

B.Sc. Semester - 5 (Remedial) (CBCS) Examination**March/April-2023(Old Course)****FUNCTIONAL ANATOMY OF NON-CHORDATES (CORE)****Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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Q.1**a. Answer the following. (Any one out of two)****(07)**

1. Discuss general characters of phylum Arthropoda and classify up to class with suitable characters and examples.
2. Discuss general characters of phylum Porifera and give an outline of classes with suitable characters and examples.

b. Attempt any one. (Out of two)**(04)**

1. Write down the characters of phylum Platyhelminthes with classification up to class.
2. Write down only chart of animal classification of non-chordates.

c. Attempt any three. (Out of five)**(03)**

1. Write down key characters of class Insecta.
2. Classify: Moth.
3. List out the classes of phylum Aschelminthes.
4. Animals of which phylum shows pentamerous radial symmetry?
5. Give the names of phyla with whom Phylum Hemichordata shows affinities.

Q.2**a. Answer the following. (Any one out of two)****(07)**

1. Describe digestive system of Scorpion with labelled diagram.
2. Give an account of digestive system of Sepia with neat and labelled diagram.

b. Attempt any one. (Out of two)**(04)**

1. Write short note Appendages of Scorpion.
2. Describe ink gland in Sepia.

c. Attempt any three. (Out of five)**(03)**

1. What is the function of book lung?
2. What is the function of pecten found in Scorpion?
3. Describe body divisions of Scorpion with subdivisions and number of segments.
4. What is the function of salivary glands found in Sepia?
5. Describe function of Statocyst.

Q.3**a. Answer the following. (Any one out of two)****(07)**

1. Describe Nutrition in Protozoa.
2. What is Polymorphism? Give a detail account on it.

b. Attempt any one. (Out of two)**(04)**

1. What causes Kala-azar? Give a detail description of mode of infection and symptoms.
2. Describe in detail: Skeleton found in Porifera.

c. Attempt any three. (Out of five)**(03)**

1. Give the names of locomotory organelles found in protozoa.
2. Amphiblastula larva belongs to which phylum?
3. Describe the threats to coral reefs.
4. Bikini coral (famous for atomic and hydrogen bomb tests) are of which kind of coral reefs?
5. What kind of modifications are found in polyps?

Q.4

a. Answer the following. (Any one out of two)

(07)

1. Give detail description of larva found in Phylum Arthropoda.
2. Explain diagnostic characters, mode of infection and disease caused by Hookworm.

b. Attempt any one. (Out of two)

(04)

1. Write down the parasitic adaptations of *Fasciola*.
2. Write a short note on metamerism.

c. Attempt any three. (Out of five)

(03)

1. Which type of metamerism found in earthworm?
2. Which animal is connecting link between annelida and arthropoda?
3. What kind of metamorphosis is observed in butterfly?
4. Which hormone is chemically Ecdysone?
5. Name the disease is caused by *Trichinella spiralis*.

Q.5

a. Answer the following. (Any one out of two)

(07)

1. Describe Water vascular system of Starfish with labelled diagram.
2. Give a detail account of Foot in phylum Mollusca.

b. Attempt any one. (Out of two)

(04)

1. Write short note on Torsion.
2. Describe Tornaria larva.

c. Attempt any three. (Out of five)

(03)

1. Give names of larva found in phylum echinodermata.
2. Which animal is known as connecting link between invertebrate and chordate?
3. What is the function of tube feet?
4. Name the phylums with whom *Balanoglossus* shows affinities.
5. Animals of which class are having hatchet-shaped foot?
