

Academic planner 2017-2018

CLASS -XI

Biology

Date	Topic	Mode of Assessment	No. Of Assignment/HW	Activity
18/4/17-30/4/17 No.of days-10	Chapter-1: The Living World What is living? Biodiversity; Need for classification; three domains of life; taxonomy and systematics; concept of species and taxonomical hierarchy; binomial nomenclature; tools for study of taxonomy-museums, zoological parks, herbaria, botanical gardens.		C.W-1 Assignment based on the chapter	To study the parts of the compound microscope
	Chapter-2: Biological Classification Five kingdom classification; Salient features and classification of Monera, Protista and Fungi into major groups: Lichens, Viruses and Viroids.	Class Test I (10 Marks) based on chap. 1 & 2	C.W-2-3 Assignment	To demonstrate osmosis by potato osmometer
		Revision Chap.2		study of Spedimens/slides/model and identifications with reasons, Bacteria, yeast, oscillatoria, spirogyra, Rhizopus, mushroom, liverwort, moss,fern, pine. One monocot, one dicot plant and
1/5/17-15/5/17 No.of days-9	Chapter-3: Plant Kingdom Salient features and classification of plants into major groups - Algae, Bryophyta, Pteridophyta, Gymnospermae and Angiospermae (three to five salient and distinguishing features and at least two examples of each category); Angiosperms - classification upto class, characteristic features and ex amples.		C.W-1 Assignment based on the chapter	Study of distribution of stomata on the upper & lower surfaces of leaf
1/7/17 - 15/7/17	Chapter 4	MCQs based on chap. 3		

No.of days-12	Chapter-4: Animal Kingdom Salient features and classification of animals non-chordates up to phyla level and chordates up to class level (three to five salient features and at least two examples of each category).	C.W-2-3 Assignment	study of virtual specimens/slide s/ model and identification with reason. Amoeba ,hydra, liver fluke, honey bee, snail, ascaris, leech, earthworm, prawn, silkworm, starfish, shark, rohu(fish) frog, calotes(lizard), pigeon, and rabbit	
	Chapter-5			
	Chapter-5: Morphology of Flowering Plants		C.W-1	To Study modifications of roots, leaves and stem.
	Morphology and modifications: Tissues Morphology of flowering plants, The root, stem, leaf and inflorescence. The flower, fruit, seed, description of a typical flowering plant & study some important families.		Assignment based on Ch-5	Study & identify different types of inflorescences
16/7/17-31/7/17	Chapter-6	Unit tests I		UT I Chapter1 - 5
No.of days-13	Chapter-6: Anatomy of Flowering Plants Anatomy and functions of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed (to be dealt along with the relevant experiment of the Practical Syllabus)		Assignment C.W-2-3	To prepare & study transverse sections of monocot & dicot stem & root
	Chapter 7		C.W-2-3	
	Chapter-7: Structural Organisation in Animals Animal tissues: Morphology, anatomy and functions of different systems (digestive, circulatory, respiratory, nervous and reproductive) of an insect (cockroach). (a brief account only)		Assignment	To study external morphology of Cockroach through models/charts and study of animal & plant tissues from permanent slides. (palisade parenchyma, guard cells, parenchyma, collenchyma, sclerenchyma, sylem and
	Chapter 8			
	Cell : The unit of life cell, cell theory & overview of cells.			
	Prokaryotic & Eukaryotic cells			
1/8/17 - 15/8/17	Chapter 8 (contd)		C.W-2-3	
No.of days-10	Eukaryotic cells, all the cell organelles,		Assignment	
	cell membrane, cell wall, endomembrane system,			

	mitochondria, plastids, ribosomes, cytoskeleton, cilia and			
	flagella, nucleus and types of chromosomes			
	Chapter 9			
	Chapter-9: Biomolecules Chemical constituents of living cells: biomolecules, structure and function of proteins, carbohydrates, lipids, nucleic acids, enzymes, types, properties, enzyme action			To test for glucose, sucrose, starch, proteins & fats & to show their presence in suitable plant & animal materials.
				Study of imbibition in seeds/ raisins
16/8/17-31/8/17	Chapter 10			
No.of days-14	Chapter-10: Cell Cycle and Cell Division Cell cycle, mitosis, meiosis and their significance		C.W-1	Study of mitosis in onion root tip and animal cells from permanent slides.
	Chapter 11			
	Chapter-11: Transport in Plants Movement of water, gases and nutrients; cell to cell transport, Diffusion, facilitated diffusion, active transport; plant-water relations, Imbibition, water potential, osmosis, plasmolysis; long distance transport of water - Absorption, apoplast, symplast, transpiration pull, root pressure and guttation; transpiration, opening and closing of stomata; Uptake and translocation of mineral nutrients - Transport of food, phloem transport, massflow hypothesis; diffusion of gases.		C.W-2-3	
			Assignment	
1/9/17-15/9/17	Half yearly Exams			Syllabus Chap.s 1 to 10
No.of days-11				
16/9/17 - 30/9/17	Chapter-12			
No.of days-10	Chapter-12: Mineral Nutrition Essential minerals, macro- and micronutrients			To separate & study the Plant Pigments by Paper
1/10/17-15/10/17	Chapter-13			
No.of days-9	Chapter-13: Photosynthesis in Higher Plants Photosynthesis as a mean of autotrophic nutrition; site of photosynthesis, pigments involved in photosynthesis (elementary idea); photochemical and biosynthetic phases of		C.W-2-3	To compare the rate of transpiration from the upper & lower surfaces of the leaf

