

**KLE ENGLISH MEDIUM SCHOOL**

**JULE SOLAPUR**

**SYLLABUS SPLIT (2022 - 23)**

**XI- English**

| SR.NO | MONTH         | UNIT/SUBUNIT   | VALUES  | ACTIVITIES/PROJECT     | EXAM                    |
|-------|---------------|--|---|------------------------|-------------------------|
| 1     | June          | <b>Writing Skill:</b> Poster                                     | Organisation of ideas , content and accuracy of spelling and grammar.   | Draft a poster         | Periodic Test -I        |
|       |               | <b>Hornbill :</b>  |   |                        |                         |
|       |               | L-1: The Portrait of Lady  | Affection ,care, nostalgia , love   |                        |                         |
|       |               | <b>Snapshots:</b><br>L-1:The Summer of the Beautiful White Horse | Honesty , believe, patriotism, culuture, tradition and pride  |                        |                         |
| 2     | July          | <b>Writing Skill:</b> Note making and summary                    | Reading with comprehension, selection of content ,organisaion , numbering , intending and summarizing                     | Speech Writing         | Periodic Test-2         |
|       |               | Speech Writing   | Expression of knowledged, ideas,experience and opinion etc.   |                        |                         |
|       |               | <b>Grammar:</b><br>Tense   | Verb forms , Features and function  |                        |                         |
|       |               | <b>Hornbill :</b><br>Poem 1: A Photograph                        | Memories, nostalgia, love and care , feeling of loss of dear one  |                        |                         |
|       |               | L-2: We're Not Afraid to Die ... if we can be together           | Courage, adventure , love and believe , perseverance  |                        |                         |
|       |               | <b>Writing Skill:</b><br>Classified Advertisement                | Presentation, expression and description  |                        |                         |
| 3     | August        | <b>Hornbill :</b><br>L-3: Discovering Tut :                      | Civilization, miracles, glory of ancient life , Science and technology  | Article writing        | Periodic Test- III & IV |
|       |               | Poem 2: The Laburnum Top   | Beauty in nature, powerful langugage, love and care   |                        |                         |
|       |               | <b>Snapshots:</b><br>L-2: The Address                            | Fear , sorrow , loss of dear one, no  |                        |                         |
|       |               | <b>Hornbill :</b><br>L-4: The Adventure                          | Strategy to tackle problems, problem solving and analytical skills , understandig conflict and mystery that exist in life |                        |                         |
| 4     | Septemb<br>er | Poem 3: The Voice of the Rain                                    | simple life of village and luxurious life of cities   | Art Integrated Project |                         |
|       |               | <b>Snapshots:</b><br>L-3: Mother's Day                           | Family bond, affection , respect,sv   |                        |                         |
|       |               | <b>Revision of Term- 1</b>                                       |   |                        |                         |
| 5     | Octo<br>ber   |  |   |                        |                         |

**TERM-II**

|   |          |  |  |                   |                       |
|---|----------|--|--|-------------------|-----------------------|
| 6 | November | <b>Writing Skill:</b> Debate writing             | Investigation, evaluation ,<br>development of writing skills ,<br>professional advancement | Debate Writing    | Periodic Test -<br>V  |
|   |          | <b>Grammar:</b><br>Clauses                       | Subject verb relation ,<br>independent and dependent<br>clauses                            |                   |                       |
|   |          | <b>Hornbill :</b>                                | Freedom, equality, desire,<br>courage  |                   |                       |
|   |          | L-5: Silk Road                                   | Spirituality, heritage, liberal<br>attitude, serenity , peace and<br>beauty                |                   |                       |
|   |          | <b>Snapshots:</b><br>L-4:Birth                   | Empathy, trust , openness<br>,strength and weaknesses                                      |                   |                       |
| 7 | December | <b>Grammar:</b><br>Transformation of sentenses   | strcture of Simple ,complex<br>and comopound sentences                                     | Project/ Activity | Periodic Test -<br>VI |
|   |          | <b>Hornbill :</b><br>L-6: Father to Son          | Sophisticated, glamorous life,<br>affection, beauty  |                   |                       |
|   |          | Poem 4: Childhood                                | sense of loss of childhood,<br>rationalism, judgement,<br>individuality                    |                   |                       |
|   |          | <b>Snapshots:</b><br>L-5: The Tale of Melon City | Peace , liberty , judicious and<br>sensitive   |                   |                       |
| 8 | January  | Speaking and Listening Activity                  |  |                   |                       |
| 9 | February | Revision of Annual Examination                   |  |                   |                       |

