

B.Sc. ZOOLOGY
FOURTH SEMESTER
COMPARATIVE ANATOMY OF VERTEBRATE
BSZ-401
[USE OMR SHEET FOR OBJECTIVE PART]

SET
B

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

Marks: 20

(Objective)

$1 \times 20 = 20$

Choose the correct answer from the following:

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

11. The blood transporting channel having only endothelial layer is:
 - a. Vein
 - b. Artery
 - c. Arterioles
 - d. Capillary
12. The organism containing only one cuspid valve are:
 - a. Mammal
 - b. Reptiles
 - c. Bird
 - d. Amphibia
13. Incomplete interauricular septum in dipnois are called as:
 - a. Foramen ovale
 - b. Foramen of panizza
 - c. Septum bulbi
 - d. None
14. The main difference in avian and mammalian heart is found in:
 - a. Atrium
 - b. Ventricle
 - c. Chambers
 - d. Valves
15. Identify the part of the respiratory system in which the exchange of gases takes place?
 - a. Trachea
 - b. Larynx
 - c. Pharynx
 - d. Alveoli
16. The most primitive types of true kidneys are:
 - a. Mesonephros
 - b. Pronephros
 - c. Archinephros
 - d. Metanephros
17. The kidneys found only in amniotes are:
 - a. Mesonephros
 - b. Archinephros
 - c. Pronephros
 - d. Metanephros
18. The vaginal canal is bifurcated in:
 - a. Monotreme type of uterus
 - b. Simplex uterus
 - c. Duplex uterus
 - d. Marsupial type of uterus
19. The uterus found in rodents are:
 - a. Duplex
 - b. Bicornuate
 - c. Simplex
 - d. Bipartite
20. The uterus in human are:
 - a. Duplex
 - b. Simplex
 - c. Bicornuate
 - d. Bipartite

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(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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