Total number of printed pages–8

3 (Sem–3/CBCS) ZOO HC 1

2022

ZOOLOGY

(Honours)

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Paper : ZOO–HC–3016

(Diversity of Chordata)

Full Marks : 60

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Answer the following questions : ***(any seven)*** 1×7=7

   (i) Balanoglossus is an example of —

   (a) Hemichordata

   (b) Cephalochordata

   (c) Urochordata

   (d) Cyclostomata

   (Choose the correct option)

(ii) Ammocoete larva is the larval stage of —

(a) Myxine

(b) Lamprey

(c) Herdmania

(d) None of the above

(Choose the correct option)

(iii) Number of cranial nerves in fishes are —

(a) 12 (twelve) pairs

(b) 10 (ten) pairs

(c) 8 (eight) pairs

(d) 16 (sixteen) pairs

(Choose the correct option)

(iv) An example of anadromous migration is —

(a) Anguilla bengalensis

(b) Hilsa ilisha

(c) Major carps

(d) None of the above

(Choose the correct option)

(v) The sense organ present in most amphibians is —

(a) Ampullae of Lorenzini

(b) Organ of Jacobson

(c) Flame cell

(d) Booklung

(Choose the correct option)

(vi) The oldest surviving lepidosauria reptile and a living fossil is —

(a) Ichthyosaurus

(b) Sphenodon

(c) Placodus

(d) Seymouria

(Choose the correct option)

(vii) Sound producing organ in bird is —

(a) Larynx

(b) Syrinx

(c) Trachea

(d) Air-filled sacs

(Choose the correct option)

(viii) The posterior caudal vertebrae of bird are fused to form a structure called

(a) Plumage

(b) Synsacrum

(c) Furcula

(d) Pygostyle

(Choose the correct option)

(ix) The powerful down-stroke of the wing of bird during flight is due to —

(a) Pectoralis minor

(b) Coracobrachialis muscles

(c) Pectoralis major

(d) Tensores patagialis muscles

(Choose the correct option)

(x) The kidney in mammals is —

(a) Mesonephric

(b) Pronephric

(c) Metanephric

(d) Archinephric

(Choose the correct option)

(xi) In Amphibians respiration takes place by —

(a) Gills, lungs, skin and buccal lining

(b) Gills and lungs

(c) Skin and gills

(d) Gills, lungs and buccal lining

(Choose the correct option)

(xii) Members of order Dipnoi are commonly known as —

(a) Pipe fishes

(b) Cow fishes

(c) Lung fishes

(d) Cat fishes

(Choose the correct option)

2. Answer ***any four*** of the following : 2×4=8

(i) Write the general characteristics of Hemichordata.

(ii) What do you mean by Retrogressive metamorphosis ? Give example.

(iii) Distinguish between Archaeornithes and Neornithes.

(iv) Archaeopteryx is a connecting link between reptiles and birds — Justify.

(v) Differentiate between poisonous and non-poisonous snakes.

(vi) Write about the role of kidneys in osmoregulation of fishes.

(vii) Write about the dentition in mammals.

(viii) Write the salient features of Aves.

3. Answer ***any three*** of the following questions : 5×3=15

(i) Write the distinguishing characters between chondrichthyes and osteichthyes.

(ii) Give a brief account of the general characters of Mammals.

(iii) Discuss the mechanism of osmoregulation in freshwater fishes.

(iv) Describe briefly about the various flight adaptations found in birds.

(v) Write about the affinities of prototheria.

(vi) Write the general characteristics of Amphibia.

(vii) Differentiate between petromyzon and myxine.

(viii) Write on the general characteristics of Agnatha.

4. Answer ***any three*** of the following : 10×3=30

(i) What do you mean by parental care ? Discuss about the various ways and mechanism of parental care in Amphibia. 1+9=10

(ii) Discuss the poison apparatus of poisonous snakes. Write about the biting mechanism of a snake with suitable diagram. 4+6=10

(iii) Write about the theories related to the distribution of animals in different geographical realms. Highlight on how different vertebrates are distributed in different geographical realms.

(iv) Write about adaptive radiation in mammals with reference to locomotory appendages.

(v) What are the advantages of migration in birds ? Give an account of different types of migration in birds. 3+7=10

(vi) Describe the retrogressive metamorphosis in urochordata with suitable diagrams.

(vii) Discuss the general characteristics of Reptilia and write about the affinities of sphenodon. 5+5=10

(viii) Write the distinguishing characters of fishes. Discuss about migration in fishes. 5+5=10
