

**B.Sc. ZOOLOGY**  
**FOURTH SEMESTER (REPEAT)**  
**COMPARATIVE ANATOMY OF VERTEBRATES**  
**BSZ-401**  
[USE OMR SHEET FOR OBJECTIVE PART]

**SET**  
**A**

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

Marks: 20

*Choose the correct answer from the following:*

*1 × 20 = 20*

( Objective )

- The blood transporting channel having only endothelial layer is:
  - Vein
  - Artery
  - Arterioles
  - Capillary
- Single circuit heart is:
  - Oxygenated and deoxygenated blood mixed with each other
  - Having 2 chambers
  - Found in gill bearing animals
  - All of the above
- The organism containing only one cuspid valve are:
  - Mammal
  - Reptiles
  - Bird
  - Amphibia
- Bicuspid valve is also called as:
  - Semilunar valve
  - Spiral valve
  - Mitral valve
  - Having no other names
- Incomplete interauricular septum in dipnois are called as:
  - Foramen ovale
  - Foramen of panizza
  - Septum bulbi
  - None
- Spiral valve are found in:
  - Urodela
  - Urochordata
  - Anura
  - Reptiles
- The main difference in avian and mammalian heart is found in:
  - Atrium
  - Ventricle
  - Chambers
  - Valves
- The process of exchange of gases in Aves occurs in the:
  - Air sacs and lungs
  - Lungs
  - Air sacs
  - None
- Identify the part of the respiratory system in which the exchange of gases takes place?
  - Trachea
  - Larynx
  - Pharynx
  - Alveoli
- Out of the following, which one can be identified as the function of the trachea?
  - Exchange of gases
  - Exhaling or removal of air from our body
  - Filtering the air that we breathe
  - All of the above

11. The most primitive types of true kidneys are:
  - a. Mesonephros
  - b. Pronephros
  - c. Archinephros
  - d. Metanephros
12. Mesonephros develops from:
  - a. Top part of the nephrostome
  - b. Middle part of the nephrostome
  - c. Lower part of the nephrostome
  - d. None
13. The kidneys found only in amniotes are:
  - a. Mesonephros
  - b. Archinephros
  - c. Pronephros
  - d. Metanephros
14. Receptors for hearing are called as:
  - a. Photo receptor
  - b. Auditory receptor
  - c. Olfactory receptors
  - d. None
15. The vaginal canal is bifurcated in:
  - a. Monotreme type of uterus
  - b. Simplex uterus
  - c. Duplex uterus
  - d. Marsupial type of uterus
16. In bicornuate type of uterus:
  - a. 2 uterus present
  - b. 2 horns and 2 uterus
  - c. One uterus
  - d. 2 horns and 1 uterus
17. The uterus found in rodents are:
  - a. Duplex
  - b. Bicornuate
  - c. Simplex
  - d. Bipartite
18. The Y shaped uterus is:
  - a. Duplex
  - b. Simplex
  - c. Bicornuate
  - d. Bipartite
19. The uterus in human are:
  - a. Duplex
  - b. Simplex
  - c. Bicornuate
  - d. Bipartite
20. 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 ]

- |  |          |
|--|----------|
| 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   |

= = \*\*\* = =