

# Experiment 6

**I. Aim:** To study specimens belonging to the different groups of animals (Non Chordates).

## II. Materials Required:

1. Preserved Specimens provided in lab.

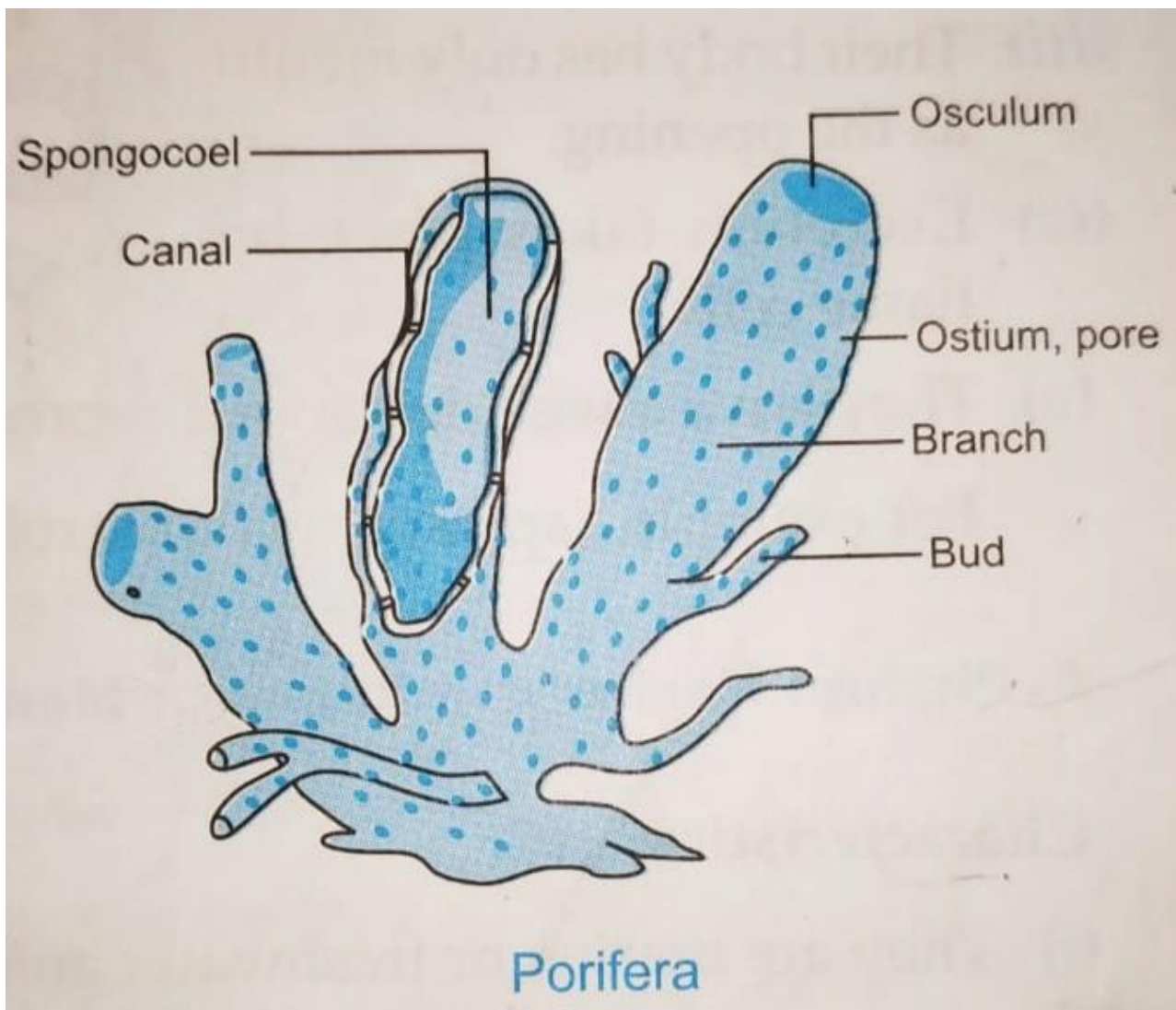
## III. Procedure:

