

Dr. Rajesh Verma, Assistant

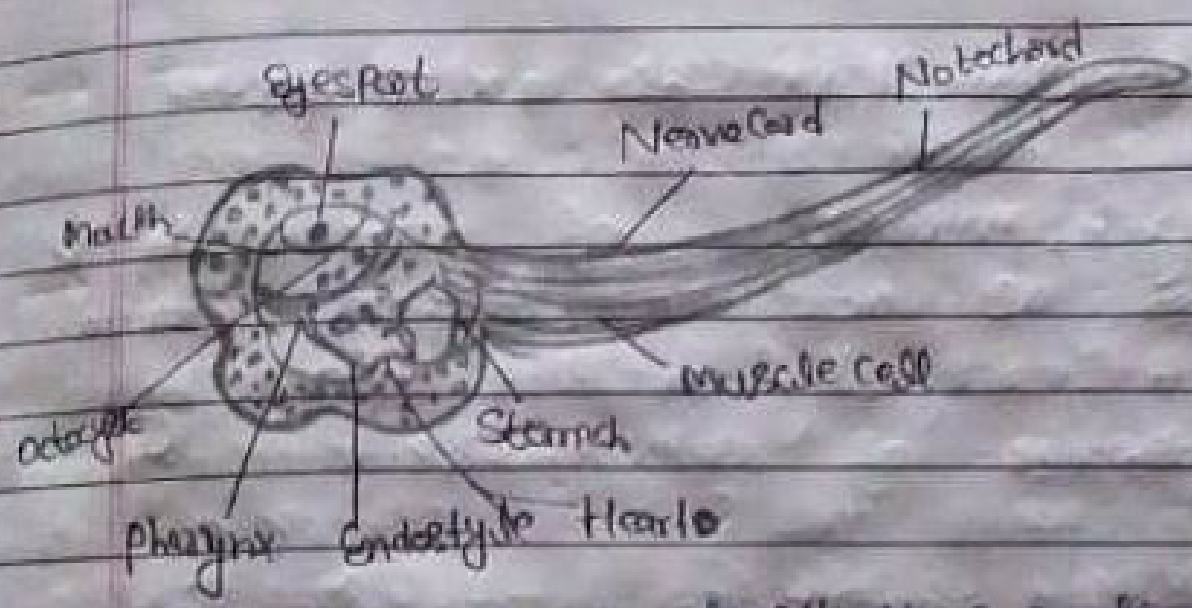
Professor and Head, J.K. College, Meerut

Ass. Part A / Paper (121A)

