

**ANNUAL PEDAGOGICAL PLAN**

**CLASS : XII**

**SUBJECT : ENGLISH CORE**

Month	Name of the topic	METHODOLOGY/ACTIVITIES	LEARNING OUTCOMES	WORKING DAYS
April	<p><b>Flamingo (Prose)</b> <b>The Last Lesson</b></p> <p><b>Notice</b></p> <p>Advertisement</p>	<p>The session would begin with an interaction on <b>homework – and the way you treat it.</b> <b>(Student Teacher Interaction)</b></p> <p>The learners would interpret the title of the lesson. The background knowledge of the author and his works would be given. The facilitator would develop the chain of events, with TEXT sequence or discourse/spoken with reference to the educational and personal domains.</p> <p>Difficult words and terms would be discussed. The prose will be explained. All possible questions and answers would be discussed and assigned</p> <p><b>Warm up session:</b> Learners would share their knowledge on the importance of a notice (Student-Teacher interaction) The Learners would be asked to speak about a notice they received and they remember still.</p> <p>The teacher would explain what a notice is and its purpose. The standard format of notice writing would be shown in the class. The teacher would discuss in detail what a notice should contain. The wide range of themes and Objectives covered by notice would be discussed with examples</p> <p>Kinds of Advertisement - Classified and Commercial</p>	<p>S-They would develop their Optimistic attitude towards life amidst many struggles.</p> <p>They would be able to familiarize themselves with specific background information of Alphonse Daudet/ history of France.</p> <p>They would be able to make connections between similar situations in different storylines/life experiences like Indians under British imperialism students will be able to analyze any NOTICE shown to them on the basis of the knowledge imparted.</p> <p>They will be able to frame notice about any event. . They will be able to identify important information in any given notice. Students will be able to use appropriate style and format to write a NOTICE effectively</p>	21

April	<b>Vistas: The Enemy</b>	<p>The session would start with an interactive session on the <b>services of a doctor.</b></p> <p>The title of the lesson would be open for class Interpretation The background of the author would be given.</p> <p>The lesson would be explained. The historical background of the story and war related issues would be discussed.</p>	<p>The learners will be able to familiarize themselves with specific background of political enmity.</p> <p>They will be able to identify and make connections between similar situations in own life experiences where our prejudices often hinder our human compassion</p>	
-------	--------------------------	---	--	--

**ANNUAL PEDAGOGICAL PLAN**

**CLASS : XII**

**SUBJECT : ENGLISH CORE**

	<b>Note Making and Summarizing Writing Skill</b>	<p>Difficult words would be listed out and discussed.</p> <p>Explanation with the format .Its practice with few passages</p>	<p>and empathy for a political enemy.</p> <p>They will be able to understand the significance of professional ethics and social obligation in sensitive times.</p>	
June	<b>The Lost Spring</b>	<p>The session would begin with an audio -video presentation on the plight of poor children. The learners would be asked to interpret the title of the lesson relating it to the presentation.</p> <p>The background of the author would be given. The theme and story line would be explained.</p>	<p>Learners will be sensitized to the problem of child labour.</p> <p>They would be able to identify the problem, consider the options, weigh the pros and cons of each option, and reach a decision/ opinion/solution. They would enhance their analytical skills.</p>	15
July	<b>The Tiger King</b>	<p>Explanation of the theme with characters. Explanation of the gist.</p>	<p>They would be able to uncover the motives of the poor parents/ policemen/ Industrialists/ middlemen. They would be able to absorb didactics and inspiration.</p> <p>The learners would familiarize themselves with specific background information of social</p>	21
July	<b>Flamingo (Poetry) An Elementary School Classroom in a slum</b>			

**ANNUAL PEDAGOGICAL PLAN**

**CLASS : XII**

**SUBJECT : ENGLISH CORE**

<p>July</p>	<p><b>Advertisements Classifieds/Display Poster Making</b></p>	<p>The title of the poem would be open for class interpretation.</p> <p>The poem would be explained covering the use of poetic devices and analyzing the theme points.</p> <p>A visual clipping of advertisements would be shown to the learners and they would interpret it through interaction.</p> <p><b>(student-student interaction)</b></p> <p>The concept, format, style and purpose would be explained with examples.</p> <p>The concept, format, style and purpose would be explained with examples</p>	<p>inequalities.</p> <p>They would recognize the purpose of theme and the hidden pathos and nuances of the lines, correlating them with indigenous/ personal experiences.They would be able to build up empathy and sympathy with the prevalent inequalities of the society which rest on financial status and lost opportunities for children.</p> <p>Students will learn persuasive techniques used in advertising. They will use this knowledge to analyze advertising in a variety of sources: print, television, and Web-based advertising. They will also explore the concepts of demographics and marketing for a specific audience.</p>
<p><b>July</b></p>	<p><b>Flamingo (Prose) Deep Water</b></p>	<p>The session would begin with an interactive session wherein the teacher would ask the students to discuss about their phobias as related to the theme of the lesson. Difficult words would be discussed.</p> <p>The story outline, theme and values would be discussed by the teacher through a Power Point Presentation.</p>	<p>The learners would be able to realize that <b>fear is mankind's greatest handicap.</b></p> <p>The students would be able to provide a synopsis of the story. They will be able to analyze the values and thought process of the story.</p> <p>They would be able to identify the insecurity while tackling personal fears and horrors that lurk in the</p>

August	<b>The Rattrap</b>	<p>The students would be grouped into six for the varied activities, discussions and presentations</p> <p>The session would begin with an interactive stage wherein the students would discuss on the <b>temptations in life</b> on the basis of the theme of the story.</p> <p>The title of the lesson would be opened to the class for interpretation. The background knowledge of the author would be given. The prose would be explained. Difficult words would be listed and explained. The moral of the story would be discussed.</p>	<p>recesses of our mind. They would be able to appreciate the significance of developing personal fears yet rising above them to savour real liberty.</p> <p>The learners would be able to understand the need of the hour to maintain World Peace and cut out the clamour and bloodshed, correlating it with contemporary background and personal experiences.</p>	21
August	<b>Flamingo (Poetry) Keeping Quiet</b>	<p>The session would begin with the study of silence. The teacher would ask the learners to maintain silence and the study the sounds of silence for one minute.</p> <p>The learners would discuss on the sounds and thoughts of silence and relate to the title of the poem.</p> <p>The background of the poet would be given. The poem would be thoroughly explained covering the use of poetic devices. Difficult words would be listed out and discussed.</p> <p>The session would start with the introduction of Keats' poem 'Endymion: A Poetic Romance' based on the classical Greek myth of the love of the Moon Goddess Cynthia, for a young shepherd prince, Endymion.</p> <p>The background of the poet would be given.</p>	<p>They would be able to learn:</p> <ul style="list-style-type: none"> <li>-A beautiful thing remains beautiful forever</li> <li>- it is like a cozy bower which ensures peace of mind, calm, healthy surroundings and a quiet sleep</li> </ul> <p>-worldly life is full of hardships and disappointments because of</p>	





**ANNUAL PEDAGOGICAL PLAN**

**CLASS : XII**

**SUBJECT : ENGLISH CORE**

October	<b>Letter Writing: Job Application &amp; Bio-Data</b>		<p>They will be able to examine a variety of letters to determine best layout, content and style.</p> <p>They will be able to develop and produce their own Job application and bio data.</p>	
<b>November</b>	<p><b>Flamingo (Prose) Indigo</b></p> <p><b>The Interview</b></p> <p><b>Going Places</b></p>	<p>The session would start with a short documentary on <b>Champaran</b> Episode. They would be asked to list few words related to legal procedure.</p> <p>Discussion about Gandhi ji ,the man behind India's independence</p> <p>The title of the lesson would be open to the class for interpretation.</p> <p>The Historic background knowledge of the episode would be given.</p> <p>Explanation of the lesson with the gist</p> <p>Explanation of the lesson with the gist</p>	<p>They would be able to understand how ordinary people contributed to the freedom movement.</p> <p>In those days what was the attitude of the average Indians living in smaller localities towards advocates of home rule. They understand how Mahatama</p> <p>Students would be able to familiarize their point of views</p> <p>Students would be able to familiarize their point of views</p>	<b>22</b>

	<b>Letter to editor</b>	<p>The usage of language would be taught and students would be assigned written tasks.</p>	<p>The learners would be able to organize and express their thoughts freely.</p> <p>They would develop an interest towards creative writing thus enhancing their writing skills.</p>	
--	-------------------------	--	--	--

**ANNUAL PEDAGOGICAL PLAN**

**CLASS : XII**

**SUBJECT : ENGLISH CORE**

<p><b>December</b></p>	<p><b>Vistas - Should Wizard Hit Mommy?</b></p>	<p>The session would start with an interaction <b>on Are nursery rhymes and fairy tales a reflection of reality?</b></p> <p>The title of the lesson would be open for interpretation.</p> <p>The background of the author would be given. The lesson would be explained.</p> <p>Difficult words would be listed out and discussed.</p> <p>The session would start with an interaction <b>on appearances are deceptive.</b></p> <p>The title of the story would be open for interpretation. The background of the author would be given. The prose would be read aloud and discussed.</p>	<p>The learners would be able to familiarize with specific background while tackling personal choices on security, familiarity and happiness.</p> <p>They would be able to make connections between similar situations in personal experiences.</p> <p>They will be able to appreciate the timeless significance of universal fears of loss and gain, of happy ending and parenting issues.</p> <p>The learners would be able to fight out their loneliness, depression and disappointment.</p> <p>They would accept the physically challenged people positively in their life and expand their social interaction.</p> <p>They would be able to build up optimism and self confidence.</p>	<p><b>19</b></p>
<p>December</p>	<p><b>On the face of it</b></p>	<p>The format, rules, technique would be discussed with examples.</p>		

<p>December</p>	<p>Memories of Childhood</p>	<p>Explanation of the theme with its gist</p>	<p>Students would be able to familiarize their point of views</p>	
-----------------	------------------------------	---	---	--

**ANNUAL PEDAGOGICAL PLAN**

**CLASS : XII**

**SUBJECT : ENGLISH CORE**

December	<p><b>Evans Tries an O Level</b></p> <p align="center"><b>Arts Integrated Activity</b></p>	<p>The session would start with an interaction on <b>Would Education in the jails help in refining prisoners.</b></p> <p>The title of the lesson would be open for class interpretation. The background of the author would be given. The lesson would be explained and discussed. Difficult words would be listed out and discussed.</p> <p>As Per The Topic</p>	<p>The learners will be able to familiarize themselves with specific background of the cat and mouse role of the police and the criminal. They will be able to identify and make connections between similar situations in their own country where each of us witness the dereliction of duty of the law keepers and their complacent laxity.</p> <p>The interest and the views of the children would relate their connections to the particular visited scenes and sights.</p>	<b>07</b>
<b>December</b>	<b>ASL - Pre- Board Exam.</b>			<b>16</b>
<b>January</b>	<b>Second Pre- Board Exam.</b>			<b>18</b>

