

Question Bank On Short Answer Type Questions

Q.Name one ciliated and one flagellated protozoa.

The ciliates are a group of protozoans characterized by the presence of hair-like organelles called cilia, which are identical in structure to eukaryotic flagella, but are in general shorter and present in much larger numbers, with a different undulating pattern than flagella.

Balantidium coli, *Paramecium caudatum*.

A flagellate is a cell or organism with one or more whip-like appendages called flagella. The word flagellate also describes a particular construction (or level of organization) characteristic of many prokaryotes and eukaryotes and their means of motion.

Q.What is the function of endostyle?

The endostyle is an organ which assists lower-chordates (urochordates and cephalochordates, as well as the larvae of lampreys) in filter-feeding.

i)It is a longitudinal ciliated fold located in the ventral pharyngeal wall, which secretes mucus to accumulate food particles and pass them along to the digestive tract.

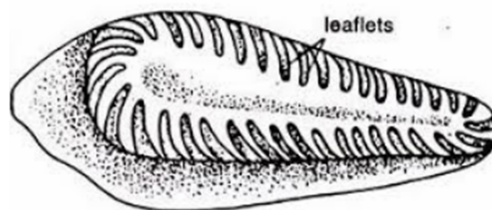
ii)It aids in transporting food to the esophagus. The endostyle in larval lampreys (ammocetes) metamorphoses into the thyroid gland in adults, and is regarded as being homologous to the thyroid gland in vertebrates due to its iodine-concentrating activity.

iii)Since the endostyle is found in the three branches of chordates, it is presumed to have arisen in the common ancestor of these taxa, along with a shift to internal feeding for extracting suspended food from the water.

iv)Electron microscope observations on the endostyle of different species of tunicates have revealed the presence of a densely packed rough endoplasmic reticulum in the glandular cells of the organ. The presence of such a developed ergastoplasm fully supports the hypothesis that these cells are capable of synthesizing digestive enzymes (Godeaux, 1989).

Q.Write the function of Osphradium.

The osphradium is an olfactory organ in certain molluscs, linked with the respiration organ. The main function of this organ is thought to be to test incoming water for silt and possible food particles. It apparently serves as an olfactory organ. The functions of osmoreception and mechanoreception are also attributed to the osphradium.



Q.what is radial symmetry?

Radially symmetric organisms resemble a pie where several cutting planes produce roughly identical pieces. Such an organism exhibits no left or right sides. They have a top and a bottom surface, or a front and a back. Pentamerism (also called pentaradial and pentagonal symmetry) means the organism is in five parts around a central axis, 72° apart. Among animals, only the echinoderms such as sea stars, sea urchins, and sea lilies are pentamerous as adults, with five arms arranged around the mouth

A basic body plan in which the organism can be divided into similar halves by passing a plane at any angle along a central axis, characteristic of sessile and bottom-dwelling animals, as the sea anemone and starfish.

Q.Copare between ductosomia and protosomia.