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| Month | CHAPTER | PERIOD | ACTIVITY  TOPICS | PT | CW/HW,  NB  SUBMISSION | SUBJECT ENRICHMENT | TERM1 | TERM2 | TERM3 |
| April | Chapter-1: The Living World | 6 | Biodiversity; Need for classification; three domains of life; taxonomy and systematics; concept of species and taxonomical hierarchy; binomial nomenclature |  | Oral and neat and clean | Activity: Draw tree diagram of three domain of life on char. | 3 | 3 | 3 |
|  | Chapter-2: Biological Classification | 7 | Five kingdom classification; Salient features and classification of Monera, Protista and Fungi into major groups; Lichens, Viruses and Viroids. |  | Oral test and take activities work related to study and describe local common flowering | Activity:  Make a chart about attributes of five kingdom classification and paste images of there respective examples. | 4 | 4 | 4 |
|  | Practical-01 | 2 | Study and describe locally available common flowering plants, from family Solanaceae (Poaceae, Asteraceae or Brassicaceae can be substituted in case of particular geographical location) including dissection and display of floral whorls, anther and ovary to show number of chambers (floral formulae and floral diagrams), type of root (tap and adventitious); type of stem (herbaceous and woody); leaf (arrangement, shape, venation, simple and compound). |  |  |  |  |  |  |
|  | Practical-2 | 2 | 5. Study of distribution of stomata on the upper and lower surfaces of leaves. |  |  |  |  |  |  |
|  | Chapter-3: Plant Kingdom | 7 | Classification of plants into major groups; Salient and distinguishing features and a few examples of Algae, Bryophyta, Pteridophyta, Gymnospermae (Topics excluded – Angiosperms, Plant Life Cycle and Alternation of Generations) |  | Oral question based on solution(MCQ) | Activity: Make an assignment on a classification and salient features of plants major groups. | 4 | 4 | 4 |
| May | Chapter-4: Animal Kingdom | 7 | Salient features and classification of animals, non-chordates up to phyla level and chordates up to class level (salient features and at a few examples of each category). (No live animals or specimen should be displayed.) |  | Neat and clean work | Activity: Make an assignment on a classification and salient features of plants major groups. | 4 | 4 | 4 |
|  | Practical-03 | 1 | Preparation and study of T.S. of dicot and monocot roots and stems (primary). |  |  |  |  |  |  |
|  | Chapter-5: Morphology of Flowering Plants |  | Morphology of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed. Description of family Solanaceae |  | Oral question based on solution(MCQ | Activity: Make a model on any one part of flowering plants | 3 | 3 | 3 |
| June | Chapter-6: Anatomy of Flowering Plants | 7 | Anatomy and functions of tissue systems in dicots and monocots |  | Oral and lab activity related to monocot and dicots | Activity: Collects dicots and monocots plants or seeds and paste on your note copy | 4 | 4 | 4 |
|  | Practical-04 | 1 | Study of osmosis by potato osmometer. |  |  |  |  |  |  |
|  | Chapter-7: Structural Organisation in Animals | 7 | Morphology, Anatomy and functions of different systems (digestive, circulatory,respiratory, nervous and reproductive) of frog. |  | Neat and clean work  h.w/c.w complete | Activities: Makes and assignment on morphology,anatomy and functions of different system of frog | 4 | 4 | 4 |
| July | Chapter-8: Cell-The Unit of Life |  | Cell theory and cell as the basic unit of life, structure of prokaryotic and eukaryotic cells; Plant cell and animal cell; cell envelope; cell membrane, cell wall; 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. |  | Oral and lab activity related to plasmolysis | Activities: Makes and assignment on cell theory and cell structure and its function | 6 | 6 | 6 |
|  | Practical-5 | 2 | Study of plasmolysis in epidermal peels (e.g. Rhoeo/lily leaves or flashy scale leaves of onion bulb). |  |  |  |  |  |  |
|  | Chapter-9: Biomolecules | 7 | Chemical constituents of living cells: biomolecules, structure and function of proteins, carbohydrates, lipids, and nucleic acids; Enzyme - types, properties, enzyme action. (Topics excluded: Nature of Bond Linking Monomers in a Polymer, Dynamic State of Body Constituents – Concept of Metabolism, Metabolic Basis of Living, The Living State) |  | Neat and clean work  h.w/c.w complete | Activity: Make an assignment on enzyme | 5 | 5 | 5 |
|  | Chapter-10: Cell Cycle and Cell Division | 5 | Cell cycle, mitosis, meiosis and their significance |  | Oral question related to mitosis and meiosis division on chart | Activity: draw the diagram of mitosis and meiosis division on chart | 4 | 4 | 4 |