1. Observe the specimens closely and note down the observed characteristics in your practical notebook.
2. Draw a neatly labeled diagram on the white page of your practical notebook.
3. **WRITE ABOUT ONE SPECIMEN IN ONE PAGE ONLY. EACH WHITE PAGE SHOULD CONTAIN ONE CENTRALLY DRAWN LABELLED DIAGRAM OF THE OBSERVED SPECIMEN AND THE ADJACENT RULED PAGE SHOULD CONTAIN THE OBSERVED CHARACTERISTICS WRITTEN NEATLY.**

## IV. Observation:

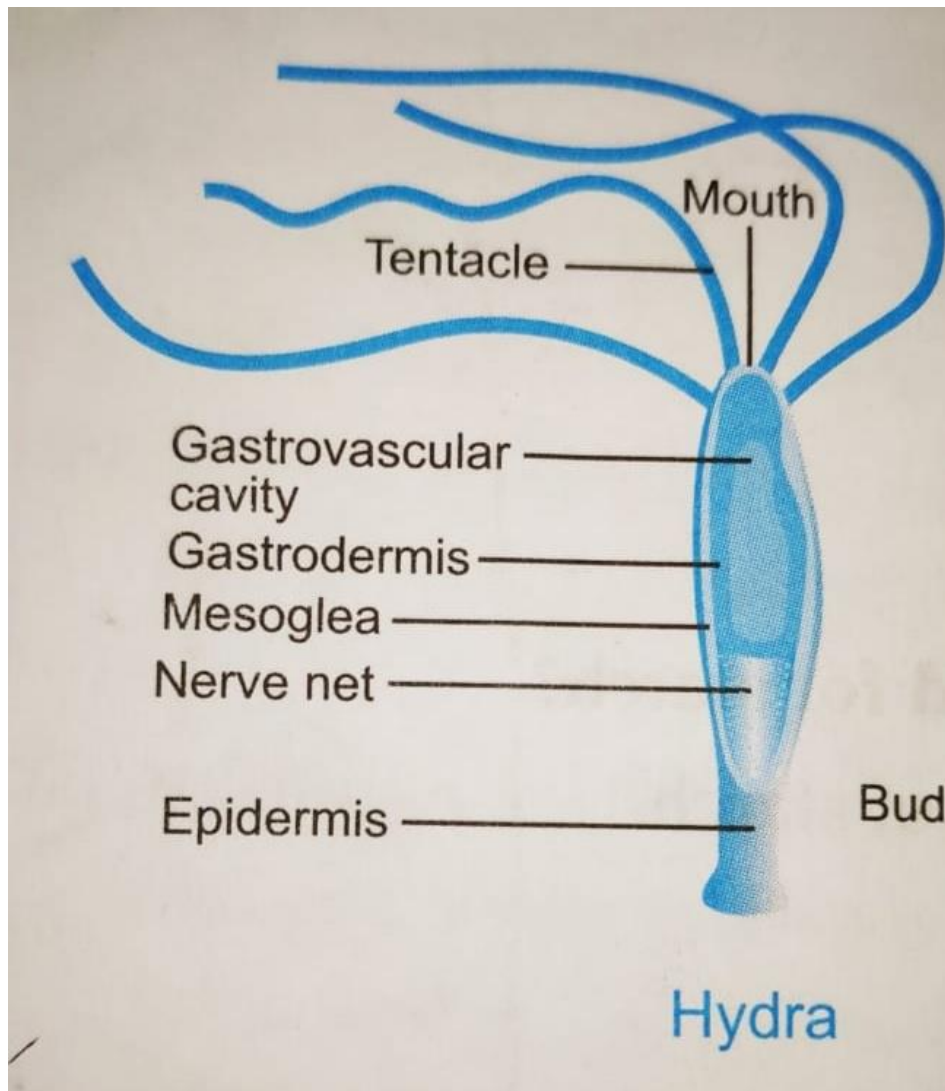
### A. Phylum Porifera:

- i. Sponges are animals of phylum Porifera. The body has minute pores called Ostia.
- ii. The water enters through the Ostia and is expelled out through the osculum.
- iii. The body is supported by fine spicules which made up the thin skeleton.
- iv. The body cavity is spongocoel.
- v. Reproduction is asexual.



