

Seat No.	
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B.Sc. (Part - III) (Semester - VI) (New)

Examination, March - 2016

ZOOLOGY

Comparative Anatomy of Chordates (Paper - XIII)

Sub. Code : 65853

Day and Date : Monday, 28 - 03 - 2016

Total Marks : 40

Time : 12.00 noon to 2.00 p.m.

- Instructions :**
- 1) All questions are compulsory.
 - 2) Figures to the right indicate full marks.
 - 3) Neat and labeled diagrams must be drawn wherever necessary.

Q1) Select the correct alternative from the given options and rewrite the sentences: [8]

- a) The fish scales are _____ in origin.
- | | |
|---------------------------|----------------|
| i) <u>dermal</u> | ii) epidermal |
| iii) epidermal and dermal | iv) endodermal |
- b) The basal layer of epidermis is known as _____.
- | | |
|-----------------------|------------------------------|
| i) stratum coreum | ii) stratum granulosum |
| iii) stratum lucideum | iv) <u>stratum malpighii</u> |
- c) Oral glands are absent in _____.
- | | |
|------------------|--------------|
| i) <u>fishes</u> | ii) reptiles |
| iii) aves | iv) mammals |
- d) The crop present in the birds is the modified _____.
- | | |
|--------------|-----------------------|
| i) pharynx | ii) <u>oesophagus</u> |
| iii) stomach | iv) intestine |

e) The connection between III and IV aortic arches is known as _____

- i) ductus artriosus
- ii) ductus caroticus
- iii) ductus Botalli
- iv) pulmonary

f) Cerebrum is undivided in _____.

- i) scoliodon
- ii) pigeon
- iii) frog
- iv) rat

g) The mesonephric kidney is the functional kidney in _____.

- i) fishes
- ii) amphibians
- iii) fishes and amphibians
- iv) reptiles

h) The hetrocoelous vertebrae are present in _____.

- i) amphibians
- ii) reptiles
- iii) aves
- iv) mammals

- a) Endoskeleton of scoliodon is made up of _____.
- i) cartilage
 - ii) bone
 - iii) scales
 - iv) plates
- b) Dermal scales present in _____.
- i) amphibians
 - ii) reptiles
 - iii) fishes
 - iv) mammals
- c) Comparatively longest intestine is found in _____ animals.
- i) Herbivorous
 - ii) Carnivorous
 - iii) Omnivorous
 - iv) Insectivorous
- d) Venous heart is present in _____.
- i) Aves
 - ii) Mammals
 - iii) Reptiles
 - iv) Fishes

- e) Sweat glands and sebaceous glands are present only in _____ animals.
- i) mammalian
 - ii) reptilian
 - iii) amphibian
 - iv) avian
- f) In birds and mammals arborvitae is present in _____ of the brain.
- i) Cerebrum
 - ii) Optic lobes
 - iii) Cerebellum
 - iv) Medulla oblongata
- g) The pronephros is the functional kidney in the _____.
- i) Adult birds and mammals
 - ii) Adult Fishes, amphibians and reptiles
 - iii) Embryos of cyclostomes, fishes and amphibians
 - iv) Adult reptiles, birds and mammals
- h) Pelvic girdle is provided with _____ cavity.
- i) glenoid
 - ii) acetabulum
 - iii) scapular
 - iv) suprascapular

Q1) Select the correct alternative from the given options and rewrite the sentences. [8]

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i) The _____ gland is present in birds.

- a) sebaceous
- b) mammary
- c) sweat
- d) urophygial

ii) The venous heart is _____ chambered

- a) two
- b) three
- c) partially four
- d) four

iii) The presence of spiral valve in the intestine is the characteristic of _____

- a) labeo
- b) shark
- c) sea horse
- d) flat fish

iv) The pulmonary artery is developed from _____ aortic arch.

- a) third
- b) fourth
- c) fifth
- d) sixth

v) The trachea is absent in _____

- a) calotes
- b) pigeon
- c) frog
- d) rat

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- vi) The left lung is very rudimentary or absent in _____
- | | |
|--------------|--------------|
| a) chameleon | b) crocodile |
| c) snake | d) calotes |
- vii) First cervical vertebra is called as _____ vertebra.
- | | |
|------------|-----------|
| a) atlas | b) axis |
| c) typical | d) sacral |
- viii) The opening of lateral ventricle in 3rd ventricle is _____
- | | |
|---------------------|----------------------|
| a) iter | b) foramen of Monro |
| c) anterior foramen | d) posterior foramen |

a) The fish scales are _____ in origin.

i) dermal

ii) epidermal

iii) epidermal and dermal

iv) endodermal

b) The basal layer of epidermis is known as _____.

i) stratum corneum

ii) stratum granulosum

iii) stratum lucideum

iv) stratum malpighii

c) Oral glands are absent in _____.

i) fishes

ii) reptiles

iii) aves

iv) mammals

d) The crop present in the birds is the modified _____.

i) pharynx

ii) oesophagus

iii) stomach

iv) intestine

P.T.O.

