SYLLABUS 2021 - 2022	
CLASS	XI
NAME OF THE SUBJECT	ENGLISH
TEXT BOOKS	**1. English Reader – Hornbill NCERT** **2. English Supplementary Reader – Snapshots NCERT**

SYLLABUS:

S. NO.	UNIT / CHAPTER	DISTRIBUTION OF MARKS
	READING	13
	WRITING AND GRAMMAR	12
	LITERATURE	15
	TOTAL	40
	INTERNAL ASSESSMENT	10
	GRAND TOTAL	50

MONTH: AUGUST 2021	PERCENTAGE OF SYLLABUS COVERED: 15 %
Hornbill: L-4 Landscape of the Soul P-2 The Laburnum Top Snapshots: L-2 The Address Writing Skills: Business/official letter writing Notice Writing	

MONTH: SEPTEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 2 %
Snapshots : L-3 Ranga's Marriage Revision Assessment of Speaking and Listening Skills	

MONTH: OCTOBER 2021	PERCENTAGE OF SYLLABUS COVERED: 10 %
October Hornbill: L-6 The Browning Version Snapshots: L-6 Mother's Day Writing Skills: Posters	

MONTH: NOVEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 10 %
Hornbill: P-3 The voice of the rain Snapshots: L-4 Albert Einstein at school Writing Skills: Official Letters	

MONTH: DECEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 12 %
Hornbill: P-4 Childhood L-8 Silk Road Snapshots: L-7 Birth Writing Skills: Debate Writing	

MONTH: JANUARY 2022	PERCENTAGE OF SYLLABUS COVERED: 6 %
Hornbill: L-5 Ailing Planet Writing skills: Note Making Assessment of Speaking and listening skills	

MONTH: FEBRUARY 2022	PERCENTAGE OF SYLLABUS COVERED: 12 %
Reading skills: Unseen passages (discursive) Grammar: Determiners, tenses, reordering of sentences Revision	

DETAILED SYLLABUS MONTHWISE+
CLASS XI
Class XI (2021 – 2022)
TERM 1

One Paper   Max Marks 40

90 minutes

No.	Units	Marks
I.	Sets and Functions	11
II.	Algebra	13
III.	Coordinate Geometry	6
IV.	Calculus	4
V.	Statistics and Probability	6
Total		40
Internal Assessment		10

Books - Mathematics by NCERT
Exemplar by NCERT

(MAY-JUNE)

Sets (16%)
Sets and their representations. Empty set. Finite and Infinite sets. Equal sets. Subsets. Subsets of the
set of real numbers especially intervals (with notations). and intersection of sets. Difference of sets. Complement of
a set, Properties of Complement sets.

(JULY)
Relations and Functions (12%)
Ordered pairs, Cartesian product of sets. Number of elements in the Cartesian product of two
finite sets. Cartesian product of the reals with itself (upto $R \times R \times R$).
Definition of relation, pictorial diagrams, domain, co-domain and range of a relation. Function as
a special kind of relation from one set to another. Pictorial representation of a function, domain,
co-domain and range of a function. Real valued function of the real variable, domain and range of
these functions, constant, identity, polynomial, rational, modulus, signum and greatest integer
functions with their graphs. Sum, difference, product and quotients of functions.
(AUGUST)
Complex Numbers and Quadratic Equations (12%)
Need for complex numbers, especially $\sqrt{-1}$, to be motivated by inability to solve every quadratic
equation. Brief description of algebraic properties of complex numbers. Argand plane and polar
representation of complex numbers. Statement of Fundamental Theorem of Algebra, solution of
quadratic equations in the complex number system, Square-root of a Complex number.

Sequence and Series (20%)
Sequence and Series. Arithmetic Progression (A.P.), Arithmetic Mean (A.M.), Geometric
Progression (G.P.), general term of a G.P., sum of n terms of a G.P. Arithmetic and geometric

series, infinite G.P. and its sum, geometric mean (G.M.). Relation between A.M. and G.M.

Straight Lines (15%)

Brief recall of 2-D from earlier classes, shifting of origin. Slope of a line and angle between two lines. Various forms of equations of a line: parallel to axes, point-slope form, slope-intercept form, two-point form, intercepts form and normal form. General equation of a line. Equation of family of lines passing through the point of intersection of two lines. Distance of a point from a line.

(SEPTEMBER)

Statistics (10%)

Measure of dispersion; mean deviation, variance and standard deviation of ungrouped/grouped data. Analysis of frequency distributions with equal means but different variances.

Limits (15%)

Derivative introduced as rate of change both as that of distance function and geometrically, intuitive idea of limit.

DETAILED SYLLABUS MONTHWISE
CLASS XI
Class XI (2021 – 2022)
TERM 2

No.	Units	Marks
One Paper: **MaxMarks: 40**		
No.	**Units**	**Marks**
I.	Sets and Functions (Cont.)	8
II.	Algebra (Cont.)	11
III.	Coordinate Geometry (Cont.)	9
IV.	Calculus (Cont.)	6
V.	Statistics and Probability (Cont.)	6
Total	40	
Internal Assessment	10	

OCTOBER

Unit-I: Sets and Functions

1. **Trigonometric Functions (20%)**
Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle. Truth of the identity sin2x + cos2x = 1, for all x. Signs of trigonometric functions. Domain and range of trigonometric functions and their graphs. Expressing sin (*x±y*) and cos (*x±y*) in terms of sin*x*, sin*y*, cos*x* & cos*y* and their simple applications. Deducing identities like the following:
$\tan(x\pm y)=\dfrac{\tan x\pm\tan y}{1\mp\tan x\tan y}$,$\cot(x\pm y)=\dfrac{\cot x\cot y\mp 1}{\cot y\pm\cot x}$
$\sin\alpha\pm\sin\beta=2\sin\frac{1}{2}(\alpha\pm\beta)\cos\frac{1}{2}(\alpha\mp\beta)$ $\cos\alpha+\cos\beta=2\cos\frac{1}{2}(\alpha+\beta)\cos\frac{1}{2}(\alpha-\beta)$
$cos\alpha-cos\beta=-2sin\frac{1}{2}(\alpha+\beta)sin\frac{1}{2}(\alpha-\beta)$
Identities related to sin2*x*, cos2*x*, tan2 *x*, sin3*x*, cos3*x* and tan3*x*.

Unit-II: Algebra (28%)

1. **Linear Inequalities**
Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line. Graphical solution of linear inequalities in two variables. Graphical method of finding a solution of system of linear inequalities in two variables.

November

2**. Permutations and Combinations**
Fundamental principle of counting. Factorial *n.* (n!) Permutations and combinations, formula for $_nP_r$ and $_nC_r$, simple applications.