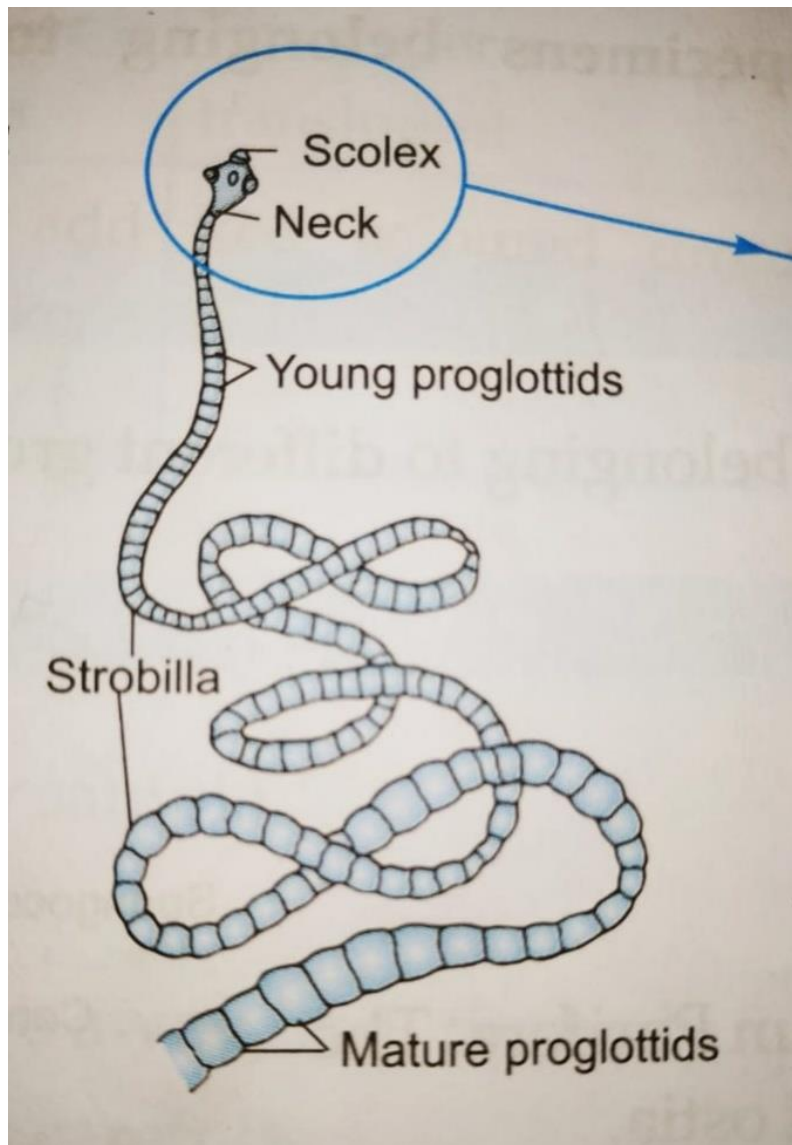
## B. Phylum Coelenterata:

- i. They are radially symmetrical animals
- ii. They have a body cavity called coelenteron.
- iii. They have tentacles with special stinging cells called nematoblasts.
- iv. Body has a mouth at the oral end which leads to a spacious cavity called gastrovascular cavity.
- v. Reproduction is sexual or asexual.