**ANNUAL PEDAGOGICAL PLAN 2021 – 2022**

**APPLIED MATHEMATICS**

**CLASS – XII**

<b>MONTH</b>	<b>TOPIC</b>	<b>METHADODOLOGY/ACTIVITES</b>	<b>LEARNING OUTCOME</b>	<b>WORKING DAYS</b>
<b>APRIL</b>	<p><b>Unit – 2 Algebra</b>                      - Matrices and types of matrices.</p> <p>- Equality of matrices, Transpose of a matrix, Symmetric and Skew symmetric matrix</p> <p>- Algebra of Matrices</p>	<p>- To Present a set of data in a matrix form</p> <p>- Examples of transpose of matrix                      - A square matrix as a sum of symmetric and skew symmetric matrix</p> <p>- Addition , Subtraction &amp; Multiplication of matrices (It can be shown to the students that Matrix multiplication is similar to multiplication of two polynomials)</p>	<p>- The students will be able to                      - Identify different kinds of matrices.                      - Find the size / order of matrices.</p> <p>- Determine equality of two matrices.                      - Write transpose of given matrix                      - Define symmetric and skew symmetric matrix.</p> <p>- Perform operations like addition &amp; subtraction on matrices of same order.                      - Perform multiplication of two matrices of appropriate order.                      - Perform multiplication of a scalar with matrix.</p>	<b>10</b>
<b>MAY</b>	<p>- Determinants</p> <p>- Inverse of a matrix</p> <p>- Solving system of simultaneous equations using matrix method, Cramer’s rule and row reduction method</p>	<p>- Simple problems to find determinant value.</p> <p>- Inverse of a matrix using:                      a) Cofactors.                      b) Elementary row operations.</p> <p>- Contextualized real life problems</p>	<p>- The students will be able to:-                      - Find determinant of a square matrix.                      - Use elementary properties of determinants.</p> <p>- Define the inverse of a square matrix.                      - Explain elementary row operations and use to it find the inverse of a matrix.                      - Apply properties of inverse of matrices.</p> <p>- Solve the system of simultaneous equations using                      i) Cramer’s Rule                      ii) Inverse of coefficient matrix                      iii) Row reduction method                      - Formulate real life problems into a system of simultaneous linear equations and solve it using these methods</p>	<b>10</b>
<b>JUNE</b>	<p><b>UNIT -8 LINEAR PROGRAMING</b></p> <p>- Introduction and related terminology.</p>	<p>- To frame linear programming problem based on real life situations.</p>	<p>- The students will be able to:-                      - Familiarize with terms related to Linear Programming Problem.</p>	<b>05</b>

**ANNUAL PEDAGOGICAL PLAN 2021 – 2022**

**APPLIED MATHEMATICS**

**CLASS – XII**

	<ul style="list-style-type: none"> <li>- Mathematical formulation of Linear Programming Problem.</li> <li>- Different types of Linear Programming Problems.</li> <li>- Graphical method of solution for problems in two variables.</li> <li>- Feasible and Infeasible Regions.</li> <li>- Feasible and infeasible solutions, optimal feasible solution.</li> </ul>	<ul style="list-style-type: none"> <li>- To express the problems in terms of in equations.</li> <li>- Formulate various types of LPP's like Manufacturing Problem, Diet Problem, Transportation Problem, etc.</li> <li>- To formulate problems based on Corner Point Method for the Optimal solution of LPP.</li> <li>- Examples to explain the terms.</li> <li>- Problems based on optimization.</li> <li>- Examples of finding the solutions by graphical method.</li> </ul>	<ul style="list-style-type: none"> <li>- Formulate Linear Programming Problem.</li> <li>- Identify and formulate different types of LPP.</li> <li>- Draw the Graph for a system of linear inequalities involving two variables and to find its solution graphically.</li> <li>- Identify feasible, infeasible, bounded and unbounded regions.</li> <li>- Understand feasible and infeasible solutions.</li> <li>- Find optimal feasible solution.</li> </ul>	
<b>JULY</b>	<ul style="list-style-type: none"> <li>- <b>UNIT -1</b> NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS.</li> <li>- Modulo Arithmetic.</li> <li>- Congruence Modulo.</li> <li>- Simple Arithmetic Functions.</li> <li>- Allegation and Mixture.</li> </ul>	<ul style="list-style-type: none"> <li>- Modular addition and subtraction.</li> <li>- Solution using congruence modulo.</li> <li>- Equivalence class.</li> <li>- Properties and Examples of:                             <ul style="list-style-type: none"> <li>i) Euler totient function</li> <li>ii) Number of divisor function</li> <li>iii) Divisor sum function Mobius function.</li> </ul> </li> <li>- Application of rule of allegation.</li> <li>- Mean price of a mixture.</li> </ul>	<ul style="list-style-type: none"> <li>- The students will be able to:-</li> <li>- Define modulus of an integer.</li> <li>- Apply arithmetic operations using modular arithmetic rules.</li> <li>- Define congruence modulo.</li> <li>- Apply the definition in various problems.</li> <li>- Define arithmetic function</li> <li>- Enlist different arithmetic functions.</li> <li>- Apply the arithmetic functions on given numbers.</li> <li>- Understand the rule of allegation to produce a mixture at a given price.</li> <li>- Determine the mean price of a mixture.</li> <li>- Apply rule of allegation.</li> </ul>	<b>24</b>

**ANNUAL PEDAGOGICAL PLAN 2021 – 2022**

**APPLIED MATHEMATICS**

**CLASS – XII**

	<p><b>Numerical Problems</b></p> <ul style="list-style-type: none"> <li>- Boats and Streams (upstream and downstream).</li> <li>- Pipes and Cisterns.</li> </ul>	<ul style="list-style-type: none"> <li>- Problems based on speed of stream and the speed of boat in still water.</li> <li>- To calculate the portion of the tank filled or drained by the pipe(s) in unit time.</li> </ul>	<ul style="list-style-type: none"> <li>- Distinguish between upstream and downstream.</li> <li>- Express the problem in the form of an equation.</li> <li>- Determine the time taken by two or more pipes to fill or empty the tank.</li> </ul>	
<b>AUGUST</b>	<p><b>UNIT -3 CALCULUS</b></p> <ul style="list-style-type: none"> <li>- Higher Order Derivatives.</li> <li>- Application of Derivatives.</li> <li>- Marginal Cost and Marginal Revenue using derivatives.</li> <li>- Increasing / Decreasing Functions.</li> <li>- Maxima and Minima.</li> <li>- Integration and its Applications</li> <li>- Integration.</li> </ul>	<ul style="list-style-type: none"> <li>- Simple problems based on higher order derivatives.</li> <li>- To find the rate of change of quantities such as area and volume with respect to time or its dimension.</li> <li>- To find Gradient / Slope &amp; equation of tangent and normal to the curve.</li> <li>- Examples related to marginal cost, marginal revenue, etc.</li> <li>- The concept of increasing and decreasing behavior of a function in the given interval.</li> <li>- <b>ART INTEGRATED LEARNING ACTIVITY: STUDY OF MAXIMUM &amp; MINIMUM FUNCTION AS A CONCEPT USING ART.</b></li> <li>- Vocabulary and Notations related to Integration.</li> </ul>	<ul style="list-style-type: none"> <li>- Determine second and higher order derivatives.</li> <li>- Understand differentiation of parametric functions and implicit functions.</li> <li>- Determine the rate of change of various quantities.</li> <li>- Understand the gradient of tangent and normal to a curve at a given point.</li> <li>- Write the equation of tangents and normal to a curve at a given point.</li> <li>- Define marginal cost and marginal revenue.</li> <li>- Find marginal cost and marginal revenue.</li> <li>- Determine whether a function is increasing or decreasing.</li> <li>- Determine the conditions for a function to be increasing or decreasing.</li> <li>- Determine critical points of the function.</li> <li>- Find the point(s) of local maxima and local minima and corresponding local maximum and local minimum values.</li> <li>- Find the absolute maximum and absolute minimum value of a function.</li> <li>- Solve applied problems.</li> <li>- Understand and determine indefinite integrals of simple functions as anti-derivative.</li> </ul>	<b>25</b>

**ANNUAL PEDAGOGICAL PLAN 2021 – 2022**

**APPLIED MATHEMATICS**

**CLASS – XII**

	<ul style="list-style-type: none"> <li>- Indefinite Integrals as family of curves.</li> <li>- Definite Integrals as area under the curve.</li> <li>- Application of Integration.</li> </ul> <p align="center"><b>Differential Equations and Modeling</b></p> <ul style="list-style-type: none"> <li>- Differential Equations.</li> <li>- Formulating and Solving Differential Equations.</li> <li>- Application of Differential Equations.</li> </ul>	<ul style="list-style-type: none"> <li>- Simple integrals based on each method (nontrigonometric function).</li> <li>- Evaluation of definite integrals using properties.</li> <li>- Problems based on finding:-                             <ul style="list-style-type: none"> <li>- Total cost when Marginal Cost is given.</li> <li>- Total Revenue when Marginal Revenue is given.</li> <li>- Equilibrium price and equilibrium quantity and hence consumer and producer surplus.</li> </ul> </li> <li>- Order, degree and examples.</li> <li>- Formation &amp; Solution of simple differential equations (direct integration only).</li> <li>- Growth and Decay Model in Biological sciences, Economics and business, etc.</li> </ul>	<ul style="list-style-type: none"> <li>- Evaluate indefinite integrals of simple algebraic functions by method of:                             <ul style="list-style-type: none"> <li>i) Substitution.</li> <li>ii) Partial fraction</li> <li>iii) by parts</li> </ul> </li> <li>- Define definite integral as area under the curve.</li> <li>- Understand fundamental theorem of Integral calculus and apply it to evaluate the definite integral.</li> <li>- Apply properties of definite integrals to solve the problems.</li> <li>- Identify the region representing C.S. and P.S. graphically.</li> <li>- Apply the definite integral to find consumer surplus-producer surplus.</li> <li>- Recognize a differential equation.</li> <li>- Find the order and degree of a differential equation.</li> <li>- Formulate differential equation.</li> <li>- Verify the solution of differential equation.</li> <li>- Solve simple differential equation.</li> <li>- Define Growth and Decay Model.</li> <li>- Apply the differential equations to solve Growth and Decay Models.</li> </ul>	
<p><b>SEPTEMBER</b></p>	<p><b>UNIT- 4 PROBABILITY DISTRIBUTIONS</b></p> <ul style="list-style-type: none"> <li>- Probability Distribution.</li> <li>- Mathematical expectation.</li> </ul>	<ul style="list-style-type: none"> <li>- Examples of discrete and continuous random variable and their distribution.</li> <li>- Summation of product of discrete random variable by the probability of its occurrence.</li> </ul>	<ul style="list-style-type: none"> <li>- Understand the concept of Random Variables and its Probability Distributions.</li> <li>- Find probability distribution of discrete random variable.</li> <li>- Apply arithmetic mean of frequency distribution to find the expected value of a random variable.</li> </ul>	<p align="center"><b>10</b></p>

## ANNUAL PEDAGOGICAL PLAN 2021 – 2022

**APPLIED MATHEMATICS**

**CLASS – XII**

	<ul style="list-style-type: none"> <li>- Variance</li> <li>- Binomial distribution.</li> <li>- Poisson distribution.</li> <li>- Normal distribution.</li> </ul>	<ul style="list-style-type: none"> <li>- Questions based on variance and standard deviation.</li> <li>- Characteristics of the binomial distribution.</li> <li>- Binomial formula.</li> <li>- Characteristics of Poisson Probability distribution.</li> <li>- Characteristics of a normal probability distribution.</li> <li>- Total area under the curve = total probability = 1.</li> <li>- Standard Normal Variate.</li> </ul>	<ul style="list-style-type: none"> <li>- Calculate the Variance and S.D. of a random variable.</li> <li>- Identify the Bernoulli Trials and apply Binomial Distribution.</li> <li>- Evaluate Mean, Variance and S.D of a binomial distribution.</li> <li>- Understand the Conditions of Poisson Distribution.</li> <li>- Evaluate the Mean and Variance of Poisson distribution.</li> <li>- Understand normal distribution is a Continuous distribution.</li> <li>- Evaluate value of Standard normal variate.</li> <li>- Area relationship between Mean and Standard Deviation.</li> </ul>	
<b>REVISION FOR MID – TERM AND MID – TERM EXAM</b>				
<b>OCTOBER</b>	<p><b>UNIT – 5 INFERENCE STATISTICS</b></p> <ul style="list-style-type: none"> <li>- Population and Sample.</li> <li>- Parameter and Statistics and Statistical Inferences.</li> </ul>	<ul style="list-style-type: none"> <li>- Population data from census, economic surveys and other contexts from practical life.</li> <li>- Examples of drawing more than one sample set from the same population</li> <li>- Examples of representative and non-representative sample</li> <li>- Unbiased and biased sampling</li> <li>- Problems based on random sampling using simple random sampling and systematic random sampling (sample size less than 100).</li> <li>- Conceptual understanding of Parameter and Statistics.</li> <li>- Examples of Parameter and Statistic limited to Mean and Standard deviation only.</li> <li>- Examples to highlight limitations of generalizing results from sample to population.</li> <li>- Only conceptual understanding of Statistical Significance/Statistical Inferences.</li> <li>- Only conceptual understanding of Sampling Distribution through simulation and graphs.</li> </ul>	<ul style="list-style-type: none"> <li>- Define Population and Sample.</li> <li>- Differentiate between population and sample.</li> <li>- Define a representative sample from a population.</li> <li>- Differentiate between a representative and non-representative sample.</li> <li>- Draw a representative sample using simple random sampling.</li> <li>- Draw a representative sample using and systematic random sampling.</li> <li>- Define Parameter with reference to Population.</li> <li>- Define Statistics with reference to Sample.</li> <li>- Explain the relation between Parameter and Statistic.</li> <li>- Explain the limitation of Statistic to generalize the estimation for population.</li> <li>- Interpret the concept of Statistical Significance and Statistical Inferences.</li> <li>- State Central Limit Theorem.</li> <li>- Explain the relation between Population-Sampling Distribution-Sample.</li> </ul>	<b>15</b>

