Cambridge International School, Mohal, Kullu
Class-XI
Subject – Biology
Subject Code (044)
Curriculum
Session -2020-21

Unit No/ (Month.)	Name	Practical	Methodology	Assessment
Unit-I (April-May)	**Cell Structure and Function** **Cell theory and cell as the basic unit of life:** ***Learning outcomes** **Students will able ,** # To describe structure of prokaryotic and eukaryotic cells; Plant cell and animal cell; # To analyse structure and functions of cell envelope; cell membrane, cell wall; # To analyze cell organelles - structure and function; endomembrane system, endoplasmic reticulum, Golgi bodies, lysosomes, vacuoles; mitochondria, ribosomes, plastids, microbodies cytoskeleton, cilia, flagella, centrioles (ultrastructure and function); nucleus, nuclear membrane, chromatin, nucleolus. # To illustrate chemical constituents of living cells: biomolecules, # To describe structure and function of proteins, carbohydrates, lipids, nucleic acids, # To explain enzymes and comprehend types, properties, enzyme action. # To describe Cell division: Cell cycle, mitosis, meiosis and their significance. https://youtu.be/s0oUffcDQLQ https://youtu.be/DZ92AFVcDx4 https://youtu.be/HyJ86mS2Nao	Study of the parts of a compound microscope. To prepare the temporary mount of onion root. https://youtu.be/5-ur7bWqlDQ	Discussion/ Explanation through examples/ Video demonstration/ Notes making	Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.
Unit - II June- July	**Plant Physiology** **Students will able ,** Learning outcomes; #To interpret terminologies related to Photosynthesis: # To explain Photosynthesis as a mean of autotrophic nutrition; site of photosynthesis, # To describe pigments involved in photosynthesis (elementary idea); # To analyses photochemical and biosynthetic phases of photosynthesis; # To comprehend cyclic and non-cyclic photophosphorylation; chemo-osmotic hypothesis; photorespiration; C3 and C4 pathways; # To analyse factors affecting photosynthesis. https://youtu.be/XSMjfvpDtTY # To interprete terminologies related to respiration: # To explain 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. https://youtu.be/BR_ySt3oo3I	Study of imbibitions in seeds/raisins. https://youtu.be/ZRdCRNYz-Cw Separation of plant pigments through paper chromatography. https://youtu.be/ej2zXOwASVI	Discussion/ Explanation through examples/ Video demonstration/ Notes making	Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.

Unit - III August - September	**Human Physiology** Learning outcomes Students will able , #To interprete terminologies related to Breathing and Respiration: Respiratory organs in animals (recall only); # To describe respiratory system in humans; mechanism of breathing and its regulation in humans - exchange of gases, #To analyse transport of gases and regulation of respiration, respiratory volume; # To classify disorders related to respiration - asthma, emphysema, occupational respiratory disorders. https://youtu.be/8VUVBgfNwkQ # To illustrate body fluids and circulation: # To describe composition of blood, blood groups, coagulation of blood; composition of lymph and its function; # To analyse human circulatory system - # To describe structure of human heart and blood vessels; cardiac cycle, cardiac output, ECG; double circulation; regulation of cardiac activity; # To categorize disorders of circulatory system - hypertension,coronary artery disease, angina pectoris, heart failure. https://youtu.be/hBxZ7RfchSg # To interprete terminologies related to excretory products and their elimination: # To describe mode Modes of excretion - ammonotelism, ureotelism, uricotelism; # To explain human excretory system - structure and function; # To describe urine formation, osmoregulation; regulation of kidney function - renin - angiotensin, atrial natriuretic factor, ADH and diabetes insipidus; role of other organs in excretion, # To describe disorders related to excretion - uraemia, renal failure, renal calculi, nephritis; dialysis and artificial kidney. https://youtu.be/K9vrysezRpI # To illustrate chemical coordination and regulation: # To describe Endocrine glands and hormones; # To discuss human endocrine system - hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal, pancreas, gonads; mechanism of hormone action (elementary idea); role of hormones as messengers and regulators, # To categorize hypo - and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exophthalmic goiter, diabetes, Addision's disease. https://youtu.be/gfjTBaMF8pY	Detect the presence of sugar in urine. https://youtu.be/-eg-MHdoJ_Q Detect the presence of albumin in urine. https://youtu.be/i7dZBzhQCaI	Discussion/ Explanation through examples/ Video demonstration/ Notes making	Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.

Unit –IV Oct-Nov	**Diversity of Living Organism** Learning Outcomes* Students will able , # To categorize five kingdom classification; # To Discuss salient features and classification of Monera, Protista and Fungi into major groups: Lichens,Viruses and Viroids. 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);s. # To analyse 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). https://youtu.be/FKZysxJawT4	Study of the specimens/ slides/ models and identification with reasons Bacteria, Spirogyra, Rhizopus, mushroom, yeast, liverwort, moss, fern, pine, one monocotyledonous plant and one dicotyledonous plant and one lichen. Study of virtual specimens/ slides/models and identification with reasons - Amoeba, Hydra, liver fluke, Ascaris,leech, earthworm, prawn, silkworm, honeybee, starfish and rohu.	Discussion/ Explanation through examples/ Video demonstration/ Notes making	Oral Test/ Class test/ Quizzes on google forms/ lab activity through virtual links.

PRACTICALS

Evaluation Scheme **Maximum Marks: 30**

One Major Experiment	5 Marks
One Minor Experiment	4 Marks
Slide preparation	5 Marks
Spotting	7 Marks
Practical Record +Viva Voce	4 Marks
Project Record + Viva Voce	5 Marks
Total	30 Marks