



# TAPOVAN INTERNATIONAL SCHOOL

## YEARLY SYLLABUS 2019-20

SUBJECT: English

Class: XII

Sr.No	Month	No.of Working Days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Experiments / Activities
1	APRIL	23	<p><b>FLAMINGO</b></p> <p>1.The Last Lesson</p> <p>2.Lost Spring</p> <p>3.My mother at sixty six</p> <p><b>WRITING SKILL</b></p> <p>1. Note Making</p> <p>2. Notice</p> <p><b>VISTAS</b></p> <p>1.The Tiger King</p>	<p>Infringement on the rights of people to speak a language of their choice. Prussia conquering two districts of France.</p> <p>Lost Childhood: Lives of two children living in slums, Negligence of authorities.</p> <p>Kamala Das' fear of her mother getting old , frustration</p> <p>Essentials of note making</p> <p>Essentials of notice</p>	<p>Assignment on linguistic human rights.</p> <p>Right to Education of children</p> <p>Exercise for Note Making</p> <p>Questions to write notices</p> <p>Project on conservation of tigers</p>
2	JUNE	23	<p><b>VISTAS</b></p> <p>1. The Enemy</p> <p><b>FLAMINGO</b></p> <p>1.An Elementary Classroom in a Slum</p> <p>2.Deep Water</p>	<p>A Japanese Doctor Saving the life of an American soldier Who is his enemy during the second world war</p> <p>Stephen Spender describing the plights of slum children</p> <p>Douglas learning swimming. His initial fear of water . How he overcame it.</p> <p>Author exhorting people to introspect about their lives</p>	<p>To Read on Matters that lead to the involvement of America in the second world war</p> <p>Write a note on Auto biography</p>

			3. Keeping quiet	How to Write Report	Exercise on report writing  Exercise on various ads
3	JULY	25	VISTAS 1. Should wizard Hit Mommy  WRITING SKILL Report Writing  Advertisement   The Third Level  Journey to the end of the earth	A girl's dissatisfaction with the ending of story as narrated by her father         Charlie's belief in three levels in New York instead of the two.  Experience of the writer in Antarctic. To find earth's present , past and future.	Draft variety of advertisements to suit different occasions.       .A video show on Antarctica.
4	AUGUST	16	FLAMINGO 1.The Ratrap  2.A Thing of Beauty  WRITING SKILL Formal Invitation & replies  A Road side stand	A tramp's Philosophy of life. Becomes good human when love and compassion are shown by the daughter of Iron Master.  Keat's view on things of beauty: sun, moon stars etc    A poem by Robert frost. Sympathising with the deprived sections of humanity	A discussion on parental dominance on children.  Write the biography of Keats  Exercise on invitation

5	SEPTEMBER	22	<p>VISTAS 1. On the Face of it</p> <p>Writing Skill 1. Article writing</p> <p>FLAMINGO Aunt Jennifer's Tigers</p> <p>Vistas</p> <p>Indigo</p> <p>Poets and Pancakes</p>	<p>A boy's perception of the world is changed by an old man. Both of them have deformities.</p> <p>Essentials of Article Writing</p> <p>Expresses the constraints of a married life, a woman experiences.</p> <p>A child's obsession of hearing stories and the curiosity shown by the child to raise question.</p> <p>An excerpt from The Life of Mahatma Gandhi.</p> <p>A writer's Recount of his experience in working in Gemini Studios in Madras.</p>	<p>Exercise on article Writing</p> <p>To study the effects of repeated sound and colour in the poem</p> <p>Students to explain each section.</p> <p>Read the book Freedom at Midnight By Collins &amp;Lapiere</p>
6	OCTOBER	13	<p>Writing Skill</p> <p>Speech Writing Article</p> <p>FLAMINGO</p> <p>Going Places</p> <p>The Interview</p>	<p>Essentials of speech Writing</p> <p>Essentials of speech Writing</p> <p>Deals with the theme of adolescent fantasising and hero worship</p> <p>An excerpt from the writer's introduction to the Penguin book of introduction.</p>	<p>Topics to write speech and article</p>