**KLE ENGLISH MEDIUM SCHOOL**

**JULE SOLAPUR**

**SYLLABUS SPLIT (2022 - 23)**

**PHYSICS**

| SR.NO                             | MONTH     | UNIT/SUBUNIT   | VALUES   | ACTIVITIES/PROJECT   | EXAM                    |
|-----------------------------------|-----------|--|--|--|-------------------------|
| 1                                 | JUNE      | <b>UNIT 1- physical world and measurements</b><br><b>Chapter-2: Units and Measurements</b><br>Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units. significant figures. Dimensions of physical quantities, dimensional analysis and its applications.  | The Objective of this chapter is to make the learners aware of basic fundamentals and derived quantities of Physics. | (1)To measure diameter of a small spherical/cylindrical body using Vernier callipers.<br>(2)To measure internal diameter and depth of a given beaker/calorimeter using Vernier callipers and hence find its volume.<br>(3)To measure diameter of a given wire using screw gauge. |                         |
| 2                                 | JULY      | <b>Unit II: Kinematics</b><br><b>Chapter-3: Motion in a Straight Line</b><br>Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion, uniform and non-uniform motion, and instantaneous velocity, uniformly accelerated motion, velocity - time and position-time graphs. Relations for uniformly accelerated motion (graphical treatment).<br><b>Chapter-4: Motion in a Plane</b><br><i>Scalar and vector quantities: position and displacement</i><br><b>Unit III: Laws of Motion</b><br><b>Chapter-5: Laws of Motion</b><br>Intuitive concept of force, Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion.<br>Law of conservation of linear momentum and its applications. Equilibrium of concurrent forces, Static and kinetic friction, laws of friction, rolling friction, lubrication.<br>Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road).<br><b>Unit IV: Work, Energy and Power.</b><br><b>Chapter-6: Work, Energy and Power</b><br>Work done by a constant force and a variable force; kinetic energy, work-energy theorem, power. Notion of potential energy, potential energy of a spring, conservative forces: non-conservative forces, motion in a vertical circle; elastic and inelastic | The students should have scientific temper   | To find the weight of a given body using parallelogram law of vectors.<br>Field study to see different types of projectile motion.   | <b>Periodic Test</b>    |
| 3                                 | AUGUST    | <b>Unit V: Motion of System of Particles and Rigid Body</b><br><b>Chapter-7: System of Particles and Rotational Motion</b><br>Centre of mass of a two-particle system, momentum conservation and Centre of mass motion. Centre of mass of a rigid body; centre of mass of a uniform rod.<br>Moment of a force, torque, angular momentum, law of conservation of angular momentum and its applications.<br>Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions.<br>Moment of inertia, radius of gyration, values of moments of inertia for simple geometrical objects (no derivation). <b>Unit VI: Gravitation.</b><br><b>Chapter-8: Gravitation</b><br>Kepler's laws of planetary motion, universal law of gravitation.<br>Acceleration due to gravity and its variation with altitude and depth.   | The students should have scientific temper   | To study the relationship between force of limiting friction and normal reaction and to find the coefficient of friction between a block and a horizontal surface  | <b>Periodic Test</b>    |
| 4                                 | SEPTEMBER | <b>Unit VII: Properties of Bulk Matter</b> 24 Periods<br><b>Chapter-9: Mechanical Properties of Solids</b><br>Elasticity, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity (qualitative idea)<br><b>Unit VIII: Thermodynamics</b><br><b>Chapter-12: Thermodynamics</b><br>Thermal equilibrium and definition of temperature zeroth law of thermodynamics, heat, work and internal energy. First law of thermodynamics, Second law of thermodynamics; gaseous state of matter.<br><b>Unit X: Oscillations and Waves</b><br><b>Chapter-14: Oscillations</b><br>Periodic motion - time period, frequency, displacement as a function of time, periodic functions and their application. Simple harmonic motion (S.H.M) and its equations of motion; phase; oscillations of a loaded spring- restoring force and force constant; energy in S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for its time period.<br><b>Chapter-15: Waves</b><br>Wave motion: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats.  | The students should have scientific temper   | Demonstration of Newton three law  | <b>Periodic Test</b>    |
| 5                                 | OCTOBER   | REVISION   |  | <b>FIRST TERM EXAMINATION</b>  |                         |
| <b>SECOND TERM SYLLABUS SPLIT</b> |           |  |  |  |                         |
| 6                                 | NOVEMBER  | <b>Unit VII: Properties of Bulk Matter</b> 24 Periods<br><b>Chapter-9: Mechanical Properties of Solids</b><br>Elasticity, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity (qualitative idea)<br><b>Unit VIII: Thermodynamics</b><br><b>Chapter-12: Thermodynamics</b><br>Thermal equilibrium and definition of temperature zeroth law of thermodynamics, heat, work and internal energy. First law of thermodynamics, Second law of thermodynamics; gaseous state of matter.<br><b>Unit X: Oscillations and Waves</b><br><b>Chapter-14: Oscillations</b><br>Periodic motion - time period, frequency, displacement as a function of time, periodic functions and their application. Simple harmonic motion (S.H.M) and its equations of motion; phase; oscillations of a loaded spring- restoring force and force constant; energy in S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for its time period.<br><b>Chapter-15: Waves</b><br>Wave motion: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats.  | The students should have scientific temper   | To determine Young's modulus of elasticity of the material of a given wire   |                         |
| 7                                 | DECEMBER  | <b>Unit VIII: Thermodynamics</b><br><b>Chapter-12: Thermodynamics</b><br>Thermal equilibrium and definition of temperature zeroth law of thermodynamics, heat, work and internal energy. First law of thermodynamics, Second law of thermodynamics; gaseous state of matter.<br><b>Unit X: Oscillations and Waves</b><br><b>Chapter-14: Oscillations</b><br>Periodic motion - time period, frequency, displacement as a function of time, periodic functions and their application. Simple harmonic motion (S.H.M) and its equations of motion; phase; oscillations of a loaded spring- restoring force and force constant; energy in S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for its time period.<br><b>Chapter-15: Waves</b><br>Wave motion: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats.  | The students should have scientific temper   | To study the variation in volume with pressure for a sample of air at constant temperature by plotting graphs between P and V, and between P and 1/V.  | <b>Periodic Test</b>    |
| 8                                 | JANUARY   | <b>Unit X: Oscillations and Waves</b><br><b>Chapter-14: Oscillations</b><br>Periodic motion - time period, frequency, displacement as a function of time, periodic functions and their application. Simple harmonic motion (S.H.M) and its equations of motion; phase; oscillations of a loaded spring- restoring force and force constant; energy in S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for its time period.<br><b>Chapter-15: Waves</b><br>Wave motion: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats.  | The students should have scientific temper   | Lab activity )simple pendulum experiment using bar pendulum<br>Hence find the  |                         |
| 9                                 | FEBRUARY  | REVISION   |  |  | <b>Periodic Test-IV</b> |
| 10                                | MARCH     | REVISION   |  | <b>ANNUAL EXAMINATION</b>  |                         |

