Cambridge INTERNATIONAL SCHOOL KULLU

Curriculum
Subject : Science (086)
Session : 2023-24
Class: X

EVALUATION SCHEME		
THEORY		
Unit No.	**UNITS**	**Marks**
I	Chemical Substances-Nature and Behaviour	25
II	World of Living	25
III	Natural Phenomena	12
IV	Effects of Current	13
V	Natural Resources	05
Total		**80**
Internal Assessment		**20**
Grand Total		**100**

Syllabus for Purpose of Examination 2023-24
Class X

Chapter No/ Month	Name of chapter	Practical and Competency Skill Based Activities/ Experiential Learning	Skill	Assessment
Biology: Chapter-6 (Feb-March-April) **(May-June)**	**World of Living** **Life processes:** ***Learning outcomes*** Student will be able: ● To interpret terminologies related to "living beings". ● To illustrate basic concepts of nutrition, ● To categorize types of (Autotrophic and Heterotrophic)nutrition ● To describe the human digestive system. ● To illustrate respiration, ● To describe human respiratory system ● To categorize transport in plants and humans ● To discuss the human circulatory system. ● To describe and excretion in plants and animals. **Control and coordination in animals and plants:** Students will able to, ● Understand Tropic movements in plants; ● Explain plant hormones; ● Analyze-Control and coordination in animals: Nervous system; ● Categorize-Voluntary, involuntary and reflex action; ● Express- Chemical coordination: animal hormones	To show experimentally that carbon dioxide is given out during respiration. Preparing a temporary mount of a leaf peel to show stomata.	Knowledge, Understanding, Application, Analysis and Evaluation Knowledge, Understanding, Application, Analysis and Evaluation	Oral Test/ Class test/ Quizzes / lab activity Oral Test/ Class test/ Quizzes
Chemistry: Chapter-1 (Feb-March)	**CHEMICAL REACTIONS AND EQUATIONS** **Learning outcome:** Students will be able to : ● Illustrate the Chemical equations with examples ● Balance a chemical equation ● Implicate of a balanced chemical equation ● Categorise Types of chemical reactions like combination , decomposition displacement , double displacement, precipitation , neutralization , oxidation and reduction.	Performing and observing the following reactions and classifying them into: A. Combination reaction B. Decomposition reaction C. Displacement reaction D. Double displacement reaction (i) Action of water on quicklime (ii) Action of heat on ferrous sulphate crystals (iii) Iron nails kept in copper sulphate solution (iv) Reaction between sodium sulphate and barium chloride solutions.	Knowledge, Understanding, Application, Analysis and Evaluation	Oral Test/ Class test/ Quizzes / lab activity

Physics: Chapter-6 (Feb-March-April)	**Reflection and Refraction** **Learning outcomes:** students will be able to ● Explain and differentiate between Reflection and Refraction ● Understand the Laws of reflection and Refraction ● Types of reflection,reflecting surfaces and image formation ● Mirror formula and lens formula ● Solve problems related to Mirror and lens(spherical) ● Combination of lenses ● Power of lens	Inter-class Quiz on the types of chemical reactions Determination of the focal length of (i) Concave mirror and (ii) Convex lens by obtaining the image of a distant object. Tracing the path of a ray of light passing through a rectangular glass slab for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence and interpret the result.	Knowledge, Understanding, Application, Analysis and Evaluation	Oral Test/ Class test/ Quizzes / lab activity
Chemistry: Chapter-2 (April-May)	**ACIDS , BASES AND SALTS** **Learning outcomes:** Students will be able to ● Define acids and bases in terms of H+ and OH–ions ● Explain the concept of pH scale by defining it ● Analysing the importance of pH in everyday life ● Illustrate the preparation and uses of sodium hydroxide , bleaching powder, baking soda , ● Give examples and uses of acids bases and salts ● Understand the preparation and uses of Sodium Hydroxide, Bleaching powder, Baking soda,washing soda and plaster of Paris	A. Finding the pH of the following samples by using pH paper/universal indicator: (i) Dilute Hydrochloric Acid (ii) Dilute NaOH solution (iii) Dilute Ethanoic Acid solution (iv) Lemon juice (v) Water (vi) Dilute Hydrogen Carbonate solution B. Studying the properties of acids and bases (HCl & NaOH) on the basis of their reaction with: a) Litmus solution (Blue/Red) b) Zinc metal c) Solid sodium carbonate	Knowledge, Understanding, Application, Analysis and Evaluation	Oral Test/ Class test/ Quizzes / lab activity
Physics: Chapter -11 (May-June)	**Human eye and colourful world** **Learning outcomes** Students will be able to: ● Understand the Human eye and its parts ● Defects of vision and their correction ● Explain the concept of Dispersion of white light ● Define Scattering of light	Tracing the path of ray of light through a glass prism	Knowledge, Understanding, Application, Analysis and Evaluation	Oral Test/ Class test/ Quizzes / lab activity.

