

**2023**  
**B.A./B.Sc.**  
**Fourth Semester**  
**CORE – 8**  
**ZOOLOGY**  
*Course Code: ZOC 4.11*  
(Comparative Anatomy of Vertebrates)

*Total Mark: 70*  
*Time: 3 hours*

*Pass Mark: 28*

*Answer five questions, taking one from each unit.*

**UNIT-I**

1. Explain in detail the derivatives of integument with examples. 14
2. Give the comparative accounts of axial skeleton of Aves and mammals. 7+7=14

**UNIT-II**

3. Write notes on the following: 7×2=14
  - (a) Accessory respiratory organs
  - (b) Difference between true gills and larval gills
4. Write a comparative account on the digestive systems of the vertebrates. 14

**UNIT-III**

5. Explain in detail the evolution of hearts in vertebrates with diagrams. 14
6. Discuss the evolution of urinogenital ducts in vertebrates. 14

**UNIT-IV**

7. Give a comparative account of brain in vertebrates with diagrams. 14

8. Write notes on the following: 7×2=14  
(a) Autonomic nervous system in vertebrates  
(b) Explain the spinal cord in mammals

### UNIT-V

9. Give an account on the olfactory and gustatory organ in vertebrates. 7+7=14
10. Describe the tactile and audio receptor in man. 7+7=14
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