



D-003-001641

Third Year B. Sc. (Sem. VI) (CBCS) Examination

April / May – 2015

Zoology : Z - 601

(Functional Anatomy of Chordates & Comparative)

Faculty Code : 003

Subject Code : 001641

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) Illustrate your answers with neat and labelled diagrams.
- (2) Figures to the right indicate full marks of the question.

1 Select proper answer from following multiple answers : **20**

- (1) In Urochordata notochord is present :
- (A) Through out the body
 - (B) In the abdominal region
 - (C) Only in Larval tail
 - (D) Larval pharynx
- (2) _____ are the peculiarities of dipnoi.
- (A) Cycloid scales
 - (B) Placoid scales
 - (C) Ctenoid scales
 - (D) Gonoid scales

- (3) Catadromous migration refers to movement of fishes :
- (A) From fresh water to fresh water
 - (B) From salt water to fresh water
 - (C) From salt water to salt water
 - (D) From fresh water to salt water
- (4) Homocercal type caudal fin is the characteristic of
- (A) Elasmobranchii
 - (B) Teleosts
 - (C) Dipnoi
 - (D) All of above
- (5) _____ is the best example of Neotony.
- (A) Leptocephalous larva
 - (B) Tadpol
 - (C) Axolotal larva
 - (D) Auricularia larva
- (6) Which type of skull is found in lizzards and snakes ?
- (A) Anapsid
 - (B) Synapsid
 - (C) Parapsid
 - (D) Diapsid

- (7) Sphenodon belongs to order :
- (A) Chelonia
 - (B) Rhyncocephalia
 - (C) Squamata
 - (D) Crocodilia
- (8) _____ exhibited reptilian and avian characters.
- (A) Ostrich
 - (B) Archaeoptery X
 - (C) Rhea
 - (D) Cormorant
- (9) Flightless birds are included in _____ group.
- (A) Odontognathae (B) Impennae
 - (C) Ratitae (D) Carinatae
- (10) Pigeon's milk is manufactured in :
- (A) crop (B) oesophagus
 - (C) buccal cavity (D) stomach
- (11) Typical prototherian character is :
- (A) Presence of cloaca
 - (B) 4 chambered heart
 - (C) Tarsal sput in males
 - (D) Segmented sternum

- (12) Kangaroo is the best example of order :
- (A) Monotremata (B) Marsupialia
(C) Insectivora (D) Carnivora
- (13) Which type of teeth are absent in milk dentition ?
- (A) Incisors (B) Canine
(C) Pre-molar (D) Molar
- (14) Flying mammals are included in order :
- (A) Rodentia (B) Chiroptera
(C) Insectivora (D) Carnivora
- (15) Dolphin is the best example of order :
- (A) Carnivora (B) Marsupialia
(C) Cetacea (D) Rodentia
- (16) Parotid gland of Amphibia is one type of :
- (A) Poisonous gland (B) Mucous gland
(C) Mammary gland (D) Femoral gland
- (17) In rat, pulmonary aorta arises from :
- (A) Right auricle (B) Left auricle
(C) Right ventricle (D) Left ventricle
- (18) Amphibians have _____ chambered heart.
- (A) Two (B) Three
(C) Four (D) Single

(19) In development of aortic arches, the connection of lateral dorsal aorta, between carotid and systemic arch is termed as :

- (A) ductus caroticus (B) ductus arteriosus
(C) ductus botali (D) radix

(20) Cerebral hemispheres in mammals are connected internally by :

- (A) Corpus callosum (B) Corpus leutum
(C) Corpus albicans (D) Cerebral aqueduct

2 (a) Write any three out of six : **6**

- (1) Write short note on Neotony.
- (2) Synapsid skull in Reptiles.
- (3) Write short note on primates.
- (4) Parental care in Amphibia with any two examples.
- (5) Write short notes on scent gland and mammary gland.
- (6) Describe order carnivora.

(b) Write any three out of six : **9**

- (1) Peculiar characters of Ratitae
- (2) Male urinogenital system in pigeon
- (3) Describe : Brain in birds
- (4) Write short note on Monotremata
- (5) Anapsid and Diapsid skull in Reptiles
- (6) Types of teeth in mammals.

(c) Write any two out of five : 10

- (1) Structure and function of airbladder in fishes.
- (2) Digestive system of pigeon.
- (3) Describe Arterial system of Rat.
- (4) Compare the heart of fishes and reptiles.
- (5) Describe : Marsupialia.

3 (a) Write any three out of six : 6

- (1) Succession of teeth in vertebrates.
- (2) Write short notes on Femoral gland and Uropygial gland.
- (3) Describe : Chiroptera.
- (4) Give a dental formula of dog and goat.
- (5) Hybernation and aestivation in Amphibia.
- (6) Any two types of migration in birds.

(b) Write any three out of six : 9

- (1) Archaeoptery X
- (2) Aortic arches in Amphibia
- (3) Describe migration in fishes
- (4) Describe : Attachment of teeth in vertebrates
- (5) Types of caudal fins in fishes
- (6) Write a short note on : Cetacean mammals.

(c) Write any two out of five :

10

- (1) Systematic position and affinities of dipnoi
 - (2) Describe : Venous system of Rat.
 - (3) Describe : Sphenodon as a living fossil and affinities of it.
 - (4) Compare the aortic arches in Reptiles and Aves.
 - (5) Evolution and development of brain in vertebrates and describe : brain in fishes.
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