Chemistry: Chapter-3 (June - July)	**METALS AND NON-METALS** **Learning outcomes:**Students will be able to : ● Tabulate the properties of metals and non-metals. ● Recall and thereby learn the reactivity series ● Illustrate the formation of ionic compounds ● Explain the properties of ionic compounds ● Understand basic metallurgical processes ● Define Corrosion and give measures for its prevention	A. Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions: (i) ZnSO4(aq) (ii)FeSO4(aq) (iii) CuSO4(aq) (iv) Al2(SO4)3(aq) B. Arranging Zn, Fe, Cu and Al (metals) in the decreasing order of reactivity based on the above result. Classifying substances around into metals and non-metals	Knowledge, Understanding, Application, Analysis and Evaluation	Oral Test/ Class test/ Quizzes / lab activity.
Biology : Chapter - 8 (July - Aug)	**Reproduction:** Learning objectives Student will be able: ● To interpret terminologies related to Reproduction in animal and plants. ● To categorize types of modes of reproduction in plants. (asexual and sexual) ● To describe human reproductive system. ● To make the students to understand about reproductive health. ● To analyse need for reproductive health and methods of family planning. ● To describe importance of safe sex vs. HIV/AIDS. ● To aware students about Child bearing and women's health.	Studying (a) binary fission in Amoeba, and (b) budding in yeast and Hydra with the help of prepared slides.	Knowledge, Understanding, Application, Analysis and Evaluation	Oral Test/ Class test/ Quizzes / lab activity
Biology: Chapter-9 (Aug.-Sept)	**Heredity** Student will be able: ● Explain:-Heredity; Mendel's contribution- Laws for inheritance of traits: ● Justify:- Sex determination ● brief introduction: (topics excluded - evolution; evolution and classification and evolution should not be equated with progress).	Identification of the different parts of an embryo of a dicot seed (Pea, gram or red kidney bean).	Knowledge, Understanding, Application, Analysis and Evaluation	Oral Test/ Class test/ Quizzes / lab activity

Chemistry: Chapter - 4 (Aug-Sept - Oct)	**CARBON AND ITS COMPOUNDS** **Learning outcomes:** Students will be able to; ● Describe with examples the covalent bonding in carbon compounds ● Illustrate the versatile nature of carbon ● Defined the homologous series ● Name the carbon compounds containing functional groups (halogens, alcohol, ketones, aldehydes, alkanes and alkynes) ● Differentiate between saturated hydrocarbons and unsaturated hydrocarbons. ● Explain the Chemical properties of carbon compounds (combustion, oxidation, addition and substitution reaction). ● Understand the properties and uses of Ethanol and Ethanoic acid, soaps and detergents.		Knowledge, Understanding, Application, Analysis and Evaluation	Oral Test/ Class test/ Quizzes / lab activity
Physics: Chapter-12 (Aug.-Sept)	**Electricity** **Learning outcomes** students will be able to: ● Define 'electricity' ● Distinguish between static and current electricity ● List the ways we use electricity each day ● Experiment with electricity and conductors ● Draw electric circuits and electronic symbols. ● Explain effect of electricity ● Create circuits in series, parallel and combination.	Studying the dependence of potential difference (V) across a resistor on the current (I) passing through it and determining its resistance. Also plotting a graph between V and I. Determination of the equivalent resistance of two resistors when connected in series and parallel.	Knowledge, Understanding, Application, Analysis and Evaluation	Oral Test/ Class test/ Quizzes / lab activity
Biology: Unit - 15 October	**Our environment:** Student will be able: Eco-system, Environmental problems, Ozone depletion, waste production and their solutions. Biodegradable and non-biodegradable substances.	Note for the Teachers: 1. The chapter Management of Natural Resources (NCERT Chapter 16) will not be assessed in the year-end examination. However, learners may be assigned to read this chapter and encouraged to prepare a brief write up to any concept of this chapter in their Portfolio. This may be for Internal Assessment and credit may be given Periodic Assessment/Portfolio).	Knowledge, Understanding, Application, Analysis and Evaluation	Oral Test/ Class test/ Quizzes / lab activity

Physics: Chapter - 13 (Oct-Nov)	**Magnetic effect of current** **After the end of this chapter students will be able to:** ● Describe magnetic field and field lines. ● Explain magnetic field due to a straight current carrying conductor. ● Summarize the factors on which strength and direction of magnetic field around a straight conductor. ● State and apply the right hand thumb rule. ● Demonstrate magnetic field due to a current through a circular loop. ● Analyze the magnetic field pattern around a solenoid carrying current. ● Express force on a current carrying conductor in a magnetic field.	Inter-class Quiz of magnetic effect of current.	Knowledge, Understanding, Application, Analysis and Evaluation	Oral Test/ Class test/ Quizzes / lab activity.