16/10/17-31/10/17	Chapter-14: Respiration in Plants Exchange of gases; cellular respiration - glycolysis, fermentation (anaerobic), TCA cycle and electron transport system (aerobic); energy relations - number of ATP molecules generated; amphibolic pathways; respiratory quotient.		Assignment	To study the rate of respiration in germinating seeds having different substances such as wheat(carbohydrates),groundnut (fats) & gram (proteins)
1/11/17-15/11/17	Chapter- 15			
No.of days-11	Chapter-15: Plant - Growth and Development Seed germination; phases of plant growth and plant growth rate; conditions of growth; differentiation, dedifferentiation and redifferentiation; sequence of developmental processes in a plant cell; growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA; seed dormancy; vernalisation; photoperiodism	Class tests		To demonstrate plasmolysis & deplasmolysis in leaf peels
16/11/17-30/11/17	Chapter- 16		C.W-2-3	
No.of days-11	Chapter-16: Digestion and Absorption Alimentary canal and digestive glands, role of digestive enzymes and gastrointestinal hormones; Peristalsis, digestion, absorption and assimilation of proteins, carbohydrates and fats; calorific values of proteins, carbohydrates and fats; egestion; nutritional and digestive disorders -		Assignment	
1/12/17 - 15/12/17	Chapter- 17 Contd.	Unit tests II	C.W-1	Ch. 11,12,13,14,15,
No.of days-11	Chapter-17 Breathing and its regulation in humans - exchange of gases, transport of gases and regulation of respiration, respiratory volume; disorders related to respiration - asthma, emphysema, occupational respiratory disorders			To test the given sample of urine for the presence of urea, sugar, albumin & bile salts
16/12/17 - 31/12/17	Chapter- 18			

<p>No. of days- 12</p>	<p>Chapter-18: Body Fluids and Circulation Composition of blood, blood groups, coagulation of blood; composition of lymph and its function; human circulatory system - Structure of human heart and blood vessels; cardiac cycle, cardiac output, ECG; double circulation; regulation of cardiac activity; disorders of circulatory system - hypertension, coronary artery disease, angina pectoris, heart failure.</p>		<p>C.W-1</p>	<p>observation & comments on the experimental set up for showing a) Anaerobic respiration b)Phototropism c)Apical bud removal d) Suction due to transpiration</p>
	<p>Chapter- 19 Chapter- 19: Excretory Products and their Elimination Modes of excretion - ammonotelism, ureotelism, uricotelism; human excretory system - structure and function; urine formation, osmoregulation; regulation of kidney function - renin - angiotensin, atrial natriuretic factor, ADH and diabetes insipidus; role of other organs in excretion; disorders - uraemia, renal failure, renal calculi, nephritis;</p>	<p>Class tests</p>	<p>C.W-1</p>	
			<p>Assignment</p>	
	<p>Chapter- 20</p>			
	<p>Chapter-20: Locomotion and Movement Types of movement - ciliary, flagellar, muscular; skeletal muscle- contractile proteins and muscle contraction; skeletal system and its functions; joints; disorders of muscular and skeletal system - myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis, gout.</p>		<p>C.W-2-3</p>	<p>Study & identification of human bones & joints</p>
			<p>Assignment</p>	
<p>16/1/18- 31/1/18</p>	<p>Chapter-21</p>		<p>C.W-2-3</p>	<p>Study & description of some flowers & their parts</p>

<p>No.of days- 13</p>	<p>Chapter-21: Neural Control and Coordination Neuron and nerves; Nervous system in humans - central nervous system; peripheral nervous system and visceral nervous system; generation and conduction of nerve impulse; reflex action; sensory perception; sense organs; elementary structure and functions of eye and ear.</p>		<p>Assignment</p>	
	<p>Chapter- 22</p>			
	<p>Chapter-22: Chemical Coordination and Integration Endocrine glands and hormones; human endocrine system - hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal, pancreas, gonads; mechanism of hormone action (elementary idea); role of hormones as messengers and regulators, hypo - and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exophthalmic goiter, diabetes, Addison's disease. Note: Diseases related to all the human physiological systems to be taught in brief.</p>	<p>Class tests</p>	<p>C.W-2-3</p>	
<p>1/2/18- 15/2/18</p>	<p>Doubts and problems to be taken up</p>		<p>Assignment</p>	
	<p>Revision</p>		<p>Revision</p>	
<p>No.of days- 12</p>				

Examination Schedule

Unit test 1- Chap. 1,2,3

Half Yearly Chap.s 1 to 10

Unit test II - 11 to 15

Annual Examination Complete syllabus