TAPOVAN INTERNATIONAL SCHOOL

YEARLY SYLLABUS 2025-26

SUBJECT: English (301) **Class: XII**

Sr.No.	Month	No.of Working Days	No. & Name of the Chapters / Lessons	Content / Sub Topics	Experiments / Activities
1	**APRIL**	22	**FLAMINGO** 1.The Last Lesson	● Infringement on the rights of people to speak a language of their choice. ● Know the meanings of new phrases ● Understand the wastefulness of war ● Understand linguistic chauvinism. ● Prussia conquering two districts of France.	Assignment on linguistic human rights.
			1. My mother at Sixty Six (Poem) .	● Kamala Das' fear of her mother getting old , frustration ● Read the poem with proper expressions, pauses and voice modulation. ● Understand and find out the figures of speech in the poem. ● Understand the pain and agony of separation from loved ones.	Prepare a list of figures of speech
			Writing Skills Notice Writing	● Drafting of notice: Essentials of notice ● Types of Notice and its importance	Topics for Notice Writing will be given

2	**JUNE**	23	**VISTAS** 1. Third Level **FLAMINGO** 2.Lost Spring 2. Keeping quiet (Poem)	• Discussion of the plot and stories based on science fantasies • Description of the third level and its importance • Characters of the story • Understand the central theme and story line. • Importance of childhood • Discussion of lives of children in slum areas. • Research on the rights and laws related to child labor and child education in India. • Author exhorting people to introspect about their lives. • Understand the critical appreciation of the poem based on rhyme, content and theme. • Understand the importance of 'Keeping Quiet'.	Find out What is Escapism? Write an article on it. Research on Laws related to Right to Education of children in India Make a list of Figures of Speech
3	**JULY**	26	**FLAMINGO** 3. Deep Water 4. The Rattrap **VISTAS** 2. The Tiger King 3. Journey to the Centre of Earth	• Phobia and its types. • Incidents faced by Douglas • How he overcame his fears • His Achievements • A tramp's Philosophy of life. • How he becomes a good human when love and compassion are shown by the daughter of Iron Master. • Judgmental nature of society will be discussed. • Significance of the title • Astrological prediction • Discussion of the Characters and incidents of the story • Ironical end and justification of the title. • Expedition to Antarctica by a chosen group of students. • Description of the scenery of Antarctica witnessed by	Read more about Douglas. Write a different ending of the story according to your imagination and creativity. Develop one story based on prediction. Videos on the expeditions in Antarctica

				the author ● Human impact on Antarctica	UT-1 (14th July to 18th July)
4	**AUGUST**	18	**Writing Skills** Formal and Informal Invitation **VISTAS** 4. The Enemy **FLAMINGO** 5. Indigo 3. A Thing of Beauty (Poem) **Assessment of listening (ASL)**	● Format of formal and informal invitation. ● How the content differs in various types. ● A story based on a Japanese doctor and his saving of an American soldier during second world- war. ● Mindsets of enemy countries, their soldiers and citizens. ● First civil disobedience Movement in Champaran ● Gandhiji's role in Satyagraha movement. ● Role of Indigo in the freedom struggle. ● Definition of beauty ● What is beauty? ● Beauty in nature and beauty in patriotism ● Listening task to assess the listening skill of students	Exercise on invitations A discussion on parental dominance on children. Video on Champaran episode Write your definition of "Beauty"
5	**SEPTEMBER**	25	**FLAMINGO** 6. Poets and Pancakes 7. The Interview	● Discussion of old cinema and studios ● Relevance of pancakes ● Cinema during pre-independence and post independence. ● Humorous and ideological depiction of Gemini Studios in Madras. ● What is an interview? ● Interview of Umberto Eco ● Interviews of famous personalities and their opinions	Video of the Gemini studio and pancake as a brand will be shown Interviews of famous personalities will be shown.

				on 'Interviews'	
			Writing Skills Report Writing Article Writing	• Format of Report Writing • Explanation of the content to be added • Significance of Reporting • Format of Article Writing • Explanation of the structure of article writing and main points to be included.	Topics for practice will be given. Topics for practice will be given.
6	**OCTOBER**	12	**FLAMINGO** 8. Going Places 4. A Roadside Stand (Poem) 5. Aunt Jennifer's Tigers (Poem) **Writing Skills** Letter Writing	• Fantasy of youth- hero worship. • Teenage fantasies will be discussed. • Description of characters of the chapter. • What is a roadside stand? • Importance of a roadside stand in the lives of villagers • Expectations of the owner • Life of Aunt Jennifer • Significance of the tigers • Marital conditions of Aunt Jennifer • Job application • Letter to the Editor	Write a paragraph on any fantasy that you have. Half-Yearly Exam (12^{th} Sept.to 22^{nd} Sept.) Write down the figures of speech used in the poems. Letters of all types will be given for practice.
7	**NOVEMBER**	22	**VISTAS** 5. On the Face of it 6. Childhood Memories	• Two deformed people meet. • The elder one influences the young one to change his mentality. • Optimism and pessimism in life of both the characters and their impact on them. • Memories of childhood by two women belonging to marginalized groups. • Untouchability and its ill effects during post	Character Sketches of Derry and Mr.Lamb

			Revision	independence. Revision of Article writing, Report Writing and Notice writing	Topics will be given for practice
8	**DECEMBER**	25	Revision:	Revision of chapters and poems from Flamingo.	Revision sheet UT-2 (1st Dec.to 5th Dec.) Pre-Board-1(20th Dec. to 29th Dec.)
9	**JANUARY**	17	Revision	Revision of chapter from Vistas	Revision sheet Pre-Board-2 (19th Jan to 29th Jan.)
10	**FEBRUARY**	23	PROJECT	Conduction of -VIVA	
11	**MARCH**	10	Board Exam		

