



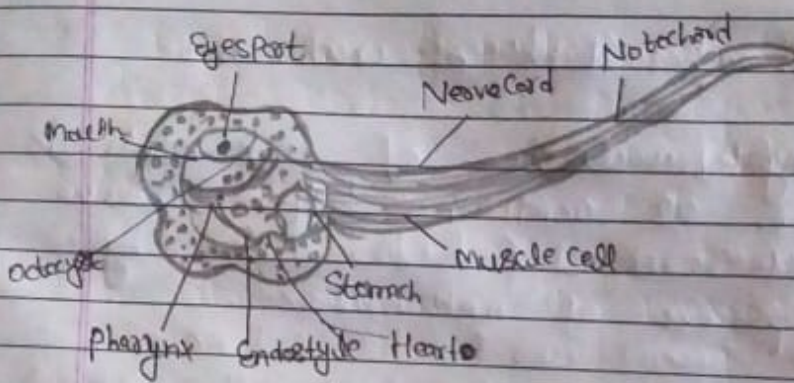
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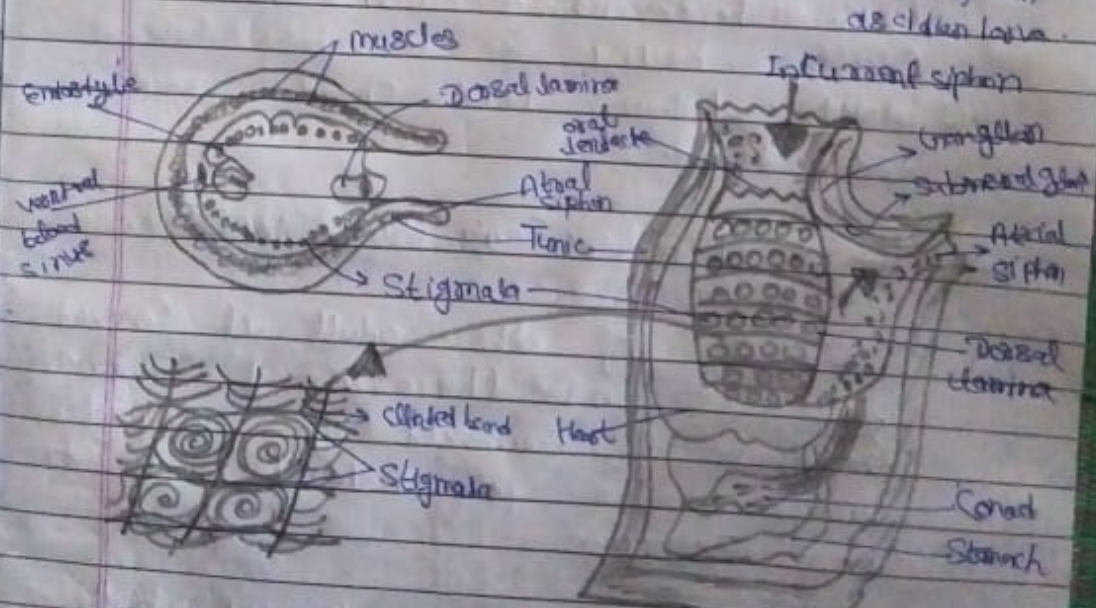
Dr. Rajesh Verma, Assistant Professor and Head, D.K. College Durgam Chauraha, B.Sc part 2, Paper (221A)

Question: Urochordates Key Characters and Classification. Example State Sahit likha.

Ans:- These animals are known as sea squirts. The life-history of urochordates passes through a dramatic change. Their chordata characters are more pronounced during larval period, while in adults they are more like invertebrates. The characters are described in two head-brain characters (Fig. 1.4) and adult characters (Fig. 1.5).



A diagrammatic longitudinal section of an earthworm.



- iii) Incurrent branchial siphon, and ex-current atrial siphon, form entrance and exit portals for the water that circulates through the body.
- iv) Branchial siphon opens into a branchial basket, i.e. to pharynx.
- v) Tiny finger-like sensory tentacles encircle the incurrent siphon to examine the incoming water and prevent large particles from entering.
- vi) These are hermaphroditic animals. reproduce both sexually and asexually.

→ Classification of Urochordata:-

This subphylum is divided into three classes - Ascidians, thaliacea and thaliacea.

The characters and examples of these classes are given here.

→ larval characters of urochordata:-

- i) Elongated larvae of urochordata is known as ascidian tadpole larva. Adult emerges from the larvae by the process of metamorphosis.
- ii) Notochord restricted at the caudal end, hence name urochordata.
- iii) Dorsal hollow nerve chord spreads end to end.

→ Adult characters of urochordata.

- i) The body of the adult is covered by a tunic (hence named Tunicata) the tunic is composed of a protein tunicin and a polysaccharide similar to plant cellulose.
- ii) Adults are sessile and attached to the substratum of the sea.

A Class - Ascidiacea:-

General characters:-

- i) Comprises mostly brightly coloured marine animals.
- ii) Some species are solitary, others are colonial.
- iii) Adults are sessile, but larvae are planktonic and do not feed.
- iv) Adults having sac-like body & covered by tunic.

Examples:-

Ascidia (Fig. 1.8) Cioma (Fig. 1.6a), Herdmania (Fig. 1.6b).

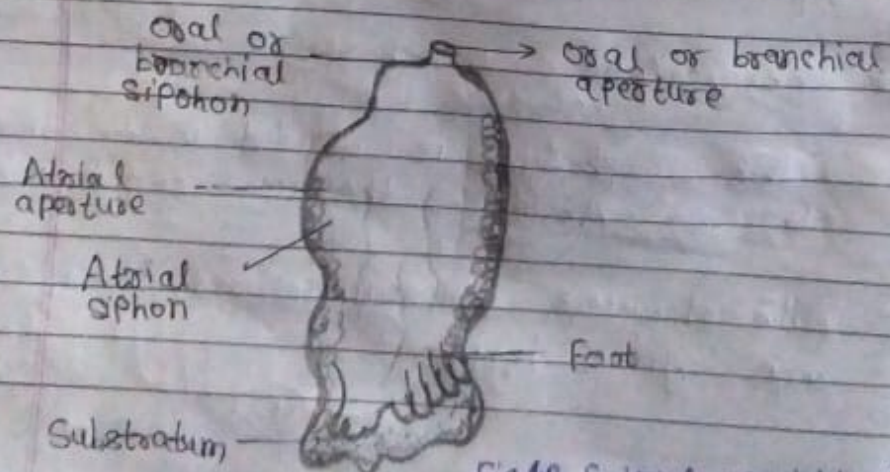


Fig 1.8 External organization of adult ascidian