

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

BZL4B04 – Animal Diversity Chordata Part II

(2022Admission onwards)

Time: 2 hours

Max. Marks : 60

Section A

I. Short answer questions. Each question carries 2 marks.

1. What is meant by dentition? Describe the characteristics of mammalian dentition.
2. Name any two digestive glands in *Columba*. Name the enzymes secreted by each and write their function.
3. Draw typical bird vertebra.
4. Write an account on egg laying mammals giving two examples.
5. Write note on any two peculiar features of birds.
6. How is bird's excretory system adapted for their aerial life?
7. Describe the mechanism of inspiration on rabbit.
8. What is meant by Insectivorous Mammal? Give two examples.
9. Mention the role of air sacs in bird's respiratory system.
10. Name any two recently extinct birds. Write the principle reason behind each extinction.
11. Name the mammalian order to which human belongs. Give three non-human examples or the same.
12. Write brief note on the rediscovery of *Jerdon's Courser*.

(Ceiling: 20marks)

Section B

II Paragraph questions. Each question carries 5 marks.

13. Write a short essay on sense organs in *Columba*.
14. Describe the structure of a bird heart. Support your answer with labelled diagram.
15. Write a comparative account on two subclass under class Mammalia giving appropriate examples.
16. Write a short essay on male reproductive system of *Oryctolagus cuniculus*.
17. With labelled diagram, describe the structure of typical feather. Write its two functions.
18. Characterise order Proboscidea. Add a comparative account on Indian and African elephant.
19. With labelled diagram, explain the integumentary system of rabbit.

(Ceiling: 30 marks)

Section C

III Essay questions. Answer any one question.

20. Classify and characterise **Class Aves** up to order. Mention two characters of each order giving one example for each.
21. With a neat labelled diagram write about structure and functioning of heart of *Oryctolagus*.

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Fourth Semester B.Sc Zoology Degree Examination, April 2025

BZL4C04 – Genetics & Immunology

(2022 Admission onwards)

Time: 2 hours

Max. Marks : 60

Section A**I Short answer questions. Each question carries 2 marks.**

1. Write a short note on Phenyl ketonuria
2. Comment on prenatal diagnostic techniques.
3. What is gynandromorphism
4. Comment on pseudogenes
5. Briefly explain the features of interrupted genes
6. Write a short note genetic code
7. Name any four gene transfer techniques used in genetic engineering
8. Write a short note on various carcinogens
9. Add a note on antigen presenting cells
10. What do you mean by toxoid vaccine? Give an example
11. Comment on cytokines
12. Write a short note on epitopes

(Ceiling: 20 marks)**Section B****II. Paragraph questions. Each question carries 5 marks**

13. Give an account on polygenic inheritance
14. Briefly explain Chromosomal mechanism of sex determination in animals
15. Outline the steps in protein synthesis
16. Define cancer. Briefly explain different types of cancer
17. Comment on RIA. Add a note on the applications of RIA
18. Write notes on the role of enzymes used in genetic engineering.
19. Explain immunodeficiency diseases.

(Ceiling: 30 marks)**Section C****III. Essay questions. Answer any one question.**

20. What are cloning vectors? List the characteristics of a cloning vector. Explain the different types of vectors used in gene cloning.
21. Give an account on the structure of Immunoglobulin and mention its different classes

(1 x 10 = 10 marks)