



CALCUTTA PUBLIC SCHOOL, ORMANJHI

Affiliated to CBSE, Delhi (10+2) Affiliation No. 3430600

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SYLLABUS (2024 – 2025)

STD – XI (Science)

Name: _____

Class: _____

Section: _____

Roll No: _____

ENGLISH (301)

Prescribed books: - 1. Hornbill (NCERT)
 2. Snapshot (NCERT)
 3. Assignments in English (Core) Course (Goyal' Brothers)

Month	No. of period	Lesson/Chapter
June	11	Hornbill: The Portrait of a Lady (Prose) Writing: Poster Making Grammar: Sentence Reordering
July	26	Hornbill: The photograph (poem) Writing : Speech Writing
August	25	Hornbill: We're not Afraid to Die (Prose); The Laburnum Top (Poem) Snapshot: The Summer of the beautiful White Horse Prose);
August	25	Hornbill: Discovering Tut: The Saga Continues (Prose); Snapshots: The Address (Prose) Note Making & Summary Writing
September		Revision and Term – I Examination
October	26	Hornbill The Voice of the Rain (poem) Snapshots: Mother's Day (Play) Grammar: Gap-Filling (Tenses and Clauses) Writing; Advertisement
November	26	Hornbill: The Adventure (Prose); Childhood (Poem) Grammar: Transformation Of Sentences
December	15	Hornbill: Silk Road (Prose); Father to Son (Poem) Snapshots: Birth (prose) Writing: Debate Writing
January	24	Snapshots: The Tale Of Melon City (Prose) Revision
		Snapshots: The Tale Of Melon City (Prose) Revision
February		Revision
March		Revision and Term – II Examination
SYLLABUS FOR TERM EXAMS AND PERIODIC TEST		
Periodic Test – 1 and 2		Reading: Unseen Passage Hornbill: The Portrait of a Lady, A Photograph Writing: Poster Making Grammar: Sentence Reordering
		Reading: Note Making and Summary Writing Hornbill: The Laburnum TOP Snapshots: The Summer of the Beautiful White Horse Writing; Speech Writing Grammar: Sentence Reordering
Term – I Portion taught from June to August		
Periodic Test – 3 and 4		Reading: unseen Passage Hornbill: The Adventure, The Voice of the Rain (Poem) Writing: Advertisement Grammar: Gap Filling (Tenses & Clauses)
		Reading: Note Making and summary Writing Hornbill: Father to Son; Snapshots: Birth Writing: Debate Writing Grammar: Transformation of Sentences
Term – II Portion - Whole Syllabus		

- Prescribed Book 1. आरोह भाग –2 (एन. सी. ई. आर. टी.)
 2. वितान भाग – 2 (एन. सी. ई. आर. टी.),
 3. अभिव्यक्ति और माध्यम (एन. सी. ई. आर. टी.)

Month	No.Of Prds	आरोह भाग –2	वितान भाग –2	अभिव्यक्ति और माध्यम
June	14	पाठ –1 नमक का दारोगा (गद्यखंड)	पाठ –1 भारतीय गायिकाओं में बेजोड: लता मंगेशकर (वितान)	पाठ– 1 जनसंचार माध्यम अपठित बोध गद्यांश
		पाठ – 1 हम तौ एक एक करि जाना। (काव्यखंड)		काव्यांश
July	16	पाठ –2 मियाँ नसीरुद्दीन (गद्यखंड)		पाठ –2 पत्रकारिता के विविध आयाम
		पाठ –3 अप्पू के साथ ढाई साल (गद्यखंड)		
		पाठ –2 मेरे तो गिरिधर गोपाल, दूसरों न कोई		
August	16	पाठ –5 घर की याद (काव्यखंड)	पाठ – 2 राजस्थान की रजत बूँदें	पाठ – 9 डायरी लिखने की कला
		पाठ – 4 विदाई संभाषण (गद्यखंड)		
September		Revision and Term – I Examination		
October	12	पाठ –5 गलता लोहा (गद्यखंड)		पाठ10 – कथा – पटकथा
		पाठ –5 चंपा काले अच्छर नहीं चीन्हती (गद्यखंड)		
November	14	पाठ –7 रजनी (गद्यखंड)		पाठ – 14 कार्यालयी लेखन और प्रक्रिया
		पाठ –7 गजल (काव्यखंड)		
December	12	पाठ – 8 जामुन का पेड (गद्यखंड)		पाठ – 15 स्ववृत्त लेखन और रोजगार संबंधी आवेदन पत्र
		पाठ –8 हे भूख! मत मचल		
		हे मेरे जूही के फूल जैसे ईश्वर (काव्यखंड)		
January	14	पाठ – भारत माता (गद्यखंड)		पाठ –16 कोश एक परिचय
		पाठ –9 सबसे खतरनाक (काव्यखंड)		
February	10	पाठ – 10 आओं, मिलकर बचाएँ	पाठ –3 आलो – आँधारी	
March		Revision and Term – II Examination		