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SYLLABUS SPLIT (2022 - 23)

**XI- chemistry**

| SR. NO | MONTH  | UNIT / SUBUNIT  | VALUES  | ACTIVITY/PROJECT  | EXAM                                  |   |                                       |   |   |                                       |   |   |                                       |
|--------|--|---|---|---|---------------------------------------|---|---------------------------------------|---|---|---------------------------------------|---|---|---------------------------------------|
| 1      | <b>JUNE &amp; JULY<br/>(18 Periods)</b>                    | <b>UNIT I Some Basic Concepts of Chemistry</b><br>General Introduction: Importance and scope of Chemistry. , ,<br>Nature of matter, laws of chemical combination,<br>Dalton's atomic theory: concept of elements, atoms and molecules.<br>Atomic and molecular masses, mole concept and molar mass,<br>Percentage composition, empirical and molecular formula<br>chemical reactions<br>Stoichiometry and calculations based on stoichiometry.  | To develop the scientific and mathematical skills | LAB<br>PRACTICALS/ACTIVITIES & PROJECTS AS PRESCRIBED BY CBSE BOARD | PERIODIC TEST 1 & MIDTERM EXAMINATION |   |                                       |   |   |                                       |   |   |                                       |
| 2      |  | <b>Unit II: Structure of Atom</b><br>Discovery of Electron, Proton and Neutron, atomic number, isotopes and isobars.<br>Thomson's model, Rutherford's model & Bohr's model and its limitations,<br>concept of shells and subshells, dual nature of matter and light,<br>De Broglie's relationship, Heisenberg uncertainty principle<br>Shapes of s, p and d orbitals, rules for filling electrons in orbitals - Aufbau principle, Pauli's exclusion principle and Hund's rule<br>Electronic configuration of atoms, stability of half-filled and completely filled orbitals |   |   |                                       | To develop scientific skills disciplinary value , | PERIODIC TEST 1 & MIDTERM EXAMINATION |   |   |                                       |   |   |                                       |
|        |  | 3   |   |   |                                       |   |                                       | <b>Unit III: Classification of Elements and Periodicity in Properties</b><br>Significance of classification, brief history of the development of periodic table<br>Modern periodic law and the present form of periodic table<br>Periodic trends in properties of elements -atomic radii, ionic radii, inert gas radii, Ionization enthalpy, electron gain enthalpy, electronegativity, valency.<br>Nomenclature of elements with atomic number greater than 100. | Develops social value, disciplinary value | PERIODIC TEST 2 & MIDTERM EXAMINATION |   |   |                                       |
|        |  |   |   |   |                                       |   |                                       | 4   |   |                                       | <b>Unit IV: Chemical Bonding and Molecular Structure</b><br>Valence electrons, ionic bond, covalent bond, bond parameter<br>Lewis's structure, polar character of covalent bond,,<br>geometry of covalent molecules, VSEPR theory, concept of<br>Involving s, p and d orbitals and shapes of some simple molecular orbital theory of homonuclear diatomic molecules | Develops social value, disciplinary value | PERIODIC TEST 2 & MIDTERM EXAMINATION |
|        |  |   |   |   |                                       |   |                                       |   |   |                                       | 5   |   |                                       |
| 5      | <b>SEPTEMBER &amp; OCTOBER<br/>(23 Periods+ 20Periods)</b> |   |   |   |                                       |   |                                       |   |   |                                       |   |   |                                       |

