

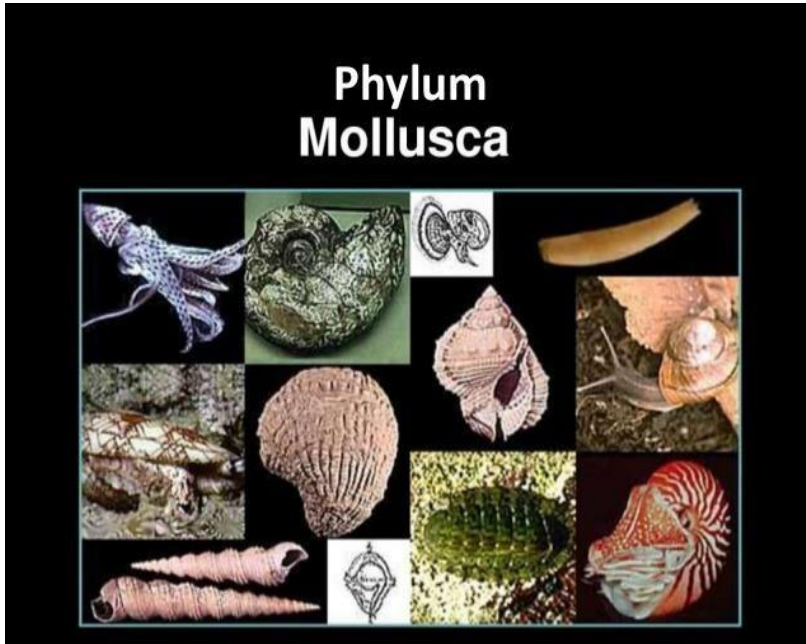
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Paper - I (A)

B.Sc. Zoology (Hons.)Part-I

Phylum - Mollusca :

Definition :

Mollusca which include snails , slugs, squids, octopods and nautili are soft-bodied, triploblastic, bilaterally symmetrical with anus and coelomate animals and without segmentation ; usually shelled having characteristic ventral muscular foot. The term Molluscs are among the most abundant of all animals. In number of species, the Mollusca is the second largest phylum after Arthropoda. They are sluggish invertebrates, with a thin fleshy envelope or mantle covering the visceral organs.



The bivalve molluscs are used as bioindicators in the marine and freshwater environments. But not all molluscans are good for humans. Some are pests like the snails and slugs.

General Characteristics of Molluscs :

- They are mostly found in marine and freshwater. Very few are terrestrial and found in moist soil.
- They exhibit Tissue - system grade of body organization.
- Triploblastic, coelomate, unsegmented (except in Monoplacophora) and bilaterally symmetrical.
- Body divisible into head, mantle, muscular foot and visceral mass.

- Shell, when present, usually univalve or bivalve.
 - Respiratory organs contain numerous gills or ctenidia usually provided with osphradium at the base.
 - Haemocyanin is their respiratory pigments.
 - Respiration direct or by gills or lungs or both. The lung is developed in terrestrial forms.
 - Digestive system complete with a digestive gland or liver(hepatopancreas) , a rasping organ, the radula, usually present.
 - Circulatory system mainly of closed type, but some emptying into sinuses, heart with one or two auricles and one ventricle.
 - Excretion by paired metanephridia (kidneys).
 - Nervous system of paired ganglia, connectives and nerves.
 - Sense organs include eyes, statocysts and receptors for touch, smell and taste.
 - Dioecious or monoecious.
 - Fertilization external or internal, development direct or through free larval forms.
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