1st Periodic पाठ – 1 पाठ –1 नमक का दारोगा (गद्यखंड)
पाठ – 1 हम तौ एक एक करे जाना! (काव्यखंड)
पाठ –1 जनसंचार के माध्यम (अभिव्यक्ति और माध्यम)

2nd Periodic पाठ 2 मियाँ नसीरुद्दीन (गद्यखंड)
पाठ –2 मेरे तो गिरिधर गोपाल, दूसरों न कोई (काव्यखंड)
पाठ –2 पत्रकारिता के विविध आयाम (अभिव्यक्ति और माध्यम)

Term – I Portion taught from June to August

3rd Periodic पाठ – 4 विदाई संभाषण (गद्यखंड)
पाठ –5 घर की याद (काव्यखंड)
पाठ – 9 डायरी लिखने की कला (अभिव्यक्ति और माध्यम)

4th Periodic पाठ –5 गलता लोहा (गद्यखंड)
पाठ –5 चंपा काले अच्छर नहीं चीन्हतीं (काव्यखंड)
पाठ–10 कथा – पटकथा

Term – II Portion – Whole Syllabus

MATHEMATICS

Prescribed books: - 1. Mathematics (NCERT)

2. Mathematics exemplar (NCERT)

3. Mathematics Lab Activities with record book (Goyal Brother)

No.	Units	No. of periods	Marks
I	Sets and Functions	60	23
II	Algebra	50	25
III	Coordinate Geometry	50	12
IV	Calculus	40	08
V	Statistic and Probability	40	12
VI	Total	240	80
Internal Assessment		–	20

Months	Contents	
June	Sets	Sets and their representation. Finite set, Infinite sets, equal sets, subsets, universal sets, Diff. of sets, properties of complements of sets.
July	Relations and Functions	Ordered pairs, Cartesian product of sets, No. of elements in the Cartesian product of two finite set, Diff. of relations, domain codomain and range of a relation. Domain and range of constant functions. Identity functions polynomial, rational, modulus functions, signum, exponential, logarithmic and greatest integer functions with their graphs. Sum, diff., product and quotient of funs.
	Trigonometric functions	Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Defn. of trigonometric funs with the help of unit circle. Truth of the identify $\sin^2x + \cos^2x = 1$, sign of trigonometric functions. Domain and range of trigonometric function with their graphs formula $\sin(A \pm B), \cos(A \pm B), \tan(A \pm B), \cot(A \pm B), \sin c \pm \sin D$ etc.
August	Complex No. and Quadratic equations.	Need of a complex nos. Its representation in the Argand plane. Modulus of a complex no. Solutions of quadratic equation with the help of complex no.
	Linear Inequalities	Linear Inequalities. Algebraic solution of Linear inequalities in one variable and their representation on no. line.
	Sequence and series	Sequence & series, A.M. G.P. General term of a G.P. sum to n terms of a G.P. Infinite G.P and its sum. Geometric mean relation between A.M & G.M
September	Revision and Term – I Examination	
October	Permutations and combinations	Meaning of Factorial n, Diff. of permutations and combinations and differentiate them. Derivation of P(n,r) and C(n,r) its simple applications.
	Binomial Theorem	Statement and proof of Binomial Theorem for positive indices. Pascals Triangle and simple applications.
	Coordinate Geometry Straight lines	Slope of a line and angle between two lines. Various forms of equations of lines.
November	Conic sections	Section of a cone: circles ellipse, parabola, Hyperbola, standard equations and simple properties of circles, Ellipse, Parabola and Hyperbola.
	Introduction to three Dimensional Geometry	Coordinate axes and coordinate planes in three dimensions. Coordinate of a point. Distance between two points, section formula.