|   |   |   |  |  |   |
|---|---|---|--|--|---|
| 6 |   | <b>Unit VII: Equilibrium</b>  | Develops concentration & scientific skills   | LAB PRACTICALS/ACTIVITIES & PROJECTS AS PRESCRIBED BY CBSE BOARD | PERIODIC TEST                                 |
|   |   | Equilibrium in physical and chemical processes, dynamic factors affecting equilibrium - Le Chatelier's principle, ionic equilibrium- ionization of acids and bases, strong and weak electrolytes,   |  |  |   |
|   |   | ionization of poly basic acids, acid strength, concept of pH, hydrolysis of salts (elementary idea), buffer solution,   |  |  |   |
|   |   | Henderson Equation, solubility product, common ion effect   |  |  |   |
| 7 | <b>NOVEMBER(9 PERIODS)</b>                | <b>Unit VIII: Redox Reactions</b><br>Concept of oxidation and reduction, redox reactions, oxidation number, balancing redox reactions, in terms of loss and gain of electrons and change in oxidation number, applications of redox reactions   | Develops concentration skills, attention and social values   |  | PERIODIC TEST                                 |
|   | <b>OCTOBER</b>                            | <b>REVISION OF MIDTERM EXAMINATION</b>  |  |  | UNIT I,II,III,IV & VI FOR MIDTERM EXAMINATION |
| 8 | <b>DECEMBER( 20 Periods)</b>              | <b>Unit XII: Organic Chemistry -Some Basic Principles and Techniques</b>  | Skills of handling instruments and accuracy. Develops concentration skills                         | LAB PRACTICALS/ACTIVITIES & PROJECTS AS PRESCRIBED BY CBSE BOARD | PERIODIC TEST                                 |
|   |   | General introduction, methods of purification, qualitative and quantitative analysis, classification and IUPAC nomenclature of organic compounds  |  |  |   |
|   |   | Electronic displacements in a covalent bond: inductive effect, electromeric effect, resonance and hyper conjugation   |  |  |   |
|   |   | Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions   |  |  |   |
| 9 | <b>DECEMBER, January( 20 +15 Periods)</b> | <b>Unit XIII: Hydrocarbons</b>  | expose the students to different processes used in industries and their technological applications | LAB PRACTICALS/ACTIVITIES & PROJECTS AS PRESCRIBED BY CBSE BOARD | PERIODIC TEST                                 |
|   |   | Classification of Hydrocarbons Aliphatic Hydrocarbons: <b>Alkanes</b> - Nomenclature, isomerism, conformation (ethane only), physical properties, chemical reactions including free radical mechanism of halogenation, combustion and pyrolysis..   |  |  |   |
|   |   | <b>Alkenes</b> - Nomenclature, the structure of double bond (ethene), geometrical isomerism, physical properties, methods of preparation, chemical reactions: addition of hydrogen, halogen, water, hydrogen halides (Markovnikov's addition and peroxide effect), ozonolysis, oxidation, mechanism of electrophilic addition |  |  |   |
|   |   | <b>Alkynes</b> - Nomenclature, the structure of triple bond (ethyne), physical properties, methods of preparation, chemical reactions: acidic character of alkynes, addition reaction of - hydrogen, halogens, hydrogen halides and water   |  |  |   |
|   |   | <b>Aromatic Hydrocarbons:</b>   |  |  |   |
|   |   | Introduction, IUPAC nomenclature, benzene: resonance, aromaticity, chemical properties: mechanism of electrophilic substitution. Nitration, sulphonation, halogenation, Friedel Craft's alkylation and acylation, directive influence of the functional group in monosubstituted benzene. Carcinogenicity and toxicity.       |  |  |   |

**KLE ENGLISH MEDIUM SCHOOL**

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SYLLABUS SPLIT (2022 - 23)

