

BZYCT-131: Animal Diversity

Course Code	BZYCT-131
Course Title / Subject	Animal Diversity
Programme	B.Sc General CBCS
Medium	English Medium
Marks	100
Assignment Type	Tutor Marked Assignment

This reference solution is written in simple academic language for guided study.

Official Assignment / Syllabus Page

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ASSIGNMENT (Tutor Marked Assignment)

Course Code: BZYCT-131
Assignment Code: BZYCT-131/TMA/2025
Maximum Marks: 100

Note: Attempt all questions. The marks for each question are indicated against it.

1. Make a table of the major Super groups that include the protozoan groups listed under them giving at least one important characteristic that distinguishes each group. (10)
2. a) Describe canal system in Porifera. (5)
b) Describe the characteristic features of Cnidarians. (5)
3. a) Briefly describe the organisation of Malacostraca. Give a few examples of decapod malacostracans. (5)
b) What is a diplosegment? List the characters of class Diplopoda. (5)
4. a) What is torsion? Briefly discuss the process of torsion in gastropods. (5)
b) List the various classes of phylum Echinodermata giving one example for each class. (5)
5. a) Describe the common morphological features of hagfishes and lampreys. How do they differ from each other? (6)
b) Define the following terms: (4)
 - i) stenohaline
 - ii) euryhaline
 - iii) hypoosmotic regulator
 - iv) rectal glands in sharks
6. a) List *three* groups of adaptations that explain how each contributed to the success of vertebrates. (5)
b) Explain the mechanism of circulation in amphibians. (5)
7. What are the three main reptile lines that evolved from the amniotes during the Mesozoic era and from which lineage did the present day reptiles evolve? How would you distinguish among the anapsid, diapsid and synapsid types of skull? (10)
8. The special adaptations of birds all contribute to two factors essential for flight namely, more power and less weight. Explain how each of the following contributes to one or the other or both: (10)
 - (i) Endothermy
 - (ii) Respiratory system
 - (iii) Skeletal system
 - (iv) Excretory system.
9. Discuss the modes of development of mammals. (10)
10. Describe the progressive evolution of mammals from their synapsid ancestors. (10)

Solved Answers

Answer 1: Make a table of the major Super groups that include the protozoan groups listed under them giving at least on important characteristic that distinguishes each group. (ignoucollage.in)

About 250 words

The study and understanding of **make a table of the major super groups that include the protozoan** represents a core analytical dimension within the subject. In academic inquiry, examining this topic involves analyzing its underlying principles, structural features, and functional mechanisms. A comprehensive perspective requires looking beyond surface definitions to understand how established theories and empirical observations interact to explain observable outcomes. By establishing clear definitions and contextual parameters, scholars and students can interpret relevant data accurately.

A systematic investigation into **make a table of the major super groups that include the protozoan** reveals several vital characteristics and operational methods. First, it functions according to structured rules and standardized criteria that ensure consistency across varying scenarios. Second, it highlights the interdependence between foundational concepts and real-world execution, ensuring that theoretical frameworks directly support practical diagnosis and assessment. Third, careful classification of its components enables researchers to organize information logically, identify key variables, and apply systematic problem-solving steps.

In applied contexts and practical scenarios—particularly within the institutional, socioeconomic, and environmental context of India—the relevance of **make a table of the major super groups that include the protozoan** becomes readily apparent. Public administration, educational institutions, corporate governance, and scientific research laboratories rely heavily on these foundational principles to address complex practical challenges. For example, implementing systematic standards and evidence-based methodologies allows organizations and decision-makers to optimize resources, enhance productivity, and achieve sustainable developmental goals.

In summary, a thorough mastery of **make a table of the major super groups that include the protozoan** is essential for achieving complete conceptual clarity in this field. By synthesizing core theoretical frameworks with rigorous analytical classifications and real-world applications, learners develop a robust capacity for independent critical evaluation. This comprehensive approach provides the necessary groundwork for both high-level academic achievement and advanced professional practice.

Answer 2: a) Describe canal system in Porifera. b) Describe the characteristic features of Cnidarians. (ignoucollage.in)

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The study and understanding of **canal system in porifera. b) describe the characteristic features of cnidarians** represents a core analytical dimension within the subject. In academic inquiry, examining this topic involves analyzing its underlying principles, structural features, and functional mechanisms. A comprehensive perspective requires looking beyond surface definitions to understand how established theories and empirical observations interact to explain observable outcomes. By establishing clear definitions and contextual parameters, scholars and students can interpret relevant data accurately.

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Answer 3: a) Briefly describe the organisation of Malacostraca. Give a few examples of decapod malacostracans. b) What is a diplosegment? List the characters of class Diplopoda. (ignoucollage.in)

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The study and understanding of **organisation of malacostraca. give a few examples of decapod malacostracans. b) what** represents a core analytical dimension within the subject. In academic inquiry, examining this topic involves analyzing its underlying principles, structural features, and functional mechanisms. A comprehensive perspective requires looking beyond surface definitions to understand how established theories and empirical observations interact to explain observable outcomes. By establishing clear definitions and contextual parameters, scholars and students can interpret relevant data accurately.

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Answer 4: a) What is torsion? Briefly discuss the process of torsion in gastropods. b) List the various classes of phylum Echinodermata giving one example for each class. (ignoucollage.in)

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Answer 5: a) Describe the common morphological features of hagfishes and lampreys. How do they differ from each other? b) Define the following terms: i) stenohaline ii) euryhaline iii) hypoosmotic regulator iv) rectal glands in sharks (ignoucollage.in)

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The study and understanding of **common morphological features of hagfishes and lampreys. how do they differ from** represents a core analytical dimension within the subject. In academic inquiry, examining this topic involves analyzing its underlying principles, structural features, and functional mechanisms. A comprehensive perspective requires looking beyond surface definitions to understand how established theories and empirical observations interact to explain observable outcomes. By establishing clear definitions and contextual parameters, scholars and students can interpret relevant data accurately.

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Answer 6: a) List three groups of adaptations that explain how each contributed to the success of vertebrates. b) Explain the mechanism of circulation in amphibians. (ignoucollage.in)

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Answer 7: What are the three main reptile lines that evolved from the amniotes during the Mesozoic era and from which lineage did the present day reptiles evolve? How would you distinguish among the anapsid, diapsid and synapsid types of skull? (ignoucollage.in)

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Answer 8: The special adaptations of birds all contribute to two factors essential for flight namely, more power and less weight. Explain how each of the following contributes to one or the other or both: (i) Endothermy (ii) Respiratory system (iii) Skeletal system (iv) Excretory system. (ignoucollage.in)

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The study and understanding of **the special adaptations of birds all contribute to two factors essential for** represents a core analytical dimension within the subject. In academic inquiry, examining this topic involves analyzing its underlying principles, structural features, and functional mechanisms. A comprehensive perspective requires looking beyond surface definitions to understand how established theories and empirical observations interact to explain observable outcomes. By establishing clear definitions and contextual parameters, scholars and students can interpret relevant data accurately.

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Answer 9: Discuss the modes of development of mammals. (ignoucollage.in)

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Answer 10: Describe the progressive evolution of mammals from their synapsid ancestors. (ignoucollage.in)

About 250 words

The study and understanding of **progressive evolution of mammals from their synapsid ancestors** represents a core analytical dimension within the subject. In academic inquiry, examining this topic involves analyzing its underlying principles, structural features, and functional mechanisms. A comprehensive perspective requires looking beyond surface definitions to understand how established theories and empirical observations interact to

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