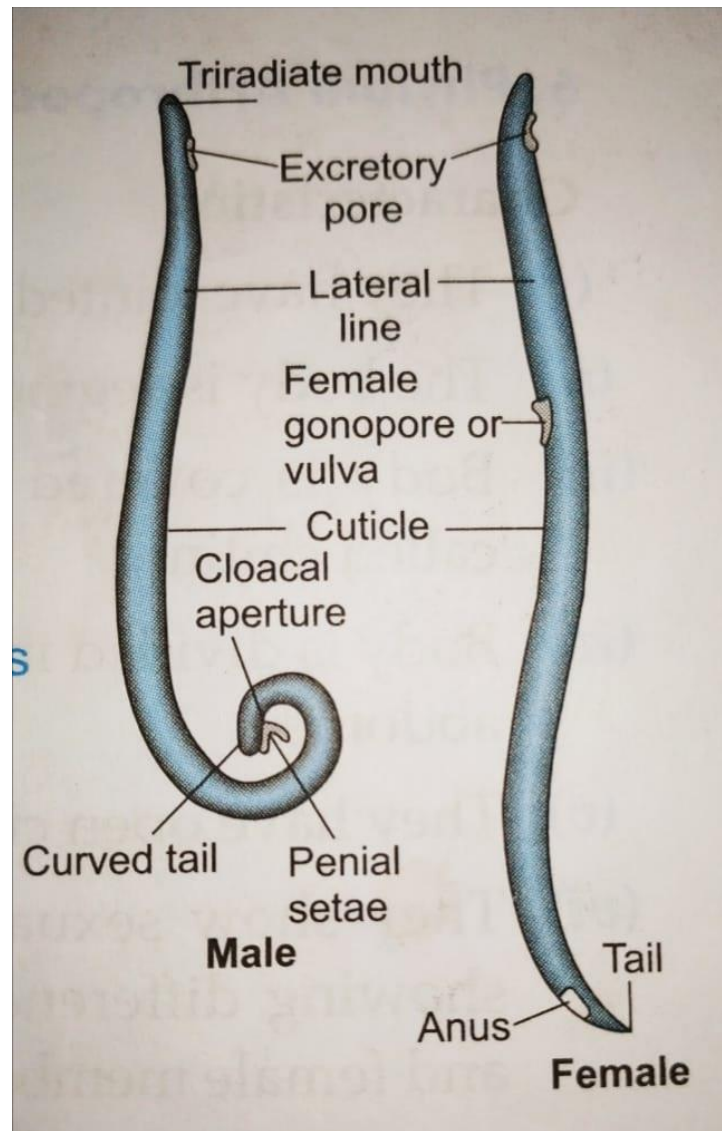
### C. Phylum Platy helminthes:

- i. They are mostly parasitic unsegmented bilaterally symmetrical and flattened body.
- ii. They have hooks and suckers in their heads to attach to the host body.
- iii. Their body only has the mouth as the opening.
- iv. Excretion takes place by flame cells.
- v. They have a well developed reproductive system.