7	NOVEMBER	13	<p>VISTAS</p> <p>1.Evan Tries an O Level</p> <p>2.Memories of Childhood</p> <p>a. The Cutting of my Lovely Hair</p> <p>b. We too are Human beings</p> <p>Debate</p>	<p>Deals with the theme of adolescent fantasising and hero worship</p> <p>Education of criminals in jails. Soft corner shown by authorities to the inmates in jail.</p> <p>Autobiographical episode of two women from marginalized communities. Childhood memories</p> <p>Essentials of debate</p>	<p>Make a survey on jail reforms</p> <p>A debate on a topic</p>
8	DECEMBER	24	<p>Revision Writing Skill</p> <p>Flamingo</p> <p>Vistas</p> <p>The invisible Man</p>	<p>Advertisement, debate, speech, report</p> <p>Poster</p> <p>Notice</p> <p>The last Lesson; The lost spring, The Deep Water, The Rattrap, Indigo, Going Places.</p> <p>Poem</p> <p>My Mother at Sixty Six, An Elementary School ,Keeping Quiet, A Thing of Beauty, Aunt Jennifer's Tigers</p> <p>The Tiger King, The Enemy, On the Face of It,</p> <p>Themes, character sketch</p>	<p>Previous years Q. paper solving</p> <p>Probable Questions</p> <p>Probable questions</p> <p>Value based questions</p>
9	JANUARY	19	Workbook completion of all chapters	All the lessons from Flamingo, Vistas & Invisible Man	Students to complete workbook.
10	FEBRUARY	22	REVISION	All the Chapters	

Name of the Teacher : ROBINS PHILIP



**TAPOVAN INTERNATIONAL SCHOOL**  
**YEARLY SYLLABUS 2019-2020**

**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	23	<b>1. Electric charges and fields.</b>  <b>2. Electrostatic Potential and Capacitance</b>  <b>3. Current Electricity</b>	<p>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).</p> <p>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.</p> <p>Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, electrical resistance, V-I characteristics (linear and non-linear), electrical energy and power, electrical resistivity and conductivity.</p>	
2	June	22	<b>Current Electricity(cont.)</b>	<p>Carbon resistors, colour code for carbon resistors; series and parallel combinations of resistors; 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 laws and simple applications.</p> <p>Wheatstone bridge, meter bridge. Potentiometer - principle and its applications to measure potential difference and for comparing emf of two cells; measurement of internal resistance of a cell.</p>	To determine resistance per cm of a given wire by plotting a graph for potential difference versus current.

			<p><b>9. Ray Optics</b></p> <p>Reflection of light, spherical mirrors, mirror formula. Refraction of light, total internal reflection and its applications, 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 combination of a lens and a mirror. Refraction and dispersion of light through a prism. Scattering of light - blue color of sky and reddish appearance of the sun at sunrise and sunset.</p> <p><b>Optical instruments:</b> Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers.</p> <p><b>10. Wave Optics</b></p> <p>Wave front and Huygens's principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygens's principle.</p>	<p>To find resistance of a given wire using metre bridge and hence determine the resistivity (specific Resistance) of its material.</p> <p>To verify the laws of combination (series) of resistances using a metre bridge.</p>
3	July	25	<p><b>10. Wave Optics (conti.)</b></p> <p>Interference Young's double slit experiment and expression for fringe width, coherent sources and sustained interference of light. Diffraction due to a single slit, width of central maximum. Resolving power of microscopes and astronomical telescopes. Polarization, plane polarized light Brewster's law, uses of plane polarized light and Polaroid's.</p> <p><b>14. Semiconductor Electronics</b></p> <p>Energy bands in conductors, semiconductors and insulators (qualitative ideas only) Semiconductor diode - I-V characteristics in forward and reverse bias, diode as a rectifier; Special purpose p-n junction diodes: LED, photodiode, solar cell and Zener diode and their characteristics, zener diode as a voltage regulator.</p> <p><b>8. Electromagnetic Waves</b></p> <p>Basic idea of displacement current, Electromagnetic waves, their characteristics, their transverse nature (qualitative ideas only). Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X-rays, gamma rays) including elementary facts about their uses.</p>	<p>To verify the laws of combination (parallel) of resistances using a metre bridge.</p>