Unit-III: Coordinate Geometry (22%)

1. Conic Sections
Sections of a cone: circles, ellipse, parabola, hyperbola. Standard equations and simple properties of parabola, ellipse and hyperbola. Standard equation of a circle.

DECEMBER

2. Introduction to Three-dimensional Geometry
Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points and section formula.
Unit-IV: Calculus

1. Derivatives (15%)
Derivative introduced as rate of change both as that of distance function and geometrically. Definition of Derivative, relate it to scope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trigonometric functions

JANUARY

Unit-V: Statistics and Probability (15%)
1. Probability
Random experiments;
outcomes, sample
spaces (set
representation). Events;
occurrence of events,
'not', 'and' and 'or'
events, exhaustive
events, mutually
exclusive events,
Probability of an event,
probability of 'not', 'and'
and 'or' events.

SYLLABUS 2021 - 2022	
CLASS	XI
NAME OF THE SUBJECT	Applied Mathematics
TEXT BOOKS	CBSE STUDY MATERIAL
REFERENCE BOOKS	ML AGGARWAL,NEERAJ JAIN

SYLLABUS:TERM 1

S. NO.	UNIT / CHAPTER	DISTRIBUTION OF MARKS
1.	Numbers, Quantification and Numerical Applications	09
2.	Algebra	09
3.	Mathematical Reasoning	06
4.	Calculus	04
5.	Descriptive Statistics	12
	Total	**40**
	Internal Assessment	10

MONTH: AUGUST 2021	PERCENTAGE OF SYLLABUS COVERED: 80%

UNIT 2(CONT.)
- Relations and types of relations
- Introduction of Sequences, Series
- Arithmetic and Geometric progression
- Relationship between AM and GM
- Applications of AP and GP

UNIT 3 :MATHEMATICAL REASONING
- MATHEMATICAL REASONING
- Mathematically acceptable statements
- Connecting words/ phrases in Mathematical statement consolidating the understanding of "if and only if (necessary and sufficient) condition", "implies", "and/or", "implied by", "and", "or", "there exists" and their use through variety of examples related to real life and Mathematics
- LOGICAL REASONING
- Problems based on logical reasoning (coding-decoding, odd man out, blood relation, syllogism etc)

MONTH: SEPTEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 100 %

UNIT 4 :Calculus

- Introducing functions
- Domain and Range of a function
- Types of functions (Polynomial function; Rational function; Composite
- function; Logarithm function; Exponential function; Modulus function; Greatest
- Integer function, Signum function)
- Graphical representation of functions

UNIT 6:Descriptive Statistics
- Types of data (raw data, univariate data, bivariate and multi-variate data)
- Data on various scales (nominal, ordinal, interval and ratio scale)
- Data representation and visualization
- Data interpretation (central tendency, dispersion, deviation, variance,
- skewness and kurtosis)
- Percentile rank and quartile rank
- Correlation (Pearson and Spearman method of correlation)

SYLLABUS TERM 2

S. NO.	UNIT / CHAPTER	DISTRIBUTION OF MARKS
1.	Algebra	06
2.	Calculus	06
3.	Probability	08
4.	Basics of Financial Mathematics	15
5.	Coordinate Geometry	05
	Total	40
	Internal Assessment	10

MONTH: OCTOBER 2021	PERCENTAGE OF SYLLABUS COVERED: 40 %

UNIT 2:ALGEBRA(CONT.)
- **Factorial**
- **Fundamental Principle of Counting**
- Basic concepts of Permutations and Combinations
- Permutations, Circular Permutations, Permutations with restrictions
- Combinations with standard results

UNIT 4:CALCULUS
- Concept of limits and continuity of a function
- Instantaneous rates of change
- Differentiation as a process of finding derivative
- Derivatives of algebraic functions using Chain rule

MONTH: NOVEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 60 %

UNIT 5: Probability
- Random experiment, sample space, events, mutually exclusive events
- Independent and Dependent Events
- Conditional Probability
- Law of Total Probability
- Bayes' Theorem

MONTH: DECEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 80 %

UNIT 7 : Basics of Financial Mathematics
- Interest and interest rate
- Accumulation with simple and compound interest
- Simple and compound interest rates with equivalency
- Effective rate of interest
- Present value, net present value and future value
- Annuities, calculating value of regular annuity
- Simple applications of regular annuities (up to 3 period)
- Tax, calculation of tax and simple applications of tax calculation in Goods and service tax, Income Tax
- Bills, tariff rates, fixed charge, surcharge, service charge
- Calculation and interpretation of electricity bill, water supply bill and other supply bills

   (Comparing interest rates on various types of savings; calculating income tax; electricity bills, water bill; service surcharge using realistic data)

MONTH: JANUARY 2022	PERCENTAGE OF SYLLABUS COVERED: 95%

UNIT 8: Coordinate Geometry
- Straight Line
- Circles

MONTH: FEBRUARY 2022	PERCENTAGE OF SYLLABUS COVERED: 100 %

UNIT 8:Coordinate Geometry (Cont.)
- Parabola
   (only standard forms and graphical representation on two-dimensional plane)

- **Revision For Annual exams**

SYLLABUS 2021 - 2022	
CLASS	XI
NAME OF THE SUBJECT	PHYSICS
TEXT BOOKS	NCERT
REFERENCE BOOKS	S L ARORA-NEW SIMPLIFIED PHYSICS

SYLLABUS: **TERM 1**

S. NO.	UNIT / CHAPTER		DISTRIBUTION OF MARKS
1.	Unit–I	**Physical World and Measurement**	10
		Chapter–1: Physical World	
		Chapter–2: Units and Measurements	
	Unit–II	**Kinematics**	
		Chapter–3: Motion in a Straight Line	
2.	**Laws of Motion**		10
	Chapter–5: Laws of Motion		
3.	**Work, Energy and Power**		5
	Chapter–6: Work, Energy and Power		
4.	**Motion of System of Particles and Rigid Body**		5
	Chapter–7: System of Particles and Rotational Motion		
5.	**Gravitation**		5
	Chapter–8: Gravitation		
	Total		35

MAY-JUNE-JULY   29 % COMPLETED

MONTH: AUGUST 2021	PERCENTAGE OF SYLLABUS COVERED: __57___ % OF TERM 1
Unit III: Laws of Motion 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. **(Recapitulation only)** Law of conservation of linear momentum and its applications.Equilibrium of concurrent forces. 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 banked road).

Unit IV: Work, Energy and Power

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: conservation of mechanical energy (kinetic and potential energies); non-conservative forces: motion in a vertical circle; elastic and inelastic collisions in one and two dimensions.

Unit V: Motion of System of Particles and Rigid Body

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, law of conservation of angular momentum and its applications.

Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions.

Moment of inertia, radius of gyration, values of moments of inertia for simple geometrical objects (no derivation).

MONTH: SEPTEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: _14____ % OF TERM 1

Unit VI: Gravitation

Universal law of gravitation. Acceleration due to gravity (recapitulation only) and its variation with altitude and depth.

Gravitational potential energy and gravitational potential, escape velocity, orbital velocity of a satellite, Geo-stationary satellites.

PRACTICAL FOR TERM 1

Time Allowed: One and half hours   Max. Marks: 30

Two experiments one from each section	8Marks
Practical record (experiment and activities)	2Marks
Viva on experiments, and activities	5 Marks
Total	**15 Marks**

Syllabus assigned for Practical Term I

Experiments

1. To measure diameter of a small spherical/cylindrical body and to measure internal diameter and depth of a given beaker/calorimeter using Vernier Calipers and hence find its volume.
2. To measure diameter of a given wire and thickness of a given sheet using screw gauge.

OR

   To determine volume of an irregular lamina using screw gauge.
3. To determine radius of curvature of a given spherical surface by a spherometer.
4. To determine the mass of two different objects using a beam balance.
5. To find the weight of a given body using parallelogram law of vectors.
6. Using a simple pendulum, plot its L-T^2 graph and use it to find the effective length of second's pendulum.

OR

   To study variation of time period of a simple pendulum of a given length by taking bobs of same size but different masses and interpret the result.

7. To study the relationship between force of limiting friction and normal reaction co- efficient of friction between a block and a horizontal surface.

Activities

1. To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm.

2. To determine mass of a given body using a metre scale by principle of moments.

3. To plot a graph for a given set of data, with proper choice of scales and error bars.

4. To measure the force of limiting friction for rolling of a roller on a horizontal plane.

5. To study the variation in range of a projectile with angle of projection.

6. To study the conservation of energy of a ball rolling down on an inclined plane (using a double inclined plane).

7. To study dissipation of energy of a simple pendulum by plotting a graph between square of amplitude and time.

TERM 2

S. NO.	UNIT / CHAPTER	DISTRIBUTION OF MARKS
1	**Properties of Bulk Matter** Chapter–9: Mechanical Properties of Solids Chapter–10: Mechanical Properties of Fluids Chapter–11: Thermal Properties of Matter **Thermodynamics** Chapter–12: Thermodynamics **Behaviour of Perfect Gases and Kinetic Theory of Gases** Chapter–13: Kinetic Theory	23
2	**Oscillations and Waves** Chapter–14: Oscillations Chapter–15: Waves	12
	TOTAL	35

MONTH: OCTOBER 2021	PERCENTAGE OF SYLLABUS COVERED: _20____ % OF TERM 2
Unit VII: Properties of Bulk Matter Elastic behaviour, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, 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.	

MONTH: NOVEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: _30 % OF TERM 2
Unit VII: Properties of Bulk Matter (CONTD) Heat, temperature, (recapitulation only) thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; Cp, Cv -	

calorimetry; change of state - latent heat capacity.
Heat transfer-conduction, convection and radiation (recapitulation only), thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law, Greenhouse effect.

Unit VIII: 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

MONTH: DECEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: ___15__ % TERM 2

Unit IX: Behaviour of Perfect Gases and Kinetic Theory of Gases
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.

MONTH: JANUARY 2022	PERCENTAGE OF SYLLABUS COVERED: __20 % OF TERM 2

Unit X: Oscillations and Waves
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 derivation of expression for its time period. Free, forced and damped oscillations (qualitative ideas only), resonance.

MONTH: FEBRUARY 2022	PERCENTAGE OF SYLLABUS COVERED: __15___ % TERM 2

Unit X: Oscillations and Waves (contd)
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

PRACTICAL FOR TERM 2

Time Allowed: One and half hours   **Max. Marks: 30**

Two experiments one from each section	8Marks
Practical record (experiment and activities)	2Marks
Viva on experiments, and activities	5 Marks
Total	**15 Marks**

Experiments

1. To determine Young's modulus of elasticity of the material of a given wire.
   OR
   To find the force constant of a helical spring by plotting a graph between load and extension.
2. 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.
3. To determine the surface tension of water by capillary rise method.

   OR

   To determine the coefficient of viscosity of a given viscous liquid by measuring terminal velocity of a given spherical body.
4. To study the relationship between the temperature of a hot body and time by plotting a cooling curve.

5. To determine specific heat capacity of a given solid by method of mixtures.

6. To study the relation between frequency and length of a given wire under constant tension using sonometer.
   OR
   To study the relation between the length of a given wire and tension for constant frequency using sonometer.

7. To find the speed of sound in air at room temperature using a resonance tube by two resonance positions.

Activities

1. To observe change of state and plot a cooling curve for molten wax.
2. To observe and explain the effect of heating on a bi-metallic strip.

3. To note the change in level of liquid in a container on heating and interpret the observations.

4. To study the effect of detergent on surface tension of water by observing capillary rise.

5. To study the factors affecting the rate of loss of heat of a liquid.

6. To study the effect of load on depression of a suitably clamped metre scale loaded at (i) its end (ii) in the middle.

7. To observe the decrease in pressure with increase in velocity of a fluid.

SYLLABUS 2021 - 2022	
CLASS	XI
NAME OF THE SUBJECT	Chemistry
TEXT BOOKS	Chemistry Part -I, Class-XI, Published by NCERT. Chemistry Part -II, Class-XI, Published by NCERT. Chemistry Lab Manual, Class XI, Published by NCERT
REFERENCE BOOKS	

SYLLABUS:

SYLLABUS FOR SESSION 2021-22 CLASS XI Term-I

S	UNIT	Periods	Marks
1	Some Basic Concepts of Chemistry	10	11
2	Structure of Atom	12	
3	Classification of Elements and Periodicity in Properties	6	4
4	Chemical Bonding and Molecular Structure	14	6
5	Redox Reactions	4	
6	Hydrogen	4	5
7	Organic Chemistry: Some basic Principles and Techniques	10	9
	TOTAL	60	35

MONTH: AUGUST 2021	PERCENTAGE OF SYLLABUS COVERED:_24_ %

Classification of Elements and Periodicity in Properties: Modern periodic law and the present formof periodic table, periodic trends in properties of elements -atomic radii, ionic radii, inert gas radii,Ionization enthalpy, electron gain enthalpy, electronegativity, valency. Nomenclature of elements with atomic number greater than 100.

