# MISSION M.B.BS

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Subject: ZOOLOGY

Topic : ANIMAL KINGDOM L4 Class: Standard XI

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Instructions:

A

1. First animals that were triploblastic and showed bilateral symmetry and organ level of organisation were a part of:

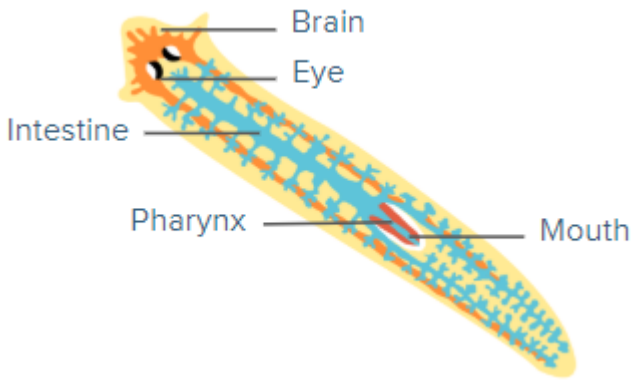
   ✗ **A.** Phylum Ctenophores

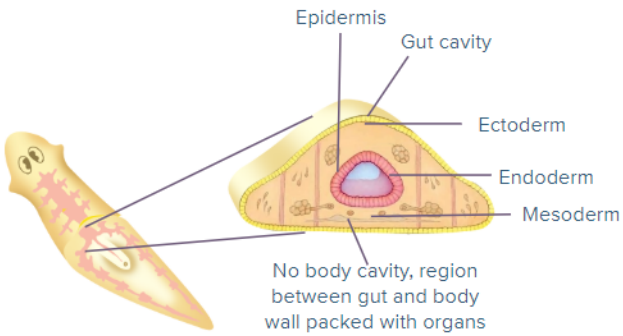
   ✗ **B.** Phylum Aschelminthes

   ✓ **C.** Phylum Platyhelminthes

   ✗ **D.** Phylum Cnidaria

Animals belonging to the phylum Platyhelminthes were the first to have three germ layers (triploblastic) and show bilateral symmetry and organ level of organisation. They have specialised organs for excretion such as flame cells. Nerve cords form the nervous system.




2. Which of the following features is seen in Cnidarians?

✗ **A.** Organ level of organisation

✗ **B.** Triploblastic

✗ **C.** Coelomates

✓ **D.** Radial symmetry

Cnidaria or Coelenterata are radially symmetrical with tissue level of organisation and diploblastic in nature. They are devoid of coelom or body cavity.

Organisms in phylum Platyhelminthes and onwards, are triploblastic with bilateral symmetry. Organisms in phylum Platyhelminthes have organ level of organisation. Phyla after Platyhelminthes have organ system level of organisation.

Phylum Annelida and onwards have true coelom.

3. Which one of the following phylums consists of animals that are bilaterally symmetrical and triploblastic?

- ✔ **A.** Aschelminthes (Roundworms)
- ✘ **B.** Ctenophores
- ✘ **C.** Sponges
- ✘ **D.** Coelenterates (Cnidarians)

Aschelminthes are triploblastic animals having bilateral symmetry. If the body of an organism can be divided into two equal halves on cutting it in one specific plane passing through the centre, then the symmetry is called bilateral symmetry.

Triploblastic animals have all the three germinal layers - ectoderm, endoderm and mesoderm.

Ctenophores and Coelenterates (Cnidarians) are radially symmetrical and diploblastic. They can be cut in any plane passing through the centre to get equal halves and have only two germinal layers - outer ectoderm and inner endoderm.

Sponges are asymmetrical i.e., which cannot be cut in any plane to get equal halves and diploblastic.

4. Hooks and suckers are present in:

- ✔ **A.** Tapeworm
- ✘ **B.** Earthworm
- ✘ **C.** Hydra
- ✘ **D.** *Pleurobrachia*

Hooks and suckers are present in tapeworm. Tapeworm is an intestinal parasite and is in phylum Platyhelminthes. It gets attached to the host intestine with the help of hooks. In some organisms such as Flukes, there are one of the two types of suckers (oral suckers) help to imbibe the food from the host.

Hooks and suckers are absent in earthworm, *Hydra* and *Pleurobrachia*. They are not parasites and are all free-living animals.

