

Max. Time: 3 hours

Max. Marks: 80

I. One word questions (Answer all the questions)

1. Name the organism having partially four chambered heart
2. Name the reptile with third eye
3. which organism exhibits Hatschek's pits
4. Which is a limbless amphibian
5. Name the taxonomic order in which fish Latimeria belongs
6. Name the hormone helpful for metamorphosis in frog
7. Which animal produces Ammocoetes larva
8. Write the scientific name of Bangarus krait
9. Who discovered the frog *Nasikabatrachus sahyadrensis*
10. Name the organism which exhibit Neoteny

(10X1=10 Marks)**II. Paragraph questions (Answer any ten questions)**

11. Distinguish between procoelus and Amphicoelus vertebrae
12. Write short notes on the features of Agnatha
13. What are the arboreal adaptations of Racophorus
14. List the features of tunicates
15. Write short note on Neoceratodes
16. Describe the features of the order Cotylosauria
17. What are the primitive features of Brachiostoma
18. Write notes on sphenodon
19. Explain neoteny
20. Write notes on the features of Necturus
21. Briefly explain the male reproductive system of frog
22. Enlist the identification features of cobra.

(10X2= 20 Marks)**III. Short answer questions (Answer any five questions)**

23. Distinguish between cycloid and placoid scales of fishes
24. Write short notes on Doliolum
25. Give a brief account on the adaptations of Chamaeleon
26. Describe the feeding mechanism of amphioxus
27. Enlist the identification characters of poisonous snakes
28. Differentiate between Crocodylus and Alligator
29. What are the distinguishing features of Urochordata
30. Describe respiration in frog

(5X6= 30 Marks)**IV. Essay Questions (Answer any two questions)**

31. Explain the nervous system of Calotes with a suitable diagram
32. Describe the venous system of frog
33. Classify amphibia down to order with suitable examples
34. Describe the features of proto-chordates with examples

(2X10= 20 Marks)

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Reg. No:.....

Name:

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester BSc Degree Examination, November 2016

ZO3C03 – Physiology, Toxicology and Ethology

(2015 Admission onwards)

Max. Time: 3 hours

Max. Marks: 64

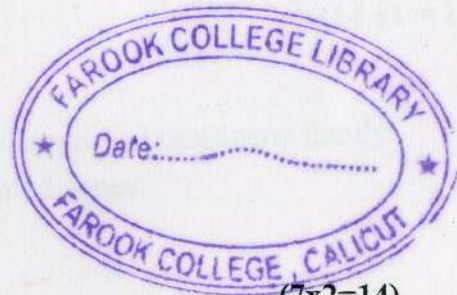
(Give illustrations and figures wherever necessary)

I. One word questions.(Each question carry 1 mark).Answer all questions :

1. Name the most ancient industrial toxicant.
2. Name the nutrition in which pre-digested food absorption through body surface.
3. Name the metallic part of Haemocyanin.
4. Name the disease characterized by reduced blood supply to the heart.
5. Name the functional junction between two neurons.
6. Name principal constituent of automobile exhausts.
7. Name the summer sleep.
8. Name a water soluble protein.
9. Name chemicals involved in the synaptic transmission.
10. Name the disease caused by Mercury poisoning. (10x1=10)

II. Short Answer questions.(Each question carry 2 marks). Answer any seven.

11. What is micropinocytosis?
12. What is starvation?
13. Mention the significance of fasting.
14. What is Myocardial infarction?
15. What is Nephrosis?
16. What is klinotaxis?
17. What is Altruism?
18. What is Photochemical Smog?
19. What are the events in cross-bridge binding?
20. What are instincts?



(7x2=14)

III. Answer any four of the following as paragraph:

21. Explain the functions of Plasma Membrane.
22. Explain the importance of fiber.
23. Briefly explain the Urea formation.
24. Briefly explain behavior patterns of social organization.
25. Write an account on group formation.
26. Explain briefly Radiation hazards. (4x5=20)

IV Answer any two of the following

27. Give an account on mechanism of Gas Exchange in animals
28. Write an essay on communication in animals
29. Describe impulse transmission
30. Briefly describe transmembrane transport. (2x10=20)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE
Third Semester M.Sc Degree Examination, November 2016
ZO3CT07 – Cell & Molecular Biology
(2015 Admission onwards)

Max. Time: 3 hours

Max. Weightage: 36

I. Answer all fourteen of the following

1. Distinguish between SINE and LINE.
2. Explain mismatch repair.
3. Give the mechanism of action of tetracycline as an antibiotic.
4. What is affinity labelling ? Write one of its applications.
5. Write notes on topoisomereses.
6. Compare missense mutation and nonsense mutation.
7. Explain the importance of methotrexate.
8. What are IS elements?
9. Explain evolutionary clock.
10. What is cancer?
11. What is gene conversion?
12. Comment on P element of *Drosophila*.
13. What is Holliday intermediate?
14. Distinguish between oncogene and proto-oncogene.

