

D.A.V. PUBLIC SCHOOL, PUNE
MONTHLY SYLLABUS FOR CLASS –XII(2023-24)
SUBJECT:- GEOGRAPHY

Month and No. of working days.	Unit	Content	Learning Outcome and Values	Assignment
March (4 days) April (19Days)	Part A Unit – 1 Ch1: Human Geography Nature and Scope Unit -2 Ch2: The World Population.	*Naturalization of humans and Humanization of nature. *Human geography through the corridors of time. *Fields and sub-fields of geography. Distribution, density and growth. * Composition. *Types Causes and Consequences.	*The core concern of geography as a discipline. *To understand the earth as home of human beings *Physical components influence human beings. * Man is the slave of nature. *Attitude towards nature. The reasons analyzed for the uneven distribution of population in the world. *To understand the factors influencing the distribution of population. *The preventive checks are better than Physical checks.(Thomas Malthus theory)	Explain any four sub-fields of human geography. Map work- distribution of population.

D.A.V. PUBLIC SCHOOL, PUNE
MONTHLY SYLLABUS FOR CLASS –XII(2023-24)
SUBJECT:- GEOGRAPHY

<p>June (19 days)</p>	<p>Part B Unit-1 Ch 1 Population – Distribution, Density, Growth and composition</p> <p>Part B Unit- 2 Ch 4 : Human Settlement</p>	<p>Distribution, density and growth. * Composition. *Types Causes and Consequences.</p>	<p>* The reasons analyzed for the uneven distribution of population in the world. *To understand the factors influencing the distribution of population. *The preventive checks are better than Physical checks.(Thomas Malthus theory)</p>	<p>Map work</p>
---------------------------	--	---	---	-----------------

D.A.V. PUBLIC SCHOOL, PUNE
MONTHLY SYLLABUS FOR CLASS –XII(2023-24)
SUBJECT:- GEOGRAPHY

July (24days)	Part A Unit-3 Ch 5: Primary Activities Part B Unit- 2 Land resources and agriculture.	*Types of primitive agricultural practices. *Land use categories. *Agricultural land use in India. *Cropping pattern.	*Income generating activities are economic activities. *Red collar workers- people engaged in Primary activities.	Map Work- *Distribution of various food and cash crops. *Distribution of agricultural pattern. Flow chart – Classification of Industries.
August (23 days)	Part A Unit-4 Ch 10: Human Settlement. Part B Unit- 2 Ch 4 : Human Settlement	*Classification of Settlements. *Types of Rural and Urban Settlements. *All activities concerned with	*To understand the basis of settlements. *Socialization and Interdependency. *Interpersonal relationships. *To know the types of	Survey study- 'Know your city well'
	Part A Unit-3 Ch6: Secondary activities.		Industries. *Relationship between Industries and economic growth and development.	

D.A.V. PUBLIC SCHOOL, PUNE
MONTHLY SYLLABUS FOR CLASS –XII(2023-24)
SUBJECT:- GEOGRAPHY

		<p>manufacturing, processing and construction is referred to as secondary activity.</p> <p>*Types of service related activities.</p>		
September (21days)	Revision for 1 term exam Ch 7:Tertiary and Quaternary activities.	Trade and Commerce. *Formal and Informal sectors. *The Digital Divide.	Self awareness *Role of BPO in economic growth.	Significance and growth of service sector in modern economic development.
October (22 days)	Part B Unit-3 Ch 6: Water resources.	*Water resources of India. *Water demand and conservation.	*The assessment, efficient use and conservation of water become necessary to ensure development. *Critical thinking and Problem solving ability	Depleting water resources may lead to social conflicts and disputes. Elaborate it with suitable example.

D.A.V. PUBLIC SCHOOL, PUNE
MONTHLY SYLLABUS FOR CLASS –XII(2023-24)
SUBJECT:- GEOGRAPHY

November (22days)	Part B Unit 3 Ch:7 Mineral and Energy Resources.	*Types of Mineral resources and their economic value. *Store house of mineral resources in India and in other parts of the world.	*Difference between ferrous and non-ferrous minerals. * critical thinking and management of resources.	Map Work – Identification of mines.
November	Part B Unit 3 Ch:8 Manufacturing Industries.	*Relation ship between agriculture and industries. *Factors influencing industrial locations. *Major industries of India and the World.	*Industrial regions of the world and in India.	Explain the terms Liberalization, Privatization and Globalization.
	Ch: 9 Planning and Sustainable Development - India	*Importance of Planning. * Role of Planning Commission.	*Analysis of five year plans in India. *Critical and Creative thinking.	Write a note on ITDP(Integrated Tribal Development Programme)
	Part A Unit 3 Ch: 8 Transport and Communication Part B Unit 4 Ch: 12 Geographical perspective on selected issues and problems.	*Modes of Transportation *Importance of Highways in economic development. *Ocean transportation *Problems caused due to various pollutions. *Urban-Rural Migration. *Resource	*Acquiring Knowledge. *Transport establishes a link between producing centre and consuming centre. *Map skill *Creative and critical thinking. *Problem solving ability. Community participation	Map Work- Important transport routes of economic importance. Analyzing case studies and Project presentation on any environmental issues.