December	Calculus limits and Derivatives	Intuitive idea of limit of polynomial and trigonometrical functions. Exponential and logarithmic funs, Defn. of slope of a tangent to the curve, Derivative of sum product and quotient of funs. Derivative of Polynomial and Trigonometric functions.
January	Statistics and probability statistics Probability	Measures of dispersion range mean deviation, variance and std. deviation of Grouped and ungrouped data. Events, occurrence of events, not and or events. Mutually exclusive and Exhaustive events. Axiomatic approach on probability prob. Of an event, $0 \leq P(E) \leq 1$, probability of an events, Probability of not, and or events.
February	Revision	
March	Revision and Term – II Examination	
Periodic Test – 1.	Sets, Relations & functions & Trigo. Funs.	
Periodic Test – 2.	Complex no. , Quadratic equ. Linear Inequalities, sequence and series.	
Term – I	Relations and functions, Trigonometric fun. Complex no. , Quadratic equations, sequence and series.	
Periodic Test – 3.	Permutations & combinations, Binomial Theorem,	
Periodic Test – 4.	Straight Lines, Conic sections, Three Dimension, statistics & probability.	
Term – II	Whole Syllabus.	

BIOLOGY (044)

- Prescribed book: - 1. Biology (NCERT)
 2. Biology exemplar (NCERT)
 3. Core Laboratory Manual (Goyal Brother)

Month	Total number of periods.	Chapters/ lesson
May	32	Unit 1: Diversity in the living world. Chapter 1. The living world. Chapter 2: Biological Classification.
June	34	Chapter 3: Plant kingdom. Chapter 4: Animal kingdom.
July	32	Unit 2: Structural organization in plants and animals Chapter 5: Morphology of flowering plants. Chapter 6: Anatomy of flowering plants.
August	34	Chapter 7: Structural organization in animal. Unit 3: Cell structure and function. Chapter 8: Cell: The unit of life. Chapter 9: Bio molecules
September		Revision and Term – I Examination
October	35	Chapter 10: Cell cycle and cell division. Unit 4: Plant physiology. Chapter 11: Photosynthesis in higher plants. Chapter 12: respiration in plants.
November	31	Chapter 13: Plant growth and development. Unit 5: Human physiology. Chapter 14: Breathing and exchange of gases. Chapter 15: Body fluids and circulation.
December	28	Chapter 16: Excretory product and their elimination. Chapter 17: locomotion and movement.
January	27	Chapter 18: Neural control and coordination. Chapter 19: Chemical coordination and integration.
February		Revision
March		Revision and Term – II Examination
Syllabus for periodic test and Term examination		
Periodic Test	PT1: Biological classification, Plant kingdom. PT2: Animal kingdom, Morphology of flowering plants, Anatomy of flowering plants.	
Term 1	1. The living world, 2. Biological classification, 3. Plant kingdom, 4. Animal kingdom, 5. Morphology of flowering plants, 6. Anatomy of flowering plants, 7. Cell the unit of life, 8. Cell the unit of life, 9. Bio molecules.	
Periodic Test	PT3: Breathing and exchange of gases, Body fluids and circulation. PT4: Excretory product and their elimination, Locomotion and movement.	
Term 2	Whole syllabus	

PHYSICS

Prescribed book: - 1. Physics Part I and II (NCERT)

2. Physics exemplar (NCERT)

3. Core Laboratory Manual of Physics (Goyal Brother)

Month	No. of Period	Chapter
May	24	Ch-2. Units and measurements.
June	14	Ch-3. Motion in a Straight Line.
July	14	Ch-4. Motion in a Plane Ch-5. Laws of Motion.
August	24	Ch-6. Work, Energy and Power Ch-7. System of Particles and Rotational Motion.
September		Revision and Term – I Examination
October	16	Ch-8. Gravitation Ch-9. Mechanical Properties of Solid. Ch-10. Mechanical Properties of Fluid.
November	14	Ch-11. Thermal Properties of Matter. Ch-12. Thermodynamics
December	18	Ch-13. Kinetic Theory
January	20	Ch-14. Oscillations. Ch-15. Waves
February		Revision
March		Revision and Term – II Examination
SYLLABYS FOR TERM EXAM AND PERIODIC TEST		
Periodic Test – 1		Ch-02. Units and Measurements. Ch-03. Motion in a Straight Line. Ch-04. Motion in a Plane Ch-05 Law of Motion
Periodic Test – 2		Ch-06. Work Energy and Power. Ch-07. System of Particles and Rotational Motion. Ch-08. Gravitation. Ch-09. Mechanical Properties of solid
Term – I		Syllabus taught from May to August
Periodic Test – 3		Ch-10. Mechanical properties of Fluids. Ch-11. Thermal Properties of Matter. Ch-12. Thermodynamics.
Periodic Test – 4		Ch-13. Kinetic Theory. Ch-14. Oscillations Ch-15. Wave
Term – II		Whole Syllabus