NAME OF THE TEACHER: Ms. Kalpana Trivedi

TAPOVAN INTERNATIONAL SCHOOL
YEARLY SYLLABUS 2025-2026

SUBJECT: Chemistry (043) Class:XII

Sr. No.	Month	No.of Working Days	No. & Name of the Chapter / Lesson	Content / Subtopics	Activities
1	April	22	1)Solution 6)Haloalkanes and Haloarenes	• Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, Raoult's law, colligative properties - relative lowering of vapour pressure, elevation of boiling point, depression of freezing point, osmotic pressure, determination of molecular masses using colligative properties, abnormal molecular mass, Van't Hoff factor. • **Haloalkanes**: Nomenclature, nature of C–X bond, physical and chemical properties, optical rotation mechanism of substitution reactions. • **Haloarenes**: Nature of C–X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only). Uses and environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT.	Volumetric Analysis KMnO4 vs. Mohr's Salt Solution. Volumetric Analysis KMnO4 vs. Oxalic Acid Solution. Activity 1 : to be done in the lab reaction of Cu2+ and NH4OH to form a colored complex . • Tests for ammonia. Activity 2 : to be done in the lab reaction of Nesseler's reagent and NH3 to give a brown precipitate.
3	June	23	2)Electrochemistry Alcohols, Phenols and Ethers	• Redox reactions, EMF of a cell, standard electrode potential, Nernst equation and its application to chemical cells, Relation between Gibbs energy change and EMF of a cell, conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity with concentration, Kohlrausch's Law, electrolysis and law of electrolysis (elementary idea), dry cell-electrolytic cells and Galvanic cells, lead accumulator, fuel cells, corrosion. • Classification, Nomenclature, Structures of functional groups, Alcohols and Phenols, Some commercially important, Alcohols, EthersChemical reactions, Uses of carboxylic acids.	Teacher will demonstrate and the students will perform the following identifying tests (chemical reactions) under qualitative analysis to study the properties of the compounds. (i) Chromyl chloride test (ii) Nesseler's reagent test Salt analysis for detection of Mn2+, Zn2+, Cr3+, Co2+, Ni2+ etc. ion

3	July	26	4)d and f block elements	● General introduction, electronic configuration, occurrence and characteristics of transition metals, general trends in properties of the first row transition metals – metallic character, ionization enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic properties, interstitial compounds, alloy formation, preparation and properties of K2Cr2O7 and KMnO4. Lanthanoids - Electronic configuration, oxidation states, chemical reactivity and lanthanoid contraction and its consequences. Actinides - Electronic configuration, oxidation states and comparison with lanthanide.	□ Qualitative Inorganic analysis □ draw the resonating structure of haloarenes
4	Aug	18	5) coordination compounds 3) Chemical Kinetics	● Coordination compounds - Introduction, ligands, coordination number, colour, magnetic properties and shapes, IUPAC nomenclature of mononuclear coordination compounds. Bonding, Werner's theory, VBT, and CFT; structure and stereoisomerism, importance of coordination compounds (in qualitative analysis, extraction of metals and biological system). ● Rate of a reaction (Average and instantaneous), factors affecting rate of reaction: concentration, temperature, catalyst; order and molecularity of a reaction, rate law and specific rate constant, integrated rate equations and half-life (only for zero and first order reactions), concept of collision theory (elementary idea, no mathematical treatment), activation energy, Arrhenius equation.	Qualitative Inorganic analysis Detection 0f alcoholic and phenolic groups in the given organic compound
5	Sep	25	8) Aldehydes, Ketones and carboxylic acids	● Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties, mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes, uses. Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses	Preparation of lyophilic and lyophobic sol : starch , Fe(OH)3 and Al(OH)3
6	Oct	12	9) Amines	● Amines: Nomenclature, classification, structure, methods of preparation, physical and chemical properties, uses, identification of primary, secondary and tertiary amines. ● Diazonium salts: Preparation, chemical reactions and importance in synthetic organic chemistry.	Presentation (video on packing in solids)
7	Nov	22	10) Biomolecules	● Carbohydrates - Classification (aldoses and ketoses), monosaccharides (glucose and fructose), D-L configuration oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen); Importance of carbohydratesProteins -Elementary idea of - amino acids, peptide bond, polypeptides, proteins, structure of proteins - primary, secondary, tertiary structure and quaternary structures (qualitative idea only), denaturation of proteins; enzymes. Hormones - Elementary idea excluding structure. Vitamins - Classification and functions. Nucleic Acids: DNA and RNA.	Functional group detection

8	Dec	25	**Revision**	**Revision**	Revision of Practicals
9	Jan	17	**Revision**	**Preboard**	
10	Feb	23		**AISSCE Practical Exam**	
11	March	10		**BOARD Exam**	

