

**SARDAR PATEL UNIVERSITY**  
**Programme: B.Sc**  
**Semester: II**  
**Syllabus with effect from: November-2011**

<b>Paper Code: US02CBIO01</b>	<b>Total Credit: 2</b>
<b>Title of Paper: Chordate Biology &amp; Physiology</b>	

Unit	Description in detail	Weightage (%)
<b>I</b>	<b>Outline classification of Chordata with examples</b> <b>Type study of Lamprey</b> -Systematic position, External Structure, Digestive system, Respiratory system, Excretory system, Nervous system, Reproductive system, Fertilization and development, Significance of (Ammocoete larva) <b>Type of scales in fishes</b> -Placoid, Cycloid, Ganoid and Cosmoid with examples <b>Migration of Fishes with examples</b> - Types with examples <b>Parental care in fishes</b> -Types and examples	<b>25%</b>
<b>II</b>	<b>Parental care in amphibians</b> -Types and examples <b>Migration of birds</b> - Types, causes and significance <b>Flight adaptations</b> <b>Type of feathers</b> -Contour, Filoplume, Down, Semiplume, Bristle, Flight feather and Powder down feather	<b>25%</b>
<b>III</b>	<b>Type study of Rabbit</b> - External features, Digestive system-Buccal digestion, Type and function of salivary glands, Composition of salivary juice, Gastric digestion, Composition of gastric juice, Intestinal digestion, functions of liver, Respiratory system with mechanism of respiration, Structure and working of heart, Arterial and Venous system,	<b>25%</b>
<b>IV</b>	<b>Introduction of Blood Physiology</b> - Composition and function of Blood, Type of blood cells (White blood cell-types (Agranular & Granular), Red blood cell, Platelet) and their function, structure and function of haemoglobin. <b>Excretion</b> - Structure and function of kidney, Physiology of excretion	<b>25%</b>

**Basic Text & Reference Books:**

- Modern Textbook of Zoology (Vertebrates) - R.L. Kotpal
- Vertebrate Zoology - Jordan and Verma
- Biology of Animals (Vertebrate) - Ganguly, Sinha and Adhikari
- Textbook of Vertebrate Zoology .G.S. Sandhu, H. Bhaskar
- Animal Physiology - K.A. Goyal and K.V. Shastri
- Principles of Anatomy and Physiology - Tortora and Derrickson
- A Textbook of Chordates - A. Thangamani, S. Prasannakumar, L.M. Narayanan and N. Arumugam
- Textbook of Vertebrate Zoology - Prasad, S.N. Kashyap
- Fish and fisheries of India - V.G. Jhingran