**XI- BIOLOGY**

| SR. NO | MONTH                 | UNIT / SUBUNIT  | VALUES  | ACTIVITY/PROJ   | EXAM                                  |
|--------|-----------------------|---|---|---|---------------------------------------|
| 1      | JUNE(05 Periods)      | <b>Unit-I Diversity of Living Organisms</b><br><b>Chapter-1: The Living World</b><br>Biodiversity; Need for classification; three domains of life<br>taxonomy and systematics; concept of species and<br>taxonomical hierarchy, binomial nomenclature   | To develop scientific skills, disciplinary value          | LAB PRACTICALS/ ACTIVITIES & PROJECTS AS PRESCRIBED BY CBSE BOARD | PERIODIC TEST 1 & MIDTERM EXAMINATION |
| 2      | JULY(05 Periods)      | <b>Chapter-2: Biological Classification</b><br>Five kingdom classification; Salient features and classification of Monera Protista and Fungi into major groups; Lichens, Viruses and Viroids  |   |   |                                       |
| 3      | JULY(05 Periods)      | <b>Chapter-3: Plant Kingdom</b><br>Classification of plants into major groups<br>Salient and distinguishing features and a few examples of Algae, Bryophyta, Pteridophyta, Gymnospermae   | To develop scientific skills, disciplinary value          |   | PERIODIC TEST 2 & MIDTERM EXAMINATION |
| 4      | JULY(05 Periods)      | <b>Chapter-4: Animal Kingdom</b><br>Salient features and classification of animals, non-chordates up to phyla level and chordates upto class level  |   |   |                                       |
| 5      | AUGUST(08 Periods)    | <b>Unit-II Structural Organization in Animals and Plant</b><br><b>Chapter-5: Morphology of Flowering Plants</b><br>Morphology of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed. Description of family Solanaceae   | developing respect for other living beings                | LAB PRACTICALS/ ACTIVITIES & PROJECTS AS PRESCRIBED BY CBSE BOARD | PERIODIC TEST 3 & MIDTERM EXAMINATION |
| 6      | AUGUST(04 Periods)    | <b>Chapter-6: Anatomy of Flowering Plants</b><br>Anatomy and functions of tissue systems in dicots and monocots   |   |   |                                       |
| 7      | AUGUST(08 Periods)    | <b>Chapter-7: Structural Organisation in Animals</b><br>Morphology, Anatomy and functions of different systems (digestive, circulatory, respiratory, nervous and reproductive) of frog.   |   |   |                                       |
| 8      | SEPTEMBER(07 Periods) | <b>Unit-III Cell: Structure and Function</b><br><b>Chapter-8: Cell-The Unit of Life</b><br>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. | Appreciate the body organization of both plants & animals | LAB PRACTICALS/ ACTIVITIES & PROJECTS AS PRESCRIBED BY CBSE BOARD | PERIODIC TEST 4                       |
|        | SEPTEMBER(09 Periods) | <b>Chapter-9: Biomolecules</b><br>Chemical constituents of living cells: biomolecules, structure and function of proteins, carbohydrates, lipids, nucleic acids; Enzyme - types, properties, enzyme action  |   |   |                                       |
| 10     | SEPTEMBER(09 Periods) | <b>Chapter-10: Cell Cycle and Cell Division</b><br>Cell cycle, mitosis, meiosis and their significance  | appreciate that the most complex biological phenomena     |   |                                       |
| 11     | OCTOBER               | REVISION  |   |   |                                       |
| 12     | NOVEMBER(10 Periods)  | <b>Unit-IV Plant Physiology</b><br><b>Chapter-13: Photosynthesis in Higher Plants</b><br>Photosynthesis as a means of autotrophic nutrition; site of photosynthesis<br>pigments involved in photosynthesis, photochemical and biosynthetic phases of photosynthesis; cyclic and non-cyclic photophosphorylation; chemiosmotic hypothesis; photorespiration; C3 and C4 pathways; factors affecting photosynthesis.   | appreciate that the most complex biological phenomena     | LAB PRACTICALS/ ACTIVITIES & PROJECTS AS PRESCRIBED BY CBSE BOARD | PERIODIC TEST 5                       |
| 13     | NOVEMBER(10 Periods)  | <b>Chapter-14: Respiration in Plants</b><br>Exchange of gases; cellular respiration - glycolysis, fermentation<br>TCA cycle and electron transport system (aerobic); energy relations<br>number of ATP molecules generated; amphibolic pathways<br>respiratory quotient   |   |   |                                       |
| 14     | NOVEMBER(10 Periods)  | <b>Chapter-15: Plant - Growth and Development</b><br>Seed germination; phases of plant growth and plant growth rate; conditions of growth; differentiation, dedifferentiation and redifferentiation<br>sequence of developmental processes in a plant cell; growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA  |   |   |                                       |

|    |                      |   |  |   |                 |
|----|----------------------|---|--|---|-----------------|
|    |                      |   |  |   | PERIODIC TEST 6 |
| 15 | DECEMBER(08 Periods) | <b>Unit-V Human Physiology</b><br><b>Chapter-17: Breathing and Exchange of Gases</b><br>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<br>asthma, emphysema, occupational respiratory disorders  | developing respect for other living beings                         |   |                 |
| 16 | DECEMBER(08 Periods) | <b>Chapter-18: Body Fluids and Circulation</b><br>Composition of blood, blood groups, coagulation of blood; composition of lymph and its function; human circulatory system<br>Structure of human heart and blood vessels; cardiac cycle, cardiac output<br>ECG, double circulation; regulation of cardiac activity, disorders of circulation<br>hypertension, coronary artery disease, angina pectoris, heart failure  | To develop scientific skills, disciplinary value<br>Appreciate the |   |                 |
| 17 | JANUARY(09 Periods)  | <b>Chapter-19: Excretory Products and their Elimination</b><br>Modes of excretion - ammonotelism, ureotelism, uricotelism<br>human excretory system - structure and function; urine formation, osmoregulation; regulation of kidney function - renin - angiotensin<br>atrial natriuretic factor, ADH and diabetes insipidus; role of other organs in excretion; disorders - uremia, renal failure, renal calculi, nephritis;<br>dialysis and artificial kidney, kidney transplant |  | LAB PRACTICALS/ ACTIVITIES & PROJECTS AS PRESCRIBED BY CBSE BOARD |                 |
| 18 | JANUARY(09 Periods)  | <b>Chapter-20: Locomotion and Movement</b><br>Types of movement - ciliary, flagellar, muscular; skeletal muscle, contractile proteins and muscle contraction; skeletal system and its functions; joints; disorders of muscular and skeletal systems - myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis, gout.   | Appreciate the body organization of both plants & animals          |   | ANNUAL EXAM     |
| 19 | FEBRUARY(09 Periods) | <b>Chapter-21: Neural Control and Coordination</b><br>Neuron and nerves; Nervous system in humans - central nervous system<br>peripheral nervous system and visceral nervous system; generation and conduction of nerve impulse   |  |   |                 |
| 20 | FEBRUARY(09 Periods) | <b>Chapter-22: Chemical Coordination and Integration</b><br>Endocrine glands and hormones; human endocrine system - hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal, pancreas, gonads;<br>mechanism of hormone action, role of hormones as messengers and regulation of<br>hypo - and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exophthalmic goitre, diabetes, Addison's disease   |  |   |                 |
| 21 | MARCH                | REVISION  |  |   | ANNUAL EXAM     |

# KLE ENGLISH MEDIUM SCHOOL

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SYLLABUS SPLIT (2022 - 23)

