ecological Principles of Conservation.
27. Explain different forest types in India and describe the causes and consequences of deforestation.
28. Write an essay on the role of Government and voluntary organization in wildlife Conservation

**(2x4 =8 Weightage)**

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Fourth Semester M.Sc Degree Examination, March 2018  
ZO4ET12 – Wildlife Management  
(2016 Admission onwards)

Max. Time: 3 hours

Max. weightage: 36

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

1. HEP
2. Carnivory
3. Environmental sanitation.
4. Dominance
5. Call count
6. GIS
7. Live trapping.
8. Vegetation profile.
9. Drive count.
10. Peterson index.
11. Pedigree analysis.
12. Optimal foraging theory.
13. Depredation.
14. Safari park.

**(14 x 1 =14 Weightage)****II. Answer any seven of the following**

15. Prepare a layout for a zoo.
16. List down Indian cranes and their habitat preferences.
17. Discuss the role of photography in wild life management.
18. Comment on the impacts of forest fire
19. Prepare a table showing Ramsar sites in India and their significance.
20. Explain the importance of direct count in estimating mammalian population.
21. Give a brief account on sampling techniques in census?
22. What are the criteria for determining the age of animals?
23. Discuss the principle and procedures in recording bird calls
24. Make a protocol for the analysis of food content from a wild fauna.

**(7 x2 = 14 Weightage)**

**III. Answer any two questions.**

25. Make an account of the disease caused to wild fauna
26. Briefly explain the policies and laws related in wild life management.
27. Explain the practises of water fowl management
28. Discuss the methodologies adopted in wild animal estimation

**(2 x 4=8 Weightage)**