Chemical Bonding and Molecular Structure:
Valence electrons, ionic bond, covalent bond, bond parameters, Lewis structure, polar character of covalent bond, covalent character of ionic bond, valence bond theory, resonance, geometry of covalent molecules, VSEPR theory, concept of hybridization, involving s, p and d orbitals and shapes of some simple molecules, molecular orbital theory of homonuclear diatomic molecules(qualitative idea only), Hydrogen bond.

Redox Reactions:
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.

MONTH: SEPTEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 16 %

Hydrogen: Position of hydrogen in periodic table, occurrence, isotopes, hydrides-ionic covalent and interstitial; physical and chemical properties of water, heavy water, hydrogen as a fuel

Organic Chemistry: Some basic Principles and Techniques: General introduction, 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.

PRACTICALS

Term-I Evaluation Scheme

S. No	Practical	Marks
1.	Volumetric Analysis	8
2.	Content Based experiment	2
3.	Class record and viva(Internal Examiner)	5
	TOTAL	15

Micro-chemical methods are available for several of the practical experiments, wherever possible such techniques should be used.

A. Basic Laboratory Techniques

1. Cutting glass tube and glass rod

2. Bending a glass tube

3. Drawing out a glass jet

4. Boring a cork

B. Characterization of Chemical Substances (2 Marks)

1. Determination of melting point of an organic compound.

2. Determination of boiling point of an organic compound.

C. Quantitative Estimation (8 marks)

i. Using a mechanical balance/electronic balance.

ii. Preparation of standard solution of Oxalic acid.

iii. Determination of strength of a given solution of Sodium hydroxide by titrating it against standard solution of Oxalic acid.

iv. Preparation of standard solution of Sodium carbonate.

v. Determination of strength of a given solution of hydrochloric acid by titrating it against standard Sodium Carbonate solution.

SYLLABUS FOR SESSION 2021-22 CLASS XI Term-II

S.No	UNIT	Periods	Marks
1	States of Matter: Gases and Liquids	9	15
2	Chemical Thermodynamics	14	
3	Equilibrium	12	
4	s -Block Elements	5	11
5	Some p -Block Elements	9	
6	Hydrocarbons	10	9
	TOTAL	59	35

MONTH: OCTOBER 2021	PERCENTAGE OF SYLLABUS COVERED: 14 %

States of Matter: Gases and Liquids: Three states of matter, intermolecular interactions, types of bonding, melting and boiling points, role of gas laws in elucidating the concept of the molecule, Boyle's law, Charles law, Gay Lussac's law, Avogadro's law, ideal behaviour, empirical derivation of gas equation, Avogadro's number, ideal gas equation and deviation from ideal behaviour.

Chemical Thermodynamics: Concepts of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions.
First law of thermodynamics -internal energy and enthalpy, measurement of ΔU and ΔH, Hess's law of constant heat summation, enthalpy of bond dissociation, combustion, formation, atomization, sublimation, phase transition, ionization, solution and dilution

MONTH: NOVEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 12 %

Chemical Thermodynamics continued : Second law of Thermodynamics (brief introduction) Introduction of entropy as a state function, Gibb's energy change for spontaneous and nonspontaneous processes. Third law of thermodynamics (brief introduction).

Equilibrium: Equilibrium in physical and chemical processes, dynamic nature of equilibrium, law of mass action, equilibrium constant, factors affecting equilibrium - Le Chatelier's principle, ionic equilibrium- ionization of acids and bases, strong and weak electrolytes, degree of ionization, ionization of poly basic acids, acid strength, concept of pH, buffer solution, solubility product, common ion effect (with illustrative examples).

MONTH: DECEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 15%

s -Block Elements: Group 1 and Group 2 Elements -General introduction, electronic configuration,

occurrence, anomalous properties of the first element of each group, diagonal relationship, trends in the variation of properties (such as ionization enthalpy, atomic and ionic radii), trends in chemical reactivity with oxygen, water, hydrogen and halogens, uses.

Some p -Block Elements: General Introduction to p -Block Elements
Group 13 Elements: General introduction, electronic configuration, occurrence, variation of properties, oxidation states, trends in chemical reactivity, anomalous properties of first element of the group, Boron - physical and chemical properties.
Group 14 Elements: General introduction, electronic configuration, occurrence, variation of properties, oxidation states, trends in chemical reactivity, anomalous behaviour of first elements. Carbon-catenation, allotropic forms, physical and chemical properties.

MONTH: JANUARY 2021	PERCENTAGE OF SYLLABUS COVERED: _6_ %

Hydrocarbons: Classification of Hydrocarbons Aliphatic Hydrocarbons:
Alkanes - Nomenclature, isomerism, conformation (ethane only), physical properties, chemical reactions.
Alkenes - Nomenclature, 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.
Alkynes - Nomenclature, 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

MONTH: FEBRUARY 2021	PERCENTAGE OF SYLLABUS COVERED: _2_ %

Hydrocarbon continued…
Aromatic Hydrocarbons: Introduction, IUPAC nomenclature, benzene: resonance, aromaticity, chemical properties: mechanism of electrophilic substitution. Nitration, sulphonation, halogenation,Friedel Craft's alkylation and acylation, directive influence of functional group in monosubstituted benzene. Carcinogenicity and toxicity.

PRACTICALS

TERM-II Evaluation Scheme

S. No	Practical	Marks
1.	Salt Analysis	8
2.	Content Based Experiment	2
3	Project Work and Viva(Internal)	5
	TOTAL	15

A. Qualitative Analysis(Marks 8)

a. Determination of one anion and one cation in a given salt

Cations- Pb^{2+}, Cu^{2+}, As^{3+}, Al^{3+}, Fe^{3+}, Mn^{2+}, Ni^{2+}, Zn^{2+}, Co^{2+}, Ca^{2+}, Sr^{2+}, Ba^{2+}, Mg^{2+}, NH_4^+

Anions – $(CO_3)^{2-}$, S^{2-}, NO_2^-, SO_3^{2-}, SO_4^{2-}, NO_3^-, Cl^-, Br^-, I^-, PO_4^{3-}, $C_2O_4^{2-}$, CH_3COO^- (Note: Insoluble salts excluded)

Detection of -Nitrogen, Sulphur, Chlorine in organic compounds.

B. Crystallization of impure sample of any one of the following: Alum, Copper Sulphate, Benzoic Acid. (Marks 2)

PROJECTS scientific investigations involving laboratory testing and collecting information from other sources

MONTHLY PLANNING OF SYLLABUS
BIOLOGY (CODE 044)
CLASS XI
SESSION: 2021-22

Recommended Textbooks:
1. Biology, Textbook for Class XI, Published by NCERT

Name of the Units and their weightage:

Unit No.	TERM-I	Marks
Unit I	Diversity of Living Organism – Chapter-1,2,3 and 4	15
Unit II	Structural Organisation in Plants & Animals – Chapter-5 and 7	08
Unit III	Cell: Structure and Function – Chapter-8 and 9	12
Unit No.	TERM-II	Marks
Unit III	Cell: Structure and Function – Chapter-10	05
Unit IV	Plant Physiology – Chapter-13,14 and 15	12
Unit V	Human Physiology – Chapter-17,18,19,20,21 and 22	18
Total Theory (Term-I and Term-II)		70

TERM-I

AUGUST   16.7%

Unit I: Diversity of Living Organisms (contd.)