CHEMISTRY

Prescribed book: - 1. Chemistry Part I and II (NCERT)

2. Chemistry exemplar (NCERT)

3. Core Laboratory Manual of chemistry (Goyal Brother)

Months	No. of Period	Unit
June	18	SOME BASIC CONCEPTS OF CHEMISTRY Unit – 1 General Introduction: - Importance and scope of chemistry. Nature of matter, laws of chemical combination, Daltons atomic theory. Concept of elements atoms and molecules. Atomic and Molecular masses mole concept and molar masses. Percentage composition, empirical and molecular formula, chemical reactions stoichiometry and calculations bases on stoichiometry.
July	26	Unit – 2 Discovery of Electron, Proton and Neutron, atomic number, isotopes and isobars. Thomson's model and its limitation. Rutherford model and its limitation Bohr's model and its limitation concept of shells and subshells dual Nature of matter and light de Broglie's relationship Heisenberg Un certainty Principle concept of orbitals quantum no. shapes of S,P and d-orbital. Rules for filling of electrons in orbitals Aruban Principal Pauli's exclusion principle and Hands rule. Electronic configuration of atoms stability of Half-filled and completely. Unit – 3 Classification of elements and periodicity in properties significance of classification Brief History of the development of periodic table modern periodic law and present form of periodic table periodic trends in properties of elements Atomic radii ionic radii inert gas radii ionizations enthalpy electronegativity valence Numen clature of elements with Atomic no. greater than 100.
August	26	Unit – 4 Chemical Bonding and Molecular structure Valance electron ionic Bond and covalent bond. Bond parameters Lenis structure polar character of covalent bond covalent character of ionic Bond. Valence Bond theory, Resonance geometry of covalent molecule VSEPR theory concept of Hybridization involving S,P and d-orbital and shapes of sonic simple molecules, molecular orbital theory of Hmonuclear diatomic molecules (quantitative idea only) Hydrogen Bond.
September	23	Revision and Term – I Examination.
October	21	Unit – 12 Organic chemistry. Some basic principle and techniques. General introduction Method of purification quantitative and qualitative analysis classification and IUPAC Numen clature of organic compounds. Electronic displacements in covalent bond. Organic Chemistry Inductive effect, elastomeric effect, Resonance and Hyper conjugation. Hemolytic and Heterolysis fission of a covalent bond free radical carbocation's carnations electrophiles and Nucleophiles. Types of organic reactions. Unit – 13 Aliphatic Hydrocarbons Alkanes Numen clature isomerism confirmation (Ethane only) Physical properties chemical properties chemical reaction including free radical mechanism of Halogenation, combustion and pyrolysis. Alkenes Numen clature structure of double bond (Ethane) geometrical isomerism physical properties methods of preparation chemical reaction addition of Hydrogen Halogen water Hydrogen Halides markovnikovs rule addition and peroxide effect ozone lists oxidation mechanism of electrophile addition. Alkynes Numen clature structure of triple bond (Ethane) physical properties method of preparation chemical reaction acidic character of alkynes addition reactions of Hydrogen Halogen Hydrogen Halides and water.
November	22	Unit – 13 Aromatic Hydrocarbon Introduction, IUPAC numen clature Benzene Resonance Aromaticity chemical properties mechanism of electrophilic substitution, nitration, sulphonation, Halogenation, friedel craft alkylation and acylation directive influence of functional group in mono