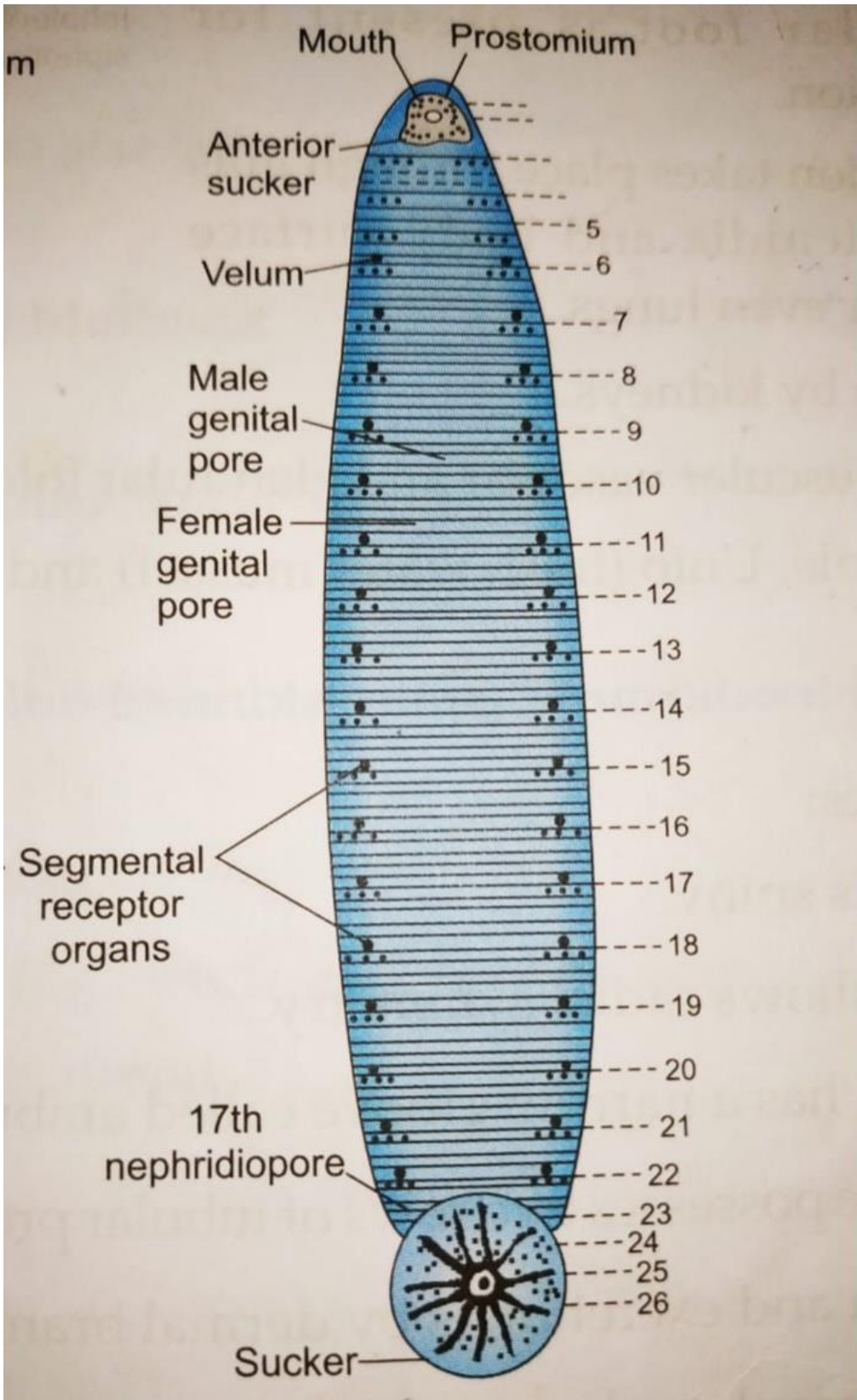
#### **D. Phylum Nemathelminthes or Nematoda:**

- i. They are marine or freshwater animals.
- ii. They are pseudo coelomate and have organ level of organization.
- iii. Alimentary canal is complete with a distinct mouth and anus.
- iv. They are non segmented round worms.
- v. Their body is covered with cuticle.
- vi. Animals are unisexual and sexes are separate.