D.A.V. PUBLIC SCHOOL, PUNE
MONTHLY SYLLABUS FOR CLASS –XII(2023-24)
SUBJECT:- GEOGRAPHY

		Degradation		
December (18 days)	Revision			
January (24days)	Revision			

D.A.V. PUBLIC SCHOOL, PUNE
MONTHLY SYLLABUS FOR CLASS –XII(2023-24)
SUBJECT:- GEOGRAPHY

PORTION FOR UT-I ,TERM-I , PRE-BOARD AND FINAL EXAMINATION FOR STD- XII

UT-1	TERM-1	PRE-BOARD AND FINAL
<p><u>PART-A-</u></p> <p>Ch-1: Human Geography- nature and scope ,Ch-2:The World population , Ch-3: Population composition , Ch-4: Human Development</p> <p><u>PART-B-</u></p> <p>Ch-1: Population, Ch-2:Migration,Ch-3: Human development</p>	<p><u>PART-A-</u></p> <p>Ch-1: Human Geography- nature and scope ,Ch-2:The World population , Ch-3: Population composition ,Ch-4:Human Development, Ch-5: Primary activities.Ch-6: Secondary Activities.</p> <p><u>PART-B</u></p> <p>Ch-1: Population, Ch-2: Migration , Ch-3: Human development ,Ch-5:Land Resources and Agriculture ,Ch-6:Water resources ,Ch-7:Mineral and Energy resources.</p>	<p><u>PART-A-</u></p> <p>Ch-1: Human Geography- nature and scope ,Ch-2:The World population , Ch-3: Population composition ,Ch-4:Human Development, Ch-5: Primary activities.Ch-6: Secondary Activities. Ch-7:Tertiary and Quaternary activities ,Ch-8: Transport and Communication ,Ch-9:International Trade ,ch-10:Human Settlement.</p> <p><u>PART-B</u></p> <p>Ch-1: Population, Ch-2: Migration , Ch-3: Human development ,Ch-5:Land Resources and Agriculture ,Ch-6:Water resources ,Ch-7:Mineral and Energy resources. Ch-8:Manufacturing Industries , Ch-9:Planning and sustainable development in Indian context ,Ch-10:Transport and Communication, Ch-11:International Trade ,Ch-12:Geographical perspective on selected issues ,Ch-4:Human Settlement.</p>

D.A.V. PUBLIC SCHOOL, PUNE
MONTHLY SYLLABUS FOR CLASS –XII (2023-2024)
SUBJECT:- BIOLOGY

Month & Days available for teaching	Unit / lesson / Contents	Learning outcomes	Assignments & Activities	Values/ Skills
March + April- 22 days	Reproduction: <ul style="list-style-type: none"> • Sexual Reproduction in Flowering Plants • Human Reproduction 	<ul style="list-style-type: none"> • Children will understand the process of reproduction in lower and higher plants, apomixes, polyembryony, parthenocarpy. • The children will know the physiology of reproduction in humans. • They will understand about spermatogenesis, oogenesis, fertilization, implantation, gestation, parturition, menstrual cycle. 	<ul style="list-style-type: none"> • To study germination of pollen grains on a slide. • To study adaptations of anemophilous and entomophilous flowers. • To study gametogenesis and embryogenesis through permanent slides. • TS of testis , TS of ovary 	<p>Understand the value of plants, learns to be observant.</p> <p>Learn to be more respectful to the other gender.</p>
June –19 days	Reproductive Health	<ul style="list-style-type: none"> • They will realize the importance of a reproductively healthy society. • They will be aware of RCH Programs, to spread awareness about STDs. Population explosion, contraceptives, infertility. 	Worksheet	Comprehend importance of contraceptive methods in population explosion and STD's , gender equality and infertility issues.

	Genetics and Evolution: Principles of Inheritance and Variation	Students understand Mendel's laws of inheritance, variation, sex determination, mutation, genetic disorders.	To practice monohybrid, dihybrid crosses , test cross.	Understand trans mission of genes,chromosomal disorders and Mendelian disorders.
June contd	Genetics and Evolution: Molecular basis of Inheritance	Students understand the central dogma of molecular biology. They learn about structure and function of DNA , RNA. They know about replication, transcription, translation, gene regulation, HGP, DNA fingerprinting.	To practice pedigree analysis. Isolate DNA from plant material spinach. To practice diagrams Worksheet	Learn the application of biological processes in various fields Eg .industries, medicine, crime detection, paternity-maternity disputes.
July – 24 Days	Evolution Unit Test - 1	Students know diff. theories of origin of life on earth, evolution of diverse forms of organisms, theories and evidences of evolution.	To study homologous and analogous organs.	Develop respect for all living forms and understand how adaptations help organisms.

August – 23 days	Biotechnology : Principles and Processes	Students learn about genetic engineering (recombinant DNA technology)	Diagrams and Worksheet.	Learn importance of biotechnology for benefit of human beings.
	Biotechnology and it's application.	Application of biotechnology in health and agriculture, gene therapy, GMO's , Biosafety , Bio piracy and patents.	Diagrams and worksheets.	They use knowledge of biological discoveries in every day life and solve problem in health and agriculture.
	Revision -			
	Human health and disease Microbes in Human Welfare	Develop the knowledge of using microorganisms to solve issues related to population and environment, food scarcity etc.	To study disease causing microorganisms from permanent slides.	Get aware of personal and community hygiene ,drug abuse. Problem solving skill
September-21Days	Term 1 - Exam			

October - 22 Days	Biology and human welfare:	They understand the importance of health and immune system, some infectious diseases and their control, drug abuse and control and prevention.	To study disease causing microorganisms from permanent slides.	Get aware of personal and community hygiene, drug abuse.
	Ecology : Organisms and population	They apply the knowledge of biology in the study of populations and population interactions	To practice graphs	Problem solving skill Learn population dynamics.
	Ecosystem	Develop specific attitude to issues related to population, environment and development.	To practice nutrient cycles, ecological pyramids, energy flow through diff trophic levels.	Learn the role played by all living forms in the nature.
November- 15 Days	Biodiversity and conservation	Understand the concept,patterns, importance of diversity and it's conservation hot spots, endangered organisms, red data book etc.	To practice graphs. Worksheets	Understand the importance of diversity and its conservation for sustainable growth and connection of Biology with real life problems.
	Revision			
Decemeber 18 days January – 23 days February – 22 days March – Board Exam	Prelim 1 & Prelim 2 Revision			
	Revision			

PORTION FOR UNIT TEST CHAPTER: 2 TO 5
PORTION FOR TERM I : 2 TO 7 & 11, 12
PORTION FOR UNIT 2: CHAPTERS 8 10 & 13 14 TO
PORTION FOR PRELIMS : Full Syllabus.

