

**CORE COURSE I - INVERTEBRATE & PROCHORDATE BIOLOGY**

**UNIT I :**

Classification, life history and phylogenetic relationship of protozoa and sponges. Coelenterata - polymorphism, life history, theories on coral reefs, distribution. Polychaeta- classification, morphology, reproduction and adaptive radiation.

**UNIT 2:**

Functional morphology, development and affinity of Nemertinea, Endoprocta, Ectoprocta, Phoronida, Pogonophora and Chaetognatha.

**UNIT 3:**

Crustacea - classification upto orders, comparative morphology, Type study : *Penaeus monodon*, crustacean appendages, larval forms, evolution.

**UNIT4:**

Mollusca- classification upto orders, general characters, Type study : *Unio*. Torsion, phylogenetic relationship and adaptive radiation.

**UNIT 5:**

Echinodermata - Type study : Star fish - water vascular system, larvae : their comparative morphology and evolution.

Prochordates - Type study : *Amphioxus* - classification and comparative morphology, reproduction and early development, larval metamorphosis of ascidia.

**TEXT BOOKS**

1. Hyman, L.1967. The invertebrate Zoology, Vols. To VI McGraw Hill Book Co. Ltd., New York.
2. Kaestner, A., 1967. Invertebrate zoology Vols. 1 to III. Wiley Inter science Publishers, New York.
3. Barnes, R.D., 1980. Invertebrate zoology. 4<sup>th</sup> Edition. Saunders College Publishers, Philadelphia.
4. Ruppert, E.E and R.D. Barnes 1994. Invertebrage Zoology. 6<sup>th</sup> Edition. Saunders College Publishers, Philadelphia.