

UNIVERSITY OF CALCUTTA

CITY COLLEGE CENTER

DEPARTMENT OF ZOOLOGY

Internal Assessment Examination 2020 [CBCS Syllabus 2018]

ZOOA, SEMESTER – 4 {MCQ}

Paper – CC4-8 TH

(Full Mark 10)

[Comparative Anatomy of Vertebrates]

ANSWER ANY FIVE QUESTIONS

5×2 = 10

1. In mammals, surface of cerebral hemispheres

- (a) Has number of elevations separated by furrows
- (b) Is totally flat
- (c) Has many pits and furrows
- (d) Has numerous spikes

2. Diastema is-

- (a) Bone of the thorax
- (b) Molar teeth of mammals
- (c) Separating membrane of vertebrate thoracic and abdominal cavity
- (d) Space between incisor and premolar of some mammals

3. In larval salamanders, blood is carried to the external gills by-

- (a) Aortic arches I and II
- (b) Aortic Arches VI
- (c) Aortic arches III, IV and II
- (d) None of the above

4. Glenoid cavity is an identifying feature of-

- (a) Humerus of pigeon
- (b) Radius-ulna of pigeon
- (c) Femur of pigeon
- (d) Tibia and fibula of pigeon

5. The jaw bones in early vertebrates originated from Meckel's cartilage are-

- (a) Malleus, incus
- (b) Dentary, squamosal
- (c) Quadrate, articular

(d) Hyomandibular, sphenoid

6. Holostylic, monimostylic, streptostylic, craniostylic types of skulls show-

- (a) Hyostyly
- (b) Amphistyly
- (c) Autostyly
- (d) Autodiastyly

7. If the cusps are joined to form ridges, the tooth is called-

- (a) Bunodont
- (b) Lophodont
- (c) Secodont
- (d) Brachyodont

8. In actinopterygii, the spiracles are replaced by-

- (a) Holobranch
- (b) Hemibranch
- (c) Pseudobranch
- (d) Gill raker

9. Pulmonary artery is a modification of-

- (a) Aortic arch III
- (b) Aortic Arch IV
- (c) Aortic Arch V
- (d) Aortic Arch VI

10. Filoplume is-

- (a) Type of hair follicle of mammal
- (b) Type of mucus gland of toad
- (c) Type of feather of bird
- (d) Type of scale of fish

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DEPARTMENT OF ZOOLOGY

Theory Examination 2020 [CBCS Syllabus 2018]

ZOOA, SEMESTER – 4

Paper – CC4-8 TH

(Full Mark 25)

[Comparative Anatomy of Vertebrates]

1. Answer any **four** 4×5 = 20
- (a) Mention two types of kidneys found in amniotes.
 - (b) What is pericardium?
 - (c) Mention two characteristic features of femur of pigeon.
 - (d) Distinguish between remiges and retrices.
 - (e) What is Hatschek's nephridium?
 - (f) What are CNCC and mesenchymal cells?
 - (g) Give one example of each fish species that use bucco-pharyngeal epithelium and gut epithelium as their accessory respiratory organ respectively.
 - (h) What is tusk?
2. Answer any **one** 1×5 = 05
- (a) Briefly mention the modification of aortic arches in reptiles. Write the characteristic features of pelvic girdle of pigeon. (3+2)= 5
 - (b) State the characteristics of cerebellum and cerebrum of avian brain with a simple diagram. Name the bones giving rise to middle ear bones in mammals due to modification. (1¹/₂+1¹/₂)+2= 5
 - (c) Briefly write on the role of stomach in the digestive system of bird. What is bunodont? (3¹/₂+1¹/₂)= 5