Ch-4-Animal Kingdom (contd.): Classification of animals- Chordates up to classes level (salient features and distinguishing features of a few examples of each category).

Unit II: Structural Organisation in Animals and Plants

Ch-5-Morphology of Flowering Plants: Morphology of inflorescence and flower; Description of one family: Solanaceae or Liliaceae.

Ch-7-Structural Organisation in Animals: Animal tissues.

Unit III: Cell Structure and Functions

Ch-8-Cell-The Unit of Life: Cell theory and cell as the basic unit of life; Structure of prokaryotic and eukaryotic cells; Plant cell and animal cell; Cell envelop; cell membrane; cell wall.

SEPTEMBER   8.3%

Unit III: Cell Structure and Functions (contd.)

Ch-8-Cell-The Unit of Life (contd.): Cell organelles- structure and function; Endo membrane system; Endoplasmic reticulum, Golgi bodies, Lysosomes, Vacuoles, Mitochondria, Ribosomes, Plastids; Microbodies, Cytoskeleton, Cilia, Flagella, Centrioles(ultrastructure and function); Nucleus.

Ch-9-Biomolecules: Chemical constituents of living cells; Biomolecules, structure and function of proteins, carbohydrates, lipids, nucleic acids; Concept of Metabolism; enzymes- properties, enzyme action, factors, classification, co-factors.

TERM-II

OCTOBER   11.1%

Unit III: Cell Structure and Functions (contd.)

Ch-10-Cell Cycle and Cell Division: Cell cycle, mitosis, meiosis and its significance.

Unit IV: Plant Physiology

Ch-13-Photosynthesis in Higher Plants: Photosynthesis as a mean of autotrophic nutrition; site of photosynthesis; pigments involved in photosynthesis (elementary idea); photochemical and biosynthetic phases of photosynthesis; cyclic and noncyclic photophosphorylation, Chemiosmotic hypothesis; photorespiration; C3 and C4 pathways; factor affecting photosynthesis.

NOVEMBER   13.8%

Unit IV: Plant Physiology (contd.)

Ch-14-Cellular Respiration: Exchange of gases; cellular respiration- glycolysis; fermentation (anaerobic); TCA cycle and electron transport system (aerobic); energy

relations- number of ATP molecules generated; amphibolic pathways; respiratory quotients.

Ch-15-Plant- Growth and development: Growth regulators auxins, gibberellin, cytokinin, ethylene, ABA.

UNIT V: Human Physiology

Ch-17-Breathing and Exchange of Gases: Respiratory organs in animals (recall only) Respiratory system in humans; mechanism of breathing and its regulation in humans - exchange of gases.

DECEMBER   13.8%

UNIT V: Human Physiology (contd.)

Ch-17-Breathing and Exchange of Gases (contd.): Transport of gases and regulation of respiration; respiratory volume; disorder related to respiration- asthma, emphysema; occupational respiratory disorder.

Ch-18-Body Fluids and Circulation: Composition of blood; blood groups; coagulation of blood; composition of lymph and its function; human circulatory system, Structure of human heart and blood vessel; cardiac cycle; cardiac output; ECG; double circulation; regulation of cardiac activity; disorder of circulatory system-- hypertension, coronary artery diseases, angina pectoris, heart failure.

Ch-19-Excretory Products and their elimination: Modes of excretion- ammonotelism, ureotelism, uricotelism; human excretory system structure and function; urine formation, osmoregulation; regulation of kidney function- rennin-angiotensin; Atrial natriuretic factor, ADH and diabetes insipidus; role of other organs in excretion; Disorders- uremia, renal failure, renal calculi, nephritis, dialysis and artificial kidney.

JANUARY   13.8%

UNIT V: Human Physiology (contd.)

Ch-20-Locomotion and Movement: Skeletal muscle contractile protein and muscle contraction.

Ch-21-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.

Ch-22-Chemical Coordination and Integration: Endocrine glands and hormones; 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, goiter, exopthalmic goiter, diabetes, Addision's disease (in brief).

FEBRUARY

UNIT V: Human Physiology (contd.)   2.75%

Ch-22-Chemical Coordination and Integration (contd.) : Role of hormones as messengers and regulators, hypo and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exopthalmic goiter, diabetes, Addision's disease (in brief).

PRACTICALS: Evaluation Scheme and List of Experiments

Max. Marks: 15 for each term

Evaluation Scheme			
	TERM-I	**TERM-II**	**MARKS**
PART-A			
One Major experiment	Experiment-1	Experiment-3,4	4
One Minor experiment	Experiment-2	Experiment-5,6,7	3
PART-B			
Spotting (3 spots of 1 mark each)	B-1,2,3	B-4,5	3
Practical Record + Investigatory Project + Viva Voice			5
Total			**15**

A: List of Experiments

TERM-I

1. Study and describe three locally available common flowering plants, from any one family Solanaceaeor Liliaceae (Poaceae, Asteraceae or Brassicaceae can be substituted in case of particular geographical location) including dissection and display of floral whorls, anther and ovary to show number of chambers (floral formulae and floral diagrams).

2. Study of osmosis by potato osmometer.

TERM-II

3. Separation of plant pigments through paper chromatography.

4. Study of distribution of stomata in the upper and lower surfaces of leaves.

5. Study of the rate of respiration in flower buds/leaf tissue and germinating seeds.

6. Test for presence of sugar in urine.

7. Test for presence of albumin in urine.

B. Careful observation of the following (spotting):

TERM-I

1. Parts of a compound microscope.

2. Specimens/slides/models and identification with reasons - Bacteria, Oscillatoria, Spirogyra, Rhizopus, mushroom, yeast, liverwort, moss, fern, pine, one monocotyledonous plant, one dicotyledonous plant and one lichen.

3. Virtual specimens/slides/models and identifying features of - Amoeba, Hydra, liverfluke, Ascaris, leech, earthworm, prawn, silkworm, honeybee, snail, starfish, shark, rohu, frog, lizard, pigeon and rabbit.

TERM-II

4. Tissues and diversity in shape and size of animal cells (squamous epithelium, smooth, skeletal and cardiac muscle fibers and mammalian blood smear) through temporary/permanent slides.

