ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS XI COMMERCE
ACADEMIC SESSION 2025 - 26
ENGLISH LANGUAGE
PEARLS OF ENGLISH LANGUAGE

CHAPTER	TOPICS	CHAPTER	TOPICS
			REHEARSAL
2	The Narrative Essay The Descriptive Essau The Reflective Essay Subject Verb Agreement	7	Speech Writing Transformation of Sentences II Preposition Test Paper 8, 9, 10
2	The Discursive Essay One word Essay The Short Story (begin with) Rules of Transformation	8	Statement of Purpose Oral /Aural skills Comprehension The Argumentative Essay
3	Article Writing Report Writing Preposition Sequence of Tenses	9	Conditional Sentences Summary Writing Phrasal Verbs Test Paper 11, 12, 13
4	Direct and Indirect Speech Comparision of Adjectives Transformation of Sentences I Test Paper 1,2,3 4	10	Transformation of Sentences - I Comprehension Skills Preposition Test Paper 14,15,16
5	Phrasal Verbs The Voice Change Conditional Sentences Test Paper 5,6,7	11	Transformation of Sentences - II Argumentative Composition Descriptive and Narrative Compositions Test Paper 17,18,19
6	Comprehension Phrasal Verbs The short story (end)	12	Revision

Composition , Comprehension, Report Writing (Dated,

PROJECT TOPICS :

1. Description of a sporting event (1500 words) OR
2. An autobiographical experience

Composition , Comprehension, Report Writing (Dated, undated),

PROJECT TOPICS :

1. The text of a brochure OR

2.A process description (e.g. instruction to operate a device, a recipe, a scientific experiment)

Project submission date :Ist project :on or before 18th August 2025

Final :on or before 5th January 2026

SYLLABUS FOR UNIT TEST

Will be notified by the subject teacher at the appropriate time

ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS XI SCIENCE
ACADEMIC SESSION 2025 - 26
ENGLISH LITERATURE
Prescribed Text Book : PRISM, RAPSODY, MACBETH

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	**TOPICS**	**CHAPTER NO./TITLE**	**TOPICS**
	Prism : A Collection of ISC Short Stories		**Prism : A Collection of ISC Short Stories**
1	A Living God- Lafcadio Hearn	3	The Paper Menagerie- Ken Liu
2	Advice to Youth - Mark Twain	4	The Great Automatic Grammatizator - Roald
		5	Thank You Ma'am- Langston Hughes
	Rapsody : A Collection of ISC Poems		**Rapsody : A Collection of ISC Poems**
1	Abhisara : The Tryst - Rabindra Nath Tagore	3	Sonnet 116
2	Why I Like the Hospital - Tony Hoagland	4	Death of Naturalist- Seamus Heaney
		5	Strange Meeting - Wilfred Owen
	Macbeth : William Shakespeare		**Macbeth : William Shakespeare**
	Act I		Act II
PROJECT TOPIC :	"The Great Automatic Grammatizator" by Roald Dahl, is a short story exploring the anxieties of automation, the devaluation of human labor,the Impact of Automation on authorship while examining themes of technology, authorship, and the changing nature of work. Analyze Dahl's satirical writing style and how he uses humor and exaggeration to critique societal issues. Your assignment must be of 1500 words.	PROJECT TOPIC :	Analyzing the Theme of Ambition in "Macbeth": Explore how ambition drives the characters and shapes the events in the play.Your assignment must be of 1500 words.
Project submission date : Ist project :on or before 18-08-25		Final:on or before 05-01-2026	

SYLLABUS FOR UNIT TEST
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ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS XI SCIENCE
ACADEMIC SESSION 2025 - 26
PHYSICS
TEXT BOOK NAME: ISC PHYSICS CLASS XI, (Nageen Publication,Nootan)

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
Physical World:	Scope of Physics and its application in everyday life. Nature of physical laws.	Mechanical Properties of Fluids	Pressure due to a fluid column; Pascal's law and its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure. Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, critical velocity, Bernoulli's theorem and its applications. Surface energy and surface tension, angle of contact, excess of pressure across a curved surface, application of surface tension ideas to drops, bubbles and capillary rise.
Units and Measurements	Measurement: need for measurement; units of measurement; systems of units: fundamental and derived units in SI; measurement of length, mass and time; accuracy and precision of measuring instruments; errors in measurement; significantfigures. Dimensional formulae of physical quantities and constants, dimensional analysis and its applications.	Motion of System of Particles and Rigid Body	Idea of centre of mass: 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. Moment of a force, torque, angular momentum, laws of conservation of angular momentum and its applications. Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparative study of linear and rotational motions. Moment of inertia, radius of gyration, moments of inertia for simple geometrical objects (no derivation). Statement of parallel and perpendicular axes theorems and their applications.