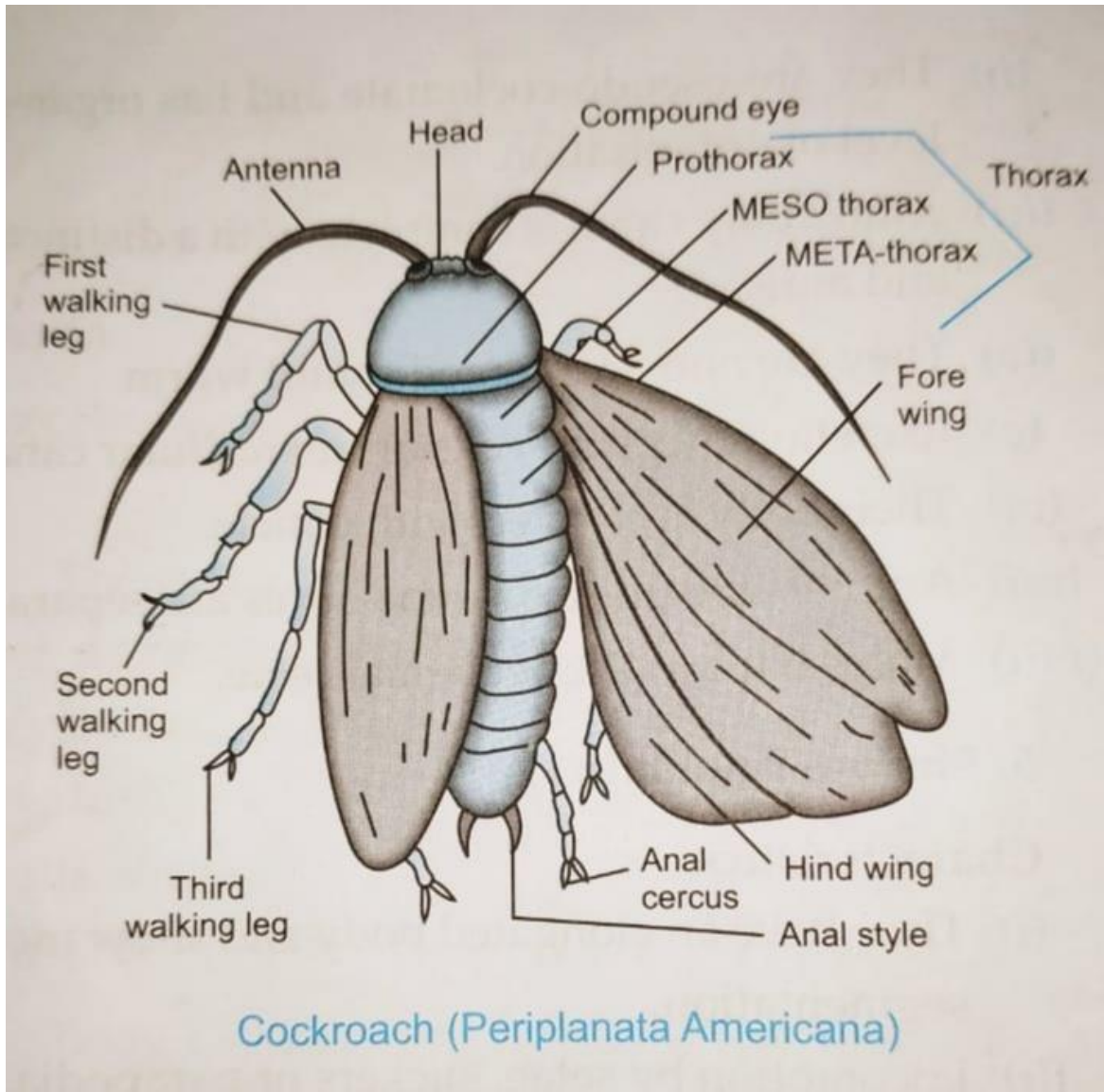
### **E. Phylum Annelida:**

- i. They have elongated body and show metameric segmentation.
- ii. Locomotion by setae, suckers or parapodia.
- iii. The body is bilaterally symmetrical
- iv. Respiration by body surface or by gills in some tube dwellers.
- v. They are mostly hermaphrodites.
- vi. They have organ level of organization.



