

MISSION M.B.BS

Date: 01/08/2022

Subject: BOTANY

Topic : ANIMAL KINGDOM L5

Class: Standard XI

Instructions:

A

1. The second-largest phylum in the animal kingdom is

- ☐ A. Arthropoda
- ☐ B. Annelida
- ☐ C. Chordata
- ☒ D. Mollusca

Arthropoda is the largest phylum of the animal kingdom. It includes about 84% of the known animal species on this planet.

The second-largest phylum in the animal kingdom is Mollusca. This phylum includes a wide variety of marine, freshwater and terrestrial species. It includes about 100,000 living species.

2. Which among the following groups of animals have only molluscs?

- ☐ A. Starfish, sea urchin, sea lily
- ☒ B. Snail, devil fish, oysters
- ☐ C. Crab, insects and spiders
- ☐ D. Jellyfish, corals, sea pen

Among the given options snails, octopus (devil fish) and oysters belong to the phylum Mollusca. These animals have soft unsegmented bodies covered by a protective shell. Devil fish or octopus is an exception which lacks an outer protective shell.

Starfish, sea urchin, sea lily belong to the phylum Echinodermata.

Crab, insects and spiders belong to phylum Arthropoda.

Jellyfish, corals and sea pen belong to phylum Cnidaria.

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3. The unsegmented animals belong to the phyla

- ☐ A. Annelida and Aschelminthes
- ☐ B. Mollusca and Annelida
- ☒ C. Aschelminthes and Mollusca
- ☐ D. Arthropoda and Aschelminthes

The body segmentation is a characteristic of phyla Annelida, Arthropoda and Chordata. Segmentation is both external and internal in Annelida and Arthropoda with linear repetition of some organs. This type of segmentation is called metamerism.

The animals of phylum Chordata have only internal segmentation which is quite evident in the embryonic stages.

The animals of Mollusca and Aschelminthes do not exhibit body segmentation.

4. The most distinctive feature of echinoderms is the presence of

- ☐ A. canal system
- ☒ B. water vascular system
- ☐ C. gastrovascular cavity
- ☐ D. radula

The most distinctive feature of echinoderms is the presence of a water vascular system or ambulacral system that helps in locomotion, respiration and capturing food.

Canal system is unique to the members of phylum Porifera, such as the sponges.

A gastrovascular cavity is seen in coelenterates, which is a common cavity for both the digestive and circulatory systems.

The radula is a rasping organ present only in Mollusca and helps in acquiring food.

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5. Open type of circulatory system is found in

- ☒ A. Annelida and Arthropoda
- ☒ B. Mollusca and Annelida
- ☒ C. Arthropoda and Hemichordata
- ☒ D. Chordata and Hemichordata

Open type of circulatory system is found in Arthropoda, Mollusca and Hemichordata.

In an open type of circulatory system, the blood flows through open sinuses and blood vessels are poorly developed.

The members of Annelida and Chordata have a closed circulatory system wherein the blood flows through closed blood vessels.

6. Shell in a mollusc is

- ☒ A. chitinous and secreted by the mantle
- ☒ B. calcareous and secreted by visceral mass
- ☒ C. calcareous and secreted by the mantle
- ☒ D. siliceous and secreted by the mantle

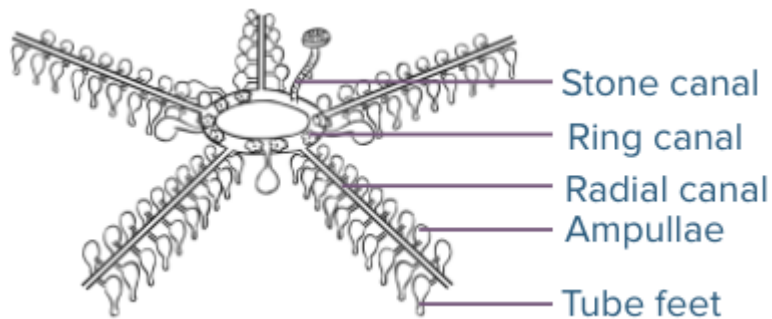
Molluscs are soft-bodied animals that have a protective calcareous shell covering it. This shell is secreted by a soft, spongy layer called mantle that lies over the visceral hump, also called the visceral mass. The shell is calcareous as it is made up of calcium carbonate.

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7. Water vascular system helps in

- ☒ A. locomotion
- ☒ B. capture of food
- ☒ C. respiration
- ☒ D. all of the these

Water vascular system is a unique characteristic of echinoderms. It helps in locomotion, the capture of food and respiration.

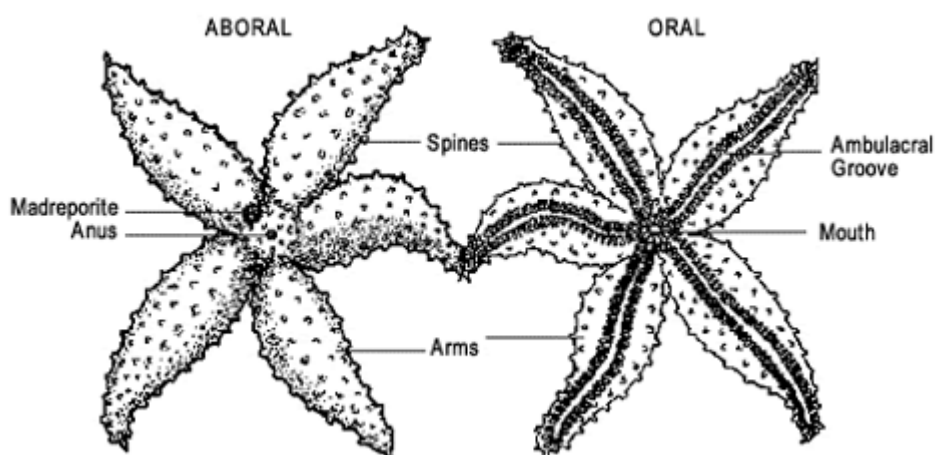


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8. Mouth in starfish is on the _____ surface and anus is on the _____ surface respectively.

- ☐ A. aboral, oral
- ☐ B. oral, ventral
- ☐ C. aboral, dorsal
- ☒ D. oral, aboral

The mouth in starfish is present on the oral (lower, ventral) surface and anus is on aboral (upper, dorsal) surface respectively.



9. Animals of the phyla _____ and _____ are exclusively marine.

- ☐ A. Cnidaria, Ctenophora
- ☒ B. Ctenophora, Echinodermata
- ☐ C. Mollusca, Echinodermata
- ☐ D. Arthropoda, Cephalochordata

Animals of the phyla Echinodermata, Cephalochordata and Ctenophora are exclusively marine.

Members of phylum Cnidaria are aquatic. They can live both in freshwater and marine environments.

Members of phylum Mollusca can be both aquatic and terrestrial.

Members of phylum Arthropoda are found in a variety of aquatic and terrestrial habitats.

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10. The adult echinoderms are _____ and the larvae are _____.

- ☐ A. asymmetrical, radially symmetrical
- ☒ B. radially symmetrical, bilaterally symmetrical
- ☐ C. bilaterally symmetrical, radially symmetrical
- ☐ D. asymmetrical, bilaterally symmetrical

The adult echinoderms are radially symmetrical and larvae are bilaterally symmetrical.

Organisms exhibiting bilateral symmetry can be cut into two identical halves in only one plane, the median sagittal plane.

Organisms exhibiting radial symmetry can be cut into two identical halves in any plane passing through the centre.

Asymmetrical organisms cannot be cut into identical halves in any plane.