Motion in a Straight Line	Frame of references, Motion in a straight line (one dimension): Position-time graph, speed and velocity. Elementary concepts of differentiation and integration for describing motion, uniform and non- uniform motion, average speed, velocity, average velocity, instantaneous velocity and uniformly accelerated motion, velocity - Scalar and Vector quantities with examples. Position and displacement vectors, general vectors and their notations; equality of vectors, addition and subtraction of vectors, relative velocity, Unit vector; resolution of a vector in a plane, rectangular components, Scalar and Vector product of two vectors. Projectile motion and uniform circular motion.	Thermodynamics	Thermal equilibrium and definition of temperature (zeroth law of thermodynamics), heat, work and internal energy. First law of thermodynamics, isothermal and adiabatic processes. Second law of thermodynamics: reversible and irreversible processes, Heat engine and refrigerator
Motion in a Plane		Gravitation	Kepler's laws of planetary motion, universal law of gravitation. Acceleration due to gravity (g) and its variation with altitude, latitude and depth. Gravitational potential and gravitational potential energy, escape velocity, orbital velocity of a satellite, Geo-stationary satellites.
Laws of Motion	General concept of force, inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law ofmotion. Law of conservation of linear momentum and its applications. Equilibrium of concurrent forces. Friction: Static and kinetic friction, laws of friction, rolling friction, lubrication. Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road).	Behaviour of Perfect Gases and Kinetic Theory of Gases	Kinetic Theory: Equation of state of a perfect gas, work done in compressing a gas. Kinetic theory of gases - assumptions, concept of pressure. Kinetic interpretation of temperature; rms speed of gas molecules; degrees of freedom, law of equi-partition of energy (statement only) and application to specific heat capacities of gases; concept of mean free path, Avogadro's number.

Work, Power and Energy	Work done by a constant force and a variable force; kinetic energy, work-energy theorem, power. Potential energy, potential energy of a spring, conservative forces: conservation of mechanical energy (kinetic and potential energies); Conservative and non-conservative forces. Concept of collision: elastic and inelastic collisions in one and two dimensions.	Oscillations:	Periodic motion, time period, frequency, displacement as a function of time, periodic functions. Simple harmonic motion (S.H.M) and its equation; phase; oscillations of a spring, restoring force and force constant; energy in S.H.M., Kinetic and potential energies; simple pendulum and derivation of expression for its time period. Free, forced and damped oscillations (qualitative ideas only), resonance.
Properties of Bulk Matter	Mechanical Properties of Solids: Elastic behaviour of solids, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity, Poisson's ratio; elasticenergy.	Waves:	Wave motion, Transverse and longitudinal waves, speed of wave motion, 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, Doppler effect.
Heat	Thermal Properties of Matter: Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity, calorimetry; change of state, specific latent heat capacity. Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law, and Greenhouseeffect.		

PROJECT TOPICS :	Sports Ball Mechanics, Bernounilli's throrem, System Particles, heat engine and refridgerator, doppler effect and its application, elasticity and its application. Gravitation, any project combining arduino, and analog sensors. Etc.

Project submission date:	Ist project :on or before 25th August 2025 Final :on or before 30th November 2025

SYLLABUS FOR UNIT TEST

Will be notified by the subject teacher at the appropriate time

ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS XI SCIENCE
ACADEMIC SESSION 2025 - 26
CHEMISTRY
Prescribed Text Book : ISC Chemistry by Dr. M.P. Sawhney, Balaji Publishers.