Name of the Teacher: GAURANG

TAPOVAN INTERNATIONAL SCHOOL
YEARLY SYLLABUS 2025-26

SUBJECT: BIOLOGY (044) **CLASS: XII**

Sr. No.	Month	No. of working Days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Experiments / Activities
1	April	22	**1.Sexual reproduction in flowering plants**	Flower, pre fertilization structure and events ,stamen, microsporangium ,pollen grains, structure of anther, structure of microsporangium ,microsporogenesis ,pollen grains, pollen products, pollen allergy, male gametophyte, pistil megasporangium, embryo sac, structure of ovule, female gametophyte, forms of ovule, pollination ,contrivances for pollination, cross pollination, characteristics of flowers, outbreeding de vices , pollen pistil interaction ,fertilization ,post fertilization events, seed and fruit , incompatibility, Apomixis and polyembryony	Prepare a temporary mount to observe pollen germination. Different agents of pollination. Controlled Pollination: emasculation, bagging and tagging To study slides of Blastula T.S., Testis T.S., Ovary T.S.
			2.Human Reproduction	The male reproduction system, Spermatogenesis, the female reproduction system, oogenesis, menstrual cycle, fertilization, embryo development up to blastocyst formation, implantation. Pregnancy and placenta formation, parturition and lactation.	Worksheets (CBQ, NCERT EXEMPLAR, PBYQ)/Resource sheets/power point Presentation.
			3.Reproductive health	Reproductive health – problems and strategies Population explosion and birth rate MTP, STDs, Infertility (ART).	To make a temporary slide of onion root tip to study mitosis.

3	**June**	**23**	**4.Principles of inheritance and variation**	Important terms, laws of inheritance, characters (7) and monohybrid cross and dihybrid cross. Mendel's laws of inheritance, inheritance of one and two genes, Test cross, back cross, Incomplete dominance, co-dominance, multiple alleles, sex determination, Linkage and recombination, Morgan experiments, mutation, genetic disorders (Mendelian disorder & chromosomal disorders).	Study of Mendelian inheritance pattern using beads/seeds of different sizes/texture. To study Pedigree Charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak colour blindness
4	**July**	**26**	**5.Molecular basis of inheritance** **6. Evolution**	The DNA, RNA, replication, central dogma, transcription, genetic code, translation, Regulation of gene expression, Genome, Human and rice genome projects and DNA fingerprinting. Origin of life, biological evolution and evidences for biological evolution; adaptive radiation; biological evolution, Lamarck's theory of use and disuse of organs, Darwin theory of evolution; mechanism of evolution-variation and natural selection with examples, types of natural selection, gene flow and genetic drift, Hardy-Weinberg's principle; brief account of evolution; human evolution.	Isolation of DNA from vegetables Worksheets (CBQ, NCERT EXEMPLAR, PBYQ)/Resource sheets/power point Presentation. To study homologous and analogous organs.
5	**August**	**18**	**7.Human health and diseases** **8.Microbes in human welfare**	Common diseases in humans -malaria (life cycle of plasmodium) dengue, chikungunya, filariasis, ascariasis, typhoid, pneumonia, common cold, amoebiasis, ring worm and their control, basic concepts of immunology-vaccines, cancer, AIDS, adolescence, Drugs and Alcohol Abuse. Microbes in household products in, in industrial product, sewage treatment, production of biogas, bio control agents and bio fertilizers.	To study the common disease-causing organisms by observing specimens and slides. Worksheets (CBQ, NCERT EXEMPLAR, PBYQ)/Resource sheets/power point Presentation.
6	**September**	**25**	**9.Biotechnology: Principles and processes**	Genetic engineering, Tools, Restriction enzymes, Electrophoresis, cloning vectors, rDNA tech, PCR, Bioreactor and Downstream processing.	.

7	**October**	**12**	**10.Biotechnology and its applications** **11.organisms and populations**	Application in Agriculture and health, Insulin, gene therapy, molecular diagnosis, Transgenic animals, biosafety issues, bio piracy, patents and ethical issues Organism and its environment: major abiotic factors, responses to abiotic factors and adaptations Populations: population attributes, population growth, population interactions.	Worksheets (CBQ, NCERT EXEMPLAR, PBYQ)/Resource sheets/power point Presentation
8	**November**	**22**	**12. Ecosystem** **13.Biodiversity and its conservation**	Patterns, components, productivity and decomposition, energy flow, pyramids of number, biomass, energy; Nutrient cycles, ecological succession; ecological services-carbon fixation, pollination, seed dispersal, oxygen release. Biodiversity; types, patterns of biodiversity, species and loss of biodiversity Biodiversity conservation; In situ and Ex situ conservation	Worksheets (CBQ, NCERT EXEMPLAR, PBYQ)/Resource sheets/power point Presentation
9	**December**	**25**	**Revision(theory) and Practical**		
10	**January**	**17**			
11	**February**	**23**	**Practical Exam/final Examination**		

Name of the Teacher: Ms. Punam Rathore Singh

TAPOVAN INTERNATIONAL SCHOOL
YEARLY SYLLABUS 2025-26

SUBJECT: **Mathematics (041)** Class: XII

Sr.No.	Month	No.of Working Days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Activities
1.	April	22	**Chapter : 1 Relation and Function** **Chapter : 2 Inverse Trigonometric Function** **Chapter : 5 Continuity and Defferentiability**	Introduction Types of Relations (Reflexive, Symmetric, Transitive, Equivalent Relation) Types of Function (One- One, On- to, In- to) Domain , Co domain , Range of diff. Functions Introduction (Re - call the T- Functions) Graph of TF and ITF Domain, Co Domain, Range and Principal Branch of ITF Introduction (Limits and its concept) Continuity of Function in Interval, a point of interval. Algebra of continuous Functions. Defferntiability Derivative of composite function, Chain rule Derivative of implicit Functions, ITF, Exponential and Logarithmic Function, Perametric form, Second Order Derivative.	. CBQ and MCQ To sketch the graphs of ax and log ax, a > 0, a ≠ 1 and to examine that they are mirror images of each other. To find analytically the limit of a function f (x) at x = c and also to check the continuity of the function at that point. CBQ and MCQ
2.	June	23	**Chapter : 6 Application of Derivative** **Chapter : 7 Integrals**	Rate Change of Quantity Increasing and decreasing Function Maxima and Minima of Function. Introduction Some properties of indefinite integral Integral by Substitution and Trigonometric Identities Integral of some particular functions Integral by partial Fractions Integration By Part (ILATE) Definite Integral Definite integral by Substitution Properties if definite Integral	Mind-Map To understand the concepts of local maxima, local minima and point of inflection. CBQ and MCQ