**ANNUAL PEDAGOGICAL PLAN 2021 – 2022**

**APPLIED MATHEMATICS**

**CLASS – XII**

	<ul style="list-style-type: none"> <li>- t-Test (one sample t-test and two independent groups t-test).</li> </ul> <p><b>UNIT – 6</b> INDEX NUMBERS AND TIME BASED DATA</p> <ul style="list-style-type: none"> <li>- Index numbers</li> <li>- Construction of Index numbers.</li> </ul>	<ul style="list-style-type: none"> <li>- Examples and non-examples of Null and Alternate hypothesis.</li> <li>- Framing of Null and Alternate hypothesis.</li> <li>- Testing a Null Hypothesis to make Statistical Inferences for small sample size.</li> <li>- Use of t-table.</li> <li>- Utility of index numbers.</li> <li>- Weighted index numbers.</li> </ul>	<ul style="list-style-type: none"> <li>- Define a hypothesis.</li> <li>- Differentiate between Null and Alternate hypothesis.</li> <li>- Define and calculate degree of freedom.</li> <li>- Test Null hypothesis and make inferences using t-test statistic for one group / two independent groups.</li> <li>- Define Index numbers as a special type of average.</li> <li>- Construct different type of index numbers.</li> </ul>	
<b>NOVEMBER</b>	<ul style="list-style-type: none"> <li>- Test of adequacy of index numbers.</li> <li>- Time series.</li> <li>- Components of time series.</li> <li>- Time Series analysis for univariate data.</li> <li>- Secular trend.</li> <li>- Methods of Measuring trend.</li> </ul>	<ul style="list-style-type: none"> <li>- Unit and time reversal.</li> <li>- Meaning and Definition.</li> <li>- Secular trend</li> <li>- Seasonal variation</li> <li>- Cyclical variation</li> <li>- Irregular variation</li> <li>- Fitting a straight line trend and estimating the value.</li> <li>- The tendency of the variable to increase or decrease over a long period of time.</li> <li>- Moving Average method.</li> <li>- Method of Least Squares.</li> </ul>	<ul style="list-style-type: none"> <li>- Apply unit test and time reversal test.</li> <li>- Identify time series as chronological data.</li> <li>- Distinguish between different components of time series.</li> <li>- Solve practical problems based on statistical data and Interpret the result.</li> <li>- Understand the long term tendency.</li> <li>- Demonstrate the techniques of finding trend by different methods.</li> </ul>	<b>20</b>
	<p><b>UNIT – 7 FINANCIAL MATHEMATICS</b></p> <ul style="list-style-type: none"> <li>- Perpetuity, Sinking Funds.</li> <li>- Valuation of Bonds.</li> </ul>	<ul style="list-style-type: none"> <li>- Meaning of Perpetuity and Sinking Fund.</li> <li>- Real life examples of sinking fund.</li> <li>- Advantages of Sinking Fund.</li> <li>- Sinking Fund vs. Savings account.</li> <li>- Meaning of Bond Valuation.</li> </ul>	<ul style="list-style-type: none"> <li>- Calculate perpetuity.</li> <li>- Differentiate between sinking fund and saving account.</li> </ul>	

**ANNUAL PEDAGOGICAL PLAN 2021 – 2022**

**APPLIED MATHEMATICS**

**CLASS – XII**

<p><b>DECEMBER</b></p>	<ul style="list-style-type: none"> <li>- Calculation of EMI.</li>   <li>- Calculation of Returns, Nominal Rate of Return.</li>   <li>- Compound Annual Growth Rate.</li>   <li>- Stock, Shares and Debentures.</li>   <li>- Linear method of Depreciation.</li> </ul>	<ul style="list-style-type: none"> <li>- Bond Valuation Methods: i) Present Value Approach. ii) Relative Price Approach.</li>   <li>- Methods to calculate EMI. - Real life examples to calculate EMI of various types of loans, purchase of assets, etc.</li>   <li>- To calculate Rate of Return, Nominal Rate of Return.</li>   <li>- Meaning and Formula for Compound Annual Growth Rate.</li>   <li>- Real life examples of shares &amp; debentures.</li>   <li>- Advantages and disadvantages of Linear Method.</li> </ul>	<ul style="list-style-type: none"> <li>- Calculate value of bond using present value approach.</li>   <li>- Calculate EMI using various methods.</li>   <li>- Calculate rate of return and nominal rate of return.</li>   <li>- Differentiate between Compound Annual Growth Rate and Annual Growth Rate. - Calculate Compound Annual Growth Rate.</li>   <li>- Explain the concept of stock, shares and debentures. - Enlist features related to equity shares and debentures - Interpret case studies related to shares and debentures (Simple Case studies only).</li>   <li>- Interpret cost, residual value and useful life of an asset from the given information. - Calculate depreciation.</li> </ul>	<p align="center"><b>22</b></p>
<p><b>JANUARY – REVISION FOR PRE – BOARD EXAM AND PREPARATION FOR FINAL EXAMINATION</b></p>				

## ANNUAL PEDAGOGICAL PLAN

<b>Subject – Computer Science</b>			<b>Class - 12</b>	
<b>Month</b>	<b>Topic</b>	<b>Methodology</b>	<b>Learning Outcomes</b>	<b>Working Days</b>
<b>April</b>	(CH-11)Relational Databases  (CH-12)Simple Queries in SQL	Diagrams, Images  Practical in MySQL	Database concepts: introduction to database concepts and its need. Relational data model: relation, attribute, tuple, domain, degree, cardinality, keys (candidate key, primary key, alternate key, foreign key)	
<b>May</b>	(CH-13)Table Creation & Data Manipulation command  (CH-1)Python Revision Tour  (CH-2)Python Revision Tour – II	Practical in MySQL  Practical in Spyder (Python)  Practical in Spyder (Python)	Use Database concepts. Revision of Python topics covered in Class XI.	
<b>June</b>	(CH-14)Grouping records, Join in SQL  (CH-3)Working with Functions	Practical in MySQL  Practical in Spyder (Python)	Functions: types of function (built-in functions, functions defined in module, user defined functions), creating user defined function, arguments and parameters, default parameters, positional parameters, function returning value(s), flow of execution, scope of a variable (global scope, local scope)	

## ANNUAL PEDAGOGICAL PLAN

<b>July</b>	(CH-4)Using Python Libraries (CH-5)File Handling	Practical in Spyder (Python)	Python libraries: creating python libraries. Introduction to files, types of files (Text file, Binary file, CSV file), relative and absolute paths	
<b>August</b>	(CH-6)Recursion (CH-10)Communication & Network concepts	Practical in Spyder (Python) PPTs, Images, Questions based on general Observations.	Recursion: simple programs with recursion: sum of first n natural numbers, factorial, fibonacci Series.	
<b>September</b>	<b>Revision &amp; Mid – Term Examination</b>			
<b>October</b>	(CH-7)Idea of Algorithmic Efficiency (CH-8)Data Structure – I (Linear List)	Practical in Spyder (Python)	Idea of efficiency: number of comparisons in Best, Worst and Average case for linear search. Data Structure (List)	
<b>November</b>	(CH-9)Data Structure – II (Stack and Queue) (CH-15)Interface Python with MySQL	Practical in Spyder (Python)  Practical Demonstration of connectivity of Front end(Python) and back end(MySQL).	Data Structure: Stack, operations on stack (push & pop), implementation of stack using list. Introduction to queue, operations on queue (enqueue, dequeue, is empty, peek, is full), implementation of queue using list. use Database concepts, SQL along with connectivity between Python and SQL.	
<b>December</b>	<b>Revision</b>			
<b>January</b>	<b>Pre – Board Examination</b>			

# ANNUAL PEDAGOGICAL PLAN

**ANNUAL PEDAGOGICAL PLAN**

**CLASS : XII**

**SUBJECT : LEGAL STUDIES**

April	Judiciary	<p>-The class would begin with a diagram of the structure and hierarchy of courts in India</p> <p>-The unit will be read and explained giving reference to the structure and hierarchy of courts.</p> <p>-Reference to case law study</p>	<p>Learners will be able to understand Hierarchy of courts, Adversarial system of law, Public Interest Litigation, Impartiality of Judges, Law Officers of India, Judicial Review.</p>	<u>21</u>
June	<p>Topics of Law</p> <p>(a) Law of Property</p> <p>(b) Law of Contract</p> <p>© Law of Torts</p>	<p>-The class will begin with a discussion on different kinds of property.</p> <p>-The topic will be read and explained.</p> <p>- Case laws relating to property will be discussed.</p> <p>The class will begin with group discussion to observe their knowledge on Law of Contract.</p> <p>The topic will be read and explained.</p> <p>Case laws will be discussed.</p> <p>The topic will be read and explained in the class.</p> <p>Activity – Students will be asked to read the newspaper for 2 weeks and identify 5 cases of tort.</p>	<p>Learners will be able to understand Movable &amp; Immovable Property, Persons competent to transfer, Doctrine of Election, Sale, Lease.</p> <p>Learners will be able to differentiate between Agreement &amp; Contract. They will understand the concepts such as Offer, Acceptance, Unlawful Agreement, Breach of Contract and Damages.</p> <p>Learners will understand the Purpose of Law of Torts.</p> <p>They will be able to understand terms like Wrongful Acts, Negligence, Strict Liability.</p>	15
July	(d) Introduction to Criminal Laws in India	<p>The class will begin with Role Play by students on a Case Study.</p> <p>The topic will be read and explained.</p> <p>Activity – Take any most spoken of criminal cases in the country in the past year and create a tabular representation of the</p>	<p>Learners will be able to understand Criminal Law in India.</p> <p>They will be able identify Sources of Criminal Laws in India</p> <p>Learners will understand the difference between</p>	21

**ANNUAL PEDAGOGICAL PLAN**

**CLASS : XII**

**SUBJECT : LEGAL STUDIES**

	(e) Administrative Law	<p>category, stages and elements of the case.</p> <p>The class will begin with discussion of the concept "Administration". The students will give their understanding of Administration. The topic will be read and explained.</p> <p>Activity – Students will draw a structure of hierarchy of post of Administrative Officers in the state.</p> <p>Activity – Students will write a brief summary of the landmark case "Keshavanand Bharti case".</p>	<p>Administrative Law and Constitutional Law.</p> <p>They will understand the importance of Doctrine of Separation of powers and the Droit System.</p>	
August	Arbitration, Tribunal Adjudication and Alternative Dispute Resolution	<p>The class will begin with narration of a case before Village Panchayat. The topic will be read and explained.</p> <p>Activity – Write a short summary on the fictitious legal case in Charles Dickens novel "The Bleak House".</p> <p>Activity – On the basis of the picture on 'The ADR Continuum' (Pg 108) compare and contrast the features of different ADR techniques.</p>	<p>Learners will be able to understand the different ADR techniques. They will be able to see the importance of Administrative Tribunals. They will be able to understand the roles as well as importance of Lok Adalats, Lokpal and Lok Ayukta.</p>	21
August	Human Rights in India	<p>The class will begin with a discussion on Human Rights. Students will share their perspective on Human Rights. Reading and explanation of the topic.</p> <p>Activity – Students will be divided into groups. Each group to pick up any one of the Fundamental Rights and share their views.</p> <p>Activity – Students will have a class discussion on Fundamental Duties.</p>	<p>Learners will understand the importance of rights and privileges given by the Constitution of India. They will understand the roles of various Human Rights Commission. They will have deeper insight into the Constitutional Framework.</p>	
October	Legal Profession in India	<p>The topic will be read and explained.</p>	<p>Learners will be able to relate to the Legal Profession in India.</p>	19