5. Mitosis in onion root tip cells and animals cells (grasshopper) from permanent slides.

SYLLABUS 2021 - 2022

CLASS	XI
NAME OF THE SUBJECT	Computer Science
TEXT BOOKS	Computer science, NCERT class XI
REFERENCE BOOKS	"Computer science", by Preeti Arora (Sultan Chand Publication), class XI

SYLLABUS:

S. N	UNIT / CHAPTER	DISTRIBUTION OF MARKS
1	Computer Systems and Organisation	10
2	Computational Thinking and Programming - 1	45
3	Society, Law and Ethics	15

TERM-I

MONTH: AUGUST 2021	PERCENTAGE OF SYLLABUS COVERED: 15 %

UNIT II: Familiarization with the basics of Python programming: Introduction to Python, features of Python, executing a simple "hello world" program, execution modes: interactive mode and script mode, Python character set, Python tokens (keyword, identifier, literal, operator, punctuator), variables, concept of l-value and r-value, use of comments
● Knowledge of data types: number (integer, floating point, complex), boolean, sequence (string, list, tuple), none, mapping (dictionary), mutable and immutable data types
● Operators: arithmetic operators, relational operators, logical operators, assignment operator, augmented assignment operators, identity operators (is, is not), membership operators (in, not in)
● Expressions, statement, type conversion & input/output: precedence of operators, expression, evaluation of expression, python statement, type conversion (explicit & implicit conversion), accepting data as input from the console and displaying output
● Errors: syntax errors, logical errors, runtime errors
● Flow of control: introduction, use of indentation, sequential flow, conditional and iterative flow control
● Conditional statements: if, if-else, if-elif-else, flowcharts, simple programs: e.g.: absolute value, sort 3 numbers and divisibility of a number

MONTH: SEPTEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 15 %

• Iterative statements: for loop, range function, while loop, flowcharts, break and continue statements, nested loops, suggested programs: generating pattern, summation of series, finding the factorial of a positive number etc
● Strings: introduction, indexing, string operations (concatenation, repetition, membership & slicing), traversing a string using loops, built-in functions: len(), capitalize(), title(), lower(), upper(), count(), find(), index(), endswith(), startswith(), isalnum(), isalpha(), isdigit(), islower(), isupper(), isspace(), lstrip(), rstrip(), strip(), replace(), join(), partition(), split()

TERM-II

MONTH: OCTOBER 2021	PERCENTAGE OF SYLLABUS COVERED: 20 %

Unit II: Computational Thinking and Programming – 1
● Lists: introduction, indexing, list operations (concatenation, repetition, membership & slicing), traversing a list using loops, built-in functions: len(), list(), append(), extend(), insert(), count(), index(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum(); nested lists, suggested programs: finding the maximum, minimum, mean of numeric values stored in a list; linear search on list of numbers and counting the frequency of elements in a list
● Tuples: introduction, indexing, tuple operations (concatenation, repetition, membership & slicing), built-in functions: len(), tuple(), count(), index(), sorted(), min(), max(), sum(); tuple assignment, nested tuple, suggested programs: finding the minimum, maximum, mean of values stored in a tuple; linear search on a tuple of numbers, counting the frequency of elements in a tuple

MONTH: NOVEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 20 %

Unit II: Computational Thinking and Programming – 1

● Dictionary: introduction, accessing items in a dictionary using keys, mutability of dictionary (adding a new item, modifying an existing item), traversing a dictionary, built-in functions: len(), dict(), keys(), values(), items(), get(), update(), del(), clear(), fromkeys(), copy(), pop(), popitem(), setdefault(), max(), min(), count(), sorted(), copy(); suggested programs : count the number of times a character appears in a given string using a dictionary, create a dictionary with names of employees, their salary and access them
● Introduction to Python modules: Importing module using 'import <module>' and using from statement, Importing math module (pi, e, sqrt, ceil, floor, pow, fabs, sin, cos, tan); random module (random, randint, randrange), statistics module (mean, median, mode)

MONTH: DECEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 10 %

Unit III: Society, Law and Ethics
● Digital Footprints
● Digital society and Netizen: net etiquettes, communication etiquettes, social media etiquettes
● Data protection: Intellectual Property Right (copyright, patent, trademark), violation of IPR (plagiarism, copyright infringement, trademark infringement), open source softwares and licensing (Creative Commons, GPL and Apache)
● Cyber-crime: definition, hacking, eavesdropping, phishing and fraud emails, ransomware, preventing cyber crime
● Cyber safety: safely browsing the web, identity protection, confidentiality, cyber trolls and bullying.
● Safely accessing web sites: malware, viruses, Trojans, adware
● E-waste management: proper disposal of used electronic gadgets
● Indian Information Technology Act (IT Act)
● Technology & Society: Gender and disability issues while teaching and using computers

MONTH: JANUARY 2022	PERCENTAGE OF SYLLABUS COVERED: _____ %
Revision	
MONTH: FEBRUARY 2022	PERCENTAGE OF SYLLABUS COVERED: _____ %
Revision	

<table>
<tr><td colspan="2" align="center">**SYLLABUS 2021 - 2022**</td></tr>
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CLASS	XI
NAME OF THE SUBJECT	Informatics practices
TEXT BOOKS	Informatics Practices, NCERT class XI
REFERENCE BOOKS	"Informatics Practices", by Preeti Arora (Sultan Chand Publication), class XI

SYLLABUS:

S. N	UNIT / CHAPTER	DISTRIBUTION OF MARKS
1	Introduction to computer system	10
2	Introduction to Python	25
3	Database concepts and the Structured Query Language	30
4	Introduction to Emerging Trends	5

Term-I

MONTH: AUGUST 2021	PERCENTAGE OF SYLLABUS COVERED: 15 %
Unit 2: Introduction to Python ● Dictionary: concept of key-value pair, creating, initializing, traversing, updating and deleting elements, dictionary methods	

MONTH: SEPTEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 20 %
Unit 2: Dictionary: built-in functions: len(), dict(), keys(), values(), items(), get(), update(), clear(), del()	

Term-II

MONTH: OCTOBER 2021	PERCENTAGE OF SYLLABUS COVERED: 20 %
Unit 3: Database concepts and the Structured Query Language ● Database Concepts: Introduction to database concepts and its need, Database Management System. Relational data model: concept of attribute, domain, tuple, relation, candidate key, primary key, alternate key, foreign key. ● Structured Query Language: Data Definition Language, Data Query Language and Data Manipulation Language, Introduction to MySQL: Creating a database, using database, showing tables using MySQL, ● Data Types : char, varchar, int, float, date.	

MONTH: NOVEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 20 %
Unit 3: Data Definition Commands: CREATE, DROP, ALTER (Add and Remove primary key, attribute).	