3.	July	26	**Chapter : 8 Application of integral** **Chapter : 9 Differential Equations**	Introduction Area Under Simple Curve by definite integral Basic Concept Order and Degree of DE General solution of DE Particular Solution Of DE Solution By Variables separation Homogeneous DE Linear DE	CBQ and MCQ To evaluate the definite integral $\int_a^b \sqrt{(1-x^2)}$ dx as the limit of a sum and verify it by actual integration.
4.	August	18	**Chapter : 3 Matrices** **Chapter : 4 Determinants**	Introduction Order of Metrix Types of Matrices Operation on Matrices (Addition, Subtraction, Product) Transpose of matrix and properties. Skew symmetric and symmetric matrix Introduction Expansion of Determinants Area of triangle by Determinant Minors and Co factors Adjoint and Inverse of a Matrix Application of Determinants and Matrix Solution of linear equations by Inverse of matrix.	CBQ and MCQ
5.	September	25	**Chapter : 12Linear programing Problems** **REVISION FOR MID TERM**	Introduction Understanding of problems Mathematical formulation and Graphical Solution. Revise all Related topics and practice Questions of Mid term Examination.	CBQ and MCQ
6.	October	12	**Chapter : 13 Probability**	Introduction (Revision of class 11 Probability) Conditional Probability Multiplication Theorem on Probability Independent Events Bayes' Theorem Probability Distribution and Random variable Mean and Variance.	CBQ and MCQ To explain the computation of conditional probability of a given event A, when event B has already occurred, through an example of throwing a pair of dice.

7.	November	22	**Chapter :10 Vector Algebra** **Chapter : 11 Three dimensional Geometry**	Introduction Some Basic concepts of Vector Types of vectors Addition of vectors Dot product of Vectors Cross Product of Vectors Projection of vector on lines Introduction Direction Cosines and Direction ratios Equation of line in Space Angle between two Lines Shortest distance between Two Lines	CBQ and MCQ . To verify geometrically that $\vec{c} \times (\vec{a} + \vec{b}) = \vec{c} \times \vec{a} + \vec{c} \times \vec{b}$
8.	December	25	**REVISION FOR PRE BOARD EXAM**	Sample Paper Solving PYQ	
9.	January	17	**REVISION FOR PRE BOARD EXAM**	Sample Paper Solving PYQ	
10.	February	23	**REVISION FOR BOARD EXAM**	.	

Name of the Teacher : Mr. Satish Sharma

TAPOVAN INTERNATIONAL SCHOOL

YEARLY SYLLABUS 2025-26

SUBJECT: Computer Science (083) **Class- XII**

Sr. No	Month	Days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Experiments / Activities
1	April	22	Python Revision Tour I & II	• Python Fundamentals • Data Handling Concepts • Strings • Functions and text file	Programs based on looping statements, lists,text file and functions.
2	June	23	Introduction to Functions Using Python Libraries File handling	• Introduction to Functions • Defining Functions • Types of Functions • Function Call • Arguments and Passing parameters • Returning values, Scope of Variables • Mutable /Immutable properties of data objects • Passing strings • Introduction to Library • Importing modules • Library functions • Text file and binary file	Programs based on Functions.
3	July	26	File Handling	• Introduction to File Handling • Data Files (Text, Binary, CSV) • Opening and closing files Reading & writing files • Project developments	Programs based on Text File
4	August	18	File Handling	• Basic operations • Pickle Module –methods load and dump • Import csv module • Open, Close a csv file • Read from a csv file • Write into a csv file using csv.reader ( ) and csv. writerow ( )	Programs based on Binary File, CSV File

5	**September**	**25**	**Revision for Term Exam I**		
6	**October**	**12**	**Stacks**	• Introduction to Stacks • Operations (POP, PUSH) using list	Programs based on implementation of Stack using list.
7	**November**	**22**	**Structured Query Language** **Interface of Python with an SQL database**	• Relational models & its Terms • Introduction to SQL • Using DDL & DML commands • Simple queries SQL FunctionsConnecting SQL with Python Creating Database connectivity Applications Performing Insert, Update, Delete queries Display data by using fetchone(), fetchall( ) • fetchmany(), row count	Problems based on SQL Tables
8	**December**	**25**	**Communication and network concepts**	• Introduction to Networking • Switching Techniques • Transmission media • Network Devices • Network Topologies, Types of Networks • Network Protocols • Mobile Technology, Email Protocols • Wireless Technology • Network Security • Web services	Problems based on Python interface with SQL.
9	**January**	**17**	**Revision using Sample paper + Practical's**		
10	**February + March**	**23 + 10**	**Practical's and Final examination**		

Name of the Teacher: Mr. SHEEMON S

TAPOVAN INTERNATIONAL SCHOOL

YEARLY SYLLABUS 2025- 26

SUBJECT: ENTREPRENEURSHIP (066) Class: XII Com. / Hum. / Sc.

