

BZYCT-131

ASSIGNMENT BOOKLET

Bachelor's Degree Programme

(BSCG)

ANIMAL DIVERSITY

Valid from 1st January, 2022 to 31st December, 2022



**School of Sciences
Indira Gandhi National Open University
Maidan Garhi
New Delhi-110068
(2022)**

Dear Student,

Please read the section on assignments in the Programme Guide for Core Courses that we sent you after your enrolment. A weightage of 30 per cent, as you are aware, has been earmarked for continuous evaluation, **which would consist of one tutor-marked assignment** for this course. The assignment is in this booklet, and it consists of three parts, Part A, B and C. The total marks of all the parts are 100, of which 35% are needed to pass it.

Instructions for Formatting Your Assignments

Before attempting the assignment please read the following instructions carefully:

- 1) On top of the first page of your answer sheet, please write the details exactly in the following format:

ROLL NO.:

NAME:

ADDRESS:

.....

.....

COURSE CODE:

COURSE TITLE:

ASSIGNMENT NO.:

STUDY CENTRE: **DATE:**

PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.

- 2) Use only foolscap size writing paper (but not of very thin variety) for writing your answers.
- 3) Leave 4 cm margin on the left, top and bottom of your answer sheet.
- 4) Your answers should be precise.
- 5) Complete each of Part A, Part B and Part C of this assignment separately, and **submit them together.**
- 6) The assignment answer sheets are to be submitted to your Study Centre as per the schedule made by the study centre. **Answer sheets received after the due date shall not be accepted.**

We strongly suggest that you retain a copy of your answer sheets.

- 7) This assignment is **valid from 1st January, 2022 to 31st December, 2022.** If you have failed in this assignment or fail to submit it by December, **2022**, then you need to get the assignment for the year **2023**, and submit it as per the instructions given in the Programme Guide.
- 8) **You cannot fill the exam form for this course** till you have submitted this assignment.

We wish you good luck.

**ASSIGNMENT
ANIMAL DIVERSITY**

**Course Code: BZYCT-131
Assignment Code: BZYCT-131/TMA/2022
Maximum Marks: 100**

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

Part-A

Maximum Marks: 50

1. Fill in the blanks with suitable words: (10)
 - a) Protists with delicate thread like pseudopodia belong to group
 - b) The coelom that is formed by enlargement of the split in the mesoderm is termed
 - c) Hexactinellida are characterised by the presence of spicules.
 - d) *Ascaris lumbricoides* lives as anaerobe as the availability of oxygen is very less.
 - e) The different segmental appendages of various arthropods are said to be organs.
 - f) The cavity enclosing the gonads and the end sacs of the excretory organs in crustaceans is the
 - g) Some cephalopods have filled shells to maintain their in water.
 - h) The endoskeleton of most echinoderms is formed of
 - i) Epitoky is a characteristic feature of
2.
 - i) Describe canal system in Porifera. (5)
 - ii) What do you mean by polymorphism? Explain the functions of various polymorphic forms of Hydrozoa. (5)
3.
 - i) Name *three* important characters of Platyhelminthes for considering them more advanced than cnidarians. (3)
 - ii) What is parasitic adaptation? Explain the adaptations that have taken place in *Ascaris lumbricoides*. (7)
4.
 - a) What are true coelomates? Discuss their advantages. (5)
 - b) "Insects have dominated the terrestrial environment". What are the reasons for the success of the insects in the terrestrial environment? (5)
5.
 - a) Write brief notes on : (5)
 - i) Shell in Bivalvia
 - ii) Crystalline style
 - b) Describe the water vascular system of a sea star. (5)

Part-B

Maximum Marks: 50

6. State whether the following statements are True (T) or False (F) (10)
- i) All lampreys are hermaphrodites.
 - ii) Ammocoete larvae metamorphose into adults in 3 to 7 days.
 - iii) The pattern of structure of limbs and girdles found in amphibians is different from those found in higher tetrapods.
 - iv) Gills are used as respiratory organs in larvae of Anura and in adults of urodeles.
 - v) Birds and crocodiles belong to a monophyletic group.
 - vi) In snakes, spur like rudiments of hind legs are only present in the cobras.
 - vii) The feather of birds consists of more than 90% of a particular type of alpha keratin, which is protein.
 - viii) Most of the female birds have only the right ovary and oviduct.
 - ix) The newborn babies of deer and horses are precocial.
 - x) Cynodonts developed homodont teeth.
7. a) Name *five* hallmarks shared by all chordates, and explain the function of each. (5)
- b) Describe the common morphological features of hagfishes and lampreys. How do they differ from each other? (5)
8. a) Why do marine teleosts need to drink large amounts of seawater? How do the freshwater teleosts overcome their osmoregulatory challenges? (5)
- b) Explain the mechanism of circulation in amphibians. (5)
9. a) How are tuataras different from lizards? (2 $\frac{1}{2}$)
- b) How do crocodiles and alligators differ from each other? (2 $\frac{1}{2}$)
- c) Where was the *Archaeopteryx* discovered? Give reasons for the *Archaeopteryx* being considered the connecting link between reptiles and birds. (5)
10. a) List and give *one* function of the *four* glands of the integument of mammals. (4)
- b) Give *two* distinguishing morphological features of each of the following orders: (6)
- i) Cingulata
 - ii) Sirenia
 - iii) Primate