## XI- MATHEMATICS

| SR. NO | MONTH      | UNIT / SUBUNIT   | VALUES   | ACTIVITY/PROJECT      | EXAM          |
|--------|------------|--|--|-----------------------|---------------|
| 1      | June /July | <b>Sets</b>  |  |                       |               |
|        | 12p        | Sets and their Representation  | To develop the arithmetic skills   | Worksheet/ Assignment |               |
|        |            | Empty Set  |  |                       |               |
|        |            | Finite and Infinite Set  |  |                       |               |
|        |            | Equal Sets   |  |                       |               |
|        |            | subsets  |  |                       |               |
|        |            | Power Sets   |  |                       |               |
|        |            | Universal sets   |  |                       |               |
|        |            | Venn diagram   |  |                       |               |
|        |            | operations on sets   |  |                       |               |
|        |            | Complement of a set  |  |                       |               |
|        |            | Practical problems on union and Intersection of two set                  |  |                       |               |
| 2      | July       | <b>Relations and Functions</b>   |  |                       |               |
|        | 14 p       | Cartesian product of sets  | To develop disciplinary value  | Worksheet/ Assignment | Periodic Test |
|        |            | Relations  |  |                       |               |
|        |            | Functions  |  |                       |               |
| 3      | August     | <b>Complex Numbers and Quadratic Equations</b>                           |  |                       |               |
|        | 12p        | Complex Numbers  | Develops social value, disciplinary value                                    | Worksheet/ Assignment | Periodic Test |
|        |            | Algebra of complex numbers   |  |                       |               |
|        |            | The Modulus and the conjugate of a complex number                        |  |                       |               |
|        |            | Argand plane and Polar representation                                    |  |                       |               |
|        |            | Quadratic equations  |  |                       |               |
| 4      | August     | <b>Sequence and Series</b>   |  |                       |               |
|        | 10         | Sequences  | Develops social value, disciplinary value                                    | Worksheet/ Assignment | Periodic Test |
|        |            | Series   |  |                       |               |
|        |            | Arithmetic Progression   |  |                       |               |
|        |            | Geometric Progression  |  |                       |               |
|        |            | Relationship between A.M and G.M   |  |                       |               |
|        |            | Sum to n terms of special series   |  |                       |               |
| 5      | Sept       | <b>Straight Lines</b>  |  |                       |               |
|        | 9p         | Slope of a line  | Skills of handling instruments and accuracy. Develops concentration skills   | Worksheet/ Assignment | Periodic Test |
|        |            | Various forms of the equation of a line                                  |  |                       |               |
|        |            | General equation of a line   |  |                       |               |
|        |            | Distance of a point from a line  |  |                       |               |
| 6      | Sept       | <b>Limits</b>  |  |                       |               |
|        | 9          | Limits   | Develops concentration skills,attention and social values                    | Worksheet/ Assignment | Periodic Test |
|        |            | Limits of trigonometric ratios   |  |                       |               |
| 7      | Sept       | <b>Statistics</b>  |  |                       |               |
|        | 10         | Measures of dispersion   | Develops concentration skills,attention and social values                    | Worksheet/ Assignment | Periodic Test |
|        |            | Range  |  |                       |               |
|        |            | Mean Deviation   |  |                       |               |
|        |            | Variance and Standard deviation  |  |                       |               |
|        |            | Analysis of Frequency Distributions                                      |  |                       |               |
| 8      | November   | <b>Trigonometric Functions</b>   |  |                       |               |
|        | 18         | Angles   | Accuracy and precesion knowledge of space. Develops concentration skills.    | Worksheet/ Assignment | Periodic Test |
|        |            | Trigonometric Functions  |  |                       |               |
|        |            | Trigonometric Functions of Sum and Difference of Two angles              |  |                       |               |
|        |            | Trigonometric Equations  |  |                       |               |
| 9      | November   | <b>Linear Inequalities</b>   |  |                       |               |
|        | 10         | Introduction   | Skills of handelling instruments and accuracy. Develops concentration skills | Worksheet/ Assignment | Periodic Test |
|        |            | Linear Inequalities  |  |                       |               |
|        |            | Algebraic and Graphical solutions of Linear inequalities in one variable |  |                       |               |
|        |            | Graphical solution of Linear inequalities in two variables               |  |                       |               |
|        |            | Solution of System of Linear inequalities in two variables               |  |                       |               |



|    |             |  |  |                       |               |
|----|-------------|--|--|-----------------------|---------------|
| 10 | December    | <b>Permutations and combinations</b>                         |  |                       |               |
|    | 12          | Fundamental principle of Counting                            | Develops logical thinking  | Worksheet/ Assignment | Periodic Test |
|    |             | Permutations   |  |                       |               |
|    |             | Combinations   |  |                       |               |
| 11 | Dec/January | <b>Conic Sections</b>  |  |                       |               |
|    | January     | Sections of a cone   | Accuracy and precision knowledge of space. Develops concentration skills. Develops recreational values | Worksheet/ Assignment | Periodic Test |
|    | 12          | Circle   |  |                       |               |
|    |             | Parabola   |  |                       |               |
|    |             | Ellipse  |  |                       |               |
|    |             | Hyperbola  |  |                       |               |
| 12 | January     | <b>Introduction to Three dimensional geometry</b>            |  |                       |               |
|    | 8           | Coordinate Axes and Coordinate Planes in 3 dimensional Space | Accuracy and precision knowledge of space. Develops concentration skills. Develops recreational values | Worksheet/ Assignment | Periodic Test |
|    |             | Coordinates of a point in space                              |  |                       |               |
|    |             | Distance between two points                                  |  |                       |               |
|    |             | Section Formula  |  |                       |               |
| 13 | February    | <b>Derivatives</b>   |  |                       |               |
|    | 9           | Intuitive idea of Derivatives                                | Develops concentration skills, attention   | Worksheet/ Assignment |               |
|    |             | derivatives  |  |                       |               |
| 14 | March       | <b>REVISION</b>  |  |                       |               |

