

B.Sc. Semester - 5 (CBCS) Examination

February/March. -2020

FUNCTIONAL ANATOMY OF NON-CHORDATES (CORE)

Time: 2:30 Hours

Marks: 70

Instructions:

1. All questions are compulsory.
 2. Figures to the right indicate .
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Q.1

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

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

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

1. Write down the characters of phylum Aschelminthes 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. Give any two characters of phylum Coelenterata.
2. Give only classification of Butterfly.
3. Give only names of classes of phylum Platyhelminthes.
4. Animals of which phylum shows pentamerous radial symmetry?
5. Enteropneusta belongs to which phylum?

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 nervous system of Sepia with neat and labelled diagram.

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

1. Describe the structure and functional mechanism of book-lungs of Scorpion with diagram.
2. Write a note on ink gland found in Sepia.

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

1. Give names of appendages with their numbers found in Scorpion.
2. What is the function of pecten found in Scorpion?
3. Where does genital aperture situated in Scorpion?
4. What is the function of salivary glands found in Sepia?
5. What is common English name of Sepia?

Q.3

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

1. Describe the chief types of locomotor organelles of Protozoa and explain briefly how they bring about locomotion.
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. Explain only structure and types of spicules.

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

1. Give an example of a protozoan showing conjugation.
2. Give the names of larva found in sponges.
3. List out the names of types of coral reefs.
4. Bikine coral (famous for atomic and hydrogen bomb tests) are of which kind of coral reefs?
5. Give the names of modifications found in polyps.

Q.4**a. Answer the following. (Any one out of two)****(07)**

1. Explain diagnostic characters, mode of infection and disease caused by *Ancylostoma duodenale* (Hookworm).
2. Define true metamerism and give detail account of kinds of metamerism.

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

1. Write down the parasitic adaptations of *Fasciola*.
2. Write a short note on metamorphosis in insects.

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

1. Name the crustacean larva having helmet-like carapace.
2. Which animal is connecting link between annelida and arthropoda?
3. Write two symptoms of disease caused by *Trichinella*.
4. Which hormone is chemically Ecdysone?
5. Draw only diagram of Nauplius.

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 Torsion in phylum Mollusca.

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

1. Describe affinities of *Balanoglossus* with phylum Annelida.
2. Describe Bipinnaria larva.

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

1. Which animal is known as connecting link between invertebrate and chordate?
2. What is the function of Polian vesicle?
3. Animal of which class possess byssus gland?
4. Ophiopluteus and echinopluteus belongs to which class?
5. Give the name of larva of *Balanoglossus*.