4	August	16	<b>4. Moving Charges and Magnetism</b>	Concept of magnetic field, Oersted's experiment. Biot - Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight and toroidal solenoids, Force on a moving charge in uniform magnetic and electric fields.	<p>To compare the EMF of two given primary cells using potentiometer.</p> <p>To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.</p> <p>To determine the internal resistance of given primary cell using potentiometer.</p>
5	September	22	<b>Moving Charges and Magnetism (Cont.)</b>  <b>5. Magnetism and Matter</b>  <b>6. Electromagnetic Induction</b>	<p>Cyclotron. 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; moving coil galvanometer-its current sensitivity and conversion to ammeter and voltmeter.</p> <p>Current loop as a magnetic dipole and its magnetic dipole moment. Magnetic dipole moment of a revolving electron. Magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis. Torque on a magnetic dipole (bar magnet) in a uniform magnetic field; bar magnet as an equivalent solenoid, magnetic field lines; Earth's magnetic field and magnetic elements. Para-, dia- and ferro - magnetic substances, with examples. Electromagnets and factors affecting their strengths. Permanent magnets.</p> <p>Electromagnetic induction; Faraday's laws, induced emf and current; Lenz's Law, Eddy currents. Self and mutual induction.</p>	<p>To find the value of <math>v</math> for different values of <math>u</math> in case of a concave mirror and to find the focal length.</p>
6	October	18	<b>7. Alternating Current</b>  <b>11. Dual Nature of Radiation and Matter</b>	<p>Alternating currents, peak and rms value of alternating current/voltage; reactance and impedance; LC oscillations (qualitative treatment only), LCR series circuit, resonance; power in AC circuits, wattless current. AC generator and transformer.</p> <p>Dual nature of radiation. Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation-particle nature of light. Matter waves-wave nature of particles, de Broglie relation. Davisson-Germer experiment (experimental details should be omitted; only conclusion should be explained).</p>	<p>To find the focal length of a convex mirror, using a convex lens.</p> <p>To find the focal length of a convex lens by plotting graphs between <math>u</math> and <math>v</math> or between <math>1/u</math> and <math>1/v</math>.</p>

7	November	17	<b>12. Atoms</b>  <b>13. Nuclei</b>	<p>Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model, energy levels, hydrogen spectrum.</p> <p>Composition and size of nucleus, atomic masses, isotopes, isobars; isotones. Radioactivity alpha, beta and gamma particles/rays and their properties; radioactive decay law. Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission, nuclear fusion.</p>	<p>To find the focal length of a concave lens, using a convex lens</p> <p>To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.</p> <p>To find refractive index of a liquid by using convex lens and plane mirror.</p>
8	December	24			<p>Transistor: NPN and PNP characteristics</p> <p>PN Diode Forward and Reverse characteristics</p> <p>Zener diode Characteristics</p>
9	January	19		Pre Board Examination Revision	
10	February	22		Practical Examination Revision	
11	March	11			

Name of the Teacher: Dr. Rahul Dubey





**TAPOVAN INTERNATIONAL SCHOOL**  
**YEARLY SYLLABUS 2019-20**

SUBJECT: Chemistry (043)

Class:XII

Sr.No	Month	No.of Working Days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Activities
1	April	23	1) Solution  2) Electrochemistry	<ul style="list-style-type: none"> <li>Types of solution, Expressing concentration of solutions, solubility, vapour pressure of solution, ideal and non ideal solution, colligative properties, abnormal molar mass</li> <li>Electrochemical cells, galvanic cells, Nernst equation, conductance of electrolytic solutions, electrolytic cells and electrolysis, batteries, fuel cell, corrosion.</li> </ul>	<ul style="list-style-type: none"> <li>Preparation of starch solution</li> <li>Titration</li> </ul>
2	June	22	3) Chemical Kinetics  9) Halo alkanes and Haloarenes  10) Alcohols, Phenols and ethers	<ul style="list-style-type: none"> <li>Rate of a chemical reaction, factors influencing rate of a reaction, integrated rate equations, Pseudo first order reaction, temperature dependence of rate of a reaction.</li> <li>Classification, Nomenclature, Nature of C-X bond, Methods of preparation, Physical properties, Chemical reactions, Polyhalogen compounds</li> <li>Classification, Nomenclature, Structures of functional groups, Alcohols and Phenols, Some commercially important, Alcohols, Ethers, Chemical reactions, Uses of carboxylic acids.</li> </ul>	<ul style="list-style-type: none"> <li>Titration</li> </ul>

3	July	25	4) Surface Chemistry  5) General principles and processes of isolation of elements.	<ul style="list-style-type: none"> <li>• Adsorption, catalysis, colloids, classification of colloids, emulsions, colloids around us.</li> <li>• Occurrence of metals, concentration of ores, extraction of crude metal from concentrated ore, principles of metallurgy, oxidation, reduction, refining, uses of Al, Cu, Zn, and Fe.</li> </ul>	<ul style="list-style-type: none"> <li>• Titration</li> </ul>
4	August	16	6) The P-block elements.	<ul style="list-style-type: none"> <li>• Group 15 elements, <math>N_2</math>, <math>NH_3</math>, oxides of nitrogen, Nitric acid, phosphorous, and its allotropic forms, phosphine, phosphorous halide, oxoacids of phosphorous, Group 16, 17, and 18 elements, Dioxygen, sulphur, chlorine</li> </ul>	<ul style="list-style-type: none"> <li>• Salt Analysis</li> </ul>
5	September	22	7) d and f block elements  8) coordination compounds  11) Aldehydes, Ketones and carboxylic acids	<ul style="list-style-type: none"> <li>• Position in the periodic table, electronic configuration, general properties of d block elements, some important compounds of d-block elements, Lanthanoids, Actinoids, Applications of d and f block elements.</li> <li>• Werner's theory, definition of some important terms, nomenclature, isomerism, bonding in metal carbonyls, stability of coordination compounds, importance and application of coordination compounds.</li> <li>• Nomenclature and structure of carbonyl group, Preparation of Aldehydes and Ketones, Physical properties, Chemical reactions, Uses of Aldehydes and</li> </ul>	<p>-</p> <ul style="list-style-type: none"> <li>• Salt Analysis</li> </ul>