**XI- COMPUTER SCIENCE**

| SR. NO                     | MONTH  | UNIT / SUBUNIT  | VALUES   | ACTIVITY/PROJECT                                | EXAM          |
|----------------------------|--------|---|--|---|---------------|
| 1                          | Jun-22 | <b>Computer System</b><br>Introduction to Computer System<br>Evolution of Computer<br>Computer Memory<br>Data Transfer between Memory<br>Microprocessors<br>Data and Information<br>Software<br>Operating System  | To develop basic knowledge of computers                                    | Practical based on basics of Computer           |               |
| 2                          | Jul-22 | <b>Encoding Schemes and Number System</b><br>Introduction<br>Number System<br>Conversion between Number Systems   | To understand the concept of Encoding and Decoding                         | Activity based on Encoding and Decoding concept | Periodic Test |
| 3                          | Jul-22 | <b>Emerging Trends</b><br>Introduction<br>Artificial Intelligence (AI)<br>Big Data<br>Internet of Things (IoT)<br>Cloud Computing<br>Grid Computing<br>Blockchains  | Develop how to work with new trends in technology                          | ATAL Lab  | Periodic Test |
| 4                          | Aug-22 | <b>Introduction to Problem Solving</b><br>Introduction<br>Steps for Problem Solving<br>Algorithm<br>Representation of Algorithms<br>Flow of Control<br>Verifying Algorithms<br>Comparison of Algorithm<br>Coding<br>Decomposition                             | Develops skill of problem solving using Algorithms                         | Drawing flow chart and Algorithm for program    | Periodic Test |
| 5                          | Sep-22 | <b>Getting Started with Python</b><br>Introduction to Python<br>Python Keywords<br>Identifiers<br>Variables<br>Comments<br>Everything is an Object<br>Data Types<br>Operators<br>Expressions<br>Statement<br>Input and Output<br>Type Conversion<br>Debugging | Develop Programming Language Skills  | Practical based on creating web page            | Periodic Test |
| 6                          | Sep-22 | <b>Flow of Control</b><br>Introduction<br>Selection<br>Indentation<br>Repetition<br>Break and Continue Statement<br>Nested Loops  | Skills of handling instruments and accuracy. Develops concentration skills | Practical based on flow control statements      | Periodic Test |
| 7                          | Sep-22 | <b>Functions</b><br>Introduction<br>Functions<br>User Defined Functions<br>Scope of a Variable<br>Python Standard Library   | Increase knowledge in programming languages with different functions       | Program based on defining functions             | Periodic Test |
| <b>MIDTERM EXAMINATION</b> |        |   |  |   |               |
| 8                          | Nov-22 | <b>Strings</b><br>Introduction<br>Strings<br>String Operations<br>Traversing a String<br>String Methods and Built-in Functions<br>Handling Strings  | Accuracy and knowledge of handling Strings in Programming                  | Implementing String operations practically.     | Periodic Test |
| 9                          | Nov-22 | <b>Lists</b><br>Introduction to List<br>List Operations<br>Traversing a List<br>List Methods and Built-in Functions<br>Nested Lists<br>Copying Lists<br>List as Arguments to Function<br>List Manipulation  | Developing Programming Skills  | Practical based on List in python               | Periodic Test |

|    |        |   |   |                                   |               |
|----|--------|---|---|-----------------------------------|---------------|
| 10 | Dec-22 | <b>Tuples and Dictionaries</b>            |   |                                   |               |
|    |        | Introduction to Tuples                    |   |                                   |               |
|    |        | Tuple Operations                          |   |                                   |               |
|    |        | Tuple Methods and Built-in Functions      |   |                                   |               |
|    |        | Tuple Assignment                          |   |                                   |               |
|    |        | Nested Tuples                             |   |                                   |               |
|    |        | Tuple Handling                            | Adding, Handling tuples and Dictionary Concepts | Creating tuples and dictionaries  | Periodic Test |
|    |        | Introduction to Dictionaries              |   |                                   |               |
|    |        | Dictionaries are Mutable                  |   |                                   |               |
|    |        | Dictionary Operations                     |   |                                   |               |
|    |        | Traversing a Dictionary                   |   |                                   |               |
|    |        | Dictionary Methods and Built-in Functions |   |                                   |               |
|    |        | Manipulating Dictionaries                 |   |                                   |               |
| 11 | Jan-23 | <b>Societal Impact</b>                    |   |                                   |               |
|    |        | Introduction                              |   |                                   |               |
|    |        | Digital Footprints                        |   |                                   |               |
|    |        | Digital Society and Netizen               | Knowing how IT impacts on Society               | Know how IT impact on society and | Periodic Test |
|    |        | Data Protection                           |   |                                   |               |
|    |        | Cyber Crime                               |   |                                   |               |
|    |        | Indian Information Technology Act         |   |                                   |               |
|    |        | Impact on Health                          |   |                                   |               |

