

**Name of Associate Professor: Dr. Manju Bala Sharma**

**Class and Subject: B.Sc.I , semester I(Zoology) Subject lesson Plan: (from July 2018 to October 2018)**

**Paper-I**

<b>Week1 , Topics: Phylum Protozoa</b>
Week 1, day 1 , Date: 16/07/18 <ul style="list-style-type: none"><li>• Introduction of Phylum Protozoa</li></ul>
Day 2, Date :17/07/18 <ul style="list-style-type: none"><li>• Introduction of Phylum Protozoa</li></ul>
Day 3, Date :18/07/18 <ul style="list-style-type: none"><li>• Characteristics of Protozoa</li></ul>
<b>Week 2 Topics: Phylum Protozoa</b>
Week 2, day1Date: 23/07/18 <ul style="list-style-type: none"><li>• Classification of protozoa( Sub phylum : Sarco-mastigophora)</li></ul>
Day 2, Date: 24/07/18 <ul style="list-style-type: none"><li>• Classification of Protozoa(Sporozoa,cnidospora &amp; Ciliphora)</li></ul>
Day 3, Date: 25/07/18 <ul style="list-style-type: none"><li>• Biodiversity and Economic Importance</li></ul>
<b>Week 3, Topics: Phylum protozoa</b>
Week 3,day 1 Date: 30/07/18 <ul style="list-style-type: none"><li>• Life cycle of <i>Plasmodium vivax</i>: <i>Asexual &amp; sexual</i></li></ul>
Day 3, Date: 01/08/18 <ul style="list-style-type: none"><li>• Protozoa in general : Parasitic protozoa(<i>Entamoeba, Trypanasoma</i>)</li></ul>

<b>Week 4, Topics: Phylum Porifera</b>
Week 4, day1, Date : 06/08/18 <ul style="list-style-type: none"> <li>Parasitic protozoa(<i>Leishmania, Giardia</i>)</li> </ul>
Day 2, Date: 07/08/18 <ul style="list-style-type: none"> <li>Introduction of phylum Porifera</li> </ul>
Day 3, Date: 08/08/18 <ul style="list-style-type: none"> <li>Characteristics of porifera</li> </ul>
<b>Week 5, Topics: Phylum porifera</b>
Week 5, day1, Date : 13/08/18 <ul style="list-style-type: none"> <li>Classification of phylum porifera</li> </ul>
Day2, Date : 14/08/18 <ul style="list-style-type: none"> <li>Canal system in Sycon</li> </ul>
<b>Weeks 6, Topics: Phylum Porifera</b>
Week 6, day1, Date : 20/08/18 <ul style="list-style-type: none"> <li>Histology of Sycon</li> </ul>
Day 2, Date :21 /08/18 <ul style="list-style-type: none"> <li>Skeleton of Sycon</li> </ul>
<b>Week 7, Topics: Phylum Porifera</b>
Week 7, day1 Date : 27/08/18 <ul style="list-style-type: none"> <li>Physiology of Sycon (nutrition, excretion, nervous system)</li> </ul>
Day2, Date :28/08/18 <ul style="list-style-type: none"> <li>Reproduction in Sycon</li> </ul>
Day 3,Date :29/08/18 <ul style="list-style-type: none"> <li>Embryology and metamorphosis</li> </ul>
<b>Week 8, Topics: Phylum Porifera</b>
Week 8, Day2, Date: 04/09/18 <ul style="list-style-type: none"> <li>Types of Canal system and its significance</li> </ul>
Day3, Date : 05/09/18 <ul style="list-style-type: none"> <li>Skeleton in sponges</li> </ul>
<b>Week 9, Topics: Cell Biology</b>
Week 9, day1, Date: 10/09/18 <ul style="list-style-type: none"> <li>Biodiversity and Economic Importance</li> </ul>