6	October	18	12) Amines  14) Polymers	<ul style="list-style-type: none"> <li>Structure of amines, classification, nomenclature, preparation of amines, physical properties, chemical properties, Diazonium salts, importance of Diazonium salts. etc</li> <li>Classification of polymers, types of polymerization, molecular mass of polymers, biodegradable polymers, polymers of commercial importance.</li> </ul>	<ul style="list-style-type: none"> <li>Salt Analysis</li> </ul>
7	November	17	13) Biomolecules  15) Chemistry in everyday life	<ul style="list-style-type: none"> <li>Carbohydrates, proteins, enzymes, vitamins, nucleic acids.</li> <li>Drugs and their classification Drug-target interaction, Therapeutic action of different classes of drugs, Chemicals in food, Cleansing agents</li> </ul>	<ul style="list-style-type: none"> <li>Revision Of Practicals</li> </ul>
8	December	24		<b>Revision</b>	<ul style="list-style-type: none"> <li>Revision of Practicals</li> </ul>
9	January	19		<b>Preboard</b>	
10	February	22		<b>AISSCE Practical Exam</b>	
11	March	11		<b>BOARD Exam</b>	

Name of the Teacher: Preeti B.Koshti



**TAPOVAN INTERNATIONAL SCHOOL**  
**YEARLY SYLLABUS 2019-20**

**SUBJECT: BIOLOGY**

**CLASS: XII**

Sr. No.	Month	No. of Working Days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Experiments / Activities
1	April	23	<b>1.Reproduction in organisms</b>  <b>2.Sexual reproduction in flowering plants</b>  <b>3.Human reproduction</b>  <b>4..Reproductive health</b>	Asexual reproduction and its mode Sexual reproduction: pre fertilization events, fertilization, post fertilization events.  Pre- fertilization , pollination , post fertilization : structure and events  The male reproduction system, the female reproduction system, pregnancy, parturition and lactation.  Reproductive health – problems and strategies Population explosion and birth rate MTP ,STDs, Infertility	To collect water sample from 2 different water bodies and study them for PH, clarity and presence of any living organisms.  To observe the permanent slide of germinated pollen grains. To study the pollen germination on a slide.  To study T.S of blastula on slide.  To study soil samples from different sites for PH, water holding capacity and texture.  To study T.S. of Testes and ovary of mice-mammalian.
2	June	22	<b>5.Principles of inheritance variation</b>  <b>6.Molecular basis of inheritance</b>	Mendel's laws of inheritance, inheritance of one and two genes and sex determination, mutation, genetic disorders.  The DNA , RNA , replication, transcription , genetic code , translation , Regulation of gene expression , human genome project and DNA finger printing	Different agents of pollination. Controlled Pollination: emasculation, bagging and tagging  To study Mendelian inheritance and pedigree charts of genetic traits and Pedigree analysis

3	July	25	<b>7.Evolution</b>	<p>Origin of life, Evolution of life forms – a theory Biological evolution, Mechanism of evolution Hardy- Weinberg principle, A brief account of evolution Origin and evolution of man.</p>	Mendelian inheritance
			<b>8.Human health and disease</b>	<p>Common diseases in humans, immunity, AIDS, Cancer, Drugs and Alcohol Abuse.</p>	To study the common disease causing organisms by observing specimens and slides.
4	August	16	<b>9. Strategies for enhancement in food production</b>	<p>Animal husbandry, plant breeding , single cell protein , tissue culture</p>	To make a temporary slide of onion root tip to study mitosis.
			<b>10.Microbes in human welfare</b>	<p>Microbes in household products in, in industrial product, sewage treatment, production of biogas, bio control agents and bio fertilizers.</p>	
5	September	22	<b>11.Biotechnology: Principles and Processes</b>	<p>Genetic engineering, Tools, Restriction enzymes, Electrophoresis, cloning vectors, rDNA tech, PCR, Bioreactor and Downstream processing.</p>	Isolation of DNA from vegetables
			<b>12.Biotechnology and its applications</b>	<p>Application in Agriculture, medicine, Insulin, gene therapy, molecular diagnosis, Transgenic animals, bio piracy and ethical issues.</p>	
6	October	18	<b>13.organisms and populations</b>	<p>Organism and its environment: major abiotic factors, responses to abiotic factors and adaptations Populations: population attributes, population growth, population interactions.</p>	To study the plant population Density/ Frequency by quadrat method.
			<b>14.Ecosystem</b>	<p>Ecosystem-structure and function, productivity, decomposition, energy flow, ecological pyramids, succession, nutrient cycling and ecosystem services</p>	

