

KAMARAJ COLLEGE (Autonomous)

Accredited with A+ Grade by NAAC

(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)

THOOTHUKUDI – 628 003

(5 Pages)

Reg. No:

Question Code No : 25000613

Course Code : 24UFZO11

UG Degree - End Semester Examinations, November 2025

First Semester

B.Sc. ZOOLOGY

Introduction to Zoology

(For those who joined in July 2024 onwards)

Time : 3Hours

Maximum : 75 Marks

PART – A (10 × 1 = 10 Marks)

Answer ALL Questions

Choose the correct answer:

1. Name the first word in Binomial nomenclature.
(a) Species (b) Family
(c) Order (d) Genus
2. Which of the following is an invertebrate phylum?
(a) Mollusca (b) Chordata
(c) Vertebrata (d) Mammalia

3. Which organelle is known as the “Powerhouse of the cell”?
(a) Nucleolus (b) Ribosome
(c) Mitochondrion (d) Golgi apparatus
4. Find the process of synthesizing RNA from DNA
(a) Translation (b) Transcription
(c) Replication (d) Transformation
5. Proteins are made up of _____
(a) Nucleotides (b) Amino acids
(c) Fatty acids (d) Monosaccharides
6. Which vitamin is essential for blood clotting?
(a) Vitamin A (b) Vitamin B12
(c) Vitamin D (d) Vitamin K
7. Gametogenesis is the process of _____
(a) Fertilization (b) Formation of gametes
(c) Zygote formation (d) Hormone secretion
8. Who proposed the theory of natural selection?
(a) Gregor Johan Mendel (b) Jean-Baptiste Lamarck
(c) Charles Darwin (d) Alfred Wallace
9. Which one of the following secretes royal jelly?
(a) Drones (b) Worker bees
(c) Larvae (d) Queen bee
10. Which of the following is an application of biotechnology in

agriculture?

- | | |
|-------------------------------------|----------------------------|
| (a) Creating vaccines | (b) Producing antibiotics |
| (c) Developing pest-resistant crops | (d) In vitro fertilization |

PART - B (5 X 5 = 25 Marks)

Answer ALL Questions choosing either (a) or (b).

Answer should not exceed 250 words.

11. (a) Describe the characteristics of any three major phyla of animal kingdom with suitable examples.

(OR)

- (b) Mention the components, rules and importance of binominal nomenclature.

12. (a) State the importance of cell organelles.

(OR)

- (b) Explain the modern concept of a gene.

13. (a) Write a note on the biological importance of carbohydrates.

(OR)

- (b) Outline the biological functions of lipids.

14. (a) Explain the role of early earth conditions in the origin of life.

(OR)

(b) Differentiate between internal and external fertilisation.

15. (a) Explain the various applications of poultry keeping.

(OR)

(b) Examine the scope and applications of biotechnology in various field.

PART – C (5 X 8 = 40 Marks)

Answer ALL Questions choosing either (a) or (b).

Answer should not exceed 500 words.

16. (a) Explain the main characteristics of five kingdom classification of animals with examples.

(OR)

(b) Describe the salient features of Invertebrates with examples.

17. (a) Explain the process involved in the central dogma of protein synthesis.

(OR)

(b) General account on Mendelian dihybrid ratio and its significance.

18. (a) Classify the major types of vitamins and describe the primary biological functions of one essential vitamin from each category.

(OR)

(b) Analyse the role of proteins in our body.

19. (a) Describe the concept and components of an ecosystem.

(OR)

(b) Discuss the process of fertilization and its developmental stages in human.

20. (a) Explain the various applications of aquaculture in detail.

(OR)

(b) Discuss the role of apiculture in rural development and agriculture.