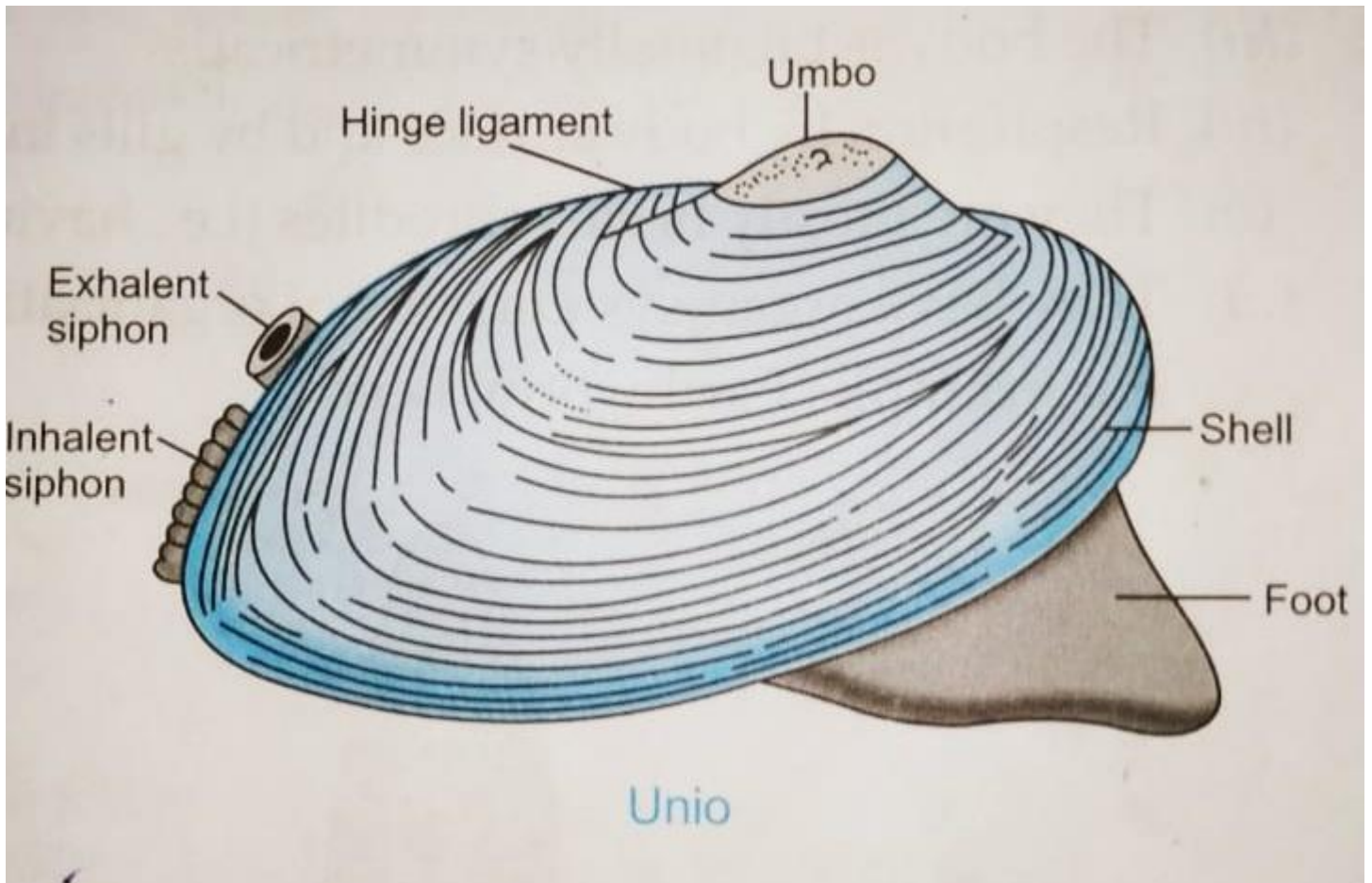
## F. Phylum Arthropoda:

- i. They have jointed legs
- ii. The body is segmented.
- iii. Body is covered by an exoskeleton called chitin.
- iv. Body is divided into head thorax and abdomen.
- v. They have open circulatory system.
- vi. They show sexual dimorphism.