7	November	17	<b>15.Biodiversity and its conservation</b>  <b>16.Environmental issues</b>	Biodiversity ;types, patterns of biodiversity, species and loss of biodiversity Biodiversity conservation; In situ and Ex situ conservation  Air pollution and its control, Water pollution and its control, Solid wastes, Agrochemicals and their effect. Radioactive wastes, Greenhouse effect and global warming. Ozone depletion in the stratosphere and Deforestation	Study the effects of temperature on salivary amylase. Study the effects of pH on salivary amylase.  To study the presence of suspended particulate matter in air at the roadside/garden.
8	December	24	Revision		
9	January	19	Revision		
10	February	22	Practical Exam		

Name of the Teacher: Ms.Punam Rathore Singh



**TAPOVAN INTERNATIONAL SCHOOL**  
**YEARLY SYLLABUS 2019-20**

SUBJECT: Mathematics

Class: XII Science

Sr.No.	Month	No. of Working Days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Activities
1	April	23	3- Matrices	Introduction ,Different types of matrices ,Operations on matrices ,Minors and Cofactors ,Transpose of a matrix. ,Special Matrices (Symmetric and Skew-symmetric) ,Adjoint and Inverse of a matrix ,Elementary transformations ,Applications of matrices.	Group Discussion
			4- Determinants	Introduction ,Expansion of a Determinant ,Properties of Determinants ,Solution of Linear Equations by Matrix method.	Problem Solving
2	June	22	5- Continuity and Differentiability	Introduction ,Continuity of a function at a point and in an interval, Continuity of some important functions Differentiability(Introduction) Differentiability of some imp. Functions ,Differentiation of Inv. Trigonometric functions ,Logarithmic Differentiation ,Differentiation of functions in parametric form ,Higher order derivatives.	Problem Solving
			6- Application of Derivatives	Introduction ,Derivative as a rate measure ,Increasing and Decreasing functions Tangents and Normals ,Maxima and Minima ,Differentials, Errors and Approximations.	Group Discussion

Sr.No.	Month	No.of Working Days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Activities
3	July	25	7- Integrals  8. Applications of integrals	Introduction ,Methods of Integration- Integration by substitution, By using partial fractions and Integration by parts Int. of special type functions ,Definite int. as limit of sum ,Basic properties of def. int. and evaluation of def. int.  Applications of integrals in finding areas under curves like line, parabola ellipse, circle etc.	Group Discussion
4	August	16	9- Differential Equations	Definition ,Order and degree ,General and particular sol. ,Formation of diff. eq. ,Sol. Of diff. eq. by various methods	Problem Solving
5	September	22	10- Vector Algebra  11- 3-D Geometry	Vectors and scalars ,magnitude and direction of vector ,Types of vectors ,Position vector of a pt. ,D.Cs and D. Rs of a vector ,Scalar and vector product of vectors. D.Cs and D.Rs of a line ,Cartesian and vector eq. of line and plane ,Coplanar and skew lines ,Shortest distance between two lines ,Angle between two lines, two planes , a line and a plane.	Problem Solving
6	October	18	1- Relations and functions	Introduction , Reflexive, Symmetric and Transitive relations ,Equivalence relations ,Functions ,Injective, Surjective and Bijective functions ,Composition of functions ,Inverse of a function ,Binary operations.	Problem solving



			2- Inverse Trigonometric Functions	Introduction ,Different Inverse Trigonometric Functions and their principal value branches ,Identities related to I.T.F.	
7	November	17	12- Linear Programming Problems  13- Probability	Introduction ,Mathematical formulation of L.P.P. ,Different types of L.P.P.  Conditional prob. ,Multiplication theorem of prob. ,Independent events ,Total prob. ,Bayes theorem ,Random variable, its prob.dist.,mean, variance.	Problem solving
8	December	24	Revision		
9	January & February	19 22	Revision & Pre-Board  Revision		

