

## CORE VIII [ COMPARATIVE ANATOMY OF VERTEBRATES]

### Fill in the blanks [1marks]

1. First cranial nerve of vertebrate is called\_\_\_\_\_.
2. One half pelvic girdle is called as\_\_\_\_\_.
3. \_\_\_\_\_is the structural and functional unit of kidney
4. \_\_\_\_\_is the horny plate in the oral cavity of whales
5. Branched horn of antelope is called\_\_\_\_\_.
6. A pair of nerve bands present only in higher vertebrates connecting diencephalon with medulla oblongata and pons is called\_\_.
7. The dental formula for an adult human is\_\_\_\_\_.
8. Indian major carps have\_\_type of scales.
9. Sharks have\_\_type of scales.
10. *Anabas* has\_\_type of scales
11. The bone of birds is called as\_\_.
12. The horn of a rhinoceros is a modified\_\_\_\_\_.
13. The tusk of an elephant is\_\_\_\_\_teeth.
14. The tusk of wild boar is\_\_teeth.
15. Swim bladder is found in.
16. Human has a tidal volume\_\_\_\_\_ml.
17. Ptyalin acts at pH .
18. One ovary is \_\_\_\_\_ class of Animalia.  
present in \_\_\_\_\_
19. Ruminant stomach have\_inside for digestion of cellulose.
20. Rabbits have\_\_type of uteri.

**Answer the following within 2-3 sentences [ 1.5 marks ]**

Write short notes

1. Types of chemoreceptors.
2. Jaw suspensorium in vertebrates
3. Ruminant stomach
4. Dentition in mammals
5. Visceral arches
6. Scales of fishes
7. Swim bladder

**Answer the following within 75 words [ 2 marks ]**

Differentiate between the following

1. Anatomy in the brain of a frog and a brain of a mammal
2. Placoid and ctenoid scales
3. Crop and Gizzard
4. Holobranch and Hemibranch gills
5. Larynx and Syrinx
6. True Horn and Antlers
7. Heterocoelous and Procoelous vertebrae
8. Contour feathers and Down feathers
9. Bicornuate and Bipartite uteri
10. Acetabulum and Glenoid cavity
11. Rod and cone cells
12. Physostomous and physoclistous air bladder
13. Bronchus and Bronchiole
14. Cortical Nephron and Juxtamedullary Nephron
15. Axial and appendicular skeleton
16. Chemo and mechano receptors
17. Spinal and cranial nerves

**Answer the following within 500 words [ 6 marks ]**

1. Compare the Aortic arches in fishes, amphibians and mammals.
2. Describe the accessory respiratory organs in fishes.
3. Draw a well labeled diagram of the mammalian integument and give an account of its epidermal derivatives.

4. Classify the receptors based on their function.
5. Discuss the succession of kidney in vertebrates with labelled diagrams.
6. Describe the evolution of male and female urinogenital system in reptiles and mammals.
7. Draw-well-labeled-diagram-of Brain of bird.
8. Illustrate diagrammatically the histological details of the stomach in relation to its functional aspects.
9. Explain the structure of gills of cartilaginous and bony fishes.
10. Tabulate the fate of visceral arches in vertebrates.
11. Discuss the details of succession of kidneys in vertebrates
12. Discuss different types of jaw suspensorium in gnathostomes
13. Compare the brain of mammal with that of a reptile.
14. Explain different types of integumentary glands in chordates.