Sr.No.	Month	No.of Working Days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Activities
1	April	22	L -2: Entrepreneurial Planning. Project work on Business Plan	Forms of different business entities with their features.Creating of business plan with format and its importance.Organizational plan, production plan, marketing plan and operational plan, financial plan, Human resource planning with their elements. Project preparations.	Value based questions Case studies Class test will be taken on this lesson. Project based presentation of their own plan, puzzle word method. Project work on Business plan.
3	June	23	L -1: Entrepreneurial Opportunity.	Business opportunity and its elements Sensing Entrepreneurial Opportunities. Environment scanning. Problem Identification. Product identification. Sources of idea fields. Spotting trends. Creativity and Innovation process. Selecting the right opportunity.	Conduct a survey on any particular problem and find a solution to that problem. Case study and sample situation based. Value based questions Case studies Class test will be taken on this lesson.
4	July	26	L -3: Enterprise Marketing.	Marketing and sales strategy& its functions, importance, types etc.Branding & its types, features, logo, tagline, IPR Etc... Promotional strategy& its types. Physical distribution and its factors Promotional tools (Advertising, Sales promotions, Personal selling, Public relations, Publicity) Sales promotional activities.	Prepare a new product its logo, tagline and brand name. Group discussion, case studies, and project based. UT – I Exams. (14th July to 18th July) Value based questions Case studies Class test will be taken on this lesson.

5	August	18	L – 4 : Enterprise Growth Strategy	Define franchising. Types of Franchising and its advantages and disadvantages. Ingredients of franchisee agreements. Mergers and acquisitions & its types. Reason for M& A	Value based questions Case studies Class test will be taken on this lesson. Make a list of companies which have merged or acquisition in India and abroad.
6	September	25	L -5 : Business Arithmetic	Unit of sale, Unit cost for multiple products. Break even analysis for multiple products. Computation of working capital & operating cycle of different type of enterprises Inventory control and its factors. Calculation of EOQ. Calculation of Return on investment and Return on equity.	Half yearly Exams. (12st Sep. to 22th Sep.) Value based questions Case studies Class test will be taken on this lesson. Collaborative learning through solving different problems.
7	October	12	L -6 : Resource Mobilization Project Work 2	Need of finance in business. Capital Market, Ways of raising funds on primary market.	Project Work on Market Survey Value based questions Case studies Class test will be taken on this lesson.
8	November	22	L -6: Resource Mobilization	Angel investors and its features. Venture Capitalist concepts and its features When to seek venture capital in the various stages of business developments.	Find out 5 entrepreneurial ventures which have received financial assistance from Angel Investors. Class test will be taken on this lesson. List of source of funding, presentation in the classroom and lecture method.
9	December	25	Revision and class test Pre-Board - I Exams.	Revision of Lesson Resource mobilization and Business arithmetic.	Class test Chapter Wise UT – II Exam. (1stDec. to 5th Dec.) Pre – Board – I Exams. (20st Dec. to 29th Dec.)

10	January	17	Revision, class test and Pre- Board II Exams.	Revision from lesson 1, 2, 3, 4 ……	Class test Chapter Wise Pre – Board – II Exams. (19th Jan to 29th Feb.)
11	February	23	Practical Exam and Revision	Practical Exam and Revision	Practical Exam and Revision

Name of the Teacher: PRABIR DAS

TAPOVAN INTERNATIONAL SCHOOL
YEARLY SYLLABUS 2025-26

SUBJECT: **MATHEMATICS (041)** Class: **XII OM**

Sr. No.	Month	No.of Working Days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Activities
1	April	22	Ch-1 Relation and Function Ch-2 Inverse Trigonometric Functions	Introduction Types of Relations Types of Functions Composition of Functions and Invertible Function Introduction Basic Concepts- Domain, Range, Graph Properties of Inverse Trigonometric Functions	MCQ, CBQ
2.	June	23	ch-5 Continuity and Differentiability Ch-3 Matrices Ch-4 Determinants	Introduction of limits, Definition of continuity, Algebra of continuous function. Differentiability, derivation of implicit function, Exponential and Logarithmic Functions, Logarithmic Differentiation Derivatives of Functions in Parametric Forms Second Order Derivative Introduction of Matrix Types of Matrices Operations on Matrices Transpose of a Matrix Symmetric and Skew Symmetric Matrices Invertible Matrices Introduction Method to find Determinant Area of a Triangle Minors and Cofactors Adjoint and Inverse of a Matrix Applications of Determinants and Matrices	Through explanation of graph creative thinking will be imbibed. Students will be asked about how to arrange numbers in square brackets without repetition MCQ, CBQ

3.	July	26	Ch-6 Application of Derivatives Ch-7 Integrals	Introduction Rate of Change of Quantities Increasing and Decreasing Functions Maxima and Minima Introduction Integration as an Inverse Process of Differentiation Methods of Integration Integrals of Some Particular Functions Integration by Partial Fractions Integration by Parts	To construct an open box of maximum volume from a given rectangular sheet by cutting equal squares from each corner. Introduce the concept of integration visually through graphs and geometric shapes. Encourage students to create their own artwork representing different functions and their integrals.
4.	August	18	Ch-7 Integrals Ch-8 Application of Integrals	Definite Integral Fundamental Theorem of Calculus Evaluation of Definite Integrals by Substitution Some Properties of Definite Integrals Introduction Area under Simple Curves	Demonstrate how to set up the integral to calculate the area under a curve, emphasizing the use of appropriate limits of integration.
5.	September	25	Ch-12 Linear Programming	Introduction Formation of Linear Programming Problem and its Graphical Solution **Revision for Mid Term Examination**	MCQ,CBQ