**ANNUAL PEDAGOGICAL PLAN**

**CLASS : XII**

**SUBJECT : LEGAL STUDIES**

		<p>Activity – Find out the names of renowned senior lawyers currently in practice in your city.</p> <p>Activity – Debate – Should lawyers in India be allowed to advertise?</p>	<p>They will understand the past and present status of women in Legal Profession.</p> <p>They will gain knowledge about the qualification and eligibility to practice in India and other countries.</p>	
--	--	---	---	--

<u>MONTH</u>	<u>TOPIC</u>	<u>METHODOLOGY/ACTIVITIES</u>	<u>LEARNING OUTCOMES</u>	<u>WORKING DAYS</u>
November	Legal Services	<p>Topic will be read and explained in the class.</p> <p>Activity – Make a chart as to how legal aid camps are organised in your area.</p> <p>Activity – Apart from free legal aid, list out other legal services provided by different organisation in your area.</p>	<p>Learners will understand the Services.</p> <p>Hierarchy of Legal Aid Services Authorities.</p> <p>Lok Adalat and power of Lok Adalat</p>	<u>22</u>
December	International Context	<p>Topic will be read and explained in the class.</p> <p>Activity – Students will organise a session of Model United Nations in the class.</p> <p>Activity – Prepare a report in 1000 words on the relation between International Trade and International Law.</p>	<p>Learners will learn about Public International Law and Private International Law.</p> <p>They will know about sources of International law.</p> <p>They will understand the interplay between International law and Municipal law.</p>	19

**ANNUAL PEDAGOGICAL PLAN**

**CLASS XII**

**SUBJECT : PHYSICAL EDUCATION**

<b>MONTH</b>	<b>UNIT / TOPIC</b>	<b>METHODOLOGY / ACTIVITY</b>	<b>LEARNING OUTCOME</b>	<b>WORKING DAYS</b>
<b>April-May</b>	<p><b>UNIT 1 Planning in Sports</b></p> <p># Meaning &amp; objectives # various committees # tournaments # Fixtures # Intramural Activities # Extramural Activities # Specific Sports program</p> <p><b>UNIT 2 Sports and nutrition</b> # Balance diet.</p>	Lecture method , with the help of white boards & PDF sharing	<p>Students will able to know about how planning is important in the field of physical education</p> <p>Students will get aware about the balance diet</p>	
<b>June</b>	<p><b>UNIT 2 Nutrition and Sports</b></p> <p># Nutrition # Macro Nutrients # Micro Nutrients # Nutritive Components</p>	Lecture method with the help of white boards & PDF sharing	<p>Students will gain knowledge about the nutrition and its types. Different types of nutritive components will also be known to students.</p>	
<b>July</b>	<p># Non Nutritive Components # Eating for Weight control # Pitfalls of dieting # Food intolerance.</p>	Lecture method & PDF sharing	<p>Students will know about the nutritive diets and ways of weight control. Students will get aware of food intolerance and pitfalls of dieting .</p>	
<b>August</b>	<p># Food Myths</p> <p><b>UNIT 3 Yoga and Lifestyle</b></p> <p># Asanas # Obesity # Vajrasana</p>	Lecture method & PDF sharing	<p>Students will know about different food myths</p> <p>Students will know about the yoga asanas and different asanas to avoid obesity.</p>	

**ANNUAL PEDAGOGICAL PLAN**

**CLASS XII**

**SUBJECT : PHYSICAL EDUCATION**

	<ul style="list-style-type: none"> <li># Trikonasana</li> <li># Diabetes</li> <li># Bhujangasana</li> <li># Asthma</li> <li># Hypertension</li> <li># Back pain</li> </ul>		<p>Students will know about asanas to get rid of asthma and hypertension and back pain.</p>	
<b>September</b>	<p><b>UNIT 4 Physical Education for CWSN</b></p> <ul style="list-style-type: none"> <li># Disability &amp; Disorders</li> <li># Types of Disability</li> <li># Types of Disorders</li> <li># Causes of Disorder</li> <li># Disability Etiquettes</li> <li># Advantage of physical activities for CWSN</li> </ul> <p><b>UNIT 5 Children &amp; women in sports</b></p> <ul style="list-style-type: none"> <li># Motor Development</li> <li># Stages of Growth</li> <li># Postural Deformity</li> <li># Sports Participation of women in India.</li> </ul>	<p>Lecture method &amp; PDF sharing</p>	<p>Students will know about the different types of games for children with special needs.</p> <p>Students will also get aware about the different types of disabilities and disorders, its causes etc.</p> <p>Students will come to know about the different types of motor developments and stages of growth. Students will also get aware about the different types of postural deformities, their causes and their precautions. They will also get aware about the participation of women in sports in India and reasons behind the less participation of women.</p>	
<b>October</b>	<p><b>UNIT 6 Test and Measurement in Sports</b></p>	<p>Lecture method diagrams &amp; PDF sharing</p>	<p>Students will know about the motor fitness test.</p>	

**ANNUAL PEDAGOGICAL PLAN**

**CLASS XII**

**SUBJECT : PHYSICAL EDUCATION**

	<p># Motor Fitness Test # General Motor Fitness. # BMI # Rikli &amp; Jones Test.</p> <p><b>UNIT 7 Physiology and Sports injuries</b></p> <p># Physiological factors # Effect of Exercise # Muscular System # Ageing # Sports injuries</p>	<p>Lecture method, diagrams &amp; PDF sharing</p>	<p>Students will get aware of body mass index and how to find it out, they will also know about the Rikli &amp; Jones test.</p> <p>Students will get to know about the physiological factors of human body, effects of exercise on human body. They will also know about the muscular system and types of injuries caused in sport field.</p>	
<b>November</b>	<p><b>UNIT 8 Biomechanics in Sports</b></p> <p># Biomechanics # Types of movements # Newton Law of Motion # Friction &amp; Sports.</p> <p><b>UNIT 9 Psychology &amp; Sports</b></p> <p># Personality # Motivation &amp; its types. # Adherence of Exercise</p>	<p>Lecture method &amp; PDF sharing method</p>	<p>Students will know about the use of biomechanics in sports field, types of movement involved in physical education. They will also get aware of use of friction in sports.</p> <p>Students will be able to know about big 5 theory of personality and its types. They will also be aware of the motivation and its techniques, adherence of physical activities and exercise.</p>	
<b>December</b>	<p># Aggression</p>	<p>Lecture method</p>	<p>Students will know about the</p>	

ANNUAL PEDAGOGICAL PLAN

CLASS XII

SUBJECT : PHYSICAL EDUCATION

	<p><b>UNIT 10</b> <b>Training in Sports</b></p> <ul style="list-style-type: none"><li># Strength &amp; it's types</li><li># Endurance</li><li># Speed</li><li># Flexibility &amp; it's Types</li></ul> <ul style="list-style-type: none"><li># Coordinative Abilities</li><li># Circuit Training.</li></ul>	<p>Lecture &amp; PDF sharing method</p>	<p>aggression and its types.</p> <p>Students will know about training involved in sports Students will be proficient about he strength , endurance, speed, flexibility and its types.</p> <p>They will also learn about coordinative abilities and circuit training.</p>	
--	--	---	--	--

MONTH	TOPIC	METHODOLOGY/ACTIVITIES	LEARNING OUTCOMES	WORKING DAYS
April and May	<p><b>Unit 2: Accounting for Partnership Firms</b></p> <ul style="list-style-type: none"> <li>Partnership: features, Partnership Deed.</li> <li>Provisions of the Indian Partnership Act 1932 in the absence of partnership deed.</li> <li>Fixed v/s fluctuating capital accounts. Preparation of Profit and Loss Appropriation account- division of profit among partners, guarantee of profits.</li> <li>Past adjustments (relating to interest on capital, interest on drawing, salary and profit sharing ratio).</li> <li>Goodwill: nature, factors affecting and methods of valuation - average profit, superprofit and capitalization.</li> </ul> <p>Goodwill to be adjusted through partners capital/ current account.</p> <p><b>Accounting for Partnership firms - Reconstitution and Dissolution.</b></p> <ul style="list-style-type: none"> <li><b>Change in the Profit Sharing Ratio</b> among the existing partners - sacrificing ratio, gaining ratio, accounting for revaluation of assets and reassessment of liabilities and treatment of reserves and accumulated profits. Preparation of revaluation account and balance sheet.</li> </ul>	<ul style="list-style-type: none"> <li>Reading and understanding the Concepts.</li> <li><b>Power point presentation</b> Used for explanation .</li> <li><b>Showing partnership deed of firm to students...</b></li> <li>Comprehension Check will be conducted by <ul style="list-style-type: none"> <li>❖true/false</li> <li>❖MCQs</li> <li>❖short answer</li> <li>❖Numericals with concepts</li> </ul> </li> <li>At the end of the text <i>Exercise</i> questions will be attempted by the learners.</li> <li>Brainstorming and Discussions with an example related to current affairs...</li> <li>Through connection of previous knowledge with current knowledge introduction to the topic</li> <li>Exercises using clues</li> <li>Worksheets to enhance the knowledge</li> </ul> <ul style="list-style-type: none"> <li>The teacher would explain what a partnership firm and its accounting.</li> <li>The teacher would discuss in detail what a partnership deed contents.</li> <li>The teacher would explain what a P/L appropriation A/c and partners capital A/c and its concepts with numerical.</li> </ul>	<p><b>After going through this Unit, the students will be able to:</b></p> <ul style="list-style-type: none"> <li>state the meaning of partnership, partnership firm and partnership deed.</li> <li>describe the characteristic features of partnership and the contents of partnership deed.</li> <li>discuss the significance of provision of Partnership Act in the absence of partnership deed.</li> <li>differentiate between fixed and fluctuating capital, outline the process and develop the understanding and skill of preparation of Profit and Loss Appropriation Account.</li> <li>develop the understanding and skill of preparation profit and loss appropriation account involving guarantee of profits.</li> <li>develop the understanding and skill of making past adjustments.</li> <li>state the meaning, nature and factors affecting goodwill</li> <li>develop the understanding and skill of valuation of goodwill using different methods.</li> <li>state the meaning of sacrificing ratio, gaining ratio and the change in profit sharing ratio among existing partners.</li> </ul>	

