

**B.Sc. Semester - 5 (Remedial) (CBCS) Examination****Feb/Mar. -2021 (NEW COURSE)****Functional Anatomy of Non chordates and Systematic(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.
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**Q.1****a. Answer the following. (Any one out of two) (07 marks)**

1. Discuss general characters of phylum Annelia and classify up to class with examples.
2. Discuss general characters of animals having Pseudocoelom and give an outline of classes with suitable examples.

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

1. Write down the characters of phylum Platyhelminthes with classification up to class.
2. Classify any two animals upto class: (i) Giardia (ii) Bipalium (iii) Loligo (iv) Balanoglossus

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

1. Animals of which phylum have tentacles?
2. Write down only Classification: Butterfly.
3. Give the name of Nematodan class having amphids but devoid of phasmids.
4. Write difference between invertebrates and vertebrates.
5. Give any two examples of class Insecta.

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

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

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

1. Describe the structure and functional mechanism of book-lungs of Scorpion with diagram.
2. Write a note on statocysts.

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

1. Name the excretory organ found in Scorpion.
2. What is the function of pecten found in Scorpion?
3. Draw a well labelled diagram of telson and give its function.
4. Give the common English name of Pila.
5. What are commissures and connectives?

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

1. Give a detail account of Nutrition in Protozoa.
2. Give a detail account of Reproduction in phylum Porifera.

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

1. Write a short note on disease caused by *Giardia intestinalis*.
2. Explain only structure and types of spicules.

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

1. What is meant by hyperparasites?
2. Animals of which phylum shows reproduction by reduction bodies?
3. Explain functions of tentacles in phylum Coelenterata.
4. Name the types of coral reefs?
5. Amphiblastula and Parenchymula are larval stage of which phylum?

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

1. Explain diagnostic characters, mode of infection and disease caused by *Ancylostoma duodenale*.
2. What are segmental organs? Give their detail account in Annelida.

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

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

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

1. Name the crustacean larva having helmet-like carapace.
2. Write the types of fragmentation.
3. Who are the host of Hook worms?
4. Give an example of gradual metamorphosis (pauro-metabolous development).
5. Give name of an economic important arthropod animal.

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

1. Describe Water vascular system of Starfish with labelled diagram.
2. Give a detail account on Torsion-detorsion.

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

1. Describe the process of pearl formation.
2. Describe Tornaria larva with labelled diagram.

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

1. Define Torsion.
2. Which class has no medreporite?
3. Animals of which phylum have muscular foot?
4. Ophiopluteus larva is found in which phylum?
5. Tornaria larva belongs to which phylum?

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