(14 x1 = 14)

II. Answer any seven questions:

15. With suitable example explain developmentally controlled multigene family.
16. Give a brief account of the evolution of interrupted genes.
17. Explain the task of telomerase.
18. Explain Wobble hypothesis.
19. Describe D- loop and θ - models of DNA replication.
20. Write the details of major kinds of damage to DNA.
21. Outline the biogenesis of ribosome in eukaryotes.
22. Elucidate various methods of gene transfer in bacteria.
23. Describe the role of RecA protein in genetic recombination.
24. Write down the peculiarities of yeast mitochondrial genome.

(7 X 2 = 14)

III. Answer any two questions:

25. Describe the regulation of gene expression in eukaryotes.
26. Write an essay on the special features of eukaryotic genome.
27. Explain the mechanism of translation in prokaryotes.
28. Describe the transcription of mRNA in eukaryotes. Add a note on post transcriptional modification of pre-mRNA.

(2 X 4 = 8)

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Reg. No:.....

Name:

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester M.Sc Degree Examination, November 2016

ZO3ET08 – Wild Life Biology-I Biodiversity & Biota

(2015 Admission onwards)

Max. Time: 3 hours

Max. Weightage: 36

I. Answer all fourteen questions (Weightage -1)

1. Gibbon
2. Endemism
3. Indian Otter
4. Giant Panda
5. Sperm Whale
6. Comment on staturic threat of Olive Ridley turtle
7. What are Hot spots? Mention hot spots of India?
8. *Nasikabatrachus sahyadrensis*
9. Falconiformes
10. Chiroptera
11. Ecological role of vultures
12. Nesting habits of Hornbills
13. Endemic bird areas
14. Vocalisation in birds

(14 x 1 = 14)

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

15. Explain Gondwana hypothesis
16. Comment on flocking and aggregation in birds
17. Briefly explain taxonomic positions of endangered birds of Western Ghats
18. Brood parasitism and cooperative breeding.
19. Endangered and endemic snakes of Western Ghats.
20. India is a mega biodiversity country. Explain?
21. Write notes on Order Insectivora
22. Briefly explain the impacts of exotic species on wildlife
23. Briefly explain sociobiology of lion

(7 x 2 = 14)

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

24. Write an essay on sociobiology of Elephants
25. Briefly explain the endemic mammals of Western Ghats. Add notes on their population status, threats and conservational significance.
26. Write an essay on endangered and endemic fishes and amphibians of Western Ghats.
27. Biology and taxonomy of the order Artiodactyla.

(2 x 4 = 8)

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Reg. No:.....

Name:

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE
Third Semester M.Sc Degree Examination, November 2016
ZO3ET09 – Wild Life Biology-II Wildlife Conservation
 (2015 Admission onwards)

Time: 3 hours

Max. Weightage: 36

Answer the following:- (Weightage – 1)

- What is endemism? Explain with examples.
- Correlate the terms resource depletion and sustainable development.
- Mention the role of UN in environmental conservation. Briefly explain Earth Summit.
- What is an exotic species? Explain its impacts on the new environment citing examples.
- What is illegal wildlife trade? How it affects the threatened species of wildlife?
- Differentiate between vulnerable and endangered species with reference to IUCN Red Data Book.
- Write notes on IUCN and its role in wildlife protection.
- Differentiate deforestation from reforestation.
- What is shifting cultivation? How it affects the wildlife habitat?
- What is the role of IBWL in promoting wildlife conservation in India?
- Distinguish between Minimum Viable Population and Effective Population Size.
- What is meant by Flagship animal? Explain with reference to Eravikulam National Park.
- Explain the role of governmental and non-governmental organizations in environmental education.
- How population explosion adversely affects the wildlife corridor? Explain with examples.

(14 x 1 = 14 Weightage)

Answer any seven of the following:- (Weightage – 2)

- What is ecotourism? How can we manage tourism and wildlife together?
- Write a brief note on BNHS and its role in nature conservation.
- What is the significance of Rhino re-introduction?
- Give a brief account on Gulf of Mannar and Gulf of Kutch as Wildlife Sanctuaries.
- Write down the reasons for man-animal conflict. Mention its control and management.
- Give an account of Gir Lion Project.
- Distinguish between National Park and Biosphere Reserve giving examples.
- What is meant by NRCP? How will it help to save fresh water ecosystem?
- Differentiate between In-Situ and Ex-Situ conservation.
- Give a brief account of social forestry and the significance of afforestation .

(7 x 2 = 14 Weightage)

Answer any two of the following:- (Weightage – 4)

- Write an essay on the forest types of Kerala.
- What are the major causes of depletion of wildlife population in India?
- Give an account of the impacts of Hydro-electric Project on wildlife.
- Give a brief account of Wildlife Protection Act, 1972 in India and its ammendments.

(2 x 4 = 8 Weightage)