6.	October	12	Ch-13 Probability	Introduction Conditional Probability Multiplication Theorem on Probability Independent Events Bayes' Theorem	To explain the computation of conditional probability of a given event A, when event B has already occurred, through an example of throwing a pair of dice.
7.	November	22	Ch-10 Vector Algebra Ch-11 Three Dimensional Geometry	Introduction Some Basic Concepts and terms Types of Vectors Addition of Vectors Multiplication of a Vector by a Scalar Product of Two Vectors Introduction Direction Cosines and Direction Ratios of a Line Equation of a Line in Space Angle between Two Lines Shortest Distance between Two Lines	MCQ, CBQ Demonstrate the distance formula in three-dimensional space and its application in finding the distance between two points.
8.	December	25		**Revision for Pre Board Exam**	
9.	January-February	17+23		**Revision**	

Name of the Teacher : Ms. Priyanka

TAPOVAN INTERNATIONAL SCHOOL
YEARLY SYLLABUS 2025-26

SUBJECT: PHYSICAL EDUCATION (048) Class: 12

Sr.No.	Month	No.of Working Days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Activities
1	April	24	I : Management of Sporting Events	• Functions of Sports Events Management (Planning, Staffing, Directing &Controlling) • Various Committees & Its Responsibilities(pre; during& post) • Procedure to Draw Fixtures – Knock-Out (Bye & Seeding) & League (Staircase & Cyclic, Tabular Method and Combination tournament) • Intramural & Extramural tournaments – Meaning, Objective & its Significance • Community Sports program (sports day, Health run, Run for Fun, Run for Specific Cause & Run for Uniti) **Revision of chapter with Question and Answer session**	Practical planning of league system on Board and on ground practical of different tournament pattern
			III: Yoga as Preventive measure for Lifestyle Disease	• Asana as preventive measures • **Obesity**: procedure, benefits & contraindications for Dhanurasan, Trikosana…. • **Diabetes**: procedure, benefits & contraindications for bhujangasana, paschimottasana, pavanmuktasana… • **Asthma**: procedure, benefits & contraindications for Tadasana, anuloma-Viloma….. • **Hypertension**: Tadasana, Makarasana… • **Back Pain and Arthritis** : : procedure, benefits & contraindications for tadasana….. **Revision of chapter with Question and Answer session**	Different asana practices

2	May	4	V : Sports and Nutrition	• Concept of balance diet and nutrition • Macro and Micro Nutrients: Food sources & functions • Nutritive & Non-Nutritive Components of Diet • Eating for Weight control – A Healthy Weight, The Pitfalls of Dieting, Food Intolerance, and Food Myths • Importance of Diet in Sports-Pre, During and Post competition Requirements	Sports Nutrition Quiz n showing video.
3	June	23	VII: Physiology & injuries in Sports	• Physiological factors determining components of physical fitness • Effect of exercise on the Muscular System • Effect of exercise on the Cardio-Respiratory System • Physiological changes due to aging • Sports injuries: Classification (Soft Tissue Injuries - Abrasion, Contusion, Laceration, Incision, Sprain & Strain; Bone & Joint Injuries - Dislocation, Fractures - Green Stick, Comminuted, Transverse Oblique & Impacted	Charts on different system of body and use of Bio lab for better understanding of body system and showing different system video.
			II: Children & Women in Sports	• Exercise guidelines of WHO for different age groups. • Common postural deformities-knock knees, flat foot, round shoulders, Lordosis, Kyphosis, Scoliosis, and bow legs and their respective corrective measures. • Women's participation in Sports – Physical, Psychological, and social benefits. • Special consideration (menarche and menstrual dysfunction) • Female athlete triad (osteoporosis, amenorrhea, eating disorders	Making Charts on different postures. Showing Common Postural Deformities video

4	July	26	VI: Test and Measurement in Sports	• Fitness test SAI Khelo India Test • BMR Test • Measurement of Cardio-Vascular Fitness – Harvard Step Test – Duration of the Exercise in Seconds x100/5.5 X Pulse count of 1-1.5 Min after Exercise • Rikli and Jones - Senior Citizen Fitness Test ○ Chair Stand test for lower body strength ○ Arm Curl test for upper body strength ○ Chair Sit and Reach test for lower body flexibility ○ Back Scratch test for upper body flexibility ○ Eight Foot Up and Go test for agility ○ Six minute walk test for Aerobic Endurance ○ Johnsen – Methney Test of Motor Educability (Front Roll, Roll, Jumping Half-Turn, Jumping full-turn	Practical of SAI Fitness Test
5	August	22	IV : Physical education & Sports for CWSN(Children with special need)	• Organizations promoting Disability Sports (special Olympics; Paralympics; Deaflympics) • Concept of Classification and Divisioning in Sports. • Concept of Inclusion in sports, its need, and Implementation; • Advantage of physical activity for children with special needs • Strategies to make physical Activity assessable for children with special need.	
6	September	23	VIII. Biomechanics and Sports	• Newton law of motion & its application in sports • Types of Levers and their application in Sports • Equilibrium – Dynamic & Static and Center of Gravity and its application in sports • Friction & Sports • Projectile in Sports	Practical on different games And video
7	October	21	X. Training in sports	• Concept of Talent Identification and talent Development in Sports • Introduction to Sports Training Cycle – Micro, Meso, Macro Cycle.	Practical on different games and exercise