BIOLOGY (THEORY) STD XII TIME-3 HRS.
UNIT WISE WEIGHTAGE FOR PRELIM AND BOARD EXAM

UNIT	MARKS
1. REPRODUCTION	16
2. GENETICS AND EVOLUTION	20
3. BIOLOGY AND HUMAN WELFARE	12
4. BIOTECHNOLOGY AND ITS APPLICATION	12
5.	
6. ECOLOGY AND ENVIRONMENT	10
TOTAL	70

	<p>Prose 2.Lost Spring</p> <p><u>Writing Skills</u> Notice,</p> <p><u>Conversation Skills</u> Group Discussion based on various topics related to the content</p>	<p>Social awareness and community service</p> <p>Finesse in writing skills.</p> <p>Better analyzing and speaking skills.</p>	<p>Find out all about CASP, CRY, Childline and so on. Collect articles from the newspaper about efforts made to improve the lives of the poor and the less privileged.</p> <p>Discussion on a given topic</p>	<p>Community service, empathy, mercy, humility Value of social service & nurturing childhood</p> <p>Skill in creative writing is enhanced.</p> <p>Conversation skill is enhanced.</p>
<p>June 19 days</p>	<p><u>Poetry</u></p> <p>1.Deep Water</p> <p><u>Vistas</u> <u>1. The Third Level</u></p> <p><u>Poetry</u> 1.Keeping Quiet</p>	<p>Ability to face any kind of fear or phobia & get rid of it.</p> <p>Understanding scientific fantasy, bitter realities of modern life.</p> <p>Importance of silence & introspection.</p>	<p>Collect information about William Douglas & water sports.</p> <p>Debate on 'Is fantasizing a way to escape insecurities of life?'</p> <p>Symbolism of the title. Collect info. on Pablo Neruda's other works</p>	<p>Importance of overcoming phobias or fears. Being proactive in life.</p> <p>Overcoming stress Art of Living</p> <p>The beauty & value of silence & Introspection.</p>

<p style="text-align: center;">July 24 days</p>	<p><u>Writing Skills</u> Article Writing,</p> <p><u>Vistas</u> 2.The Tiger King</p> <p><u>Flamingo</u> 1.The Rattrap</p> <p><u>Vistas</u> <u>Journey to the End of the Earth</u></p> <p><u>Writing Skill</u> Letter to the Editor</p> <p>UNIT TEST I</p>	<p>_ Finesse in writing skills.</p> <p>Understanding satire, humour & man’s callousness to nature.</p> <p>Sts. learn the value of integrity, hospitality, Christmas spirit & forgiveness.</p> <p>The deteriorating ecological balance, the scenario in Antarctica.</p> <p>Write flawless letters</p>	<p>Write an essay on Tiger King’s utter disregard to ecology. Explain the irony in the chapter. Sts. express themselves regarding blind faith in prophecies. Write a humorous dialogue between the Tiger king& the 100th tiger.</p> <p>Write a paragraph on the mindset of the rattrap maker & his philosophy.</p> <p>Write a paragraph about the conditions in Antarctica</p> <p>Draft letters to Editor on social issues</p>	<p>Skill in creative writing is enhanced.</p> <p>Sts. learn not to disregard nature and ecology.</p> <p>The value of honesty, integrity & forgiveness.</p> <p>Conserving nature and ecology</p> <p>Master the skill in writing</p>
---	---	--	---	--

August 23 days	<u>Flamingo</u> 1. Indigo	Sts. learn how Gandhi started the civil disobedience movement, the first step in the Independence struggle.	Collect info. about other movements such as salt satyagraha etc. Role-play: Gandhiji, lawyers, peasants & British officers	Values from the lives of our great leaders, commitment, loyalty and responsibility towards the subjects/ countrymen
	<u>Vistas</u> The Enemy	Sts realize the need to be global citizens	Collect info. about WWII & relationship between USA & Japan	Compassion, kindness and global citizenship
	<u>Flamingo Poetry</u> A Thing of Beauty	Appreciating God's gifts to mankind	Collect and read Keats' other poems	Learning to appreciate nature and connect to the Almighty
	<u>Writing Skills</u> Invitations and Replies	Learn the art of drafting Invitations & Replies	Analyze invitation cards based on content and layout	Master the skill of designing Invitations
	Report Writing	Informal/ Formal reports on functions, programmes and activities in school	Sts. write a report on the topic given.	Skill in writing report is enhanced
	Group and individual activities to test speaking and listening skills	Express fluently	Present views on topics given	Improve communication skills

--	--	--	--	--

September 21 days	<u>Flamingo Poets and Pancakes</u>	Learn about behind the scenes in a film studio	To enhance Vocabulary Characterization	Appreciate humor and satire
	Poetry The Roadside Stand	Sts learn the causes of social disparity and socio-economic exploitation	Understand Dramatic monologue	Empathy
	<u>The Interview</u>	Sts learn the importance of interviews and the need to prepare for them well .	Chart on expert views on Interviews	Humility and truthfulness
	<u>Writing Skills</u> <u>Formal letters- Job Application</u>	Learn the art of drafting letters Prepare a personal biodata for admissions, entrance tests & jobs	Draft letters of request, complaint and application for job	Draft errorless letters
	<u>TERM EXAMINATION SCHEDULED TENTATIVELY</u>			