Data Query Commands: SELECT-FROM- WHERE, LIKE, BETWEEN, IN, ORDER BY, using arithmetic, logical, relational operators and NULL values in queries, Distinct clause Data Manipulation Commands: INSERT, UPDATE, DELETE

MONTH: DECEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 10 %
Unit 4: Introduction to the Emerging Trends ● Artificial Intelligence, Machine Learning, Natural Language Processing, ● Immersive experience (AR, VR), Robotics ● Big data and its characteristics, Internet of Things (IoT), Sensors, Smart cities, ● Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); ● Grid Computing, Block chain technology.	

MONTH: JANUARY 2022	PERCENTAGE OF SYLLABUS COVERED: _____ %
Revision	

MONTH: FEBRUARY 2022	PERCENTAGE OF SYLLABUS COVERED: _____ %
Revision	

SYLLABUS 2021 - 2022	
CLASS	XI
NAME OF THE SUBJECT	ECONOMICS
TEXT BOOKS	1. Statistics for Economics by Sandeep Garg 2. Statistics for Economics, NCERT 3. Introduction to Micro Economics, NCERT (New Edition) 4. Introductory Micro Economics, Sandeep Garg (New Edition)
REFERENCE BOOKS	1. Statistics for Economics, V.K. Ohri 2. Introductory Micro Economics, V.K.Ohri (New Edition)

Units	TERM 1 - MCQ BASED QUESTION PAPER Theory: 40 Marks Time: 90 minutes	Marks
Part A	**Statistics for Economics**	
	Introduction	4
	Collection, Organisation and Presentation of Data	9
	Statistical Tools and Interpretation – Arithmetic Mean, Median and Mode	10
	Sub Total	23
Part B	**Introductory Microeconomics**	
	Introduction	4
	Consumer's Equilibrium and Demand	13
	Sub Total	17
	Total	40 marks
Part C	Project Work (Part 1): 10 Marks	

Term 1

MONTH: AUGUST 2021	PERCENTAGE OF SYLLABUS COVERED: 20 %
Unit 2(Microeconomics): Consumer's Equilibrium and Demand	

Unit 2(Microeconomics): Consumer's Equilibrium and Demand
   Demand, market demand, determinants of demand, demand schedule, demand curve, movement along and shifts in the demand curve; price elasticity of demand - factors affecting price elasticity of demand; measurement of price elasticity of demand - (a) percentage-change method

Unit 2 (Statistics)
Presentation of Data
Tabular presentation and diagrammatic presentation of data:
   i.   Geometric forms (bar diagrams and pie diagrams)

   ii.   Frequency distributions (histogram, polygon and ogives)

   iii.   Arithmetic line graphs (time series graph)

   Project Work

MONTH: SEPTEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 5 %
UNIT 3 (Statistics): Statistical tools and interpretation **Measures of Central Tendency** Arithmetic Mean (simple and weighted). Median and mode.	

Units	TERM 2 - SUBJECTIVE QUESTION PAPER Theory: 40 Marks Time: 2 Hours	Marks
Part A	**Statistics for Economics**	
	Statistical Tools and Interpretation – Measures of Dispersion, Correlation, Index Number	17
	Sub Total	**17**
Part B	**Introductory Microeconomics**	
	Producer Behaviour and Supply	13
	Forms of Market and Price Determination under perfect competition with simple applications	10
	Sub Total	**23**
	Total	**40 marks**
Part C	**Project Work (Part 2): 10 Marks**	

Term 2

MONTH: OCTOBER 2021	PERCENTAGE OF SYLLABUS COVERED: 10 %
Unit 3(Microeconomics): Supply Market supply, determinants of supply, supply schedule, supply curve, movements along and shifts in supply curve. Price elasticity of supply; Measurement of price elasticity of supply-percentage-change method	

MONTH: NOVEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 10 %

Measures of Dispersion
    Absolute dispersion (standard deviation);
    Relative dispersion (coefficients of standard deviation and variance respectively);	

MONTH: DECEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 15 %

Unit 3(Microeconomics): Producer Behavior and Supply

Production function: Total Product, Average Product and Marginal Product. Short run Returns to a Factor.

Cost and Revenue: Short run costs - total cost, total fixed cost, total variable cost; Average fixed cost, average variable cost and marginal cost-meaning and their relationship.

Revenue - total, average and marginal revenue.

Project Work

MONTH: JANUARY 2022	PERCENTAGE OF SYLLABUS COVERED: 10 %

Unit 4 (Microeconomics): Forms of Market and Price Determination under Perfect Competition with simple applications: Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply.. Simple Applications of tools of Demand and Supply: Price ceiling, price floor.

Unit 3 (Statistics)

Correlation
Meaning, scatter diagrams, measures of correlation – Karl Pearson's method (two variables ungrouped data),

MONTH: FEBRUARY 2022	PERCENTAGE OF SYLLABUS COVERED: 5 %

Unit 3 (Statistics)
Introduction to Index Numbers - meaning, types - wholesale price index, consumer price index and index of industrial production, uses of index numbers; Inflation and index numbers.

Revision

SYLLABUS 2021 – 2022	
CLASS	XI
NAME OF THE SUBJECT	ACCOUNTANCY
TEXT BOOKS	ACCOUNTANCY-NCERT
REFERENCE BOOKS	D.K.GOEL

SYLLABUS:

S. NO.	UNIT / CHAPTER	DISTRIBUTION OF MARKS
	TERM – 1 (MCQ BASED QUESTION PAPER) **THEORY :40 MARKS TIME: 90 minutes**	**MARKS**
1	**Part A: FINANCIAL ACCOUNTING-I** **UNIT 1** **THEORETICAL FRAMEWORK:** INTRODUCTION TO ACCOUNTING THEORY BASE OF ACCOUNTING	12
2	**UNIT 2** **ACCOUNTING PROCESS:** RECORDING OF BUSINESS TRANSACTIONS, BANK RECONCILIATION STATEMENT, DEPRECIATION, PROVISIONS AND RESERVES	28
	TOTAL	**40**
	Project Work (Part -1): 10 Marks	
	TERM II **Theory: 40 Marks**	**MARKS**
	Part A	
3	**UNIT 2** **ACCOUNTING PROCESS:** ACCOUNTING FOR BILLS OF EXCHANGE TRIAL BALANCE AND RECTIFICATION OF ERRORS	12
	Part B: FINANCIAL ACCOUNTING-II	
4	**UNIT 3** FINANCIAL STATEMENTS OF SOLE PROPRIETORSHIP FROM COMPLETE AND INCOMPLETE RECORDS	20
5	**UNIT 4** COMPUTERS IN ACCOUNTING	8
	TOTAL	**40**
	PROJECT (PART – 2): 10 MARKS	

MONTH: AUGUST 2021	PERCENTAGE OF SYLLABUS COVERED: 15 %

Unit 2: Accounting Process and Special Accounting Treatment

- Origin of transactions- source documents (invoice, cash memo, pay in slip, cheque), preparation of vouchers - cash (debit and credit) and non cash (transfer).
- Ledger - format, posting from journal, cash book and other special purpose books, balancing of accounts.
  - Trial balance: objectives and preparation (Scope: Trial Balance with balance method only)

- Cash Book: Simple Cash Book, Cash Book with Discount Column and Cash Book with Bank and Discount Columns, Petty Cash Book.
- Other books: purchases book, sales book, purchases returns book, sales returns book and journal proper.