				• Types & Method to Develop – Strength, Endurance, Speed, Flexibility and Coordinative Ability • Circuit Training - Introduction & its importance	
8	November	17	IX. Psychology & Sports	• Personality; its definition & types (Jung Classification & big five theory • Motivation, its type & techniques. • Exercise Adherence: Reasons, Benefits & Strategies for Enhancing it • Meaning, Concept & Types of Aggressions in Sports • Psychological Attributes in Sports – Self-Esteem, Mental Imagery, Self-Talk, Goal Setting	Practical on different Psychological Attributes in Sports.
9	December	24	Revision	Revision	Revision Test
10	January	19	Revision	Revision	Revision Test
10	February	22	Board practical exam	Board practical exam	
11	March		Board Exam	Board exam	

Name of the Teacher: Ronak Rathore

TAPOVAN INTERNATIONAL SCHOOL
YEARLY SYLLABUS 2025-2026

Subject: Physics (042) Class: XII Science

Sr.No	Month	No. of working days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Activities/ Practicals
1	**April**	**22**	**Chapter: 1** **Electric charges and fields** **Chapter: 2** **Electrostatic Potential and Capacitance**	Electric charges, Conservation of charge, Coulomb's law-force between two-point charges, forces between multiple charges; superposition principle and continuous charge distribution. Electric field, electric field due to a point charge, electric field lines, electric dipole, electric field due to a dipole, torque on a dipole in uniform electric field. Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside). Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges; equipotential surfaces, electrical potential energy of a system of two-point charges and of electric dipole in an electrostatic field. Conductors and insulators, free charges and bound charges inside a conductor. Dielectrics and electric polarization, capacitors and capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, energy stored in a capacitor (no derivation, formulae only). Dielectrics and electric polarization, capacitors and capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, energy stored in a capacitor (no derivation, formulae only)	1. To determine resistivity of two / three wires by plotting a graph for potential difference versus current.

2	**June**	**23**	**Chapter–3: Current Electricity** **Chapter–4: Moving Charges and Magnetism**	Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, V-I characteristics (linear and non-linear), electrical energy and power, electrical resistivity and conductivity, temperature dependence of resistance, Internal resistance of a cell, potential difference and emf of a cell, combination of cells in series and in parallel, Kirchhoff's rules, Wheatstone bridge. Biot - Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight solenoid (only qualitative treatment), force on a moving charge in uniform magnetic and electric fields.	2. To find resistance of a given wire / standard resistor using metre bridge
3	**July**	**26**	**Chapter–4: Moving Charges and Magnetism** **Chapter–9: Ray Optics and Optical Instruments**	Force on a current-carrying conductor in a uniform magnetic field, force between two parallel current-carrying conductors-definition of ampere, torque experienced by a current loop in uniform magnetic field; Current loop as a magnetic dipole and its magnetic dipole moment, moving coil galvanometer its current sensitivity and conversion to ammeter and voltmeter. Reflection of light, spherical mirrors, mirror formula, refraction of light, total internal reflection and optical fibers, refraction at spherical surfaces, lenses, thin lens formula, lens maker's formula, magnification, power of a lens, combination of thin lenses in contact, refraction of light through a prism. Optical instruments: Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers.	3. To verify the laws of combination (series) of resistances using a metre bridge.
4	**August**	**18**	**Chapter–10: Wave Optics**	Wave front and Huygen's principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygen's principle. Interference, Young's double slit experiment and expression for fringe width (No derivation final expression only), coherent sources and sustained interference of light, diffraction due to a single slit, width of central maxima (qualitative treatment only).	4. To determine resistance of a galvanometer by halfdeflection method and to find its figure of merit.

5	**September**	**25**	**Chapter–5: Magnetism and Matter** **Chapter–6: Electromagnetic Induction** **Chapter–7: Alternating Current**	Bar magnet, bar magnet as an equivalent solenoid (qualitative treatment only), magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis (qualitative treatment only), torque on a magnetic dipole (bar magnet) in a uniform magnetic field (qualitative treatment only), magnetic field lines. Magnetic properties of materials- Para-, diaandferro - magnetic substances with examples, Magnetization of materials, effect of temperature on magnetic properties. Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law, Self and mutual induction Alternating currents, peak and RMS value of alternating current/voltage; reactance and impedance; LCR series circuit (phasors only), resonance, power in AC circuits, power factor, wattless current. AC generator, Transformer.	5. To convert the given galvanometer (of known resistance and figure of merit) into a voltmeter of desired range and to verify the same.
6	**October**	**12**	**Chapter–11: Dual Nature of Radiation and Matter**	Dual Nature of Radiation and Matter Dual nature of radiation, Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation-particle nature of light. Experimental study of photoelectric effect Matter wavesnature of particles, de-Broglie relation	6. To determine refractive index of a glass slab using a travelling microscope.