<p>October 22 days</p>	<p><u>Vistas</u> On the face of it</p> <p><u>Flamingo</u> 1.Going Places</p> <p>Poetry Aunt Jennifer's Tigers</p>	<p>Realization that each one of us is special in our own way.</p> <p>Teenage fantasies & their futility.</p> <p>Effect of male domination & oppression on women</p>	<p>Pen picture of Derry and Mr Lamb Gather information about inclusive education</p> <p>Write a paragraph on how Sophie is a victim of teenage fantasy. How does Sir Arthur Conan Doyle manage to make the story interesting to the readers?</p> <p>Does Aunt Jennifer evoke pity in the reader.</p>	<p>Learn to treat all equal Empathy</p> <p>The futility of falsehood & fantasies.</p> <p>Importance of courage & fearlessness</p>
<p>November 15 days</p>	<p>2.Memories of Childhood</p>	<p>Effect of prejudice on children belonging to the othered or ostracized communities.</p>	<p>What problems do Bama & Zitkala-Sa face & why?</p>	<p>Need to overcome prejudice & bias. Unity & brotherhood</p>

December 19 days	Revision for First Preliminary Exam I Group and individual activities to test speaking and listening skills	Recapitulation and emphasis on points taught Express fluently	Students read and learn important aspects of various texts. Sts prepare power point presentation on the project	Importance of reading both intensive and extensive. Analyzing and answering questions based on long and short texts. Improve communication skills
January 23 days	Correction and rectifying mistakes Assessment of Speaking and listening skills	Practise solving old question papers and writing skill question. Interviews and presentations	Students analyze papers and understand their mistakes Sts present their projects on various topics	Perfection in answers and Improvement in expression Confidence
February 23 days	FINAL PRACTICAL EXAM Preboard 2 Corrections and remedial classes BOARD EXAMINATION	Practice of better answering skills Analyse mistakes	Remedial classes and doubt solving and correction of sample papers	Improvement in the ability to answer papers
March 22days	REVISION BOARD EXAMINATION			

UNIT TEST TENTATIVE SYLLABUS

Sec A-<u>Reading Skills</u>- Comprehension	Sec B-<u>Writing Skills</u>-Notice, ,Editor's letter	Sec C-<u>Literature</u>- Flamingo-Prose -1&2, Poem -1 & 2 Vistas-L-2
---	---	---

TERMINAL SYLLABUS

Sec A-<u>Reading Skills</u>- Comprehension	Sec B-<u>Writing Skills</u>-Notice, Article ,Editor's letter, Report writing, Extending Invitations	Sec C-<u>Literature</u>- Flamingo-Prose -1to4, Poetry -1&2 Vistas -Prose-1to3
---	--	--

PREBOARD & FINAL EXAMS-FULL SYLLABUS

Syllabus (2023-2024)
Subject: (Informatics Practices) (IP) - PYTHON
Std: XII

Month & days available for teaching	Unit / Content	Learning outcome	Assignment/Activities	Values/Skills
March 2 Days	<u>Introduction to IP Subject</u>	Understand the syllabus and Topics involved	NA	The importance of programming
April 19 Days	<p><u>Lesson 6 – MYSQL Functions</u> - Text/String Functions - Numeric Functions - Data/Time Functions</p> <p><u>Lesson 7 – Querying Using SQL</u> -Ordering Records in Result – Order by clause -Aggregate Functions -Types of SQL Functions - Grouping Result - Group by clause</p> <p><u>Lesson 8- Joins and Set Operations</u> -Joining tables - Cartesian product -Restricted Join -Table Alias -Condition on join-having clause -equi join -non equi join -Natural join</p>	<p>Students will have the knowledge of using built-in mysql functions to extract data from tables.</p> <p>To know what are MySQL aggregate functions and also how they work with grouping.</p> <p>To know how to extract data from two or more tables in different ways depending on the data required.</p>	<p>Writing various queries with the three categories of the mysql functions like string and numeric functions</p> <p>Use all the aggregate functions along with grouping in a table</p> <p>Queries using different types of joins to get the desired data. Type A and Type B questions from the TextBook.</p>	<p>Learning different techniques for extracting data from database</p> <p>Statistical functionality using aggregate functions.</p> <p>Skill to extract data from more than one table.</p>

<p>June 19 Days Unit Test-1</p>	<p>Lesson 1 – PYTHON PANDAS -1 - Introduction to Pandas Library - Pandas Data structure 1. Series Data structure <ul style="list-style-type: none"> • Creating series Object • Series Object Attributes • Elements of Series • Operations on Series Object • Series Vs Numpy Vs List Vs Dictionary </p>	<p>Introduction to the Pandas Library Students will be learning to program using a Python</p>	<p>Open-source Python Shell Installation of Pandas and Numpy Library</p>	<p>Knowledge about 1-dimension, 2-dimension and multi-dimension structures</p>
<p>July 24 Days</p>	<p>Lesson 1 – PYTHON PANDAS -1 (contd...) 1. DataFrame Data structure <ul style="list-style-type: none"> • Creating DF Object • DF Object Attributes • Elements of Series • Accessing elements of DF • Adding/ modifying row's/ cols's values in DF • Deleting/ Renaming cols/rows • DataFrame Vs Series Vs Numpy </p>	<p>To know how to manipulate dataframes and adding and modifying columns and rows</p>	<p>To perform all manipulations on the dataframe</p>	<p>Introducing Programming Language</p>
<p>August 23 Days</p>	<p>Lesson 2 – PYTHON PANDAS -2 - Iterating over DataFrame <ul style="list-style-type: none"> • Using pandas.iterrows() function • Using pandas.iteritems() function - Binary operations in a DataFrame - Descriptive statistics with Pandas - Essential Functions and Functionality - Advanced Operations on DataFrame - Handling Missing Data - Combining DataFrames - Function groupby()</p>	<p>Students will be aware of writing efficient code. Students will be learning about how to do computation in Python. Knowledge of working with DataFrames</p>	<p>Writing programs based on statistical functions</p>	<p>Learning about advanced operations on pandas Developing logic along with descriptive statistics and binary operations on DataFrames</p>
<p>September 21 Days TERM -1</p>	<p>Lesson 3 – PLOTTING with PyPlot - What is Data Visualization? - Using Plplot of Myplotlib Library <ul style="list-style-type: none"> • Installing and importing Matplotlib • Working with pyplot function </p>	<p>The Students will be discussing various ways of plotting the statistical data along with different of graphs</p>	<p>Programs on line, scatter, bar, histograms and pie charts All text book examples</p>	<p>Learning to use visualization for decision making</p>