Note: including simple GST calculations

PROJECT WORK

Comprehensive project starting with journal entries regarding any sole proprietorship business, ledger and trail balance

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MONTH: SEPTEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 5 %

- Preparation of Bank Reconciliation Statement :need and preparation.

Depreciation, Provisions and Reserves

- Depreciation: concept need and factors affecting depreciation; methods of computation of depreciation: straight line method, written down value method (excluding change in method), Accounting treatment of depreciation

  i. Charging to asset account

  ii. Creating provision for depreciation/accumulated depreciationaccount

- Provisions and reserves: concept, objectives and difference between provisions and reserves; types of reserves- revenue reserve, capital reserve, general reserve and specific reserves.

MONTH: OCTOBER 2021	PERCENTAGE OF SYLLABUS COVERED: 10 %

Accounting for Bills of Exchange

- Bills of exchange and promissory note: definition, features, parties, specimen and distinction.
- Important terms : term of bill, due date, days of grace, date of maturity, discounting of bill, endorsement of bill, bill sent for collection, dishonour of bill, noting of bill , Accounting treatment of bill transactions.

MONTH: NOVEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 10 %

Rectification of Errors

- Errors: types-errors of omission, commission, principles, and compensating; their effect on Trial Balance.
- Detection and rectification of errors; preparation of suspense account.

MONTH: DECEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 15 %

Part B: Financial Accounting :

Unit 3: Financial Statements of Sole Proprietorship: From Complete and Incomplete Records

- Financial Statements: objective and importance.
- Profit and loss account: gross profit, operating profit and net profit.
- Balance Sheet: need, grouping, marshalling of assets and liabilities.

- Adjustments in preparation of financial statements : with respect to closing stock, outstanding expenses, prepaid expenses, accrued income, income received in advance, depreciation, bad debts, provision for doubtful debts, provision for discount on debtors, manager's commission,abnormal loss, goods taken for personal use and goods distributed as free samples.
- Preparation of Trading and Profit and Loss Account and Balance Sheet of sole proprietorship.

MONTH: JANUARY 2022	PERCENTAGE OF SYLLABUS COVERED: 5 %

Financial Statements of Sole Proprietorship: Remaining part
Incomplete records
use and limitations. Ascertainment of profit/loss by statement of affairs method

MONTH: FEBRUARY 2022	PERCENTAGE OF SYLLABUS COVERED: 10%

Unit 5: Computers in Accounting
Introduction to computer and accounting information system {AIS}: Introduction to computers (elements, capabilities, limitationsof computer system)
Project Work
Comprehensive project preparing financial statements

CLASS	XI
NAME OF THE SUBJECT	BUSINESS STUDIES
TEXT BOOKS	Business studies - XI- NCERT
REFERENCE BOOKS	--------

SYLLABUS:

S. NO.	UNIT / CHAPTER	DISTRIBUTION OF MARKS
	TERM I **Part A: Foundations of Business** 1. Nature and Purpose of Business 2. Forms of Business Organisations 3. Public, Private and Global Enterprises 4. Business Services 5. Emerging Modes of Business 6. Social Responsibility of Business and Business Ethics 7. Project work	 16 14 10 10
		50
	TERM- II **Part B: Finance and Trade** 7. Sources of Business Finance 8. Small Business 9. Internal Trade 10. International Business 11. Project Work	 20 20 10
	Total	50

MONTH: AUGUST 2021	PERCENTAGE OF SYLLABUS COVERED: 28 %

Public, Private and Global Enterprises
• Private sector and public sector enterprises.
• Forms of public sector enterprises: features, merits and limitations of departmental undertakings, statutory corporation and Government Company.

BUSINESS SERVICE
• Meaning and types
• Banking: Types of bank accounts- savings, current, recurring, fixed deposit and multiple option deposit account
• Banking services with particular reference to issue of bank draft, banker's cheque (pay order), bank overdraft, cash credits and e- banking. Types of digital payments
BUSINESS SERVICE
• Insurance: principles, concept of life, health, fire and marine insurance.

Emerging Modes of Business
• E-business – Concept, scope and benefits

MONTH: SEPTEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 16 %

Social Responsibility of Business and Business Ethics
• Concept of social responsibility
• Case for social responsibility
• Responsibility towards owners, investors, consumers, employees, government and community
• Environment protection - role of business.
Project work

TERM -II

MONTH: OCTOBER 2021	PERCENTAGE OF SYLLABUS COVERED: 5 %

Sources of Business Finance
• Concept of business finance
• Owner's funds - equity shares, preference share, GDR, ADR, IDR and retained earnings -concept.

MONTH: NOVEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 15%

Sources of Business Finance
• Borrowed funds: debentures and bonds, loan from financial institution, loans from commercial banks, public deposits, trade credit, ICD (inter corporate deposits).
Small Business
  • Entrepreneurship Development (ED): Concept, Characteristics and Need Process Entrepreneurship Development: Start-up India Scheme, ways to fund start-up
       Intellectual Property Rights and Entrepreneurship
• Small scale enterprise as defined by MSMED Act 2006 (Micro, Small and Medium Enterprise Development Act).
• Role of small business in India with special reference to rural areas.
• Government schemes and agencies for small scale industries: (National Small Industries Corporation) and DIC (District Industrial Centre) with special reference to rural, backward and
hilly areas.

MONTH: DECEMBER 2021	PERCENTAGE OF SYLLABUS COVERED: 20 %

 Internal Trade

Internal trade - meaning and types
• Services rendered by a wholesaler and a retailer
• Large scale retailers - Departmental stores, chain store
Project Work

MONTH: JANUARY 2022	PERCENTAGE OF SYLLABUS COVERED: 10%
International Trade • Meaning, difference between internal trade and external trade: Meaning and characteristics of international trade.	

MONTH: FEBRUARY 2022	PERCENTAGE OF SYLLABUS COVERED:
REVISION WORK	