		<ul style="list-style-type: none"> <li>The teacher would explain what a concepts of minimum profit guarantee and past adjustments with numerical.</li> </ul>		
<b>June</b>	<ul style="list-style-type: none"> <li><b>Admission of a partner</b> - effect of admission of a partner on change in the profit sharing ratio, treatment of goodwill, treatment for revaluation of assets and re- assessment of liabilities, treatment of reserves and accumulated profits, adjustment of capital accounts and preparation of balance sheet.</li> </ul>	<ul style="list-style-type: none"> <li><b>Power point presentation</b> Used for explanation .</li> <li><b>Showing partnership deed of firm to students...</b></li> <li>Comprehension Check will be conducted by <ul style="list-style-type: none"> <li>❖true/false</li> <li>❖MCQs</li> <li>❖short answer</li> <li>❖Numericals with concepts</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>develop the understanding of accounting treatment of revaluation assets and reassessment of liabilities and treatment of reserves and accumulated profits by preparing revaluation account and balance sheet.</li> <li>explain the effect of change in profit sharing ratio on admission of a new partner.</li> <li>develop the understanding and skill of treatment of goodwill, treatment of revaluation of assets and re-assessment of liabilities, treatment of reserves and accumulated profits, adjustment of capital accounts and preparation of balance sheet of the new firm.</li> </ul>	
<b>July</b>	<ul style="list-style-type: none"> <li><b>Retirement and death of a partner:</b> effect of retirement / death of a partner on change in profit sharing ratio, treatment of goodwill, treatment for revaluation of assets and reassessment of liabilities, adjustment of accumulated profits and reserves, adjustment of capital accounts and preparation of balance sheet. Preparation of loan account of the retiring partner.</li> <li>Calculation of deceased partner's share of profit till the date of death. Preparation of deceased partner's capital account and his executor's account.</li> </ul>	<ul style="list-style-type: none"> <li>At the end of the text Exercise questions will be attempted by the learners.</li> <li>Brainstorming and Discussions with an example related to current affairs...</li> <li>Through connection of previous knowledge with current knowledge introduction to the topic</li> <li>Exercises using clues</li> <li>Worksheets to enhance the knowledge <ul style="list-style-type: none"> <li>The teacher would explain Retirement of partner in partnership firm and its accounting.</li> <li>❖Numericals with concepts</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>explain the effect of retirement / death of a partner on change in profit sharing ratio.</li> <li>develop the understanding of accounting treatment of goodwill, revaluation of assets and re-assessment of liabilities and adjustment of accumulated profits and reserves on retirement / death of a partner and capital adjustment.</li> <li>develop the skill of calculation of deceased partner's share till the time of his death and prepare deceased partner's executor's account.</li> <li>discuss the preparation of the capital accounts of the remaining partners and the balance sheet of the firm after retirement / death of a partner.</li> </ul>	
<b>August</b>	<ul style="list-style-type: none"> <li><b>Dissolution of a partnership firm:</b> meaning of dissolution of partnership and partnership firm, types of dissolution of a firm.</li> </ul>	<ul style="list-style-type: none"> <li><b>Power point presentation</b> Used for explanation .</li> <li>❖Numericals with concepts</li> <li>Through connection of</li> </ul>	<ul style="list-style-type: none"> <li>understand the situations under which a partnership firm can be dissolved.</li> <li>develop the understanding of preparation of realisation account and other related accounts.</li> </ul>	

	Settlement of accounts - preparation of realization account, and other related accounts: capital accounts of partners and cash/bank a/c (excluding piecemeal distribution, sale to a company and insolvency of partner(s)).	previous knowledge with current knowledge introduction to the topic  ● Exercises using clues		
<b>September</b>	<b>Unit 1: Financial Statements of Not-for-Profit Organizations</b>  ● Not-for-profit organizations: concept. ● Receipts and Payments Account: features and preparation. ● Income and Expenditure Account: features, preparation of income and expenditure account and balance sheet from the given receipts and payments account with additional information.	<ul style="list-style-type: none"> <li>● <b>Power point presentation</b> Used for explanation .</li> <li>● Brainstorming and Discussions with an example related to current affairs...</li> <li>● Through connection of previous knowledge with current knowledge introduction to the topic</li> <li>● ❖MCQs</li> <li>● ❖short answer</li> <li>● ❖Numericals with concepts</li> </ul>	<b>After going through this (N.P.O.)Unit, the students will be able to:</b> <ul style="list-style-type: none"> <li>● state the meaning of a Not-for-profit organisation and its distinction from a profit making entity.</li> <li>● state the meaning of receipts and payments account, and understanding its features.</li> <li>● develop the understanding and skill of preparing receipts and payments account.</li> <li>● state the meaning of income and expenditure account and understand its features.</li> <li>● develop the understanding and skill of preparing income and expenditure account and balance sheet of a not-for-profit organisation with the help of given receipts and payments account and additional information.</li> </ul>	
<b>MID TERM EXAM</b>	<b>MID TERM EXAM</b>	<b>MID TERM EXAM</b>	<b>MID TERM EXAM</b>	
<b>October</b>	<b>Unit-3 Accounting for Companies</b>  <b>Accounting for Share Capital</b> ● Share and share capital: nature and types. ● Accounting for share capital: issue and allotment of equity and preferences shares. Public subscription of shares - over subscription and under subscription of shares; issue at par and at premium, calls in advance and arrears (excluding interest), issue of shares for consideration other than cash. ● Concept of Private Placement and Employee Stock Option Plan (ESOP). ● Accounting treatment of forfeiture and	<ul style="list-style-type: none"> <li>● <b>Power point presentation</b> Used for explanation .</li> <li>● Brainstorming and Discussions with an example related to current affairs...</li> <li>● Through connection of previous knowledge with current knowledge introduction to the topic</li> <li>● ❖MCQs</li> <li>● ❖short answer</li> <li>● ❖Numericals with concepts</li> </ul>	<b>After going through this (SHARECAPITAL ) Unit, the students will be able to:</b> <ul style="list-style-type: none"> <li>● state the meaning of share and share capital and differentiate between equity shares and preference shares and different types of share capital.</li> <li>● understand the meaning of private placement of shares and Employee Stock Option Plan.</li> <li>● explain the accounting treatment of share capital transactions regarding issue of shares.</li> <li>● develop the understanding of accounting treatment of forfeiture and re-issue of forfeited shares.</li> <li>● describe the presentation of share capital in the balance sheet of the company as per schedule III part I of the Companies Act 2013.</li> </ul>	

	<p>reissue of shares.</p> <ul style="list-style-type: none"> <li>• Disclosure of share capital in the Balance Sheet of a company.</li> </ul>			
<b>November</b>	<p><b>Accounting for Debentures</b></p> <ul style="list-style-type: none"> <li>• Debentures: Issue of debentures at par, at a premium and at a discount. Issue of debentures for consideration other than cash; Issue of debentures with terms of redemption; debentures as collateral security concept, interest on debentures. Writing off discount / loss on issue of debentures.</li> </ul> <p><b>Part B: Financial Statement Analysis</b></p> <p><b>Financial statements of a Company:</b> Statement of Profit and Loss and Balance Sheet in prescribed form with major headings and sub headings (as per Schedule III to the Companies Act, 2013)</p> <ul style="list-style-type: none"> <li>• <b>Financial Statement Analysis:</b> Objectives, importance and limitations.</li> <li>• <b>Tools for Financial Statement Analysis:</b> Comparative statements, common size statements, cash flow analysis, ratio analysis.</li> </ul>	<ul style="list-style-type: none"> <li>• At the end of the text Exercise questions will be attempted by the learners.</li> <li>• Brainstorming and Discussions with an example related to current affairs...</li> <li>• Exercises using clues</li> <li>• Worksheets to enhance the knowledge <ul style="list-style-type: none"> <li>• <b>Power point presentation</b> Used for explanation .</li> <li>• ❖MCQs</li> <li>• ❖short answer</li> <li>• ❖Numericals with concepts</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• explain the accounting treatment of different categories of transactions related to issue of <b>debentures.</b></li> <li>• develop the understanding and skill of writing of discount / loss on issue of debentures.</li> <li>• understand the concept of collateral security and its presentation in balance sheet.</li> <li>• develop the skill of calculating interest on debentures and its accounting treatment. <ul style="list-style-type: none"> <li>• state the meaning of redemption of debentures.</li> </ul> </li> <li>• develop the understanding of accounting treatment of transactions related to redemption of debentures by lump sum, draw of lots and Creation of Debenture Redemption Reserve.</li> </ul> <p><b>After going through this (FINANCIAL STATEMENTS ANALYSIS) Unit, the students will be able to:</b></p> <ul style="list-style-type: none"> <li>• develop the understanding of major headings and sub-headings (as per Schedule III to the Companies Act, 2013) of balance sheet as per the prescribed norms / formats.</li> <li>• state the meaning, objectives and limitations of financial statement analysis.</li> <li>• discuss the meaning of different tools of 'financial statements analysis'.</li> <li>• develop the understanding and skill of preparation of comparative and common size financial statements.</li> </ul>	
<b>December</b>	<p><b>Tools for Financial Statement Analysis:</b> Comparative statements, common size statements, cash flow analysis, ratio analysis.</p> <ul style="list-style-type: none"> <li>• <b>Accounting Ratios:</b> Meaning, Objectives, classification and computation.</li> <li>• <b>Liquidity Ratios:</b> Current ratio and Quick</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Power point presentation</b> Used for explanation .</li> <li>• Brainstorming and Discussions with an example related to current affairs...</li> <li>• Through connection of previous knowledge with current knowledge introduction</li> </ul>	<ul style="list-style-type: none"> <li>• state the meaning, objectives and significance of different types of ratios.</li> <li>• develop the understanding of computation of current ratio and quick ratio.</li> <li>• develop the skill of computation of debt equity ratio, total asset to debt ratio, proprietary ratio and interest coverage ratio.</li> <li>• develop the skill of computation of inventory</li> </ul>	

	<p>ratio.</p> <ul style="list-style-type: none"> <li>• <b>Solvency Ratios:</b> Debt to Equity Ratio, Total Asset to Debt Ratio, Proprietary Ratio and Interest Coverage Ratio.</li> <li>• <b>Activity Ratios:</b> Inventory Turnover Ratio, Trade Receivables Turnover Ratio, Trade Payables Turnover Ratio and Working Capital Turnover Ratio.</li> <li>• <b>Profitability Ratios:</b> Gross Profit Ratio, Operating Ratio, Operating Profit Ratio, Net Profit Ratio and Return on Investment.</li> </ul> <p><b>Unit 5: Cash Flow Statement</b></p> <p>Meaning, objectives and preparation (as per AS 3 (Revised) (Indirect Method only)</p> <p><b>Note:</b></p> <p><i>(i) Adjustments relating to depreciation and amortization, profit or loss on sale of assets including investments, dividend (both final and interim) and tax.</i></p> <p><i>(ii) Bank overdraft and cash credit to be treated as short term borrowings.</i></p> <p><i>(iii) Current Investments to be taken as Marketable securities unless otherwise specified.</i></p>	<p>to the topic</p> <ul style="list-style-type: none"> <li>• ❖MCQs</li> <li>• ❖short answer</li> <li>• ❖Numericals with concepts</li> </ul>	<p>turnover ratio, trade receivables and trade payables ratio and working capital turnover ratio.</p> <ul style="list-style-type: none"> <li>• develop the skill of computation of gross profit ratio, operating ratio, operating profit ratio, net profit ratio and return on investment.</li> </ul> <p><b>After going through this (CASH FLOW STATEMENT) Unit, the students will be able to:</b></p> <ul style="list-style-type: none"> <li>• state the meaning and objectives of cash flow statement.</li> <li>• develop the understanding of preparation of Cash Flow Statement using indirect method as per AS 3 with given adjustments.</li> </ul>	
<p><b>January</b></p> <p><b>February</b></p> <p><b>March</b></p>	<p><i>Project work.</i></p> <p><i>Revisions for Final Pre Board exam.</i></p> <p><i>Revision for Board Exam.</i></p>			

--	--	--	--	--







## ANNUAL PEDAGOGICAL PLAN

**CLASS 12**

**SUBJECT – ECONOMICS**

MONTH	TOPICS	METHODOLOGY / ACTIVITIES	LEARNING OUTCOMES	WORKING DAYS
APRIL & MAY	<b>BOOK 1 -MACRO ECONOMICS</b> <b>UNIT 2 MONEY &amp; BANKING</b> - Meaning of Money, Barter system, forms of money, supply of money, measurement of money supply, Currency held by people, credit creation of commercial banks, Functions of Central Bank, Measures to control credit by the Central Bank	Online Class (Google classroom ) PPT Chalk board method (online) Lecture method Explanations with examples  Perform a group activity where few students have to play the role of Central Bank and Commercial Bank while rest of the students have to act as public. Now explain how RBI controls credit. (creative thinking skill / problem solving)	After reading this chapter the learners will be able to- Define barter system with its drawbacks. Money supply and suppliers of money, forms of money, Credit Creation by Commercial bank, Functions of Central Bank, and the most important how Central Bank controls Credit in the economy – Qualitative & Quantitative instruments.	12 days
	<b>Book 2</b> <b>INDIAN ECONOMY</b> <b>UNIT – 6</b> <b>INDIAN ECONOMY ON THE EVE OF INDEPENDENCE.</b>	<b>ONLINE CLASSES</b> (Google class rooms), PPT'S Chalk Board method (online) MCQ'S , SHORT	After reading this material the learners will – -Become familiar with the state of Indian Economy in 1947, the year	13 days