|  | Practical-6 | 2 | Comparative study of the rates of transpiration in the upper and lower surfaces of leaves |  |  |  |  |  |  |
|  | Practical-  7 | 2 | Test for the presence of sugar, starch, proteins and fats in suitable plant and animal materials |  |  |  |  |  |  |
| August | Chapter-11  Photosynthesis in higher plants | 8 | Photosynthesis as a means of autotrophic nutrition, site of photosynthesis, pigments involved in photosynthesis, phasea of photosynthesis, cyclic and non-cyclic photophosphorylation, chemoiosmotic hypothesis, photorespiration, c3 and c4 pathway, factors affecting photosynthesis .  Revision |  | Complete c.w & h.w | Activities: Draw the diagram of photosynthesis showing all steps of photosynthesis on chart | 4 | 4 | 4 |
| September |  |  | Term-1 examination |  |  |  |  |  |  |
| October | Chapter-12  Respiration in plants | 7 | Exchange of gases, cellular respiration-glycolysis, fermentation (anaerobic), TCA cycle and electron transport system(aerobic),Energy relation- number of ATP molecules generate, amphibolic pathways, respirator quotient. |  | Oral question based on solution (MCQ) | Activities: Collect data of organism that occurs aerobic and anaerobic respiration. | 4 | 4 | 4 |
|  | Practical-8 | 1 | Separation of plant pigments through paper chromatography |  |  |  |  |  |  |
|  | Chapter-13: Photosynthesis in Higher Plants | 6 | Photosynthesis as a means of autotrophic nutrition; site of photosynthesis, pigments involved in photosynthesis (elementary idea); photochemical and biosynthetic phases of photosynthesis; cyclic and non-cyclic photophosphorylation; chemiosmotic hypothesis; photorespiration; C3 and C4 pathways; factors affecting photosynthesis. |  | Oral question based on solution and do neat and clean work | Activities: Collect different type of plants seedling. | 4 | 4 | 4 |
|  | Practical-9 | 2 | Study of the rate of respiration in flower buds/leaf tissue and germinating seeds. |  |  |  |  |  |  |
|  | 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. |  | Oral question related to previous knowledge and activity work related to the respiration disorder. | Activity: makes an assignment on disorders related to respiration | 3 | 3 | 3 |
|  | Practical-10 | 1 | Test for presence of urea in urine. |  |  |  |  |  |  |
| November | Chapter-15: Plant - Growth and Development | 7 | 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; plant growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA |  | Oral question related to solution (MCQ)  Neat and clean diagram and notes | Activity: make an assignment on blood groups.  Draw the diagram of heart on chart. | 3 | 3 | 3 |
|  | Chapter-16  Excretory products and their elimination | 7 | Modes of excretion- ammonatilism, ureotelism,uricotelism, human excretory system-structure and function , urine formation, asmoregulation, regulation of kidney function- reninangiotensin, atrial natriuretic factor , ADH and diabetes insipidus , role of other organs in excretion, disorders- uremia , renal failure, renal calculi, nephritis, dialysis and artificial kidney , kidney transplant. |  | Neat and clean diagram and notes  Complete cw/hw | Activity: make an assignment on structure and function of human excretory system. | 3 | 3 | 3 |
|  | Practical-11 | 1 | Test for presence of sugar in urine. |  |  |  |  |  |  |
|  | Chapter-17: Breathing and Exchange of Gases | 7 | Respiratory organs in animals (recall only); Respiratory system in humans; mechanism of 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. |  | Oral test and take activity related to the presence of albumin and bile salts in urine . | Activity: Draw the diagram of skeletal system in chart. | 3 | 3 | 3 |
|  | Practical-12 | 1 | Test for presence of albumin in urine. |  |  |  |  |  |  |
|  | Practical-13 | 1 | Test for presence of bile salts in urine. |  |  |  |  |  |  |
| December | Chapter-18: Body Fluids and Circulation | 5 | 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. |  | Oral question based on solution(mcq) | Activity: Draw the diagram of neuron on chart. | 3 | 3 | 3 |
|  | Chapter-19: Excretory Products and their Elimination | 7 | 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 - uremia, renal failure, renal calculi, nephritis; dialysis and artificial kidney, kidney transplant.  Revision and pre-board exam |  | Neat and clean diagram and notes.  Complete c.w & h.w | Activity: make a diagram of human gland and write its functions. | 3 | 3 | 3 |
| January |  |  | Mock test |  |  |  |  |  |  |
| February |  |  | Mock test, revision |  |  |  |  |  |  |
| March |  |  | Board- exam |  |  |  |  |  |  |