	<ul style="list-style-type: none"> -Creating Line Charts and Scatter Charts -Creating Bar Charts and Pie Charts -Customizing the Plot -Creating Histogram with pyplot -Creating Frequency Polygons -Creating Box Plots -Plotting Data from DataFrame 			
<p>October 22 days</p>	<p>Lesson 4 – Importing/Exporting Data between CSV Files/MYSQL and Pandas</p> <ul style="list-style-type: none"> - Introduction - Transferring Data between .csv Files and Dataframes -Loading data from CSV to DataFrames -Storing DataFram’s Data to CSV file - Transferring Data between Df and Mysql - Exporting a DF’s Data as a Table in Mysql Database <p>Lesson 9 – Introduction to Computer Networks</p> <ul style="list-style-type: none"> -Computer Networks- An Introduction - Types of Networks -Network Topologies -Network Devices 	<p>Students will learn the advance concepts of communication between two softwares like python and mysql/CSV</p> <p>Students will be learning basic fundamentals of Networking</p>	<p>Programs on extracting data from a DataFrame into a CSV file or a mysql table and vice versa</p> <p>Collecting information about the different networks</p>	<p>A very important topic for learning the connectivity of Python with other backends.</p> <p>Introduction to different topologies of networks</p>
<p>November 15 days</p>	<p>Lesson 10 – Introduction to Internet and Web</p> <ul style="list-style-type: none"> -Intro to Internet - World Wide Wed - Web Servers -URLs -WebSite -Web Pages -Web Browsers - Internet Applications -Chat -Voice Over Internet Protocol (VoIP) 	<p>Learning the client-server model and difference between internet and www</p>	<p>Understanding the usage of IoT and WoT</p>	<p>Understanding the real world applications</p>

December 19 Days PRE-1	Lesson 11 – Societal Impacts -Digital Footprints -Net and communications Etiquettes -Ethical Issues - Open Source Philosophy -Copyright and other Licenses -Cyber crime & Laws and IT Act -E-waste Management -Health Concerns with Technology Usage	Understanding the different aspects under cybercrime and the laws and acts made against them by the govt.	Finding the different ways of e-waste management and knowing the drawbacks of using excessive technology	Understanding the limits and pros and cons of technology on health
January 23 Days PRE-2	Lesson 12 –Data Protection -Threats of Data -Data Protection Solutions -Firewall- An important solution for computer security	Understanding importance of computer security	Learning about different threats on data	Learning to secure the data
February 23 Days	REVISION			
March 22 Days	REVISION			
Lesson 5 – MYSQL SQL Revision Tour		Sumita Arora	Self Study	

Board Marking scheme for THEORY – Marks (70) Time : 3 hrs

Topics / Units	Marks
Unit-1 (Le1, Le2, Le3, Le4)	25
Unit-2 (Le5, Le6, Le7, Le8)	25
Unit-3 (Le9, Le10)	10
Unit-4 (Le11, Le12)	10
Total	70

Practical - Marks: 30 (Term – 1 / Preboards/Finals) Time : 3 hrs

Marking scheme for Practical

Topics / Units	Marks
Programs using Pandas and Matplotlib	08
SQL Queries	07
Record File (Python + SQL)	05
Project File	05
Viva	05
Total	30

***Subject to change ***

X-----X

YEARWISE SYLLABUS FOR MASS MEDIA STUDIES

STD. XII

Month Working Days	Unit/Content	Learning Outcomes	Assignment or Activities	Values/skills
April 16 days	UNIT 1 Selling /Marketing/Exhibiting a Product Through Advertising L1. Advertising Concept and Process	To comprehend how advertising affects media. Understand branding and its importance in advertising Importance of deciding the USP of a product	1.Watch ad campaign of popular brands like Starbucks, Nike,etc 2. Imagine yourself as a advertisers and you have been assigned to design a consumer product (of your own). This product has to sell nationally.	Skill in recognizing how media is used by film makers in advertising their films. How Research and development department of an organization work for deciding the USP of their product
June 19 days	L 2. Functions of advertising L 3. Types of advertising L4. Forms of advertising Practical Video editing software: Windows Video editor	Students will learn the role of advertising in media What types of medium available for advertising Advantages and disadvantages of different media used for advertising	1.Find an example for each of the various forms of advertising and analyze them in 4 to 5 lines each, highlight their main features. 2.Viewing of different forms of advertising	Learn to make an effective advertisement Learn to choose correct medium for an advertisement Using windows editor easily.
July 24 days UT	Unit II Introduction to production process L1.Films L2Television Emplyability skills: Unit I: Communication skills	Understand the production process and making process of the films Understand all about the basis of various TV programs made.	1.Make storyboard and script for a short film 2.Watch a soap opera and review it. 3.Conduct a survey on favourite shows watched in the neighbourhood and write a report in the portfolio.	Learn to make short films Learn to analyze television program and the production process for making them.