Name of the teacher : Anil Sharma

Name of the Teacher :



**TAPOVAN INTERNATIONAL SCHOOL**  
**YEARLY SYLLABUS 2019-20**

**SUBJECT: COMPUTER SCIENCE (083)**

**Class: XII**

Sr.No.	Month	No.of Working Days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Practicals
1	April	23	<b>1. Python Revision Tour I</b>  <b>2. Python Revision Tour II</b>	<ul style="list-style-type: none"> <li>➤ Python Basics</li> <li>➤ Data Types</li> <li>➤ Statements overview</li> <li>➤ Looping statements</li> <li>➤ Break and continue statement</li> <li>➤ Strings</li> <li>➤ Lists</li> <li>➤ Tuple, Dictionaries</li> <li>➤ Sorting</li> </ul>	Programs based on statements ,lists tuples, dictionaries, sorting.
2	June	22	<b>3.Working with Functions</b>  <b>4. Using Python Libraries</b>	<ul style="list-style-type: none"> <li>➤ Introduction to Functions</li> <li>➤ Defining Functions</li> <li>➤ Function Call, Passing parameters</li> <li>➤ Returning values</li> <li>➤ Scope of Variables,Objects</li> <li>➤ Introduction to Library</li> <li>➤ Importing modules</li> <li>➤ Library functions</li> </ul>	Programs based on Functions and using Modules
3	July	25	<b>5. File Handling</b>  <b>6. Recursion</b>	<ul style="list-style-type: none"> <li>➤ Introduction to File Handling</li> <li>➤ Data Files</li> <li>➤ Opening and closing files</li> <li>➤ Reading &amp; writing files</li> <li>➤ Streams</li> <li>➤ Introduction to Recursive function</li> <li>➤ Working of Recursive function</li> <li>➤ Searching</li> <li>➤ Recursion vs Iteration</li> </ul>	Programs based on File Handling & Recursion

4	August	16	7. Data Visualization using Pyplot	<ul style="list-style-type: none"> <li>➤ Introduction to Visualization</li> <li>➤ Using Pyplot of Matplotlib Library</li> <li>➤ Line Chart, Bar Chart, Pie Chart</li> <li>➤ Customizing Plot</li> <li>➤ Comparing chart types</li> </ul>	Programs based on charts using pyplot.
5	September	22	8. Computer Networks-I,II  9. Society, Law & Ethics	<ul style="list-style-type: none"> <li>➤ Introduction to Networking</li> <li>➤ Types of Networks</li> <li>➤ Network Devices &amp; Hardware</li> <li>➤ Clouds, Modulation Techniques, Routing</li> <li>➤ Network protocols, Secure communication</li> <li>➤ Network Tools, Applications</li> <li>➤ Ethical Issues</li> <li>➤ Cyber Crime</li> <li>➤ Cyber law</li> <li>➤ Other terms &amp; Issues</li> </ul>	
6	October	18	10. Linear List, Stack & Queues	<ul style="list-style-type: none"> <li>➤ Introduction of Linear List</li> <li>➤ Linear List &amp; its operations</li> <li>➤ Stack &amp; Queues</li> <li>➤ Operations (POP, PUSH)</li> <li>➤ Conversions (INFIX, POSTFIX)</li> </ul>	Programs based on implementation of Linear List, Stack, Queue.
7	November	17	11. Structured Query Language	<ul style="list-style-type: none"> <li>➤ Relational models &amp; its Terms</li> <li>➤ Introduction to SQL</li> <li>➤ Using DDL &amp; DML, TCL commands</li> <li>➤ Simple queries</li> <li>➤ SQL Functions</li> </ul>	Tables in Ms-Access, Problems based on SQL Tables.
8	December	24	12. Django Based Web Application  13. Interface with Mysql	<ul style="list-style-type: none"> <li>➤ Introduction to Django</li> <li>➤ Django Basics</li> <li>➤ Creating Models, Views Templates</li> <li>➤ Get, Post Request, CSV</li> <li>➤ Connecting Mysql from Python</li> <li>➤ Insert &amp; Update Queries</li> </ul>	Programs based on django web application
9	January	19	Pre Board		
10	February	22	Practicals		