	<p><b>INDIAN ECONOMY since 1950 – 90</b></p> <p><b>ECONOMIC REFORMS SINCE 1991 – LPG AN APPRAISAL CONCEPT OF DEMONETIZATION AND GST</b></p>	<p><b>ANSWER QUESTIONS, LECTURE METHOD, Explanation with examples.</b></p>	<p><b>of India's Independence.</b></p> <p>- understand the factors that led to the under development and stagnation of the Indian Economy.</p> <p>- Elaborate &amp; explain demonetization and GST</p>	
<p><b>June</b></p>	<p><b>Unit-7</b></p> <p><b>Ch-1 POVERTY</b></p> <p><b>Absolute and Relative poverty, main programmes for poverty alleviation, critical assessment of poverty alleviation programmes</b></p>	<p><b>Online classes (Google class room)</b></p> <p>-Power point presentations</p> <p>-Short videos.</p> <p>- chalk board method.(online)</p> <p>-lecture method</p> <p>.</p> <p>-Explanation with examples</p> <p>Find out the most vulnerable group in your City . Collect the details for discussion in the classroom covering the problems faced by such people and suggest remedies to them.</p> <p><b>(Interpersonal skill and</b></p>	<p><b>After reading this material the learners will:</b></p> <p><b>1. Learn about various attributes of poverty</b></p> <p><b>2. Comprehend the diverse dimensions relating to the concept of poverty</b></p> <p><b>3. Critically appreciate the way poverty is estimated.</b></p>	<p><b>12 days</b></p>

		empathy skill)		
July and August	<p>Marco Economics unit -1 <b>NATIONAL INCOME</b></p> <p>What is Macroeconomics? Basic concepts in macroeconomics: consumption goods, capital goods, final goods, intermediate goods; stocks and flows; gross investment and depreciation. Circular flow of income (two sector model); Methods of calculating National Income - Value Added or Product method, Expenditure method, Income method. Aggregates related to National Income: Gross National Product (GNP), Net National Product (NNP), Gross and Net</p>	<p>Online classes (Google class room)</p> <ul style="list-style-type: none"> <li>-Power point presentations</li> <li>-Short videos.</li> <li>- chalk board method.(online)</li> <li>-lecture method</li> <li>.</li> <li>-Explanation with examples</li> </ul> <p>Taking an example of a Bakery Shop, Students will be asked to select any bakery product and will be required to calculate:</p> <ol style="list-style-type: none"> <li>1) Intermediate cost</li> <li>2) Final cost</li> </ol> <p>Problem solving method will be applied for solving numerical questions based on –</p> <ul style="list-style-type: none"> <li>• Value added method</li> <li>• Income method</li> <li>• Expenditure method</li> </ul>	<p>After reading this material the learners will be able to:</p> <ol style="list-style-type: none"> <li>1. Define the basic concepts of national income.</li> <li>2. Enlist various concepts to be remembered while calculating the national income</li> <li>3. Recognize the formulae for three methods of calculating the national income. Apply various methods in estimation of national income.</li> </ol>	15 days

	<p><b>Domestic Product (GDP and NDP) - at market price, at factor cost; Real and Nominal GDP; GDP and Welfare</b></p>			
	<p><b>Macro Economics Unit-3 Aggregate Demand and Aggregate Supply</b></p> <p><b>Aggregate demand and its components. Propensity to consume and propensity to save (average and marginal). Short-run equilibrium output; investment multiplier and its mechanism. Meaning of full employment and involuntary unemployment. Problems of excess demand and deficient demand; measures to correct them - changes in government spending, taxes</b></p>	<p><b>Online classes (Zoom /Google class room)</b></p> <ul style="list-style-type: none"> <li>-Power point presentations</li> <li>-Short videos.</li> <li>- chalk board method.(online)</li> <li>-lecture method .</li> <li>-Explanation with examples</li> </ul> <p><b>Digrammatic explanation. Taking a real life example students will be asked to explain the impact of investment.</b></p>	<p><b>After reading this material the learners will be able to:</b></p> <ol style="list-style-type: none"> <li><b>1. Define Aggregate Demand and Aggregate Supply</b></li> <li><b>2. List out the components of AD and AS.</b></li> <li><b>3. Identify the formulae of both the concepts.</b></li> <li><b>4. Draw and explain the diagrams of AD, AS, Saving, Investment, APC, APS, MPC, MPS, Consumption Function and Saving Function.</b></li> <li><b>5. Find out inflationary gap and deflationary gap in the economy.</b></li> </ol>	<p><b>17 days</b></p>

	<p><b>and money supply.</b></p> <p><b>Indian Economy Unit-7 Ch-2 RURAL DEVELOPMENT</b></p> <p><b>Rural development: Key issues - credit and marketing - role of cooperatives; agricultural diversification; alternative farming - organic farming</b></p>	<p><b>Online classes (Google class room)</b></p> <p><b>-Power point presentations</b></p> <p><b>-Short videos.</b></p> <p><b>- chalk board method.(online)</b></p> <p><b>-lecture method</b></p> <p><b>-Explanation with examples</b></p>	<p><b>After reading this material the learners will:</b></p> <p><b>1. Understand rural development and major issues associated with it</b></p> <p><b>2. Appreciate how crucial the development of rural areas is for India’s overall development</b></p> <p><b>3. Understand the critical role of credit and marketing systems in rural development</b></p> <p><b>4. Learn about the importance of diversification of productive activities to sustainlivelihoods.</b></p> <p><b>5.Understand the significance of organic farming in sustainable development.</b></p>	<p><b>8 DAYS</b></p>
<b>SEPTEMBER</b>	<p><b>INDIAN ECONOMY UNIT-7 CH-3</b></p>	<p><b>Online classes (Google class room)</b></p>	<p><b>After reading this material the learners will:</b></p>	<p><b>8 DAYS</b></p>

	<p><b>HUMAN CAPITAL FORMATION</b></p> <p><b>CH-4 EMPLOYMENT</b></p> <p><b>Human Capital Formation: How people become resource; Role of human capital in economic development; Employment: Formal and informal growth; problems and policies</b></p>	<p>-Power point presentations</p> <p>-Short videos.</p> <p>- chalk board method.(online)</p> <p>-lecture method</p> <p>.</p> <p>-Explanation with examples. Suggest the methods of reducing the informal employment and also mention how it can be beneficial for the country. (Effective communication, critical thinking, analyzing the difference between both the sectors).</p>	<p>1. Learn about Human Resources, Human Capital formation and Human Development.</p> <p>2. Have understood the links between investment in Human Capital, Economic growth and Human Development</p> <p>3. Have understood the need for government spending on education and health</p> <p>4. Have learnt about the state of India's educational attainment</p>	
	<b>FIRST TERM EXAMINATION</b>			
<b>OCTOBER</b>	<p><b>MACRO ECONOMICS UNIT-4 GOVERNMENT BUDGET</b></p> <p><b>Government budget - meaning, objectives and components.</b></p>	<p>Prepare a short project on how government can use the budgetary policies in reducing inequality of income in the economy.(Creati</p>	<p>After reading this material the learners will be able to:</p> <p>1. Define budget, objectives and structure of budget</p> <p>2. Explain the difference</p>	<b>12 DAYS</b>

	<p><b>Classification of receipts - revenue receipts and capital receipts; classification of expenditure – revenue expenditure and capital expenditure. Measures of government deficit - revenue deficit, fiscal deficit, primary deficit, their meaning.</b></p>	<p><b>ve thinking skills) (HINT: PDS, Subsidy, Rationalization of Taxes)</b></p>	<p><b>between Revenue budget and Revenue receipts, Capital budget and Capital receipts</b></p> <p><b>3. Explain difference between Revenue expenditure and Capital expenditure</b></p> <p><b>4. Explain Primary deficit, Fiscal deficit and its implications.</b></p>	
	<p><b>MACRO ECONOMICS UNIT -5 CH-1 BALANCE OF PAYMENT</b></p> <p><b>CH-2 FOREIGN EXCHANGE RATE</b></p> <p><b>Balance of payments account - meaning and components; Foreign exchange rate - meaning of fixed and flexible rates and</b></p>	<p><b>Group discussion by creating a real theme of international market in the classroom.( covering the impact of changes in the exchange rate)</b></p>	<p><b>After reading this material the learners will be able to:</b></p> <p><b>1. Define Balance of trade and Balance of payments.</b></p> <p><b>2. Distinguish between current account and capital account</b></p> <p><b>3. Compare the contrast between autonomous items and accommodating items</b></p> <p><b>4. Distinguish between fixed exchange rate system, floating</b></p>	

	<p>managed floating.</p>		<p>exchange rate system and managed floating</p> <p>5. Explain how foreign exchange rate is determined in a free market.</p> <p>6. Draw the diagram of exchange rate determination in a flexible exchange rate system.</p>	
<p><b>NOVEMBER</b></p>	<p><b>INDIAN ECONOMY</b> <b>UNIT -7</b> <b>CH-5</b> <b>INFRASTRUCTURE</b> <b>CH-6</b> <b>SUSTAINABLE DEVELOPMENT</b></p> <p>Infrastructure: Meaning and Types: Case Studies: Health: Problems and Policies- A critical assessment;</p> <p>Sustainable Economic Development: Meaning, Effects of Economic Development on Resources and Environment,</p>	<p><b>Art Integrated Learning:</b> Through a pictorial presentation or PPT show how your city is at present and how you see it as your DREAM CITY. (Effective communication and Critical thinking</p> <p>Group discussion on the concept of River Pollution in Pretext of religious ceremonies and</p>	<p>After reading this material the learners will:</p> <ol style="list-style-type: none"> <li>1. Understand the main challenges India faces in the area of social and economic infrastructure.</li> <li>2. Understand the role of infrastructure in economic development</li> <li>3. Understand the role of health as a critical component of infrastructure</li> <li>4. Understand the problems and prospects of the energy and</li> </ol>	

	<p>including global warming</p> <p><b>UNIT -8 COMPARISON WITH NEIGHBOURS INDIA AND PAKISTAN</b></p> <p>A comparison with neighbors: India and Pakistan India and China Issues: growth, population, sectoral development and other Human Development Indicators</p>	<p>industrial waste.</p> <p>Discussion of Board Papers, Sample Papers and Marking Scheme</p> <p>Prepare a pie chart on the expenditure pattern of India , China and Pakistan.</p>	<p>health sectors</p> <p>5. Understand the health infrastructure of India.</p> <p>After reading this material the learners will:</p> <p>1. Learn and figure out comparative trends</p> <p>After reading this material the learners will:</p> <p>1. Learn and understand the concept of environment</p> <p>2. Analyze the cause and effects of environment degradation and resource depletion</p> <p>3. Understand the nature of environmental challenges facing India.</p>	
<b>DECEMBER</b>	<b>REVISION FOR PRE BOARDS</b>			
<b>JANUARY</b>	<b>PRE BOARDS-1</b>			
<b>FEBRUARY</b>	<b>PRE BOARDS-2</b>			

**ANNUAL PEDAGOGICAL PLAN**

CLASS XII

SUBJECT - BIOLOGY

Month/Chapters	Topics	Assignment	Learning Outcome	Working days
<b>April</b>	Types of asexual reproduction, Events of sexual reproduction	Google classroom, Marker, lecture method, short videos and test google.	Students are able to answer different mode of asexual reproduction	13
1. Reproduction in Organisms 2. Sexual Reproduction in Flowering Plants	Microsporangium, Mega sporangium, Double fertilization, embryo development	google meet, Ppt, Board Marker, lecture method, short videos	Students are able to draw diagrams of anther, embryo sac, embryos.	
<b>May</b>	3. Human reproduction			
<b>June</b>	Male and female reproductive system			
4. Reproductive health	Embryogenesis	Google classroom, Marker, lecture method, short videos and test google.	Students are able to draw diagrams, can answer the process of fertilization	20
	Birth control, STDs and ART	google meet, Ppt, Board Marker, lecture method, short videos	Can answer which method prevents from STDs.	
<b>July</b>	5. Inheritance and Variation	Mendelism, Post mendelism and Mendelian Disorders		
6. molecular basis of inheritance		method, short videos and test google.		15

**ANNUAL PEDAGOGICAL PLAN**

CLASS XII

SUBJECT - BIOLOGY

	Central dogma, Gene expression, genetic code Zoom meeting, PPT, B		Are able to answer the genetic material, can differentiate between replication and transcription
		, PPT, Board Marker, lecture method, short videos and test google.	