YEARWISE SYLLABUS FOR MASS MEDIA STUDIES

STD. XII

<p>August 23 days</p>	<p>L3. Print Headlines Department of newspaper organization Working structure of editorial department</p> <p>L4. Radio.:Content Analysis of Radio Programs Spoken word program Musical program</p> <p>Practical: 1. Photo – Editing Software : Photoshop</p>	<p>Why news papers highlight certain news.</p> <p>Understand different department of newspaper publication</p> <p>Understand the importance of radio in reaching the people.</p>	<p>1.Look at the front [age of newspaper. Compare about 3-4 newspapers of the same day.</p> <p>a.What are the main headlines.</p> <p>b.Are they about the same event or they are different.</p> <p>c.In either case what does it tell about the event/personality etc. , if they are about different topics, then what does it tell you about the newspaper.</p>	<p>Learn to analyze the news printed in the media.</p> <p>How to make a successful Radio program on Radio or TV.</p> <p>Understanding of the software adobe photoshop</p>
<p>September 21 days TERM 1</p>	<p>L5. Internet Planning , Creating and Delivering of a website</p> <p>Employability skills: Unit II: ICT Skills</p>	<p>Students will learn about the content of a webpage.</p> <p>Understand the difference in web design and web development</p> <p>Students understand the importance of Internet and how it evolved.</p>	<p>1.Create a plan of a webpage of your choice taking into account how it would look. Who would be the target audience and the purpose of the website.</p>	<p>Understanding of different types of webpages</p> <p>Understanding the target audience for a particular content displayed on the websites</p>
<p>October 22 days</p>	<p>Unit III: New Media Convergence and the New Possibilities of Communication i. Inter - convertibility of Media ii. New Possibilities of Communication</p> <p>Unit IV Creative contribution of the key people L 1. Films: Director, Writer, Producer, Cinematographer, Editor, Art director, Actor etc</p>	<p>How the media assimilates everything.</p> <p>To comprehend the work of various people involved in film making</p>	<p>1.Students prepare a portfolio activity on convergence.</p> <p>2.Select any one of your favorite director and discuss about his work on the basis of the following points: a.Genre of the films made by him/her. b.Name the other key people who are associated with his/her work.(scriptwriter, music composer, cinematographer,etc.) c.Maximum and minimum budget for his films.</p>	<p>Students learn to use various media , based on the principle of convergence.</p> <p>Students learn the contribution done by different people in making of the programs for Films</p>

YEARWISE SYLLABUS FOR MASS MEDIA STUDIES

STD. XII

<p>November 15 days</p>	<p>L2. Television: Producer, director, actors, continuity artist, Audio technician etc</p> <p>L3. Print: Headlines, News Reports, Features, Editorials and Page making are the main activities of the editorial team.</p> <p>L4. Radio: Station Manager, Radio producer, Radio jockey etc</p> <p>Practical: Viewing of other films advised in the syllabus.</p>	<p>To comprehend the work of various people involved in making of tv programs</p> <p>To understand the work profile of various department of Print media</p> <p>To understand the work profile of various department of Radio</p>	<p>Write a script for a radio play of 5 to 10 minutes, produce the play and record it with the help of your friends' voices.</p>	<p>Students learn the contribution done by different people in making of the programs for Television , Print and radio</p>
<p>December 19 days PREBOARD 1</p>	<p>L5: Internet: Contributions made by Writer, Conceptualiser, Editor, Designer</p> <p>Employability skills: Unit III: Self management skills</p> <p>Unit IV. Enterprenuer Skills</p> <p>Unit V: Green skills</p> <p>Revision for Prelim - 1</p>	<p>Students will understang the work profile of the people working towards webites planning and delivering</p>	<p>Students make the projects.</p>	<p>Skills required for the content and Web development</p>
<p>January 23 days PREBOARD 2</p>	<p>Revision for final exam</p>			
<p>February 23 days</p>	<p>Revision for final exam</p>			
<p>March 23 days</p>	<p>Revision for final exam</p>			

- Exam pattern
Theory : 60 Marks

YEARWISE SYLLABUS FOR MASS MEDIA STUDIES

STD. XII

Practical: 40 Marks

- Theory : 10 marks + 50 marks
10 marks : Employability Skills
50 marks : Subject Skills
- Practical Includes:
10 marks: Portfolio file (Activities conducted in the class over the session)
15 marks: Hands on knowledge of softwares (video editing software)
10 marks: Project (Group Project)
05 marks: Viva

D. A. V. Public School, Aundh, Pune
Syllabus 2023- 2024

Sub: - **PHY - EDU** Std: - **XII**

Month / Working days	Unit / Content	Learning outcome	Values &Skills
April	Warm up Cricket (Theory), Basketball	Team Spirit Health, Discipline To understand the game	Values - To develop agility, speed, body balance, flexibility, endurance Skills -Batting and balling techniques, Basketballdribbling , dodging , throwing . passing techniques, rules of the games
June	Warm up Theory (Football) Dodgeball, Football	Imagination Health, Discipline To understand the game	Values -Physical Fitness, Hand and eye Co-ordination Skills -Throwing and dodging, techniques, dribbling, long kicks, long passes.
July	Warm up Badminton, Table Tennis	Thinking Health, Discipline To understand the game	Values - Co-ordination, Concentration, Stamina Skills - Grip, stance, stroke, service smash
August	Warm up Football, Basketball	Self Confidence Health, Discipline To understand the game	Values - To develop mentally and physically fit Skills -Kicks ,passes, dribbling, trapping Throwing techniques,
September	Warm up Basketball	Understanding Health, Discipline To understand the game	Values - To develop agility , speed , body balance flexibility, endurance Skills - Passes, dribbling, pivot
October	Warm up Throw Ball, Ring Tennis	Co-Ordination Health, Discipline To understand the game	Values - Team spirit, Sportsman Spirit Skills - Grip , stance, ThrowingTechniques, Catching techniques

November	Warm up Volleyball, Throw ball	Co-Ordination Health, Discipline To understand the game	Values - To develop muscular strength, endurance, stamina Skills -Service techniques, smash techniques, throwing, catching techniques
December	Warm up Kho-kho Football	Grasping Health, Discipline To understand the game	Values - To become a good citizen through the sports Skills -Stance, kho techniques, penalty kick, off side, rule of the game
January 2020	Warm up Basketball	Co-Ordination, Physical Fitness Health, Discipline To understand the game	Values - To develop Hand and Eye Co-ordination, Team sprit stamina. Skills - Dribbling, Chest passing, Lay-up shot
February 2020	Warm up Football, Basketball	Physical Fitness Health, Discipline To understand the game	Values - To develop Physically & mentally Fit, Team sprit Skills - Heading and throw-in techniques, goal keeping, Dribbling, passing, rules of the game