<p>Day2, Date 11/09/18</p> <ul style="list-style-type: none"> <li>• Plasma Membrane: Definition, Structural models of plasma membrane</li> </ul>
<p>Day3, Date :12/09/18</p> <ul style="list-style-type: none"> <li>• Modification of Plasma membrane</li> </ul>
<p><b>Week 10, Topics: Cell Biology</b></p>
<p>Week 10, day1, Date : 17/09/18</p> <ul style="list-style-type: none"> <li>• Properties of plasma membrane (Active and passive)</li> </ul>
<p>Day2 Date : 18/09/18</p> <ul style="list-style-type: none"> <li>• Endoplasmic Reticulum (Discovery, definition and occurrence )</li> </ul>
<p><b>Week 10, Topics: Cell Biology</b></p>
<p>Day3, Date: 19/09/18</p> <ul style="list-style-type: none"> <li>• Endoplasmic Reticulum (Types and Ultrastructure)</li> </ul>
<p><b>Week 11, Topics: Cell Biology</b></p>
<p>Week 11, day1, Date : 24/09/18</p> <ul style="list-style-type: none"> <li>• Function of Endoplasmic Reticulum</li> </ul>
<p>Day2, Date: 25/09/18</p> <ul style="list-style-type: none"> <li>• Study of Lysosomes (Discovery, Definition and ultrastructure )</li> </ul>
<p>Day3, Date: 26/09/18</p> <ul style="list-style-type: none"> <li>• Polymorphism in lysosomes</li> </ul>
<p><b>Week12, Topics: Cell Biology</b></p>
<p>Week 12, day1 Date : 01/10/18</p> <ul style="list-style-type: none"> <li>• Biogenesis and function of Lysosomes</li> </ul>
<p>Day3, Date: 03/10/18</p> <ul style="list-style-type: none"> <li>• Study of Mitochondria (Discovery, Definition and Ultrastructure )</li> </ul>
<p><b>Week13, Topics:</b></p>
<p>Week 13, day1 Date : 08/10/18</p> <ul style="list-style-type: none"> <li>• Mitochondria: Biogenesis and function</li> </ul>
<p>Day 2, Date: 09/10/18</p> <ul style="list-style-type: none"> <li>• Microtubules: Discovery, Definition, Ultrastructure</li> </ul>

<b>Week 14, Topics: Genetics</b>
Week 14, day1, Date : 15/10/18 <ul style="list-style-type: none"> <li>• Microtubules: Function Centrioles: Function</li> </ul>
Day 2,Date: 16/10/18 <ul style="list-style-type: none"> <li>• Microfilaments: Discovery, Definition,Ultrastructure and function</li> </ul>
Day 3, Date : 17/10/18 <ul style="list-style-type: none"> <li>• Microfilaments : Function</li> </ul>
<b>Week 15, Topics: Genetics</b>
Week 15, day1, Date : 22/04/18 <ul style="list-style-type: none"> <li>• Cilia : Discovery, Definition,Ultrastructure and function</li> </ul>
Day2, Date : 23/10/18 <ul style="list-style-type: none"> <li>• Flagella : Discovery, Definition,Ultrastructure and function</li> </ul>
<b>Week16, Topics: Genetics</b>
Week 16, day1, Date : 29/10/18 <ul style="list-style-type: none"> <li>• REVISION OF SYLLIBUS</li> </ul>

**Name of Lecturer : Dr. Manju Bala Sharma**

**Class and Subject: B.Sc.III, semester V (Zoology) Subject lesson Plan: (from July 2018 to October2018)**

**Paper-II**

<b>Week1, Topics: Origin of Life –I</b>
Week 1,day 4, Date: 19/07/18 <ul style="list-style-type: none"><li>• Origin of Universe</li></ul>
Day 5, Date : 20/07/18 <ul style="list-style-type: none"><li>• Organic compounds, Coacervates</li></ul>
Day 6, Date :21/07/18 Biomolecules
<b>Week 2, Topics: Origin of life – II</b>
Week 2,day4 ,Date : 26/07/18 <ul style="list-style-type: none"><li>• Prokaryotes cells</li></ul>
Day 5 ,Date :27/07/18 <ul style="list-style-type: none"><li>• Oxygen Revolution</li></ul>
Day 6, Date : 28/07/18 <ul style="list-style-type: none"><li>• Eukaryotes cells</li></ul>
<b>Week 3, Topic : Organic Evolution –I</b>
Week 3,day 4, Date: 02/08/18 <ul style="list-style-type: none"><li>• Historical Aspects of Evolution</li></ul>
Day 5, Date: 03/08/18 <ul style="list-style-type: none"><li>• Evidences of Organic Evolution – Morphological and Anatomical Evidences</li></ul>
Day 6,Date: 04/08/18 <ul style="list-style-type: none"><li>• Embryological Evidences</li></ul>
<b>Week 4, Topics: Organic Evolution-I</b>
Week 4, day4, Date : 09/08/18 <ul style="list-style-type: none"><li>• Palaeontological Evidences</li></ul>
Day 5, Date : 10/08/18 <ul style="list-style-type: none"><li>• Biochemical or Physiological Evidences</li></ul>
Day 6, Date : 11/08/18

