

U.G. 2nd Semester Examination - 2022**ZOOLOGY****[HONOURS]****Generic Elective Course (GE)****Course Code : ZOOL-H-GE-CC-T-02****(Comparative Anatomy, Developmental Biology of
Vertebrates and Ecology)**

Full Marks : 40

Time : 2½ Hours

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

1. Answer any **five** questions: $2 \times 5 = 10$
- What are Prong horns? In which mammals is it found?
 - What are Thecodont and Diphyodont?
 - What are hyoid and carotid aortic arches?
 - Write the names of the III and Xth cranial nerves.
 - What are blastomere and blastopore?
 - What is morphallaxis? Give examples.

- What is the difference between Autecology and Synecology?
 - What are Food chain and Food web?
2. Answer any **two** questions: $5 \times 2 = 10$
- What is in-situ and ex-situ conservation? Write a short note about the Wildlife Protection Act (1972). $2 + 3 = 5$
 - What is the trophic level? Describe Ecological pyramids. $2 + 3 = 5$
 - Describe Jaw suspensions in vertebrates. 5
 - Describe the process of Spermiogenesis. What is a polar body? $4 + 1 = 5$
3. Answer any **two** questions: $10 \times 2 = 20$
- What is sinus venosus? What are aortic arches? How are they modified in vertebrates? $2 + 2 + 6 = 10$
 - Where can we find Alecithal and macrolecithal eggs? Describe the Spemann and Mangold experiments on the Embryonic induction and organizers concept. What are the primary and secondary organizers? $2 + 8 = 10$

c) What is the carrying capacity? Describe the ecological succession with one example.

2+8=10

d) Write short notes (any **two**): 5×2=10

i) Acrosome reaction

ii) Exponential and logistic growth

iii) Gause's Principle

iv) Extra-embryonic membranes in birds
