

1st Term : 18 August 2015-27 December 2015 (80 Working days)				
Week No	Duration/ Dates	No of W. Days	Contents	Practical Experiments
1	18 Aug 2015 To 21 Aug 2015	04	CHAPTER 1:- Introduction. Levels of Biological Organization + Biological Method + Phyletic Lineage + Biology & Service of Mankind + (Contd)	Laboratory Safety Techniques
2	24 Aug 2015 To 28 Aug 2015	05	CHAPTER 1:- Introduction. Protection & Conservation of Environment. CHAPTER 2:- Biological Molecules. Importance of Carbon + Importance of water + Carbohydrates. (Contd)	1- Use of Graticule & micrometer to cells, stomata etc and measurement of cell.
3	31 Aug 2015 To 04 Sep 2015	05	CHAPTER 2:- Biological Molecules. Proteins + Lipids + Nucleic Acids + Conjugated molecules.	2- Preparation & examination of slides of animal & plant cells by using differential staining.
4	07 Sep 2015 To 11 Sep 2015	05	CHAPTER 3:- Enzymes. Enzyme Structure & Characteristics + Mechanism of enzyme + Factors affecting enzyme + Enzyme inhibitors. CHAPTER 4:- The Cell. Emergence of Cell Theory (Contd.)	3- Biological test for the confirmation of proteins, carbohydrates and lipids.
5	14 Sep 2015 To 18 Sep 2015	05	CHAPTER 4:- The Cell. Cell wall & Cell membrane + ER & Ribosomes + Golgi Bodies & Lysosomes + Mitochondria & Chloroplasts. (Contd.)	4- Demonstration of presence of Nucleic Acids in biological material.
6	21 Sep 2015 To 25 Sep 2015 [EidulAzha]	02	CHAPTER 4:- The Cell. Centriole, Cytoskeleton + Nucleus + Prokaryotic & Eukaryotic Cell.	Revision of Experiments
7	28 Sep 2015 To 02 Oct 2015	05	1st Bimonthly Test	
8	05 Oct 2015 To 09 Oct 2015	05	CHAPTER 8:- The Kingdom Fungi. General Characters & Nutrition in Fungi + Reproduction + Classification of Fungi + Importance of Fungi.	5- Chemical test to demonstrate Protein nature of enzymes.

Week No	Duration/ Dates	No of W. Days	Contents	Practical Experiments
9	12 Oct 2015 To 16 Oct 2015	05	<u>CHAPTER 12:- Nutrition.</u> Mineral Nutrition in plants + Heterotrophic nutrition in plants + Methods of Animal Nutrition + Digestion & its steps + Digestion in Amoeba, Hydra.	6- Amylase test on starch (boiled & un-boiled amylase) and confirmation through Iodine.
10	19 Oct 2015 To 23 Oct 2015 [Ashura]	03	<u>CHAPTER 12:- Nutrition.</u> Digestion in Planaria, Cockroach + Digestion in Man's Oral Cavity & esophagus + Stomach & duodenum + Jejunum & Ilium + Large Intestine.	7- Extraction of leaf pigments and their separation by paper chromatography.
11	26 Oct 2015 To 30 Oct 2015	05	<u>CHAPTER 12:- Nutrition.</u> Accessory Glands + Disorders of digestive system. <u>CHAPTER 13:- Gaseous Exchange.</u> Gaseous exchange in Plants + Photorespiration + Respiration in Hydra, Earthworm.	8- Identification of bacteria from mouth, curd or bacterial culture for shapes and structure.
12	02 Nov 2015 To 06 Nov 2015	05	<u>CHAPTER 13:- Gaseous Exchange.</u> Cockroach, Fish, Frog, Bird + Respiration in Man + Breathing Mechanism of Man + transport of Gases + Respiratory disorders + Role of Respiratory Pigments.	9- Gram staining technique for bacteria and observation of temporary mount of root nodules.
13	09 Nov 2015 To 13 Nov 2015 [Iqbal Day]	04	<u>CHAPTER 14:- Transport.</u> Transport in plants + Uptake of water by roots + Water Potential + Ascent of Sap.	10- Demonstration of evolution of CO ₂ from leaf.
14	16 Nov 2015 To 20 Nov 2015	05	<u>CHAPTER 14:- Transport.</u> Mechanism of transpirational pull + Root Pressure & Imbibition + Transpiration & its types + Opening & Closing of stomata + Translocation of Organic materials	11- Study of taste buds, liver, villi, and pancreas from prepared slides.
15	23 Nov 2015 To 27 Nov 2015	05	<u>CHAPTER 14:- Transport.</u> Transport in Animals- Hydra, Planaria + Circulatory System & its types + Evolution of Vertebrate Heart + Transport in Man	12- Identification of heart beat on a printed ECG and comparison of normal & heart patient.
16	30 Nov 2015 To 04 Dec 2015	05	<u>CHAPTER 14:- Transport.</u> Blood & its composition + Structure & Function of Human Heart + Blood vessels + Blood Pressure + Lymphatic System + Immunity	13- Measurement of blood pressure & study of blood vessels.