Name of the Teacher: Ms.Bhanu Priya Arora



**TAPOVAN INTERNATIONAL SCHOOL**  
**YEARLY SYLLABUS 2019-20**

SUBJECT: PHYSICAL EDUCATION

Class:12

Sr.No	Month	No.of Working Days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Activities
1	April	23	I : Planning in Sports	<ul style="list-style-type: none"> <li>• Meaning &amp; Objectives of Planning</li> <li>• Various Committees &amp; Its Responsibilities</li> <li>• Tournament – Knock-Out, League or Round Robin &amp; Combination</li> <li>• Procedure to Draw Fixtures – Knock-Out (Bye &amp; Seeding) &amp; League (Staircase &amp; Cyclic)</li> <li>• Intramural &amp; Extramural – Meaning, Objectives &amp; Its Significance</li> <li>• Specific Sports Programme (Sports Day, Health Run, Run For Fun, Run For Specific Cause &amp; Run For Unity)</li> </ul>	Practical planning of league system on Board and on ground practical of different tournament pattern
			III: Yoga & Lifestyle	<p><b>Revision of chapter with Question and Answer session</b></p> <ul style="list-style-type: none"> <li>• Asana as preventive measures</li> <li>• Obesity: procedure, benefits &amp; contraindications for Vajrasana, Trikosana</li> <li>• Diabetes: : procedure, benefits &amp; contraindications for bhujangasana, paschimottasana, pavanmuktasana</li> <li>• Asthema: : procedure, benefits &amp; contraindications for Sukhasana, Chakrasana</li> <li>• Hypertension: Tadasana, vajrasana, bhujangasana</li> <li>• Backpain: Tadasana, vakrasana, shalabhasana</li> </ul> <p><b>Revision of chapter with Question and Answer session</b></p>	Different asana practices

2	June	22	<p>II : Sports and Nutrition</p> <p>V : Children &amp; Women in Sports</p>	<ul style="list-style-type: none"> <li>Balanced Diet and Nutrition: Macro and Micro Nutrients</li> <li>Nutritive and Non-Nutritive Components of Diet</li> <li>Eating for Weight Control - A Healthy weight, The pitfalls of Dieting, food intolerance and food myths</li> <li>Motor development in children</li> <li>Factors affecting motor development</li> <li>Exercise Guidelines at different stages of growth &amp; development</li> <li>Common Postural Deformities - Knock Knee; Flat Foot; Round Shoulders; Lordosis, Kyphosis, Bow Legs and Scoliosis</li> <li>corrective measures for Postural Deformities</li> <li>Sports participation of women in India</li> <li>Special consideration (Menarch, Menstrual Dysfunction)</li> <li>Female Athletes Triad (Anemia, Osteoporosis &amp; Amenoria)</li> </ul>	<p>Sports Nutrition Quiz n showing video.</p> <p>Making Charts on different postures. Showing Common Postural Deformities video.</p>
3	July	25	VII: Physiology & injuries in Sports	<ul style="list-style-type: none"> <li>Physiological factor determining component of Physical Fitness</li> <li>Effect of exercise on Cardio Vascular System</li> <li>Effect of exercise on Respiratory System</li> <li>Effect of exercise on Muscular System</li> <li>Physiological changes due to ageing</li> <li>Sports injuries: Classification, Causes &amp; Prevention</li> <li>Management of Injuries:</li> <li>Soft Tissue Injuries: (Abrasion, Contusion, Laceration, Incision, Sprain &amp; Strain)</li> <li>Bone &amp; Joint Injuries: Dislocation, Fractures: Stress Fracture, Green Stick, Communated, Transverse Oblique &amp; Impacted</li> <li>First Aid – Aims &amp; Objectives</li> </ul>	Charts on different system of body and use of Bio lab for better understanding of body system and showing different system video.

4	August	16	VI: Test and Measurement in Sports	<ul style="list-style-type: none"> <li>• Motor Fitness test</li> </ul> <p>General Motor Fitness – Barrow three item general motor ability</p> <ul style="list-style-type: none"> <li>• Measurement of Cardio Vascular Fitness - Harward Step Test/Rockfort Test</li> <li>• Rikli and Jones - Senior Citizen Fitness Test <ul style="list-style-type: none"> <li>○ Chair Stand test for lower body strength</li> <li>○ Arm Curl test for upper body strength</li> <li>○ Chair Sit and Reach test for lower body flexibility</li> <li>○ Back Scratch test for upper body flexibility</li> <li>○ Eight Foot Up and Go test for agility</li> <li>○ Six minute walk test for Aerobic Endurance</li> </ul> </li> </ul>	Practical of Motor Fitness Test
5	September	22	IV : Physical education & Sports for CWSN(Children with special need)	<ul style="list-style-type: none"> <li>• Concept of Disability &amp; disorder</li> <li>• Types of Disability, its causes &amp; nature</li> <li>• Types of Disorder, its cause &amp; nature, Disability Etiquettes</li> <li>• Advantage of physical activity for children with special needs</li> <li>• Strategies to make physical Activity assessable for children with special need.</li> </ul>	
6	October	18	VIII. Biomechanics and Sports	<ul style="list-style-type: none"> <li>• Meaning And Importance of Biomechanics in sports</li> <li>• Newton law of motion &amp; its application in sports</li> <li>• Types of movements(flexion, Extension, Adbuction, Adduction)</li> <li>• Friction &amp; Sports</li> </ul>	Practical on different games And video
7	November	17	X. training in sports	<ul style="list-style-type: none"> <li>• Strength-definition, types &amp;method</li> <li>• Endurance- definition, types &amp;method</li> <li>• Speed- definition, types &amp;method</li> <li>• Flexibility- definition, types &amp;method</li> <li>• Coordinative Abilities- definition and types</li> <li>• Circuit Training – intro &amp; importance</li> </ul>	Practical on different games and exercise

