

**Number of  
Lectures  
(25)**

**Biology 2<sup>nd</sup> Paper (Zoology)  
Table of Contents**

**Chapter-1 : Animal Diversity and Classification**

<b>Lecture-1</b>	Animal Diversity with components, classification, Nomenclature, and Taxonomic Terminology. Discussion on S/Q and MCQs. Model CQ, Procedure of Writing the answer and CQ Practice.
<b>Lecture-2</b>	Basis of classification, characteristics of Acoelomate phyla (Porifera to Platyhelminthes). S/Q and MCQ discussion on Lecture- 1 and 2
<b>Lecture-3</b>	Pseudo coelomate to Eucoelomate Invertebrate Phyla. SQ, MCQ and CQ on Lecture-1,2 and 3
<b>Lecture-4</b>	Chordata, subphylum of chordata and Division of vertebrata. SQ and MCQ on lecture-4
<b>Lecture-5</b>	Characteristics of classes of Gnathostomata. SQ, CQ and MCQ Practice.

**Chapter two- Introduction to Animal (Hydra)**

<b>Lecture-1</b>	External morphology, structure of Cnidoblast Cell, Mechanism of throwing Nematocyst, Types of Nematocyst. Ecto and Endodermal Cells, Division labor, Food,Feeding&Digestion. MCQ, SQ and Model CQ Practice.
<b>Lecture-2</b>	Locomotion and Reproduction in hydra. SQ, MCQ and CQ Practice.

**Chapter two- Introduction to Animal (Grasshopper)**

<b>Lecture-1</b>	External morphology, mouth parts, Legs, Male and Female differences, Digestive System, Excretory system and Physiology of Excretion. Circulatory System, circulation process. MCQ, SQ and Model CQ Practice.
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<b>Lecture-2</b>	Tracheal System, structure of Ommatidium, Vision Mechanism, Metamorphosis, Hormonal control of Metamorphosis. MCQ, CQ, SQ Practice
<b>Chapter two- Introduction to Animal (Rui fish)</b>	
<b>Lecture-1</b>	Structure of Rui fish, Structure of Scale, Swim bladder, structure of gills Reproduction, Natural conservation. MCQ, CQ & SQ Practice
<b>Lecture-2</b>	Mechanism of Respiration, Structure of Heart, Circulation process. Full Revision, MCQ, CQ and SQ Practice.
<b>Chapter-3: Human Physiology (Digestion and Absorption)</b>	
<b>Lecture-1</b>	Digestive system, structure of Tongue, Dental formula, structure of liver and Pancreas. SQ, CQ and MCQ Practice.
<b>Lecture-2</b>	Digestive enzymes, Digestion Process in Mouth, Stomach. Small intestine and large intestine. CQ, SQ and MCQ Practice.
<b>Lecture-3</b>	Hormonal control, functions of liver. Obesity and Summary of chapter-3.
<b>Lecture-4</b>	Brief discussion on Blood, components of Blood, functions of Blood, Coagulation Process, Structure of Heart. SQ, CQ and MCQ Practice.
<b>Lecture-5</b>	Circulation process, Cardiac Cycle, Myogenic Control Full MCQ and CQ Practice on Lecture –1 and Lecture-2.
<b>Lecture-6</b>	Cardiac diseases and Treatment Full MCQ and CQ Practice and Summary of the Chapter-4.
<b>Chapter-5: (Breathing and Respiration)</b>	
<b>Lecture-1</b>	Respiratory system, Structure of Lung and Alveolus, Chemical Process of Respiration, X-ray comparison of Smoker's and Non Smoker's lung. SQ and MCQ Practice.
<b>Lecture-2</b>	Physical mechanism of Breathing, Nervous control of Respiration and Respiratory diseases, . CQ and MCQ Practice with summary of the chapter.
<b>Chapter-7 (Locomotion and movement)</b>	
<b>Lecture-1</b>	Human Skeleton (Vertebrae in Different Regions) , Typical structure of vertebrae, Structure and differences of Humerus and

	femur, Bones, Cartilage and it's types. SQ, CQ and MCQ Practice.
<b>Lecture-2</b>	Haversian System, Structure of muscle, Classification of lever. Functions of muscle full Revision. MCQ, CQ, SQ Practice.
<b>Chapter-11 (Genetics and Evolution)</b>	
<b>Lecture-1</b>	Lecture-1: Terminology, 1st and 2nd law With SQ Practice.
<b>Lecture-2</b>	Lecture-2: Deviation's of first law and x-linked Inheritance. CQ Practice
<b>Lecture-3</b>	Lecture-3: Deviations of 2nd law, Polygenic inheritance. Full CQ, MCQ Practice.
<b>Lecture-4</b>	Evolutionary theories and Evidence (Lamarckism, Darwinism, Neo-Darwinism and Morphological, Embryological, Paleontological evidence) Full MCQ Prctice