



DCI-003-2016021

Seat No. _____

B. Sc. (Sem. VI) (W.E.F. 2019) Examination

July - 2022

Z-601 : Functional Anatomy of Chordates

& Comparative Study

Faculty Code : 003

Subject Code : 2016021

Time : **2:30** Hours]

[Total Marks : **70**

Instruction: (1) Draw neat and labeled diagram wherever necessary.
(2) Numbers to the right side indicate full marks of the questions.

- 1** (A) Answer the following questions: **4**
- (1) Ciona belongs to which sub-phylum?
 - (2) What are three main fundamental features of chordate group?
 - (3) Talpa belongs to which class?
 - (4) How many species are recorded of chordate group approx.
- (B) Answer in brief: (any one) **2**
- (1) General character of Protochordata - any four.
 - (2) Important characters of Gnathostomata.
- (C) Answer in Detail: (any one) **3**
- (1) General character of Aves - any six.
 - (2) General character of cyclostomata.
- (D) Write a note on: (any one) **5**
- (1) Classify with characteristics and reasons: Hammer head and Barbus.
 - (2) General character with example of fish group.

- 2** (A) Answer the following questions: **4**
- (1) Define venous system?
 - (2) Pigeon's milk is manufactured in...?
 - (3) Which arteries of Rat carry de-oxygenated blood to lungs?
 - (4) Classify Rat.
- (B) Answer in brief: (any one) **2**
- (1) Pecten in pigeon.
 - (2) Explain crop in a digestive system of pigeon.
- (C) Answer in Detail: (any one) **3**
- (1) Draw and label only-female reproductive system of Rat.
 - (2) Diagram only with label-nervous system of pigeon.
- (D) Write a note on: (any one) **5**
- (1) Digestive system of Rat.
 - (2) Artery system of pigeon.
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- 3** (A) Answer the following questions: **4**
- (1) Dipnoi are commonly known as...
 - (2) What are uses of fins?
 - (3) Give two examples of parental care in amphibia.
 - (4) Define aestivation in amphibia.
- (B) Answer in brief: (any one) **2**
- (1) Function of swim bladder in fish.
 - (2) Parental care in amphibia.
- (C) Answer in Detail: (any one) **3**
- (1) Parental care in fish with two examples.
 - (2) Affinities of Urochordata; with nonchordates.
- (D) Write a note on: (any one) **5**
- (1) Affinities of Urochordata with Hemichordata.
 - (2) Affinities of dipnoi; with amphibia and reptiles.

- 4** (A) Answer the following questions: **4**
- (1) Define Monotremes.
 - (2) Example living fossils.
 - (3) Two examples of cetacean animals.
 - (4) What is seasonal migration in birds?
- (B) Answer in brief: (any one) **2**
- (1) Synapsid in temporal fossa.
 - (2) Climbing type feet.
- (C) Answer in Detail: (any one) **3**
- (1) Counter feather.
 - (2) Chiroptera mammals.
- (D) Write a note on: (any one) **5**
- (1) Types of beaks in birds.
 - (2) Types of claws in birds.
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- 5** (A) Answer the following questions: **4**
- (1) Where do you find Bowman's capsule in mammalian kidney?
 - (2) Which type of teeth is found in Platypus animal?
 - (3) Which type of stomach shaped found in fish?
 - (4) Dental formula of horse.
- (B) Answer in brief: (any one) **2**
- (1) Explain Dental formula of Pig.
 - (2) Ruminant stomach in animal?
- (C) Answer in Detail: (any one) **3**
- (1) Types of teeth based on attachment with jaw bones.
 - (2) Evolution of brain in higher chordate.
- (D) Write a note on: (any one) **5**
- (1) Comparative account: Excretory system in higher chordates.
 - (2) Comparative account: digestive system of lower chordates.