5. Select the correct difference between a male and a female *Ascaris* worm.

| | Male *Ascaris* | Female *Ascaris* |
|---|---|---|
| i. | Longer than female | Shorter than male |
| ii. | Posterior end is curved | Posterior end is straight |
| iii. | Cloaca absent | Cloaca is present |

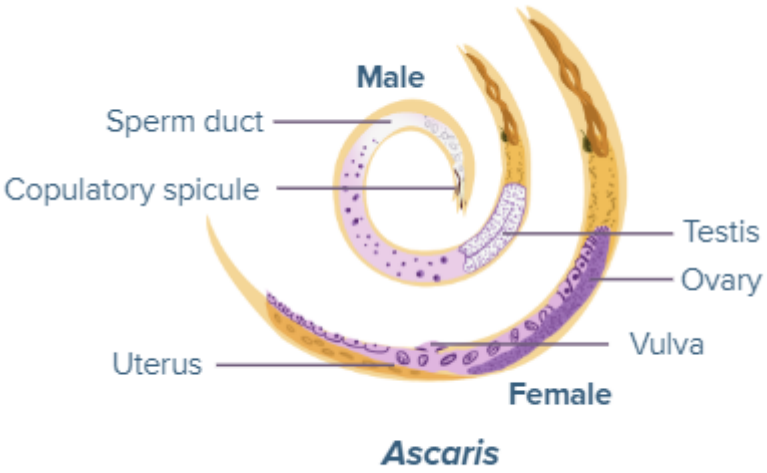
**A.** i and ii only

**B.** ii and iii only

**C.** ii only

**D.** iii only

*Ascaris* belongs to the phylum Aschelminthes. *Ascaris* is dioecious, which means it has separate sexes. Males and females are morphologically distinct. Females are longer than males. Posterior ends of males are hooked or curved while females have a straight posterior end. Cloaca is the last part of the rectum in males. It is located at the posterior end and receives both faeces and sperms. It is absent in females.



6. *Ascaris* is characterized by the

- ✗ **A.** presence of true coelom and metamerism
- ✗ **B.** presence of metamerism only
- ✓ **C.** presence of neither true coelom nor metamerism
- ✗ **D.** presence of true coelom but an absence of metamerism

*Ascaris* belongs to phylum Aschelminthes. It is characterized by the presence of pseudocoelom and an absence of metamerism. In pseudocoelomates, the body cavity is not lined by mesoderm. Instead, they have a false fluid-filled cavity.

Metamerism is the external and internal division of the body into segments with a serial repetition of organs in each segment.

Presence of true coelom and metamerism is a characteristic feature of the members of the phylum Annelida such as earthworms.

Presence of true coelom and absence of metamerism is exhibited by the organisms such as snails, mussels, starfish, etc.

Animals belonging to the phylum Porifera and Coelenterata do not have true coelom and metamerism.

7. Platyhelminthes are

- ✗ **A.** only parasites
- ✗ **B.** free living and some are parasitic
- ✓ **C.** mostly endoparasitic and few are free-living
- ✗ **D.** only free living

Platyhelminthes are mostly endoparasites. A few species are free-living such as *Planaria*. Endoparasites are those which live within the host and imbibe the nutrients from them. Example: Tapeworm (*Taenia*) and Liver fluke (*Fasciola*).

8. *Wuchereria bancrofti* is

- **A.** a Platyhelminthes
- **B.** a sponge
- **C.** the filarial worm
- **D.** a flatworm

*Wuchereria bancrofti* belongs to the phylum Aschelminthes. Phylum Aschelminthes includes roundworms as they have a circular cross-section. It causes filaria and is also called the filarial worm.

9. The worms that aerate soil is

- **A.** *Ascaris*
- **B.** *Taenia*
- **C.** *Fasciola*
- **D.** *Pheretima*

*Pheretima posthuma* or earthworms belong to phylum Annelida. They reside in soil and create tunnels as they eat through the soil, hence, aerating the soil. This improves the soil structure and provides better drainage for water. They, also, eat the dead plant material, which is digested and released back into the soil. This helps the plants to grow.

*Ascaris* belong to phylum Aschelminthes (roundworms). *Taenia* and liver fluke belong to phylum Platyhelminthes (flatworms).

10. Which of the following is not a parasite?

A. Leech

B. Earthworms

C. Tapeworm

D. *Wuchereria*

Leeches and earthworms belong to phylum Annelida. Tapeworm and *Wuchereria* belong to the phylum Platyhelminthes and Aschelminthes, respectively.

Earthworms are not parasitic. Instead, they are beneficial for plants as they aerate the soil by creating tunnels due to their movement and enhance the drainage of water. Few leeches are terrestrial and are blood sucking parasites. Tapeworms are parasitic and found in the intestines of human beings. *Wuchereria* species is a human parasitic worm which causes elephantiasis or lymphatic filariasis (swelling and enlargement of limbs).