

U.G. 4th Semester Examination-2025**ZOOLOGY****[MINOR]****Course Code : ZOO-MN-T-2****(Comparative Anatomy and Developmental Biology)****[NEP-2020]**

Full Marks : 25

Time : 2 Hours

*The figures in the right hand margin indicate marks.**Candidates are required to give their answer in their own words as far as practicable.*

1. Answer any five of the following: 1×5=5
- a) What are Filoplumes?
 - b) What is Heterodont teeth?
 - c) Define Cleidoic egg with example.
 - d) What is spermiogenesis?
 - e) Name the bones that form pelvic girdle.
 - f) State the role of sertoli cell in spermatogenesis.
 - g) What is chemotaxis in fertilization?
 - h) State the function of the air bladder in fish.

[Turn Over]

2. Answer any **two** of the following: $5 \times 2 = 10$

a) What are chemoreceptors and mechanoreceptors? State the differences between the Müllerian and Wolffian ducts. $2+3$

b) Write functions of feathers in birds besides flight. What are the differences of sweat glands and sebaceous glands? $2+3$

c) Comment on the role of LH, FSH on ovarian function. Describe different types of feedback interactions in regulation of ovarian function in human body. $2+3$

d) What is temporal fossae? Describe Synapsid and Diapsid skull with proper diagram. $1+4$

3. Answer any **one** of the following: $10 \times 1 = 10$

a) What are the differences between claw, nail and hoof? Differentiate between Pronephros, Mesonephros and Metanephros. Describe the spermatogenesis in mammals and comment on the hormonal regulation of spermatogenesis in mammals. $3+3+4$

b) Describe the diverse array of integumentary glands present in mammals and their specific functions. Describe countercurrent exchange mechanism in fish gills. What is block of polyspermy during fertilization? $4+3+3$