

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>C</b>	<b>H</b>	<b>I</b>	<b>E</b>	<b>T</b>
<b>17U3ZAC1</b>	<b>ESSENTIALS OF INVERTEBRATES &amp; CHORDATES</b>	2	2	25	75	100

## **OBJECTIVES**

- ❖ To learn the essentials of Invertebrates and chordates.
- ❖ To study vital adaptations of animal kingdom.

## **LEARNING OUTCOME**

1. Acquire basic knowledge on invertebrates and chordates.
2. Create awareness to conserve and protect the living system.

## **UNIT - I**

Parasitic protozoa (Life history of *Plasmodium* in detail), Organization of Polyp and Medusa, Parasitic adaptations -Tapeworm and *Ascaris*.

## **UNIT - II**

Mouth parts in insects, Metamorphosis in insects, Respiration in arthropods, Water vascular system in starfish.

## **UNIT - III**

Migration in fishes, Developmental stages of Frog. Parental care in amphibians, Golden age of reptiles

## **UNIT - IV**

Identification of poisonous and non-poisonous snakes, Poisonous snakes of South India, Flight Adaptation in birds, Migration in birds.

## **UNIT-V**

Adaptive radiation in mammals, Exoskeleton in fishes, birds and mammals, Marsupials.

**Text book:**

Nair, N.C., S. Leelavathy, N. Soundarapandian, T. Murugan, and N. Arumugam. 2006. A text book of Invertebrates, Saras Publication, Nagercoil.

Thangamani, A., S. Prasanakumar, L.M. Narayanan and N. Arumugam. 2005. A text book of Chordates. Saras publication, Nagercoil.

**Reference books:**

Kotpal, R.L. 2012. Modern Text Book of Zoology Invertebrates, Rastogi Publications, Meerut.

Parker & Hashwell, Textbook of Zoology Vol. I (Invertebrates) A.Z.T.B.S. Publishers & Distributors, New Delhi.

Jorden, E.L. and P.S.Verma. 2013. Invertebrate Zoology, S. Chand & Co. Ltd. New Delhi.

Hickman C. P. Jr., Hickman & L.S. Roberts. Integrated principles of zoology, Mosby college publication. St. Louis.

Iyer, E.K., And T.N. Ananthakrishnan, Manual of zoology Vol. I, Invertebrata, Part I and II S.Viswanathan (Printers and Publishers) Pvt. Ltd. Madras.

Thangamani, A., S. Prasanakumar, L.M. Narayanan and N. Arumugam. 2005. A text book of Chordates. Saras publication, Nagercoil.

Kardong, K.V. (2005) Vertebrates Comparative Anatomy, Function and evolution. IV Edition. McGrawHill Higher Education.

Kent, G.C. and Carr R.K. (2000). Comparative Anatomy of the Vertebrates. IX Edition. The McGraw-Hill Companies.

Young, J.Z. (2004). The life of vertebrates. III Edition. Oxford university press.

Hall B.K. and Hallgrimsson B. (2008). Strickberger's Evolution. IV Edition. Jones and Bartlett Publishers, Inc.