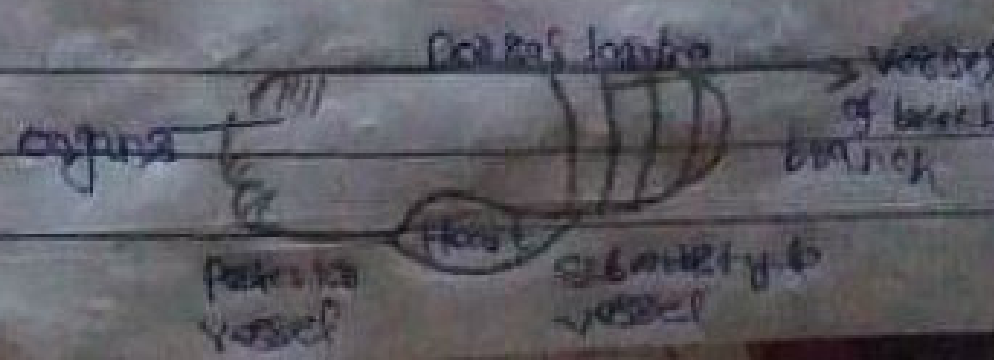
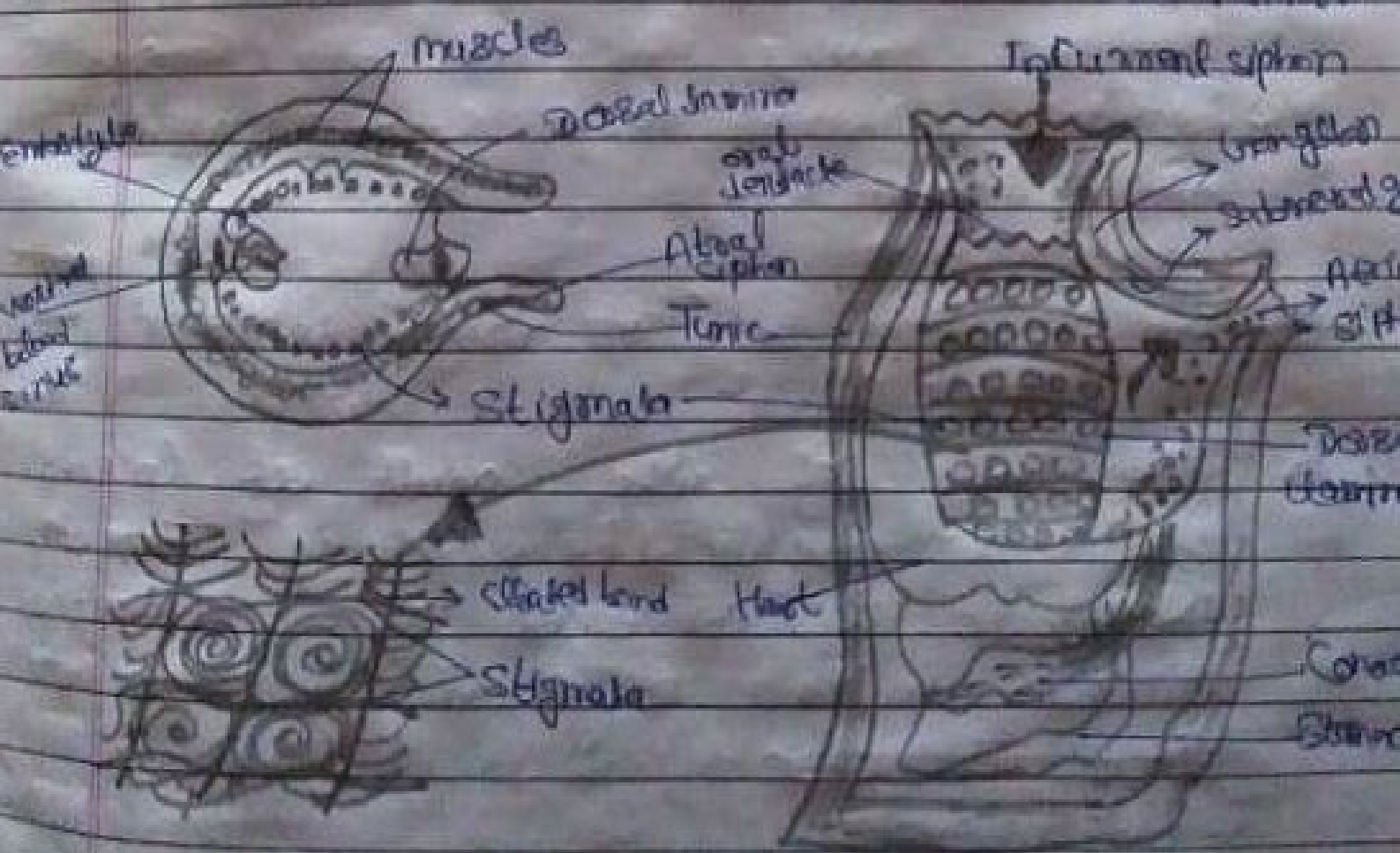
Question: Discuss the characters and classification of the novel 'The Godfather' by Mario Puzo.

Ans:-

These animals are known as sea squirts though a dramatic change. Their characters are more pronounced during the period while in adults they are more like lower vertebrates. The characters are



A diagrammatic longitudinal section of an earthworm.



→ Larval characters of urochordata:-

- i) Elongated larvae of urochordata is known as notochord. 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.

iii) Incurrent branchial siphon, and ex-current lateral siphon, form entrance and exit ports for the water which 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 hermaphrodite animals reproduce both sexually and asexually.

### Classification of Urochordata:-

This subphylum is divided into three classes - Ascidiacea, Thaliacea and Appendicularia.

The characters and examples of these classes are given here.

# A class - Ascidia

## General characters:-

- i) Complex mostly highly colored 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:-

Azocia (Fig. 18) Sima (Fig. 16a), Heterostoma (Fig. 16b)



Fig 18 External organization of