<b>August</b>	common diseases,immunity,drug, cancer			23
7.human health and diseases	drug abuse			
8.Evolution	human evolution darwin's law	google classroom,ppt presentstion short videos	are able to answer about evolution darwin"s law,about different types of diseases	
9.Strategies of inhancement of food		lecture method	enhancement of food different strategies of hybrid food production	20

<b>September</b>				
10.microbes in human welfare	microbes in industries,sewage treatment			
11.Biotechnology principles	biogas production			13
12.biotechnolgy-applications	steps of rdna technology pcr			

**ANNUAL PEDAGOGICAL PLAN**

**CLASS XII**

**SUBJECT - BIOLOGY**

	antibiotic resistance,vectors			
	applications in medicine		can tell about waste water treatment	
	humulin		can tell about recombinant technology	
	modified plants and animals	google classroom,lecture,ppt presentation	Can differentiate between mature insulin and pro insulin.	20
	modified insulin	short vides		

<b>October</b>				
13.Organisms and populations	effects of abiotic factors			
14.Ecosystem	population density,	google classroom,ppt presentation	Can differentiate between commensalism and ammensalism. Able to plot the graph in the form of different types of pyramids	23
	population growth	short videos		
	population interaction ecosystem	lecture based marker presentation		
	food chain	google classroom,ppt presentation		
	food web	google tests		
	ecological succession			

<b>November</b>				
15.biodiversity and conservation				
16.Environmental issues	Biodiversity			
	types of biodiversity	google classroom,ppt presentation		
	conservation of biodiversity	short videos		
	cryopreservation	google tests	can tell about biodiversity	23

*ANNUAL PEDAGOGICAL PLAN*

CLASS XII

SUBJECT - BIOLOGY

national parks zoo,santuaries ozone layer depletion pollution	lecture based	ozone layer depletion types of pollutions
--	---------------	--

<b>December</b>	<b>Revision Pre Boards</b>
-----------------	--------------------------------

# Annual Pedagogical Plan

**CLASS : XII**

**SUBJECT : MATHEMATICS**

MONTH	UNIT/TOPIC	METHODOLOGY	LEARNING OUTCOMES	WORKING DAYS
APRIL	<b>UNIT: 1</b> <b>INVERSE TRIGONOMETRIC FUNCTION</b> Definition, range, domain, principal value branch, Graph of inverse trigonometric function, Elementary properties of inverse trigonometric function	TO explore the principal value of function using a unit circle	Students are able to solve the questions of inverse trigonometric function	12
MAY	<b>UNIT: II</b> <b>MATRIX</b> Concept, notation, order, equality, types of matrices, zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices, operation on matrices: Addition and multiplication, simple properties of addition multiplication and scalar multiplication, on commutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrices. Concept of elementary row and column operations. Invertible matrices and proof of uniqueness of inverse, if it exists.		Students are able to solve the questions of matrices	11
JUNE	<b>DETERMINANTS</b> Determinant of a square matrix (up to $3 \times 3$ matrices), properties of determinants, Minors co-factors and application of determinants in finding the area of triangle, ad joint and inverse of square matrix, consistency and inconsistency and number of solutions of system of linear equations by examples, solving system of linear equation in two or three variables using inverse of matrix <b>CONTINUITY AND DIFFERENTIABILITY</b> Function, derivatives of implicit function. Concepts of exponential and logarithmic function	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	Students are able to solve the questions of determinants  Students are able to solve the questions of continuity and differentiability	07  19

# Annual Pedagogical Plan

**CLASS : XII**

**SUBJECT : MATHEMATICS**

JULY	<p>Derivatives of composite function. derivatives of parametric function, chain rule, derivatives of inverse trigonometric function continuity and differentiability, second order derivatives, Rolle's Lagrange's mean value theorem and their geometric interpretation</p> <p>APPLICATION OF DERIVATIVES: Increasing and decreasing functions, tangents and normal, maxima and minima, rate measures</p>	<p>1. To understand the concepts of increasing and decreasing functions.</p> <p>2. To understand the concept of local maxima, local minima and point of inflection</p>		22
AUGUST	<p>INTEGRALS: Integration of a variety of functions by method of substitution, by partial, by parts, special integration and more special integration, evaluation of simple integrals and their different forms</p> <p>Fundamental theorems of calculus, basic properties of definite integration, Evaluation of definite integrations, integration as a limit of sum.</p> <p>APPLICATION OF INTEGRALS: Application in finding the area under simple curves, especially lines, circles, parabola, ellipse and hyperbola in standard form only</p>	<p>ART integrated learning</p> <p>Activity: Study of symmetry as a concept using art</p>	<p>Students are able to questions of integrals</p> <p>Students are able to find the areas bounded under the curves</p>	19
SEPTEMBER	<p>REVISION AND MID TERM EXAMINATION</p>			
OCTOBER	<p>DIFFERENTIAL EQUATION: Definition, order and degree, general and particular solution of a differential equation. Solution of differential equation by method of separation of variables solution of homogeneous differential equation of first order and first degree.</p> <p>VECTOR ALGEBRA: Vector and scalars, magnitude and direction of a vector. Direction cosine and direction ratios of a vector. Types of vectors, position vector of a point, negative of a vector, component of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Definition, general interpretation, properties and application of scalar product of vectors, vector product of vectors</p> <p>LINEAR PROGRAMMING:</p>	<p>TO verify geometrically that <math>x(+) = x + x</math></p>	<p>Students are able to identify a differential equation and solve the differential equation based on the content taught</p> <p>Students are able to solve the questions of vectors</p>	<p>08</p> <p>10</p>

# Annual Pedagogical Plan

**CLASS : XII**

**SUBJECT : MATHEMATICS**

	Introduction, related terminology such as constraints, objective function, optimization, different types of linear programming problems, graphical method of solution for problems in two variables, feasible region		Students are able to solve the questions of linear programming	07
NOVEMBER	<p><b>RELATION AND FUNCTION:</b> Types of relations: reflexive, symmetric, transitive and equivalence relations. one – one function, onto function, composite function, inverse of a function, binary operations</p> <p><b>PROBABILITY:</b> Conditional probability, multiplication theorem on probability, independent events, total probability Bayes theorem, random variables and its probability distribution</p> <p><b>THREE DIMENSIONAL GEOMETRY:</b> Direction cosine and direction ratios of a line joining two points. Cartesian equation and vector equation of a line, coplanar and skew lines, shortest distance between two lines, Cartesian and vector equation of a plane. Distance of a point from a line</p>	To explain the computation of conditional probability of a given event A ,when B has already occurred , through an example throwing a pair of dice.	<p>Students will be able to understand the concept and solve the question based on the content taught of relation and function</p> <p>Students are able to solve the question of probability</p>	09  08  11
DECEMBER	REVISION FOR PRE BOARD			
JANUARY	PRE BOARD			

## ANNUAL PEDAGOGICAL PLANNER

CLASS : XII

SUBJECT : PHYSICS

Month	Unit/Topic	Methodology/Activity	Learning Outcome	Working days
April/May	<p><b>Unit I: Electrostatics</b>  <b>Chapter-1: Electric Charges and Fields</b>            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).  <b>Chapter-2: Electrostatic Potential and Capacitance</b>            Electric potential, potential difference,</p>	<ol style="list-style-type: none"> <li>1. White Board teaching.</li> <li>2. showing same charges repel &amp; opposite charge attract each other using ebonite rod.</li> <li>3. Lecture method with example.</li> </ol>	To acquaint the History of charge and potential and its application.	
June	<p>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 polarisation, 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.  <b>Unit II: Current Electricity</b>  <b>Chapter-3 Current Electricity</b>            Electric current, flow of electric charges in a metallic</p>	<ol style="list-style-type: none"> <li>1. on line teaching</li> <li>2. PPT</li> <li>3. Short videos.</li> <li>4. test through google drive.</li> <li>5. practical through animation. (ohm's law)</li> <li>6. lecture method through white board.</li> <li>7. revision .</li> </ol>	<ol style="list-style-type: none"> <li>1. Understand the meaning of capacitor with special reference to practical activities.</li> <li>2. Discuss the characteristics of flowing current</li> </ol>	
July	<p>conductor, drift velocity, mobility and their relation with electric current; Ohm's law, electrical resistance, V-I characteristics (linear and nonlinear), electrical energy and power, electrical resistivity and conductivity.            Carbon resistors, colour code for carbon resistors; series and parallel</p>	<ol style="list-style-type: none"> <li>1. on line teaching</li> <li>2. PPT</li> <li>3. Short videos.</li> <li>4. test through google drive.</li> <li>5. practical through animation. (to find resistance using meter</li> </ol>	<ol style="list-style-type: none"> <li>1. Understand the concept of combination of cells.,.</li> <li>2. Differentiate between meter bridge and potentiometer..</li> </ol>	

## ANNUAL PEDAGOGICAL PLANNER

CLASS : XII

SUBJECT : PHYSICS

	<p>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. Wheatstone bridge, Metre 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> <p><b>Unit III: Magnetic Effects of Current and Magnetism</b> Concept of magnetic field, Oersted's experiment. Biot - Savart law and its application to current carrying circular loop.</p>	<p>bridge.) 6.lecture method through white board. 7.revision .</p>		
August	<p>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, 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><b>Chapter-5 Magnetism and Matter</b> 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.</p>	<p>1.on line teaching 2.PPT 3.Short videos. 4.test through google drive. 5.practical through animation.(to find resistivity of wire using meter bridge.) 6.lecture method through white board. 7.revision .</p>	<p>1.Understand the broad categories of magnetic effect of current carrying conductor, solenoid and torroid in practical life.. 2. showing properties of earth' magnetic field.</p>	

## ANNUAL PEDAGOGICAL PLANNER

CLASS : XII

SUBJECT : PHYSICS

	Electromagnets and factors affecting their strengths, permanent magnets.			
September	<p><b>Unit IV: Electromagnetic Induction and Alternating Currents</b>  <b>Chapter-6 Electromagnetic Induction</b>            Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law, Eddy currents. Self and mutual induction.</p> <p><b>Chapter-7 Alternating Current</b>            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, power factor, wattless current. AC generator and transformer.</p>	1.on line teaching 2.PPT 3.Short videos. 4.test through google drive. 5.practical through animation.(to find internal resistance of cell using potentiometer..) 6.lecture method through white board. 7.revision .	Discuss the meaning of induced EMF and induced current. 2.Discuss the meaning of different types of generator. 3.Examine the role of alternating current.	
<b>Mid Term Exam</b>				
October	<p><b>Unit V: Electromagnetic waves</b>  <b>Chapter-8 Electromagnetic Wave</b>            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><b>Unit VI: OPTICS</b>  <b>Chapter-9 Ray Optics &amp; Optical Instruments</b>            Reflection of light, spherical mirrors, mirror formula, refraction of light, total internal reflection and its applications, optical fibres, refraction at spherical surfaces, lenses, thin lens formula, lensmaker's formula, Magnification, power of a lens, combination of thin lenses in contact, Refraction and dispersion of light through a prism.            Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers.</p>	1.on line teaching 2.PPT 3.Short videos. ART BASED ACTIVITY: Debate and discussion on how to transmit electric power using transformer by drawing labeled diagram.	1.Discuss the meaning of different types of electromagnetic waves. 3.Examine the role of and application of EMW.	
November	<p><b>Chapter-10 Wave optics:</b>            Wave front and Huygen's principle,</p>	1.Short notes. 2.PPT	1. Understand the concept of	