<ul style="list-style-type: none"> <li>• Biogeographical Evidences</li> </ul>
<b>Week 5, Topics: Organic Evolution-I</b>
Week 5 Day 4, Date: 16/08/18
<ul style="list-style-type: none"> <li>• Cytological Evidences</li> </ul>
Day 5, Date : 17/08/18
<ul style="list-style-type: none"> <li>• Lamarckism</li> </ul>
Day6 Date 18/08/18
<ul style="list-style-type: none"> <li>• Darwinism</li> </ul>
<b>Week 6, Topics: Organic Evolution –II</b>
Week 6, day4,Date: 23/08/18
<ul style="list-style-type: none"> <li>• Mutation theory of Evolution</li> </ul>
Day 5, Date: 24/08/18
<ul style="list-style-type: none"> <li>• Natural Selection</li> </ul>
Day 6, Date: 25/08/18
<ul style="list-style-type: none"> <li>• Brackish water culture: culture of fin fishes</li> </ul>
<b>Week 7, Topic : Types of Evolution</b>
Week 7, day 4, Date : 30/08/18
<ul style="list-style-type: none"> <li>• Micro Evolution</li> </ul>
Day5 Date 31/08/18
<ul style="list-style-type: none"> <li>• Macro Evolution</li> </ul>
Day 6,Date 01/09/18
<ul style="list-style-type: none"> <li>• Mega-Evolution</li> </ul>
<b>Week 8, Topics: Concept of Species</b>
Week 8, day4, Date: 06/09/18
<ul style="list-style-type: none"> <li>• Speciation</li> </ul>
Day 5,Date :07/09/18
<ul style="list-style-type: none"> <li>• Types of natural selection</li> </ul>
Day 6 Date 08/09/18
<ul style="list-style-type: none"> <li>• Phylogeny of Horse (continued...)</li> </ul>
<b>Week 9, Topics: Evolution</b>
Week 9, day4, Date: 13/09/18
<ul style="list-style-type: none"> <li>• Phylogeny of Horse</li> </ul>
Day5, Date: 14/09/18
<ul style="list-style-type: none"> <li>• Human Evolution(continued....)</li> </ul>

Day6, Date: 15/09/18
<ul style="list-style-type: none"> <li>• Human Evolution</li> </ul>
<b>Week 10, Topics: Developmental Biology</b>
Week 10, day4, Date : 20/09/18
<ul style="list-style-type: none"> <li>• Historical Background of Developmental Biology</li> </ul>
Day5, Date: 21/09/18
<ul style="list-style-type: none"> <li>• Gametogenesis and Gametes(spermatogenesis)</li> </ul>
Day6, Date : 22/09/18
<ul style="list-style-type: none"> <li>• Oogenesis</li> </ul>
<b>Week 11, Topics: Developmental Biology</b>
Week 11, day4 , Date: 27/09/18
<ul style="list-style-type: none"> <li>• Fertilization</li> </ul>
Day5, Date: 28/09/18
<ul style="list-style-type: none"> <li>• Parthenogenesis</li> </ul>
Day6, Date : 29/09/18
<ul style="list-style-type: none"> <li>• Cleavage</li> </ul>
<b>Week 12, Topics: Developmental Biology</b>
Week 12, day4, Date: 04/10/18
<ul style="list-style-type: none"> <li>• Blastulation</li> </ul>
Day 5, Date : 05/10/18
<ul style="list-style-type: none"> <li>• Development of Frog(Blastula)</li> </ul>
Day6, Date : 06/10/18
<ul style="list-style-type: none"> <li>• Development of Frog (Gastrulation)</li> </ul>
<b>Week 13, Topics: Developmental Biology</b>
Week 13, day4, Date : 11/10/18
<ul style="list-style-type: none"> <li>• Metamorphosis in Frog</li> </ul>
Day 2, Date : 12/10/18
<ul style="list-style-type: none"> <li>• Development of Chick – Blastulation</li> </ul>
Day 3, Date : 13/10/18
<ul style="list-style-type: none"> <li>• Development of Chick – Gastrulation</li> </ul>
<b>Week 14, Topics: Developmental Biology</b>
Week 14, day4, Date: 18/10/18
<ul style="list-style-type: none"> <li>• Embryonic Induction (Primary Organizers)</li> </ul>
Day 5, Date :19/10/18

<ul style="list-style-type: none"> <li>• Extra-embryonic Membranes</li> </ul>
<p>Day 6, Date: 20/10/18</p> <ul style="list-style-type: none"> <li>• Competence</li> </ul>
<p><b>Week 15, Topics: Developmental Biology</b></p>
<p>Week 15, day4, Date :25/10/18</p> <ul style="list-style-type: none"> <li>• Determination and Differentiation</li> </ul>
<p>Day5, Date : 26/10/18</p> <ul style="list-style-type: none"> <li>• Repair and regeneration</li> </ul>
<p>Day6,Date 27/10/18</p> <ul style="list-style-type: none"> <li>• Study Vegetable Pest: The hadda beetle</li> </ul>
<p>Week 16, Day 4 Day</p> <ul style="list-style-type: none"> <li>• REVISION OF SYLLIBUS</li> </ul>