

B.Sc. Semester - 5 (CBCS) Examination**Oct/Nov - 2022 (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.
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Q.1**A. Answer the following. (Any one out of two) (07)**

1. Write down the general characters of phylum Coelenterata and classify up to order level with suitable characters and examples.
2. Discuss general characters of phylum Arthropoda and give an outline of classes with suitable examples.

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

1. Write down the characters of animals from Porifera phylum with classification up to class.
2. Write down only classification chart of Kingdom Animalia for non-chordates.

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

1. Animals of which phylum are having flame cells as excretory organ?
2. Name the phylum having pseudocoelom.
3. Write down names of Molluscan classes.
4. Class in which the animals have 3 pairs of jointed legs?
5. Animals of which phylum shows pentamerous radial symmetry?

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 Reproductive system of Pila with neat and labelled diagram.

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

1. Write a short note on Appendages in Scorpion with labelled diagram.
2. Write a short note on Radula.

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

1. By which organ exploration of ground and recognition of sex is done in Scorpion?
2. Give the names of body divisions of Scorpion.
3. What is the function of organ of Bojanus?
4. By which respiratory organ Pila respire while in water?
5. What is the function of statocyst in Pila?

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

1. Give detail account on Nutrition in Protozoa.
2. Give a brief account of the modes of reproduction in phylum Coelenterata.

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

1. Write a short note on types of corals.
2. Describe the formation of Gemmules in Porifera.

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

1. Which stage is infective in *Trypanosoma gambiense*?
2. What is the reason behind cross-fertilization in Porifera?
3. Give the names of skeletal material found in phylum Porifera.
4. Define Trimorphic in Coelenterata.
5. Why Bikini island is famous for?

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

1. What disease is caused by *Ancylostoma*? Describe its pathogenesis, treatment and prophylaxis.
2. Give an account of asexual reproduction in Polychaeta.

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

1. List out the parasitic adaptations of the Sheep Liverfluke.
2. Describe the types of metamorphosis in insecta.

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

1. Which animal causes “calabar swellings” in human eyes?
2. Which segmental organ is developed by evagination in Annelida?
3. Regeneration in Annelida is controlled by _____.
4. List out the larvae of Crustacea.
5. Give examples of bio-control insects.

Q.5**A. Answer the following. (Any one out of two)****(07)**

1. Give detail account of foot in Mollusca.
2. Describe water vascular system of Starfish with labelled diagram.

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

1. Describe the process of torsion.
2. Write a short note on larva found in class Echinoidea.

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

1. Where does the torsion initiate?
2. Which layer forms the pearl in mollusca?
3. Name the body part which shed off by the Sea Cucumber when disturbed.
4. Give the name of larva found in phylum Hemichordata.
5. Give the names of phylums with whom *Balanoglossus* shows the affinities.