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
Structure of Atom.	Concept of Atom, Rutherford's theory,De-Broglie 's Equation, Heisenberg's Uncertainity Principle, Bohr's theory ,Quantum Numbers, Hund's Rule , Aufbau Principle	**Redox Reactions.**	Concept of oxidation & Reduction , Oxidation No., Oxidation & Reduction in terms of
Classification of Elements Periodicity in	Introduction, Catenation, Classification-Ionisation Enthalpy, Electronegativity, Electron Affinity, Diagonal Relationship		
Organic Chemistry :Some basic Principles & Technique.	Substitution ,addition elimination, Heterolytic reactions , Inductive Effect , Resonance Effect , Isomerism -Stereoisomerism and Geometrical isomerism	**Chemical Equilibrium**	Chemical Equilibrium,Le -Chatelier's Principleand itsapplications.
Chemical Bonding	Electrovalent Bond, Covalent ,Co-ordinate Bond, Hydrogen Bonding, VSEPR, MO theory.		
Chemical Thermodynamics.	Meaning of work, energy, Mathematical form of Reversible & Irreversible work, First law ofThermodynamics,Second Lawof Thermodynamic, entropy and Enthalpy.	**Ionic Equilibrium**	Ionic Equilibrium-pH, Common Ion Effect, Salt Hydrolysis, Bufferand Henderson Hasselbalch Equation, Solubility Product.
Hydrocarbons	General formula , Methods of Preparation , Chemical Properties & Physical properties,NameReaction-wurtz,Corey House Synthesis,Friedel -Crafts reaction.		
PROJECT TOPICS	Explosives , Atomic Structure, Chemical Bonding , DNA Fingerprinting, Rocket Propellents,Dyes and Drugs, Chemistry in the Medicinal Field.		

Project submission date: Ist project :on or before 25th August 2025
                        Final   :on or before 28th November 2025

SYLLABUS FOR UNIT TEST
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ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS XI SCIENCE
ACADEMIC SESSION 2025- 26
MATHEMATICS
Prescribed Text Book : UNDERSTANDING ISC MATHEMATICS BY M.L. AGGARWAL

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	**TOPICS**	**CHAPTER NO./TITLE**	**TOPICS**
Sets	Set theory and its Operations	Relations and Functions	Cartesian product, domain, range,classification of functions
Quadratic equations	Quadratic(equation, function,	Inequalities	Quadratic Inequalities
Angles and arc lengths	Angles and arc lengths	Circle	Equations of Circles and their Tangents
Trigonometric function	Trigonometric function	Conics	Equations of Parabola, Ellipse, Hyperbola and their Tangents
Compound and multiple angles	Compound and multiple angles addition and product rule	3 Dimensional Geometry	Concept of octants, distance and section formula in three dimensional geometry
Inequalities	Linear Inequations	Permutation and Combination	Concept of Factorial, Permutation & Combination, Restricted & Circular Permutation
Complex Number	Real & imaginary number, Modulus and argument, Argand Plane(Locus), Cube root of Unity	Binomial Theorem	General term, Middle term and problems
Finite and Infinite Sequence	A.P., G.P.Series,Method of Difference	Differentiation	Derivatives of functions using 1st and 2nd principle, Sum, Difference, Product and Quotient Rule for derivatives
Co-Ordinate Geometry	Points and Co-ordinates, Locus, Equation of a Straight Line	Probability	Random experiments and their outcomes, Addition theorem
Limits	Limits of algebraic, trigonometric, exponential and logarithmic functions		
Statistics	Mean Deviation about mean, Standard deviation,Combined Mean & S.D.		
PROJECT TOPICS :	As per topics given on CISCE website		
Project submission	date: Ist project :on or before 25th August 2025		
	Final :on or before 19th December 2025		

