

PAPER-II STRUCTURE AND FUNCTION IN INVERTEBRATES

(Questions will be set from each unit)

- UNIT-I**
- (1) **Organization of Coelom** : (a) Acoelomates, (b) Pseudocoelomates, (c) Coelomates : Protostomia and Deuterostomia.
 - (2) **Locomotion** : (a) Flagella and Ciliary movement in Protozoa, (b) Hydrostatic movement in Coelenterata, Annelida & Echinodermata.
- UNIT-II**
- (1) **Nutrition and Digestion** : (a) Patterns of feeding and digestion in lower Metazoa, (b) Filter feeding in Polychaeta, mollusca and Echinodermata.
 - (2) **Respiration** : (1) Organs of Respiration : Gills, Lungs and Trachea, (2) Respiratory Pigments, (3) Mechanism of Respiration.
- UNIT-III**
- (1) **Excretion** : (a) Organs of Excretion : Coelom, Coelomducts, Nephridia and Malpighian Tubules, (b) Mechanism of Excretion, (c) Excretion and Osmoregulation.
 - (2) **Nervous System** : (a) Primitive nervous system : Coelenterata and Echinodermata, (b) Advanced nervous system : Annelida, Arthropoda, (Crustacea and Insecta) and Mollusca (Cephalopoda), (c) Trends in neural evolution.
- UNIT-IV**
- (1) **Invertebrate Lervae** : (a) Larval forms of Free living invertebrates, (b) Larval forms of parasites, (c) Strategies and Evolutionary Significance of arval Forms.
 - (2) **Minor Phyla** : (a) Concept and Significance, (b) Organization and General Characters :
 - (i) **Non Coelomate** : (1) Rotifera, (2) Acanthocephala, (3) Nemertins, (4) Endoprocta.
 - (ii) **Coelomate** : (1) Phoronida, (2) Brachipoda, (3) Ectoprocta, (4) Bryozoa.