

**B.Sc. ZOOLOGY**  
**FOURTH SEMESTER**  
**COMPARATIVE ANATOMY OF VERTEBRATE**  
**BSZ-401**

**SET**  
**B**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

Marks: 20

( Objective )

*Choose the correct answer from the following:*

*1 × 20 = 20*

1. Single circuit heart is:
  - a. Oxygenated and deoxygenated blood mixed with each other
  - b. Having 2 chambers
  - c. Found in gill bearing animals
  - d. All of the above
2. Bicuspid valve is also called as:
  - a. Semilunar valve
  - b. Spiral valve
  - c. Mitral valve
  - d. Having no other names
3. Spiral valve are found in:
  - a. Urodela
  - b. Urochordata
  - c. Anura
  - d. Reptiles
4. The process of exchange of gases in Aves occurs in the:
  - a. Air sacs and lungs
  - b. Lungs
  - c. Air sacs
  - d. None
5. Out of the following, which one can be identified as the function of the trachea?
  - a. Exchange of gases
  - b. Exhaling or removal of air from our body
  - c. Filtering the air that we breathe
  - d. All of the above
6. Mesonephros develops from:
  - a. Top part of the nephrostome
  - b. Middle part of the nephrostome
  - c. Lower part of the nephrostome
  - d. None
7. Receptors for hearing are called as:
  - a. Photo receptor
  - b. Auditory receptor
  - c. Olfactory receptors
  - d. None
8. In bicornuate type of uterus:
  - a. 2 uterus present
  - b. 2 horns and 2 uterus
  - c. One uterus
  - d. 2 horns and 1 uterus
9. The Y shaped uterus is:
  - a. Duplex
  - b. Simplex
  - c. Bicornuate
  - d. Bipartite
10. Two cervixes are found in:
  - a. Monotreme uters
  - b. Marsupial uterus
  - c. Duplex uterus
  - d. All of the above



**(Descriptive)**

Time : 2 hr. 30 mins.

Marks : 50

[ Answer question no.1 & any four (4) from the rest ]

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| 1. Describe briefly the circulatory system of vertebrate with proper labeled diagram.  | 6+4=10   |
| 2. Describe the structure of Avian and Mammalian heart. What are the differences between reptile and avian heart? Describe with proper diagram.          | 5+5=10   |
| 3. Explain the structural significance of lungs in Amphibia and mammalia.  | 5+5=10   |
| 4. Define portal system and their types. Give difference between Single circulation and Double circulation with example and diagram.                     | 2+8=10   |
| 5. Describe the basic structure of uterus. Define eutherian type of uterus with proper diagram.  | 2+8=10   |
| 6. What are the different types of kidneys? Describe their general plan with diagram. Describe about primitive ancestral vertebrate kidney with diagram. | 5+5=10   |
| 7. What are receptors? Classify them and write briefly about visceral receptors with diagram.  | 2+2+6=10 |
| 8. What is autonomic nervous system? Describe briefly. Write briefly about spinal cord of mammal.  | 5+5=10   |

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