**KLE ENGLISH MEDIUM SCHOOL**

JULE SOLAPUR

SYLLABUS SPLIT (2022 - 23)

**XI - Physical Education**

| SR. NO.   | MONTH     | UNIT/SUBUNIT  | VALUES   | ACTIVITY/PROJECT                                  |
|---|-----------|---|--|---|
| 1   | JUNE      | <b>Changing Trends &amp; Career in Physical Education</b>   | <b>Choosing a career</b> in Physical Edu   | Field demonstration & related projects            |
|   |           | Concept, Aims & Objectives of Physical Education  |  |   |
|   |           | Changing Trends in Sports - playing surface, wearable gears and sports equipment, technology                    |  |   |
|   |           | Career Options in Physical Education<br>Khelo-India and Fit-India Program                                       |  |   |
| 2   | JULY      | <b>Olympism</b>   | <b>Olympics</b> a world event, <b>Yogic tec</b>  | Related projects & Yogic techniques demonstration |
|   |           | Ancient and Modern Olympics   |  |   |
|   |           | Olympism – Concept and Olympics Values (Excellence, Friendship & Respect)                                       |  |   |
|   |           | Olympics - Symbols, Motto, Flag, Oath, and Anthem   |  |   |
|   |           | Olympic Movement Structure - IOC, NOC, IFS, Other members   |  |   |
|   |           | <b>Yoga</b>   |  |   |
| Meaning & Importance of Yoga  |           |   |  |   |
| Introduction to Ashtanga Yoga   |           |   |  |   |
| Introduction to Yogic Kriyas (Shat Karma)                                 |           |   |  |   |
| 3   | AUGUST    | <b>Physical Education &amp; Sports for CWSN (Children with Special Needs - Divyang)</b>                         | <b>Adapting Physical Education</b> for individuals with disabilities   |   |
|   |           | Concept of Disability and Disorder  |  |   |
|   |           | Types of Disability, its causes & nature (Intellectual disability, Physical disability)                         |  |   |
|   |           | Aim & Objective of Adaptive Physical Education<br>Role of various professionals for children with special needs |  |   |
| 4   | SEPTEMBER | <b>Physical Fitness, Health and Wellness</b>  | <b>Importance</b> of being physically well & fit <b>Indigenous</b> games & sports  | Field demonstration & related projects            |
|   |           | Meaning and Importance of Wellness, Health and Physical Fitness   |  |   |
|   |           | Components/ Dimensions of Wellness, Health and Physical Fitness   |  |   |
|   |           | Traditional Sports & Regional Games for promoting wellness  |  |   |
| 5   | SEPTEMBER | <b>Revision</b>   | Revising all topics covered so far   |   |
| 6   | OCTOBER   | <b>Test, Measurement &amp; Evaluation</b>   | <b>Physical assessment</b> of body for sports <b>Biophysiology</b> of important body systems   | Field demonstration & related projects            |
|   |           | Concept of Test, Measurement & Evaluation in Physical Education & sports.                                       |  |   |
|   |           | Classification of Test in Physical Education and Sports.  |  |   |
|   |           | Test administration guidelines in physical education and sports   |  |   |
|   |           | <b>Fundamentals of Anatomy, Physiology in Sports</b>  |  |   |
|   |           | Definition and Importance of Anatomy and Physiology in exercise and sports                                      |  |   |
| Functions of Skeletal system, classification of bone and types of joints. |           |   |  |   |
| Function and Structure of Circulatory system and heart.                   |           |   |  |   |
| Function and Structure of Respiratory system.                             |           |   |  |   |
| 7   | NOVEMBER  | <b>Fundamentals of Kinesiology and Biomechanics in Sports</b>   | <b>Application</b> of body aspects & limits in sports <b>Behavioural &amp; Mental Health</b> in sports especially during various phases of body growth <b>Teamwork &amp; Team spirit</b> in sports | Field demonstration & related projects            |
|   |           | Definition and Importance of Kinesiology and Biomechanics in sports   |  |   |
|   |           | Principles of Biomechanics  |  |   |
|   |           | Types of Body Movements - Flexion, Extension, Abduction, Adduction, Rotation, Circumduction                     |  |   |
| Axis and Planes – Concept and its application in body movements           |           |   |  |   |
| 8   | DECEMBER  | <b>Psychology &amp; Sports</b>  |  |   |
|   |           | Definition & Importance of Psychology in Physical Education & Sports  |  |   |
|   |           | Adolescent Problems & Their Management  |  |   |
|   |           | Team Cohesion and Sports  |  |   |
| 9   | JANUARY   | <b>Training and Doping in Sports</b>  | <b>Performance &amp; Illegality</b> in sports  | Field demonstration & related projects            |
|   |           | Concept and Principles of Sports Training   |  |   |
|   |           | Training Load: Over Load, Adaptation, and Recovery  |  |   |
|   |           | Concept of Doping and its disadvantages   |  |   |
| 10  | FEBRUARY  | <b>Revision</b>   | Revising all topics covered so far   |   |