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HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
		Photosynthesis in higher plants	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. Difference between absorption and action spectra.
The Living World	Need for classification; taxonomy and systematics; concept of species and taxonomical hierarchy; binomial nomenclature; three systems of classification		
Biological Classification	Threedominsoflife;Five kingdom classification; salient features and classification of Monera, Protista, Fungi, Plantae and Animalia. Lichens, Viruses, Viroids and Prions.	Respiration in Plants	Exchange of gases, Cellularrespiration; Energy relations; Amphibolic pathways;Respiratory quotient
Plant Kingdom	Algae,Bryophyta, Pteridophyta, Gymnosperms, Angiosperms.	Plant Growth and Development	Seed germination; phases of plant growth; plant growth rate; differentiation, dedifferentiation and redifferentiation; sequence of developmental processes in a plant cell; growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA; seed dormancy; vernalisation; photoperiodism.
Animal Kingdom	Levels of organisation- cellular level, tissue level, organ level, organ systemlevel; body plan (cell aggregate plan, blind-sac plan and tube-within-tube plan), symmetry (spherical, radial and bilateral symmetry), coelom development (diploblastic and triploblastic organisation in animals, acoelomate, pseudocoelomate, coelomate and haemocoelomate), segmentation.	exchange of gases.	Respiratory organs in animals (recall only); Respiratory system in humans; mechanism of breathing and its regulation - exchange of gases, transport of gases and regulation of breathing, respiratory volumes; disorders related to respiration.

MorphologyOf Flowering Plant	(a)Morphology and a modifications of root,stem, leaf. (b) Morphology of flower	Body fluids and circulation.	Composition of blood, blood groups, coagulation of blood; composition of lymph and its function; Human circulatory system; Cardiac cycle, Cardiac output, ECG; Double circulation; Disorders; regulation of cardiac activity.
Anatomy of flowering plants			
	Plant tissues- Types, Characteristics and Cellulardiagrams.		

Topic	Details	Topic	Details
Structural Organisation in animals	Morphology andAnatomy of Frog	Excretory products and their elimination.	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 erythropoietin; role of other organs in excretion; disorders of the excretory system - uraemia, renal failure, renal calculi, nephritis; dialysis and artificial kidney.
Cell - the Unit of Life	Cell theory andcell as the basic unit of life: structure of eukaryotic cells: Plant and Animal cell; Cell organelles (ultrastructure and functions)	Locomotion and Movement	Types of movement; Skeletalmuscles;Skeletal system and its function;Joints; Disorders.
Biomolecules	Protein, Carbohydrates, Lipids, Enzymes,Secondary Metabolites	Neural Control and Coordination	Neuron and nerves; nervous system in humans - central nervous system; peripheral nervous system and visceral nervous system; generation and conduction of nerve impulse
Cell Cycle and Cell Division	Cell cycle, mitosis, meiosis and their significance.	Chemical Co-ordination and Integration	Human endocrine system - hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal, pancreas, gonads; mechanism of hormone action (elementary idea); role of hormones as messengers and regulators, hypo - and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goitre, exophthalmic goitre, diabetes mellitus and diabetes insipidus, Grave's disease, Addison's disease.

PROJECT TOPICS: Biomagnification, Stem cell Therapy, Cancer etc.

Project submission date: Ist project :on or before 25th August 2025

Final:on or before 28th November2025

SYLLABUS FOR UNIT TEST

Will be notified by the subject teacher at the appropriate time

ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS XI SCIENCE
ACADEMIC SESSION 2025 - 26
COMPUTER SCIENCE
Prescribed Text Book : Understanding ISC Computer Science by Dev and Pandey

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
Data Representation	Number Systems, Conversions, Binary Arithmetic (Addition, Subtraction,Multiplication etc.)	Arrays	Types of Arrays -1D, 2D, Searching ,Sorting-Bubble, Selection etc.
General OOP Concepts	Evolution of software, Procedural language,OOP Concepts etc.	Functions/Methods	Functions,their need and benefits, Terminologies & Definitions,Syntax
Introducing Java	Creating & running java program (Using Blue Java) , related commands etc.	Program Error Types,Exception Handling	Errors, Exceptions,Exception handling, Benefits Exception Heirarchy etc.
Java Fundamentals	Character set, tokens, data types, variables, their types, uses operators etc.	Using Library classes,Packages	Wrapper classes,Working with Strings, Packages etc.
Classes in Java	Composite type, encapsulation, class features,JVM, Bytecode etc.	Operations on Files	Reading from and writing to text, binary files, Java Streams, String Tokenizer etc
Propositional Logic & Hardware	Concept,Types of Inheritance, method overriding, base, derived class, super keyword, Programs etc.		
Flow of Control	for loop, while loop, do-while loop, nested loop, input output examples etc		
PROJECT TOPICS :	Assignment File having 10 programs based on Encoding, Conversion, Loops, Arrays etc.	PROJECT TOPICS :	Assignment file having 10 programs based on Arrays, Functions,Strings, Recursion, File Handling etc. Project file on consoled based applications of Encryption-Decryption of text, Calculation of taxable income,developing simple text editor,Movie ticket reservation etc.
Project submission date :	: Ist project :on or before 25th August 2023 Final :on or before 30th November2023		

