

BZYCT-133

ASSIGNMENT BOOKLET

Bachelor's Degree Programme

(BSCG)

(Comparative anatomy and Developmental Biology of Vertebrates)

Valid from 1st January, 2020 to 31st December, 2020



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

(2020)

Dear Student,

Please read the section on assignments in the Programme Guide for B. Sc. 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 two parts, Part A and B. 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) Solve Part A and Part B of this assignment, and **submit the complete assignment answer sheets within the due date.**
- 6) The assignment answer sheets are to be submitted to your Study Centre within the due date. **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, 2020 to 31st December, 2020.** If you have failed in this assignment or fail to submit it by June, 2020, then you need to get the assignment for the year 2020-21, and submit it as per the instructions given in the Programme Guide.
- 8) **You cannot fill the examination form for this course** until you have submitted this assignment.

We wish you good luck.

ASSIGNMENT

Course Code: BZYCT-133
Assignment Code: BZYCT-133/TMA/2020
Maximum Marks: 100

- Note: Attempt all questions. The marks for each question are indicated against it.**
- | | Marks |
|---|-----------|
| 1. Differentiate between the following pairs: | (2×5=10) |
| i) holoblastic and meroblastic cleavage | |
| ii) Blastula and blastocyst | |
| iii) Horn and antler | |
| iv) Monophyodont and polyphyodont dentition | |
| v) Microglia and macroglia | |
| 2. With the help of a labelled diagram describe the three phases of spermatogenesis in vertebrates. | (10) |
| 3. Describe with the help of suitable diagrams the process of neural tube formation in frog embryo. | (10) |
| 4. Write short notes(in about 500 words) on the following: | (4×5)=20 |
| i) Cell signaling during embryonic developments | |
| ii) Phylogeny and succession and of kidneys in vertebrates | |
| iii) Respiration in cartilaginous fishes | |
| iv) Thyroid, the endocrine gland of metabolism in mammals | |
| 5. a) Describe the various types of vertebrae that occur in the vertebral column of vertebrates. | (5×2 =10) |
| b) Give an account of the digestive system of birds | |
| 6. List the various types of morphogenetic movements and describe any two of them. | (10) |
| 7. Discuss the endothermic heart of a mammal | (10) |
| 8. Describe the spinal cord of vertebrates. | (10) |
| 9. Describe the vestibular apparatus of mammals. | (10) |