		substituted benzene carcinogenicity and toxicity.
December	20	Unit – 6 Chemical Thermodynamics Concepts of system and types of systems, surrounding, work heat and energy extensive and intensive property state function. First law of thermodynamics, internal energy and enthalpy Heat capacity and specific heat, measurement of Δu and ΔH Hess's law of constant heat summation enthalpy bond dissociation combustion formation atomization sublimation phase transition, ionization solution and dilution second law of thermodynamics (brief introduction). Introduction of entropy state function Gibbs energy. Spontaneous and Non Spontaneous process criteria of equilibrium, third law of thermodynamics (Brief Introduction) Unit – 7 Equilibrium Equilibrium in physical and chemical process, dynamic equilibrium law of mass action Equilibrium constant factors affecting the Equilibrium Le- chateliers principle, ionic Equilibrium ionization of acid and bases. Strong and weak electrolytes, Degree of ionization of poly basic acid and strength concept of P^H Hydrolysis of salts (Elementary idea) Buffer solution Henderson equation solubility product common ion effect with illustrative examples.
January	26	Unit – 8 Redox Reaction Concept of oxidation and reduction Redox reaction oxidation number and balancing the Redox reaction in terms of lose and gain of electrons and changing oxidation number application of Redox reactions.
February	24+8	Revision
March		Revision and Term – II Examination

SYLLABUS FOR PERIODIC TEST AND TERM EXAMINATION.

Periodic Test – 1.	Unit – 1 Some Basic concept in chemistry Unit – 2 Structure of atom
Periodic Test – 2	Unit – 3 Classification of elements and periodicity in properties Unit – 4 chemical bonding
Term – 1	Unit – 1 + Unit 2 + Unit 3 + Unit 4
Periodic Test – 3.	Unit – 12 Same basic Principle and technique of organic chemistry Unit – 13 Hydrocarbon Unit – 6 chemical Thermodynamics
Periodic Test – 4.	Unit – 7 Equilibrium Unit – 8 Redox Reaction
Term – 2	Whole Syllabus

INFORMATICS PRACTICES

Prescribed Book: Informatics Practices (Orange Publication)

Months	Total No. of Periods	Lesson / Chapter
June	23	Ch-1: Computer System Ch-2 : Emerging Trends
July	14	Ch-3: Brief overview of Python
August	13	Ch-3 : Brief overview of Python Ch-4 : Working with lists and Dictionaries
August	20	Ch-5 : Understanding Data
September	Revision and Term – I Examination	
October	20	Ch-7 : Database Concepts
November	18	Ch-8: Introduction to structured Query language (SQL)
December	18	Ch-8: Introduction to structured Query language (SQL)
February	Revision	
March	Term – II Examination	
Syllabus for Term Examination		
PT -1	Ch-1 : Computer System	
PT-2	Ch-3 : Brief Over View Of Python	
Term – I Examination Portion taught from June to August		
PT -3	Ch-3 : Brief Over View Of Python(List & Dictionaries)	
PT -4	Ch-8 : Introduction to SQL	
Term-II: Portion – Whole Syllabus		
UNIT NO.	UNIT NAME	MARKS
1.	Introduction to Computer System	10
2	Introduction to Python	25
3	Database concept and the structured Query Language	30
4	Introduction to Emerging	5
	Practical	30
		100

PHYSICAL EDUCATION (048)

Prescribed book: - 1. Fundamental of Physical Education (ARIHANT)

2. Health and Physical Education practical record book (Goyal Brother)

<i>MONTHS</i>	<i>PERIODS</i>	<i>CHAPTER NAMES</i>
June	13	1. Changing Trends and Career in Physical Education
July	12	2. Olympic Value Education
July	10	3. Yoga
August	10	4. Physical Education and Sports for CWSN
August	08	5. Physical Fitness, Wellness and Lifestyle
August	08	6. Test, Measurements and Evaluation
September	-----	Revision and Term – I Examination
October	15	7. Fundamentals of Anatomy and Physiology in Sports
November	15	8. Fundamentals of Kinesiology and Biomechanics in Sports
December	12	9. Psychology and Sports
January	14	10. Training and Doping in Sports
February	-----	Revision
March	-----	Term – II Examination

Periodic Test-1:- Ch.1. Changing Trends and Career in Physical Education
Ch.2. Olympic Value Education

Periodic Test-2:- Ch.3. Yoga
Ch.4. Physical Education and Sports for CWSN
Ch.5. Physical Fitness, Wellness and Lifestyle

Term – I Portion taught from June to August

Periodic Test-3:- Ch.7. Fundamentals of Anatomy and Physiology in Sports
Ch.8. Fundamentals of Kinesiology and Biomechanics in Sports

Periodic Test-4:- Ch.9. Psychology and Sports
Ch.10. Training and Doping in Sports

TERM- 2:- Whole Syllabus