SYLLABUS FOR UNIT TEST
Will be notified by the subject teacher at the appropriate time

ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS XI SCIENCE
ACADEMIC SESSION 2025 -26
BENGALI

Prescribed Text book - 1.PROBONDHO O GODHYA SONKOLON, 2. KOBITA SONKOLON, 3.KONI.

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER	TOPICS
PROSE		PROSE	
1	ঠাকুরদা	4	অনাচার
2	জোড়াসাঁকোর ধারে	5	রেকর্ড
3	তাসের ঘর	6	বীর্যশুল্কা
POEM		POEM	
1	ওরা কাজ করে	4	বর্ণপরিচয়
2	পুব পশ্চিম	5	সালেমনের মা
3	বনলতা সেন	6	বাবরের প্রার্থনা
KONI	পরিচ্ছেদ ১-৪	KONI	পরিচ্ছেদ ৫-৮
GRAMMAR	রচনা	GRAMMAR	রচনা
	বোধপরীক্ষণ		বোধপরীক্ষণ
	এককথায় প্রকাশ ,বাগধারা , বানান শুদ্ধ।		এককথায় প্রকাশ ,বাগধারা , বানান শুদ্ধ,সাধু চলিত , বাক্য পরিবর্তন ,বাচ্য পরিবর্তন,অনুকার অব্যয়।

PROJECT TOPICS: বর্তমান প্রজন্মের কাছে জাতীয় দিবস গুলি পালনের গুরুত্ব ও প্রাসঙ্গিকতা নিয়ে আলোচনা কর।

PROJECT TOPICS :'বীর্যশুল্কা' গল্পের রাজকুমারী সুমিত্রার চরিত্র বিশ্লেষণ করে -তার পরিকল্পিত তিনটি পরীক্ষার বর্ণনা দাও।

Project submission date:- HY project :on or before-31.08.25

Project submission date:- Final :on or before 30.11.25

SYLLABUS FOR UNIT TEST

Will be notified by the subject teacher at the appropriate time

HINDI
TEXT BOOK NAME गद्य संकलन, काव्य मंजरी, आषाढ़ का एक दिन, व्याकरण मंजूषा।

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
गद्य संकलन		गद्य संकलन	
1	पुत्र- प्रेमचंद	4	सती - शिवानी
2	गौरी-सुभद्रा कुमारी चौहान	5	आउटसाइडर- अमरकांत
3	शरणागत- वृन्दालाल वर्मा	6	दासी- जयशंकर प्रसाद
2	बाल लीला -सूरदास		
3	एक फूल की चाह-सियारामशरण गुप्त	5	नदी के द्वीप - अज्ञेय
4	आ धरती कितना देती है - सुमित्रानंदन पंत	6	तुलसीदास के पद- तुलसीदास
		7	जाग तुझको दूर जाना -महादेवी वर्मा
आषाढ़ का एक दिन	अंक 1 पूरा	आषाढ़ का एक दिन	अंक 2 पूरा
व्याकरण		व्याकरण	
	अशुद्ध वाक्य को शुद्ध करना मुहावरों का वाक्य में प्रयोग निबंध लेखन, अपठित गद्यांश		अशुद्ध वाक्य को शुद्ध करना मुहावरों का वाक्य में प्रयोग निबंध लेखन, अपाठेत गद्यांश
PROJECT TOPICS :	प्रेमचंद का जीवन परिचय देते हुए पुत्र-प्रेम कहानी की समीक्षा करें I	PROJECT TOPICS :	मोहन राकेश का जीवन परिचय देते हुए आषाढ़ का एक दिन नाटक के आधार पर कालिदास का चरित्र चित्रण करें I

Project submission date :	Ist project :on or before	31.07.25
	Final:on or before	30.11.25

SYLLABUS FOR UNIT TEST

Will be notified by the subject teacher at the appropriate time