

## U.G. 4th Semester Examination - 2024

**ZOOLOGY****[HONOURS]****Course Code : ZOOL-H-CC-T-8****(Comparative Anatomy of Vertebrates)**

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 of the following:  $2 \times 5 = 10$
- a) Differentiate between autostylic and amphistylic jaw suspension.
  - b) What is baleen plate? Mention its role in feeding.
  - c) What is sudoriferous gland? Write down the function of sudoriferous gland.
  - d) Give an example of sensory type of cranial nerve and mention its function.
  - e) What is pulmocutaneous arch? Mention their function.
  - f) Differentiate between the chemo receptors and mechano receptors.

*[Turn Over]*

- g) Mention the significance of Foramen of Panizza.
- h) Differentiate between true horn and antler.
2. Answer any two of the following:  $5 \times 2 = 10$
- a) Classify teeth in vertebrates according to mode of attachment with jaw bone with example. Comment on carnassials teeth.  
 $3+2$
- b) Give a comparative account of pronephros, mesonephros and metanephros kidney with relevant diagram.
- c) Delineate the structure of a holobranch gill with suitable diagram. How does it differ from pseudobranch gill?  
 $4+1$
- d) Compare the aortic arches in fishes, amphibians and mammals.
3. Answer any two of the following:  $10 \times 2 = 20$
- a) "Avian lung deviates from mammalian lung"- Justify the statement. Discuss the direction of airflow through the respiratory system of bird during inspiration and expiration with a suitable diagram. Give a brief note on accessory respiratory organ in fish.  
 $2+4+4$

- b) Give a comparative account of stomach in land vertebrates. Briefly describe the ruminating mechanism of stomach of cattle. Mention the role of gizzard in bird.  
 $5+3+2$
- c) What do you mean by integumentary derivatives? Describe the derivatives of integument in mammals with diagram.  
 $2+5+3$
- d) Write short note on:  $5+5$
- i) Wolffian duct and Mullerian duct.
- ii) Compare aortic arches in reptiles and amphibians.