	<p>reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygen's principle.</p> <p>Interference, Young's double slit experiment and expression for fringe width, coherent sources and sustained interference of light.</p> <p>Diffraction due to a single slit. width of central maximum.</p> <p>resolving power of microscope and astronomical telescope, polarisation, plane polarised light, Brewster's law, uses of plane polarised light and Polaroids.</p> <p><b>Unit VII: Dual Nature of Matter and Radiation</b></p> <p><b>Chapter-11 Dual Nature of Matter &amp; Radiation</b></p> <p>Dual nature of radiation, Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation- particle nature of light.</p> <p>Experimental study of photoelectric effect</p> <p>Matter waves-wave nature of particles, de-Broglie relation, Davisson-Germer experiment (experimental details should be omitted; only conclusion should be explained).</p>	<p>3.Short videos.</p> <p>4.Test through google Class room.</p> <p>5.practical through animation.(to find focal length of convex lens, and find refractive index of liquid.)</p> <p>6. lecture method through white board.</p> <p>7. Revision .</p>	<p>behaviour of light in daily life.</p> <p>2.Examine the nature and causes of different phenomenon of nature.</p>	
December	<p><b>Unit VIII: Atoms and Nuclei</b></p> <p><b>Chapter-12 Atoms</b></p> <p>Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model, energy levels, hydrogen spectrum.</p> <p><b>Chapter-13 Nuclei</b></p> <p>Composition and size of nucleus, Radioactivity, alpha, beta and gamma particles/rays and their properties; radioactive decay law, half life and mean life.</p> <p>Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number, nuclear fission and fusion.</p> <p><b>Unit IX: Electronic Devices</b></p> <p>Energy bands in conductors, semiconductors and insulators</p>	<p>1.Short notes.</p> <p>2.PPT</p> <p>3.Short videos.</p> <p>4.test through google drive.</p> <p>5.practical through animation.(to find refractive index of glass)</p> <p>6.lecture method through white board.</p> <p>7.revision</p>	<p>Understand the concept of modern and digital physics.</p>	

**ANNUAL PEDAGOGICAL PLANNER**

**CLASS : XII**

**SUBJECT : PHYSICS**

	(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.			
January	First Pre board Final Practical Exam Revision for Board Exam			
February	Revision for Board Exam			

**ANNUAL PEDAGOGICAL PLAN**

**CLASS : XII**

**SUBJECT : ENGLISH CORE**

Month	Name of the topic	METHODOLOGY/ACTIVITIES	LEARNING OUTCOMES	WORKING DAYS
April	<p><b>Flamingo (Prose)</b> <b>The Last Lesson</b></p> <p><b>Notice</b></p> <p>Advertisement</p>	<p>The session would begin with an interaction on <b>homework – and the way you treat it.</b> <b>(Student Teacher Interaction)</b></p> <p>The learners would interpret the title of the lesson. The background knowledge of the author and his works would be given. The facilitator would develop the chain of events, with TEXT sequence or discourse/spoken with reference to the educational and personal domains.</p> <p>Difficult words and terms would be discussed. The prose will be explained. All possible questions and answers would be discussed and assigned</p> <p><b>Warm up session:</b> Learners would share their knowledge on the importance of a notice (Student-Teacher interaction) The Learners would be asked to speak about a notice they received and they remember still.</p> <p>The teacher would explain what a notice is and its purpose. The standard format of notice writing would be shown in the class. The teacher would discuss in detail what a notice should contain. The wide range of themes and Objectives covered by notice would be discussed with examples</p> <p>Kinds of Advertisement - Classified and Commercial</p>	<p>S-They would develop their Optimistic attitude towards life amidst many struggles.</p> <p>They would be able to familiarize themselves with specific background information of Alphonse Daudet/ history of France.</p> <p>They would be able to make connections between similar situations in different storylines/life experiences like Indians under British imperialism students will be able to analyze any NOTICE shown to them on the basis of the knowledge imparted.</p> <p>They will be able to frame notice about any event. . They will be able to identify important information in any given notice. Students will be able to use appropriate style and format to write a NOTICE effectively</p>	21

April	<b>Vistas: The Enemy</b>	<p>The session would start with an interactive session on the <b>services of a doctor.</b></p> <p>The title of the lesson would be open for class Interpretation The background of the author would be given.</p> <p>The lesson would be explained. The historical background of the story and war related issues would be discussed.</p>	<p>The learners will be able to familiarize themselves with specific background of political enmity.</p> <p>They will be able to identify and make connections between similar situations in own life experiences where our prejudices often hinder our human compassion</p>	
-------	--------------------------	---	--	--

**ANNUAL PEDAGOGICAL PLAN**

**CLASS : XII**

**SUBJECT : ENGLISH CORE**

	<b>Note Making and Summarizing Writing Skill</b>	<p>Difficult words would be listed out and discussed.</p> <p>Explanation with the format .Its practice with few passages</p>	<p>and empathy for a political enemy.</p> <p>They will be able to understand the significance of professional ethics and social obligation in sensitive times.</p>	
June	<b>The Lost Spring</b>	<p>The session would begin with an audio -video presentation on the plight of poor children. The learners would be asked to interpret the title of the lesson relating it to the presentation.</p> <p>The background of the author would be given. The theme and story line would be explained.</p>	<p>Learners will be sensitized to the problem of child labour.</p> <p>They would be able to identify the problem, consider the options, weigh the pros and cons of each option, and reach a decision/ opinion/solution. They would enhance their analytical skills.</p>	15
July	<b>The Tiger King</b>	<p>Explanation of the theme with characters. Explanation of the gist.</p>	<p>They would be able to uncover the motives of the poor parents/ policemen/ Industrialists/ middlemen. They would be able to absorb didactics and inspiration.</p> <p>The learners would familiarize themselves with specific background information of social</p>	21
July	<b>Flamingo (Poetry) An Elementary School Classroom in a slum</b>			

**ANNUAL PEDAGOGICAL PLAN**

**CLASS : XII**

**SUBJECT : ENGLISH CORE**

<p>July</p>	<p><b>Advertisements Classifieds/Display Poster Making</b></p>	<p>The title of the poem would be open for class interpretation.</p> <p>The poem would be explained covering the use of poetic devices and analyzing the theme points.</p> <p>A visual clipping of advertisements would be shown to the learners and they would interpret it through interaction.</p> <p><b>(student-student interaction)</b></p> <p>The concept, format, style and purpose would be explained with examples.</p> <p>The concept, format, style and purpose would be explained with examples</p>	<p>inequalities.</p> <p>They would recognize the purpose of theme and the hidden pathos and nuances of the lines, correlating them with indigenous/ personal experiences.They would be able to build up empathy and sympathy with the prevalent inequalities of the society which rest on financial status and lost opportunities for children.</p> <p>Students will learn persuasive techniques used i advertising. They will use this knowledge to analyze advertising in a variety of sources: print, television, and Web-based advertising. They will also explore the concepts of demographics and marketing for a specific audience.</p>
<p><b>July</b></p>	<p><b>Flamingo (Prose) Deep Water</b></p>	<p>The session would begin with an interactive session wherein the teacher would ask the students to discuss about their phobias as related to the theme of the lesson. Difficult words would be discussed.</p> <p>The story outline, theme and values would be discussed by the teacher through a Power Pont Presentation.</p>	<p>The learners would be able to realize that <b>fear is mankind's greatest handicap.</b></p> <p>The students would be able to provide a synopsis of the story. They will be able to analyze the values and thought process of the story.</p> <p>They would be able to identify the insecurity while tackling personal fears and horrors that lurk in the</p>

August	<b>The Rattrap</b>	<p>The students would be grouped into six for the varied activities, discussions and presentations</p> <p>The session would begin with an interactive stage wherein the students would discuss on the <b>temptations in life</b> on the basis of the theme of the story.</p> <p>The title of the lesson would be opened to the class for interpretation. The background knowledge of the author would be given. The prose would be explained. Difficult words would be listed and explained. The moral of the story would be discussed.</p>	<p>recesses of our mind. They would be able to appreciate the significance of developing personal fears yet rising above them to savour real liberty.</p> <p>The learners would be able to understand the need of the hour to maintain World Peace and cut out the clamour and bloodshed, correlating it with contemporary background and personal experiences.</p>	21
August	<b>Flamingo (Poetry) Keeping Quiet</b>	<p>The session would begin with the study of silence. The teacher would ask the learners to maintain silence and the study the sounds of silence for one minute.</p> <p>The learners would discuss on the sounds and thoughts of silence and relate to the title of the poem.</p> <p>The background of the poet would be given. The poem would be thoroughly explained covering the use of poetic devices. Difficult words would be listed out and discussed.</p> <p>The session would start with the introduction of Keats' poem 'Endymion: A Poetic Romance' based on the classical Greek myth of the love of the Moon Goddess Cynthia, for a young shepherd prince, Endymion.</p> <p>The background of the poet would be given.</p>	<p>They would be able to learn:</p> <ul style="list-style-type: none"> <li>-A beautiful thing remains beautiful forever</li> <li>- it is like a cozy bower which ensures peace of mind, calm, healthy surroundings and a quiet sleep</li> </ul> <p>-worldly life is full of hardships and disappointments because of</p>	





**ANNUAL PEDAGOGICAL PLAN**

**CLASS : XII**

**SUBJECT : ENGLISH CORE**

October	<b>Letter Writing: Job Application &amp; Bio-Data</b>		<p>They will be able to examine a variety of letters to determine best layout, content and style.</p> <p>They will be able to develop and produce their own Job application and bio data.</p>	
<b>November</b>	<p><b>Flamingo (Prose) Indigo</b></p> <p><b>The Interview</b></p> <p><b>Going Places</b></p>	<p>The session would start with a short documentary on <b>Champaran</b> Episode. They would be asked to list few words related to legal procedure.</p> <p>Discussion about Gandhi ji ,the man behind India's independence</p> <p>The title of the lesson would be open to the class for interpretation.</p> <p>The Historic background knowledge of the episode would be given.</p> <p>Explanation of the lesson with the gist</p> <p>Explanation of the lesson with the gist</p>	<p>They would be able to understand how ordinary people contributed to the freedom movement.</p> <p>In those days what was the attitude of the average Indians living in smaller localities towards advocates of home rule. They understand how Mahatama</p> <p>Students would be able to familiarize their point of views</p> <p>Students would be able to familiarize their point of views</p>	<b>22</b>

	<b>Letter to editor</b>	<p>The usage of language would be taught and students would be assigned written tasks.</p>	<p>The learners would be able to organize and express their thoughts freely.</p> <p>They would develop an interest towards creative writing thus enhancing their writing skills.</p>	
--	-------------------------	--	--	--



**ANNUAL PEDAGOGICAL PLAN**

**CLASS : XII**

**SUBJECT : ENGLISH CORE**

December	<p><b>Evans Tries an O Level</b></p> <p align="right"><b>Arts Integrated Activity</b></p>	<p>The session would start with an interaction on <b>Would Education in the jails help in refining prisoners.</b></p> <p>The title of the lesson would be open for class interpretation. The background of the author would be given. The lesson would be explained and discussed. Difficult words would be listed out and discussed.</p> <p>As Per The Topic</p>	<p>The learners will be able to familiarize themselves with specific background of the cat and mouse role of the police and the criminal. They will be able to identify and make connections between similar situations in their own country where each of us witness the dereliction of duty of the law keepers and their complacent laxity.</p> <p>The interest and the views of the children would relate their connections to the particular visited scenes and sights.</p>	07
December	ASL - Pre- Board Exam.			16
January	Second Pre- Board Exam.			18