D.A.V. PUBLIC SCHOOL, PUNE
ACCOUNTANCY SYLLABUS (2023 – 2024)

STD XII

Months & Days Available for Teaching	Unit / Name of Lesson / Content	Learning Outcomes	Assignments & Activities	Values / Skills
March 4 /April 19 days	PART B IV <u>Analysis of Financial Statements:</u> a. Financial Statements of Company b. Financial Analysis c. Tools for Financial Analysis	<ol style="list-style-type: none"> To learn and understand the meaning, concept and preparation of financial statement. To make comparative study of financial statements. To assess the liquidity, solvency and profitability of business. 	Solve worksheet 1	Develop skills of analyzing Financial Statements
June 19 days	IV <u>Ratio Analysis</u>	<ol style="list-style-type: none"> To learn the classification of ratios and understand ratio analysis. To determine the liquidity and solvency of a business. To determine the working capital requirements of a business. 	Solve Worksheet 2 Project: To prepare 1 comprehensive project on the identified company to analyze its financial statements.	Develop skills of conducting Ratio Analysis
July 25 days/10 days Aug	PART A II <u>Accounting for Partnership:</u> a. Basic concepts & fundamentals b. Distribution of profits	<ol style="list-style-type: none"> To learn and understand meaning and elements of partnership. To start partnership firm To prepare final accounts of partnership firms. 	Solve Worksheet 3	Develop skills of preparing partnership deed

August 13 days	<u>Reconstitution of Partnership:</u> a. Valuation of goodwill b. Admission of partner	1. To learn & understand different methods of calculation of goodwill. 2. To understand accounting treatment in case of admission of partner.	Solve Worksheet 4	Develop skills of valuation of goodwill
September 21 days	<u>Retirement or death of partner.</u> c. Dissolution of Partnership d. Change in profit sharing ratio Revision	1. To learn & understand adjustment regarding profit sharing ratio. 2. To learn and understand revaluation of assets & liabilities.	Solve Worksheet 5	Develop skill of Accounting treatment of partnership firms
October 22 days/ November 15 days	III <u>Accounting for Share Capital and Debentures:</u> a. Issue and Forfeiture of shares b. Issue and Redemption of Debentures V <u>Statement of Changes in Financial Position:</u> Cash Flow Statement	1. To understand nature, meaning & characteristics of companies & different types of shares. 2. To learn & understand issue and forfeiture of shares & their accounting treatment. 3. To learn the meaning and types of debentures. 4. To learn & understand issue and redemption of debentures. 1. To learn and understand meaning & objectives of Cash Flow statement. 2. To prepare Cash Flow statements of different companies.	Solve Worksheet 6 Solve Worksheet 7 Solve Worksheet 8	Develop skills of Issuing shares & their Forfeiture Develop skills of Issuing Debentures & their Redemption Develop skills of preparing Cash Flow

PORTION

1) UNIT TEST :

PART B FULL (EXCEPT CASHFLOW STATEMENT)

2) FIRST TERMINAL: PART B FULL (EXCEPT CASHFLOW STATEMENT) + ACCOUNTING FOR PARTNERSHIP FIRMS –
Fundamentals, Goodwill, Change in PSR, Admission of Partner

Admission

3) PREBOARD AND FINAL BOARD : FULL PORTION

WEIGHTAGE : AS PER CBSE

UNIT TEST 1: PAPER PATTERN

TERM 1: PAPER PATTERN

1m x 10 = 10m

3m x 4 = 12m

4m x 4 = 16m

6m x 2 = 12m

20 Ques = 50m

1m x 20 = 20m

3m x 6 = 18m

4m x 3 = 12m

6m x 5 = 30m

34 Ques = 80 m

THERE WILL BE INTERNAL CHOICE IN QUESTIONS OF 1 m, 3 m, 4m, 5m & 6m

PRELIM 1& 2 PAPER PATTERN AS PER CBSE BOARD

Units	Topics	Marks (80 + 20)
Part A	Accounting for Partnership Firms and Companies	
1	Accounting for Partnership Firms	36
2	Accounting for Companies	24
Part B	Financial Statement Analysis	
3	Analysis of Financial Statements	12

4	Cash Flow Statement	8
Part C	Project Work	20

D.A.V.PUBLIC SCHOOL, PUNE
BUSINESS STUDIES SYLLABUS 2023-2024

STD XII

Month & days available for teaching	Unit/ Name of lesson/ content	Learning Outcome	Assignments/Activities	Values/ Skills
March 4/April 19 days	<p>PART A</p> <p>III <u>Business environment</u></p> <ol style="list-style-type: none"> Meaning and importance Dimensions Economic environment in India <p>I <u>Nature & significance of management:</u></p> <ol style="list-style-type: none"> Concept, objectives, importance Science, art or profession Levels of management Management functions <p>Coordination</p> <p>XII <u>Consumer protection</u></p> <ol style="list-style-type: none"> Importance Rights Responsibilities Legal redressal Role of consumer organizations and NGO 	<ol style="list-style-type: none"> Identify dimensions of business environment Understand impact of business environment on working of business <ol style="list-style-type: none"> Learn and understand traditional and modern concepts of management Appreciate importance of management Explain nature of management, levels of management <ol style="list-style-type: none"> Learn and understand importance of consumer protection Describe legal rights of consumers State remedies available to consumers under CPA 	<p>Solve worksheet 1.</p> <p>Solve Worksheet 2</p> <p>Solve Worksheet 3</p>	<p>Develop skill of identifying dimensions of business environment and their impact on business</p> <p>Develop skill of time, material and men management</p> <ol style="list-style-type: none"> Importance of consumer protection Develop awareness of consumer rights and responsibilities in day to day life

