



B.Sc. (Part-II), Examination 2015
Model Paper A (Zoology)
Paper -I (Structure and Functions of Invertebrate Types)

Time Allowed: 3 Hours
33

Max. Marks:

Part -I

All questions are compulsory :-

1. Answer briefly:

- a) Where does the digestion of food take place in *Paramecium*?
- b) What type of respiration is found in *Taenia* and *Ascaris*?
- c) How many pairs of gonads are present in a star-fish?
- d) Write two types of locomotory movements exhibited by *Nereis*.
- e) Write names of three regions of tube feet.
- f) Write the main features of true corals.
- g) What is the function of flame cells?
- h) Write the names of larval stages of *Fasciola*.
- i) What is metagenesis?

Part -II

Attempt 4 questions in all , selecting at least one from each section. All questions carry equal marks:

Section -A

2. Explain the structure of cilia and ciliary movement in *Paramecium*.
3. Describe calcareous skeleton in *Lamellidens* and *Asterias*.
4. Write short notes on:
 - i. Nervous system of *Taenia*
 - ii. Osphradium of *Pila* and *Unio*

Section –B

5. Explain aquatic and aerial respiration in *Pila*.
6. What is alternation of generation? Explain metagenesis in the life cycle of *Obelia*.
7. What is filter feeding? How does it occur in *Lamellidens*?

Section –C

8. Write short notes on:
 - i. Ametabolous metamorphosis
 - ii. Syconoid canal system
9. Describe the water vascular system of starfish.
10. Explain the social organization in honey bee.



B.Sc. (Part-II), Examination 2015
Model Paper B (Zoology)
Paper -I (Structure and Functions of Invertebrate Types)

Time Allowed: 3 Hours
33

Max. Marks:

Part -I

All questions are compulsory :-

1. Answer briefly:

- a) What do you understand by paddle stroke?
- b) Sycon spicules are made up of which substance?
- c) Which type of image is formed in the eye of *Prawn*, in strong light?
- d) Where digestion and absorption does takes place in *Nereis*?
- e) Name larvae found in the development of *Asterias*.
- f) What is cyclosis?
- g) What is statocyst?
- h) Sanguivorous feeding is found in which organism?

- i) Name the castes of honey bee.

Part -II

Attempt 4 questions in all , selecting at least one from each section. All questions carry equal marks:

Section -A

2. Write the chief locomotory organelles of Protozoa. Explain in brief how they bring about locomotion?
3. Describe the types of coral reefs. Explain the theories regarding their formation.
4. Draw a well labeled diagram of any two of the following:
- Nervous system of *Pila*
 - Compound eye of *Palaemon*
 - Obelia* colony

Section -B

5. Write short notes on any two of the following:
- Respiration in *Pila*
 - Larval forms of *Fasciola*
 - Alimentary canal of *Hirudinaria*
6. Write about hemocoelomic system of Leech.
7. Write short notes on any two of the following:
- Cyclosis
 - Malpighian tubules
 - Nutrition in *Euglena* and *Paramecium*

Section -C

8. Write short notes on any two of the following:
- Indirect metamorphosis in Insects
 - Workers of Termite and Honeybee
 - Salient features of Hemichordata
9. Discuss different types of canal system found in sponges.
10. Write an essay on parasitic adaptations in Helminthes