

B.Sc. Semester - 5 (CBCS) Examination**December - 2020 (Old Course)****FUNCTIONAL ANATOMY OF NON-CHORDATES(CORE)****Time: 1:30 Hours****Marks: 42****Instructions:**

1. Figures to the right indicate marks.
2. There are five questions in the question paper.
3. Answer any three of the following questions.

Q.1(A) Attempt any one of the following. (07)

1. Describe general character of phylum Coelenterata and its classes with example.
2. Classify the following animals upto class with reasons.

(A) Sycon (B) Butterfly

Q.1(B) Attempt any one of the following. (04)

1. Describe common characters of protozoans.
2. Describe common characters of molluscan animals.

Q.1(C) Attempt any three of the following. (03)

1. Name any two multicellular animals which do not show division of labour.
2. Under which class a "Silver Fish" is classified?
3. Define: Deuterostomia.
4. Name any one pseudocoelomic animal.
5. In which phylum tube-feet are present.

Q.2(A) Attempt any one of the following. (07)

1. Describe external characters with appendages in Scorpion with diagram.
2. Describe nervous system in *Sapia* with diagram.

Q.2(B) Attempt any one of the following. (04)

1. Explain digestive glands in Scorpion.
2. Write a note on Shell in *Sepia*.

Q.2(C) Attempt any three of the following. (03)

1. What is Scientific name of Scorpion?
2. Which kind of venom is found in Scorpion?
3. What is called hectocotylus?
4. What is use of cuttle-bone?
5. Name the pigments responsible for iridescence of the skin in *sepia*.

Q.3(A) Attempt any one of the following. (07)

1. Give detail account of nutrition in protozoa.
2. Describe polymorphism and its types in detail.

Q.3(B) Attempt any one of the following. (04)

1. Describe mode of infection and symptoms caused by *Leishmania*.
2. Write a note on ecological significance of coral reefs.

- Q.3(C) Attempt any three of the following. (03)
1. Give scientific name of protozoan which is responsible for Malaria in humans.
 2. Give an example of protozoan showing locomotion by lobopodia.
 3. What is isogamy?
 4. Which type of coral reefs are found in Gulf of Kachchh?
 5. In which type of coral reef lagoon is present?
- Q.4(A) Attempt any one of the following. (07)
1. Explain diagnostic characters, mode of infections and diseases caused by Ancylostoma (Hook worm).
 2. Discuss Zoological significance of Peripatus.
- Q.4(B) Attempt any one of the following. (04)
1. Write a note on parasitic adaptations of Fasciola.
 2. Write a note on Mysia larva.
- Q.4(C) Attempt any three of the following. (03)
1. What is the locomotory, circulatory and respiratory organ in Fasciola?
 2. Give any two characters of disease caused by Ascaris.
 3. Which hormone is chemically Ecdysone?
 4. Which one is the oldest metamere in earthworm?
 5. How many abdominal segments are present in Zoaes larva?
- Q.5(A) Attempt any one of the following. (07)
1. Describe water vascular system in Starfish.
 2. Explain torsion in mollusca and write its significance.
- Q.5(B) Attempt any one of the following. (04)
1. Describe any two larval forms in Echinodermata.
 2. Write a note on larva of Balanoglossus.
- Q.5 (C) Attempt any three of the following. (03)
1. How many Polian vesicles are present in Starfish?
 2. Bipinnaria is larval form seen in _____ animal.
 3. In which place the torsion is initiated?
 4. How many ciliated bands are present in Tornaria larva?
 5. What is the use of byssus?