7	**November**	**22**	**Chapter–12: Atoms** **Chapter–13: Nuclei** **Chapter–8: Electromagnetic Waves** **Chapter–14: Semiconductor Electronics: Materials, Devices and Simple Circuits**	Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model of hydrogen atom, Expression for radius of nth possible orbit, velocity and energy of electron in his orbit, of hydrogen line spectra (qualitative treatment only). Composition and size of nucleus, nuclear force Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission, nuclear fusion. Basic idea of displacement current, Electromagnetic waves, their characteristics, their transverse nature (qualitative idea only). Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X-rays, gamma rays) including elementary facts about their uses Energy bands in conductors, semiconductors and insulators (qualitative ideas only) Intrinsic and extrinsic semiconductors- p and n type, p-n junction Semiconductor diode - I-V characteristics in forward and reverse bias, application of junction diode -diode as a rectifier.	7. To draw the I-V characteristic curve for a p-n junction diode in forward and reverse bias. 8. To find the focal length of a concave lens, using a convex lens.
8	**December**	**25**		Revision (Pre Board Preparation)	All six activity.
9	**January**	**17**		Revision Sample Papers Solution	
10	**February**	**23**		Revision Sample Papers Solution	

Name of the Teacher: Dr. Rahul Dubey (PGT Physics)

TAPOVAN INTERNATIONAL SCHOOL
YEARLY SYLLABUS 2025-26

SUBJECT: PSYCHOLOGY (037) **CLASS: XII**

Sr. No.	Month	No. of Working Days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Experiments / Activities
1.	**April**	**22**	**1.Variations in Psychological Attributes**	1. Introduction 2. Individual Differences in Human Functioning 3. Assessment of Psychological Attributes 4. Intelligence 5. Psychometric Theories of Intelligence, Information Processing Theory: Planning, Attention-Arousal and Simultaneous Successive Model of Intelligence, • Triarchic Theory of Intelligence • Theory of Multiple Intelligences. 6. Individual Differences in Intelligence 7. Culture and Intelligence 8. Emotional Intelligence 9. Special Abilities: Aptitude: Nature and Measurement 10.Creativity	Conduct Intelligence Test Organize debates on controversial psychological topics such as nature vs. nurture, Intelligent Quotient vs. Emotional Quotient. Introduction to Psychological Testing

2.	**June**	**23**	**2. Self and Personality**	1. Introduction 2. Self and Personality 3. Concept of Self 4. Cognitive and Behavioral aspects of Self 5. Culture and Self 6. Concept of Personality 7. Major Approaches to the Study of Personality • Type Approaches • Trait Approaches • Psychodynamic Approach and Post Freudian Approaches • Behavioural Approach • Cultural Approach • Humanistic Approach 8. Assessment of Personality • Self – report Measures • Projective Techniques • Behavioural Analysis	**Practical 1** Self - Concept Questionnaire (SCQ) To create project on structure of personality and stages of personality given by Sigmund Freud
3.	**July**	**26**	**3. Meeting Life Challenges**	1.Introduction 2. Nature, Types and Sources of Stress 3. Effects of Stress on Psychological Functioning and Health • Stress and Health • General Adaptation Syndrome • Stress and Immune System • Lifestyle 4. Coping with Stress • Stress Management Techniques 5. Promoting Positive Health and Well-being • Life Skills • Positive Health	**Practical 2** Introversion Extroversion Inventory (IEI) Poster Making and displaying activity in order to spread mental health awareness.

			4. Psychological Disorders	1. Introduction 2. Concepts of Abnormality and Psychological Disorders • Historical Background 3. Classification of Psychological Disorders 4. Factors Underlying Abnormal Behavior	
4.	**August**	**18**	**4. Psychological Disorders (Continue)**	5. Major Psychological Disorders • Anxiety Disorders • Obsessive-Compulsive and Related Disorders • Trauma-and Stressor-Related Disorders • Somatic Symptom and Related Disorders • Dissociative Disorders • Depressive Disorder • Bipolar and Related Disorders • Schizophrenia Spectrum and Other Psychotic Disorders • Neurodevelopmental Disorders • Disruptive, Impulse-Control and Conduct Disorders • Feeding and Eating Disorders • Substance Related and Addictive Disorders	**Practical 3** Adjustment Inventory for School Students The students prepare presentation on various Psychological disorders. To show clippings of movies basis on psychological disorders and therapeutic approaches.
5.	**September**	**25**	**5. Therapeutic Approaches**	1.Introduction 2. Nature and Process of psychotherapy • Therapeutic relationship 3. Types of Therapies • Behaviour Therapy • Cognitive Therapy • Humanistic-Existential Therapy • Alternative Therapies • Factors contributing to healing in Psychotherapy • Ethics in Psychotherapy 4. Rehabilitation of the Mentally ill	Role-play therapeutic sessions using techniques associated with each other.

6.	**October**	**12**	**6. Attitude and Social Cognition**	1. Introduction 2. Explaining Social Behaviour 3. Nature and Components of Attitudes 4. Attitude Formation and Change • Attitude Formation • Attitude Change • Attitude-Behaviour Relationship	Attitude analysis **Practical 4** Sodhi's Attitude Scale
7.	**November**	**22**	**6. Attitude and Social Cognition (Continue)** **7. Social influence and Group Processes**	5. Prejudice and Discrimination 6. Strategies for Handling Prejudice 1. Introduction 2. Nature and Formation of Groups 3. Type of Groups 4. Influence of Group on Individual Behaviour • Social Loafing • Group Polarisation	**Practical 5** Academic Anxiety scale for Children (AASC) **Career Exploration** Group discussion
8.	**December**	**25**	**Revision**	Revision of the complete course	To conduct Case study / Profile on the chosen subjects. To revise all the practical
9.	**January**	**17**	**Revision**	➢ Mock Practical ➢ Class tests ➢ Doubt solving	To solve sample papers
10.	**February& March**	**23 & 10**	➢ **Preparation for Final Exam and solving sample papers.**		

Name of the Teacher: Ms. Avani Makani