

B.Sc. Semester - 5 (CBCS) Examination**Oct/Nov - 2021 (NEW COURSE)****Functional Anatomy of Non chordates and Systematic(Core)****Time: 2:30 Hours****Marks: 70****Instructions:**

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

Q.1(A) Answer the following. (Any one out of two) (07)

1. Write down the general characters of phylum Mollusca and classify up to class with suitable characters and examples.
2. Discuss general characters of phylum having Diploblastic animals and give an outline of classes up to order level with suitable examples.

Q.1(B) Attempt any one. (Any one out of two) (04)

1. Write down the characters of animals from Acoelomate phylum with classification up to class.
2. Classify any two animals upto class: (i) Scypha (ii) Fasciola (iii) Nereis (iv) Astropecten

Q.1(C) Attempt any three. (Any three out of five) (03)

1. Name the phylum having single celled animals.
2. Write down only Classification: Moth.
3. Animals of which phylum shows pentamerous radial symmetry?
4. Write difference between non-chordates and chordates.
5. Give any two characters of class Insecta.

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

1. Describe Male Reproductive System of Scorpion with labelled diagram.
2. Give an account of Digestive system of Pila with neat and labelled diagram.

Q.2(B) Attempt any one. (Any one out of two) (04)

1. Describe the structure and function of pectines found in Scorpion with diagram.
2. Write a short note on Osphradium.

Q.2(C) Attempt any three. (Any three out of five) (03)

1. Describe scorpion spermatophore.
2. Where does genital aperture situated in scorpion?
3. Give the names of appendages found in scorpion.
4. How many teeth are found in a row of redulla?
5. What is the function of statocyst in Pila?

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

1. Write an essay on Nutrition in Protozoa.
2. Give a brief account of the modes of reproduction in phylum Porifera.

- Q.3(B) Attempt any one. (Any one out of two) (04)
1. Write a short note on Polymorphism.
 2. Write a short note on Sponge Spicules.
- Q.3(C) Attempt any three. (Any three out of five) (03)
1. Which protozoan is responsible for Malaria?
 2. Give the names of larva found in phylum Porifera.
 3. Animals having gastrozooids, gonozooids and dactylozooids are known as _____.
 4. Name the types of coral reefs?
 5. Which disease is caused by *Trypanosoma gambiense*?
- Q.4(A) Answer the following. (Any one out of two) (07)
1. Give a detail account of Larval forms of Crustacea.
 2. What are segmental organs? Give their detail account in Annelida.
- Q.4(B) Attempt any one. (Any one out of two) (04)
1. Write down the parasitic adaptations of *Fasciola hepatica*.
 2. Describe the mode of infection and symptoms caused by *Trichinella spiralis*.
- Q.4(C) Attempt any three. (Any three out of five) (03)
1. Name the disease caused by Hookworm *Ancylostoma duodenale*.
 2. Write the types of fragmentation.
 3. Regeneration in Annelida is controlled by _____.
 4. Define incomplete metamorphosis (hemi-metabolous development).
 5. Give examples of productive insects.
- Q.5(A) Answer the following. (Any one out of two) (07)
1. Give an account of larval forms found in Echinodermata.
 2. Give a detail account on Torsion-detorsion.
- Q.5(B) Attempt any one. (Any one out of two) (04)
1. Describe Water vascular system of Starfish with labelled diagram.
 2. Describe the process of pearl formation.
- Q.5 (C) Attempt any three. (Any three out of five) (03)
1. Define Autotomy.
 2. Animals of which phylum have muscular foot?
 3. Which class of molluscan animals get credit for animal inventions like “jet propulsion” and “smoke screen”?
 4. Give the names of phylums with whom *Balanoglossus* shows the affinities.
 5. Tornaria larva belongs to which phylum?