			IX. Psychology & Sports	<ul style="list-style-type: none"> <li>• Understanding Stress &amp; coping Strategies</li> <li>• Personality; its definition &amp; types, - Trait &amp; Types &amp; big five theory</li> <li>• Motivation, its types &amp; techniques</li> </ul> <p>Exercise Adherence; Reasons to Exercise, Benefits of Exercise</p> <ul style="list-style-type: none"> <li>▫ Strategies for Enhancing Adherence to Exercise</li> <li>• Meaning, concept &amp; types of Aggressions in Sports</li> </ul>	
8	December	24	Revision		
9	January	19	Revision		
10	February	22	Revision, board practical exam		
11	March	11	Revision		

Name of the Teacher : Rajesh Patel



**TAPOVAN INTERNATIONAL SCHOOL**  
**YEARLY SYLLABUS 2019-20**

**SUBJECT: ENTREPRENEURSHIP (66)**

**Class: XII Com**

Sr.No	Month	No.of Working Days	No. & Name of the Chapter / Lesson	Content / Sub Topics	Activities
1	April	23	L-2. Entrepreneurial Planning	Forms of business entities, creating of business plan, organizational plan, production plan, marketing plan and operational plan, financial marketing plan, Human resource planning, Formalities for starting a business.	Value based questions Case study and project work on Business Plan
2	June	22	L-1. Entrepreneurial Opportunity	Sensing Entrepreneurial Opportunities. Environment scanning. Problem Identification. Spotting trends. Creativity and Innovation. Selecting the right opportunity.	Conduct a survey on any particular problem and find a solution to that problem.
			L-3. Enterprise Marketing	Setting Goals, SMART Goals, Marketing and sales strategy. Branding- Business name, logo, tagline. Promotional strategy.	Value based questions Case study
3	July	25	L-3. Enterprise Marketing	Negotiation and its types. Customer relationship. Employee relationship and vendor management. Quality, timeliness and customer satisfaction. Business failure- reasons.	Value based questions Case study
4	August	16	L-4. Enterprise Growth Strategy.	Franchising and its types, advantages and disadvantages. Mergers and its different types. Acquisitions and its different types.	Visits any one Franchise in your nearby place
5	September	22	L-4. Enterprise Growth Strategy.	Value additions and moving up the value chain with Porters model. Reasons for failure in mergers and acquisitions.	Make a list of companies which have merged or acquisition.
			L-5. Business Arithmetic	Unit of sale, Unit cost and Unit price computation for single and multiple products. Importance and use of cash flow projections. Budgeting and managing the finances.	Value based questions Case study



6	October	13	L-5. Business Arithmetic	Break even analysis for single and multiple products. Computation of working capital. Inventory control and EOQ. Return on investment and Return on equity.	Project Work on Market survey Problem solving numerical on EOQ, ROI, ROE and BEP.
7	November	13	L-6. Resource Mobilization	Capital Markets, Angel Investor, Venture Capitalist. Stock Market and its functions. SEBI importance and its different functions. Specialized financial institutions and their functions: IDBI, SIDBI, ICICI, IFCI, NABARD, IIBI, SFC, TFCI, SIDC.	Find out 5 entrepreneurial ventures which have received financial assistance from Angel investors and Venture capitalist in India.
8	December	24	Revision, Project work and class test	Revision	Class test Chapter Wise. Problem solving on numerical.
9	January	19	Revision, class test and pre-board exam.	Revision	Class test Chapter Wise
10	February	22	Practical Exam and Revision	Practical Exam and Revision	Practical Exam and Revision

Name of the Teacher: PRABIR DAS