## G. Phylum Mollusca

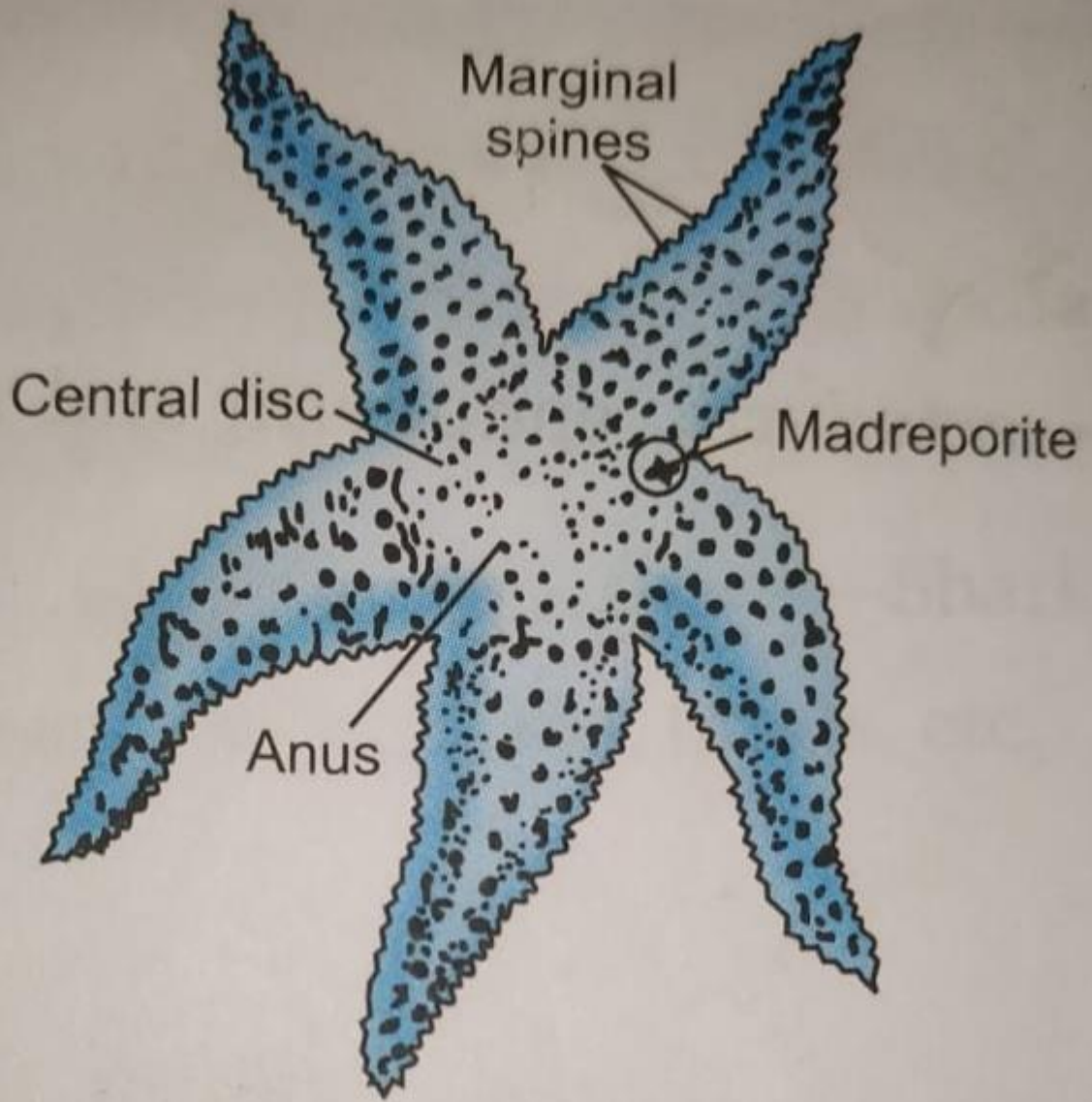
- i. Body is soft and unsegmented.
- ii. Body is protected by hard calcareous shell.
- iii. Muscular foot is present for locomotion.
- iv. Respiration takes place through gills.
- v. Excretion by kidney.



## H. Phylum Echinodermata:

- i. The body is spiny
- ii. The body shows radial symmetry
- iii. The mouth has a narrow groove called ambulacral groove.
- iv. Each groove possesses two rows of tubular projection called tube feet meant for locomotion.
- v. Respiration and excretion is by dermal branchiae.
- vi. There is a mouth and anus.





Star fish