Week No	Duration/ Dates	No of W. Days	Contents	Practical Experiments
17	07 Dec 2015 To 11 Dec 2015	05	<u>1st Term Exams (Send – Up Exams)</u>	
18	14 Dec 2015 To 18 Dec 2015	02	<u>1st Term Exams (Send – Up Exams)/All Pakistan Prize Distribution Ceremony of Co-curricular Activities</u>	
19	21 Dec 2015 To 25 Dec 2015	-	<u>Winter Vacation</u>	
<u>2nd Term: 28 December 2015-12 April 2016 (75 Working Days)</u>				
20	28 Dec 2015 To 01 Jan 2016	05	<u>CHAPTER 11 Bioenergetics.</u> Photosynthetic reactants & Products + Chloroplast, Chlorophyll & accessory pigments + Role of CO ₂ & H ₂ O.	14- Study of slides of LS of dicot stem for vascular tissues and study of annual rings.
21	04 Jan 2016 To 08 Jan 2016	05	<u>CHAPTER 11 Bioenergetics.</u> The light- the driving energy (Absorption & action spectra of chlorophyll) + Z-Scheme + Calvin Cycle + Chemiosmosis + Respiration & its types.	15- Study of <i>Nostoc</i> , <i>Oscillatoria</i> & <i>Anabaena</i> from fresh & prepared slide.
22	11 Jan 2016 To 15 Jan 2016	05	<u>CHAPTER 11 Bioenergetics.</u> Glycolysis + Kreb's Cycle & ETC. <u>CHAPTER 5:- Acellular Life.</u> Biodiversity + Nomenclature + Two to FIVE Kingdom System.	16- Identification of vegetative & reproductive structures of <i>Marchantia</i> & <i>Funaria</i> from prepared slides.
23	18 Jan 2016 To 22 Jan 2016	05	<u>CHAPTER 5:- Acellular Life.</u> Virus- Discovery & Structure + Life cycle of Bacteriophage + Viral diseases + AIDS. <u>CHAPTER 6:- Prokaryotes.</u> Discovery of Bacteria.	17- Observation of life cycle of <i>Rhizopus</i> & <i>Penicillium</i> from fresh and prepared slides.
24	25 Jan 2016 To 29 Jan 2016	05	<u>CHAPTER 6:- Prokaryotes.</u> Structure of Bacterial cell + Modes of nutrition in bacteria + Growth + Respiration in bacteria + Importance of bacteria & bacterial diseases + Cyanobacteria.	18- Identification of vegetative & reproductive structures of Fern & <i>Pinus</i> .
25	01 Feb 2016 To 05 Feb 2016 [Kashmir Day]	04	<u>CHAPTER 7:- The Kingdom Protista:-</u> Protists- Evolutionary relationship + Protozoa + Algae + Fungi like Protists	19- Study of different types of inflorescence of plants.
26	08 Feb 2016 To 12 Feb 2016	05	<u>2nd Bimonthly Test</u>	

Week No	Duration/ Dates	No of W. Days	Contents	Practical Experiments
27	15 Feb 2016 To 19 Feb 2016	05	CHAPTER 09:- Kingdom Plantae. Classification of plants + Division Bryophyta& its classification + Div. tracheophyta&Psilopsida + Evoloution of Leaf.	20- Study of different animal belonging to different Phylum Porifera to Mollusca.
28	22 Feb 2016 To 26 Feb 2016	05	CHAPTER 09:- Kingdom Plantae. Lycopsida&Sphenopsida + Pteropsida& Life cycle of Adiantum + Evolution of Seed + Gymnosperm &Pinus Life Cycle.	21- Study of different animal belonging to different Phylum Porifera to Mollusca.
29	29 Feb 2016 To 04 Mar 2016	05	CHAPTER 09:- Kingdom Plantae. Angiopserm& Life Cycle of Angiospermic plant + Angiopsermic Families. CHAPTER 10:- Kingdom Animalia:- Development of complexity in animals	22- Describing flower of Family Rosaceae. 1st Test of Test Series
30	07 Mar 2016 To 11 Mar 2016	05	CHAPTER 10:- Kingdom Animalia:- Criteria for animal classification + Phylum Porifera + Phylum Cnidaria + Phylum Platyhelminthes.	23- Describing flower of Family Solanaceae. 2ndTest of Test Series
31	14 Mar 2016 To 18 Mar 2016	05	CHAPTER 10:- Kingdom Animalia:- Phylum Nematoda + Phylum Mollusca + Phylum Annilida + Phylum Arthropoda + Phylum Echinodermata. Hemichordata + Chordata & its subgroups.	24- Describing flower of Family Caesalpinaceae. 3rdTest of Test Series
32	21 Mar 2016 To 25 Mar 2016 [Pakistan Day]	04	CHAPTER 10:- Kingdom Animalia:- Hemichordata + Chordata & Subphylum vertebrata + Class Pisces + Class Amphibia + Class Reptilia + Class Aves + Class Mammalia.	25- Describing flower of Family Poaceae. 4thTest of Test Series
33	28 Mar 2016 To 01 Apr 2016	05	<u>Pre-Board Examination</u>	
34	04 Apr 2016 To 08 Apr 2016	05	<u>Pre-Board Examination</u>	
35	11 Apr 2016 To 15 Apr 2016	02	<u>Pre-Board Examination/ Prep Leave</u>	