41 + 36 = 77

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- e) The connection between III and IV aortic arches is known as ____.
- i) ductus artriosus ✓ ii) ductus caroticus
iii) ductus Botalli iv) pulmonary
- f) Cerebrum is undivided in ____.
- ✓ i) scoliodon ii) pigeon
iii) frog iv) rat
- g) The mesonephric kidney is the functional kidney in ____.
- i) fishes ii) amphibians
✓ iii) fishes and amphibians iv) reptiles
- h) The hetrocoelous vertebrae are present in ____.
- i) amphibians ii) reptiles
✓ iii) aves iv) mammals

1. Select the correct alternative and rewrite the sentences.

- i) Horns are the products of _____ in ungulate mammals.
- a) Stratum corneum
 - b) Stratum lucidum
 - c) Stratum germinativum
 - d) Stratum granulosum
- ii) The caudal vertebrae of *Varanus* have Y-shaped _____ attached to the ventral surface of centrum.
- a) Odontoid process
 - b) Cheveron bone
 - c) Metapophyses
 - d) Anapophyses
- iii) The pronephros is the functional kidney in the _____
- a) Adult birds and mammals
 - b) Adult fishes, amphibians and reptiles
 - c) Embryos of cyclostomes, fishes and amphibians
 - d) Adult reptiles, birds and mammals
- iv) The optic lobes of brain of _____ are termed as corpora quadrigemina.
- a) Mammals
 - b) Reptiles
 - c) Amphibians
 - d) Fishes

SECTION - I
(Comparative Anatomy of Chordates)

Q.1) Select the correct alternative from the given options and rewrite the sentences.

[10]

- i. The mammalian hind limb is made up of _____.
- a) femur, tibia, fibula, tarsals, metatarsals and phalanges.
 - b) femur, ulna, radius, tarsals, metatarsals and phalanges.
 - c) femur, ulna, radius, carpals, metacarpals and phalanges.
 - d) femur, tibia, fibula, carpals, metacarpals and phalanges.
- ii. Antlers are found in _____ are branching outgrowths of frontal bone.
- a) male antelope
 - b) males of deer family
 - c) male Rhinoceros
 - d) Giraffe
- iii. _____ vertebra in frog is amphicoelus .
- a) eighth
 - b) ninth
 - c) seventh
 - d) third
- iv. The optic lobes of brain of mammals are termed as corpora _____.
- a) bigemina
 - b) quadrigemina
 - c) trigemina
 - d) monogemina
- v. Meibomian glands are the modifications of _____ glands in the eyelids, secreting oily secretion for lubrication of eyeballs.
- a) sebaceous
 - b) mucous
 - c) sweat
 - d) oil secreting

P.T.O.

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- vi. The functional kidney of adult amniotes is termed as _____.
 - a) pronephros
 - b) mesonephros
 - c) metanephros
 - d) archinephros
- vii. In *Scoliodon* the first pair of aortic arch (the mandibular) disappears, hence there are only _____ pairs of aortic arches.
 - a) Three
 - b) five
 - c) four
 - d) six
- viii. The truncus arteriosus of frog is provided with _____.
 - a) spiral valve
 - b) scroll valve
 - c) ventricular valve
 - d) tricuspid valve
- ix. Feathers in birds are _____ derivatives of integuments.
 - a) endodermal
 - b) mesodermal
 - c) dermal
 - d) epidermal
- x. Sclerotic plate is present in the eye of _____.
 - a) reptiles
 - b) amphibians
 - c) birds
 - d) mammals

SECTION -I

(Comparative Anatomy of Chordates)

Q1) Select the correct alternative and rewrite the sentences.

[10]

- a) The organ of corti is located in the _____ .
i) utriculus ~~ii) cochlea~~
iii) sacculus iv) middle ear
- b) Dry skin is characteristics of _____ .
i) amphibian ii) fishes
iii) mammals ~~iv) reptiles~~
- c) The sweat glands are present in _____ .
i) amphibians ii) fishes
iii) reptiles ~~iv) mammals~~
- d) Truncus arteriosus is present in _____ .
~~i) amphibian~~ ii) fishes
iii) reptiles iv) mammals
- e) Fused thoracic vertebra is present in the vertebral column of _____ .
i) amphibians ii) fishes
iii) reptiles ~~iv) birds~~
- f) The utriculus and sacculus are the part of _____ .
i) middle ear ~~ii) internal ear~~
iii) external ear iv) pinna

P.T.O.

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 - iv) endodermal
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P.T.O.

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