<p>June 19 days</p>	<p>PART B XI <u>Marketing management:</u> a. Meaning, functions. b. Philosophies c. Marketing mix – elements</p> <p>II <u>Principles of management:</u> a. Meaning, nature, significance b. Fayol’s principles of management c. Taylor’s scientific management.</p>	<ol style="list-style-type: none"> 1. Discuss functions and role of marketing 2. Appreciate role of advertising and personal selling 3. Appreciate factors that determine price <ol style="list-style-type: none"> 1. Describe meaning of principles of management 2. Discuss Fayol’s principles of management 3. Describe meaning of Taylor’s scientific management and its principles 4. Recognize techniques of scientific management 	<p>Solve worksheet 4</p> <p>Solve Worksheet 5</p>	<p>Develop skill of identifying marketing mix and its elements.</p> <p>Develop skills of optimum utilization of resources, scientific decision making and better administration.</p>
<p>July 19 days</p>	<p>IV <u>Planning:</u> a. Meaning, features, importance b. Limitations c. Planning process d. Types of plans</p>	<ol style="list-style-type: none"> 1. Learn and understand importance of planning 2. Appreciate limitations of planning Describe steps in process of planning 	<p>Solve Worksheet 6</p>	<ol style="list-style-type: none"> 1. Develop skill of decision making and coordination 2. Promotes creativity

Aug 23 days	X <u>Financial markets</u> a. Concept of financial market, money market and its instruments b. Capital market and types c. Stock exchange d. SEBI	1. Learn and understand concept, nature and importance of financial market and its functions 2. Appreciate functions of primary and secondary markets 3. State procedure of trading at stock exchange 4. Explain objectives and functions of SEBI	Solve worksheet 7	1. Develop skills of trading on stock exchange 2. Develop skill of raising money from the market for business
Sept 12 days	IX <u>Financial management</u> a. Meaning, role, objectives b. Financial decisions c. Financial planning d. Capital structure e. Fixed and working capital	1. Appreciate role of financial management 2. Discuss scope of financing, dividend decisions 3. Learn and understand concept of capital structure, fixed capital, working capital.	Solve worksheet 8	Develop skill of financial decision making
Oct 11 days	V <u>Organizing</u> a. Meaning and importance b. Steps in process of organizing c. Structure of organization d. Formal and informal organization e. Delegation f. Decentralization.	1. Highlight importance of organization 2. Differentiate between functional and divisional structure and formal and informal organization 3. State significance of delegation and decentralization	Solve worksheet 9	1. Develop skills of identifying and grouping of work to be performed 2. Develop skill of delegating authority and responsibility 3. Placing right person at right job.
Oct 11 days	VI <u>Staffing:</u> a. Meaning and importance	1. Learn and appreciate importance of staffing and HRM	Solve worksheet 10	1. Develop skills of efficiency in performing tasks and optimum utilization of human resources

	<ul style="list-style-type: none"> b. Human resource management c. Staffing process d. Recruitment e. Selection f. Training and development 	<ul style="list-style-type: none"> 2. Describe steps in staffing process 3. Learn and understand meaning and sources of recruitment, process of selection and methods of training 		<ul style="list-style-type: none"> 2. Develop human capital 3. Develop skills of motivation .
Nov 15 days	<p>VII <u>Directing:</u></p> <ul style="list-style-type: none"> a. Meaning, importance & principles b. Elements of directing <p>VIII <u>Controlling:</u></p> <ul style="list-style-type: none"> a. Meaning and nature b. Relationship between planning and controlling c. Steps in process of control 	<ul style="list-style-type: none"> 1. To learn and understand importance and principles of direction 2. Highlight Maslow's need hierarchy model 3. State qualities of a good leader 4. Discuss importance of communication <ul style="list-style-type: none"> 1. Learn and understand concept and importance of controlling 2. Discuss the relationship between Planning & controlling 	<p>Solve worksheet 11</p> <p>Solve worksheet 12.</p>	<ul style="list-style-type: none"> 1. Develop skills of identifying financial and non-financial incentives and their use. 2. Develop good leadership qualities 3. Develop skills of effective communication <ul style="list-style-type: none"> 1. Develop skills of effective implementation of plans 2. Develop skills of analyzing deviation

PORTION

UNIT TEST : 1) Business Environment (2) Nature & Significance of Management (3) Consumer Protection (4) Principles of Management

TERM I : UNIT TEST PORTION + Marketing Management

PREBOARD & FINAL: FULL PORTION

WEIGHTAGE :AS PER CBSE

UNIT TEST PAPER PATTERN	TERM 1,PREBOARD 1 & 2, CBSE BOARD PAPER PATTERN
<div style="border: 1px solid black; padding: 5px;"> 1m x 10 = 10m 3m x 4 = 12m 4m x 4 = 16m 6m x 2 = 12m 20 Ques = 50m </div>	<div style="border: 1px solid black; padding: 5px;"> 1m x 20 = 20m 3m x 6 = 18m 4m x 3 = 12m 6m x 5 = 30m 34 Ques = 80 m </div>

THERE WILL BE INTERNAL CHOICE IN QUESTIONS OF 1 m,3 m, 4m & 6m

Unit	Topics	Marks (80 + 20)
Part A	Principles and Functions of Management	
1	Nature and Significance of Management	
2	Principles of Management	
3	Business Environment	16
4	Planning	
5	Organizing	14
6	Staffing	
7	Directing	
8	Controlling	20
Part B	Business Finance and Marketing	
9	Financial Management	
10	Financial Markets	15
11	Marketing Management	
12	Consumer Protection	15
Part C	Project Work	20

D.A.V.PUBLIC SCHOOL, PUNE
BUSINESS STUDIES SYLLABUS 2023-2024

STD XII

Month & days available for teaching	Unit/ Name of lesson/ content	Learning Outcome	Assignments/Activities	Values/ Skills
March 4/April 19 days	<p>PART A</p> <p>III <u>Business environment</u></p> <ol style="list-style-type: none"> a. Meaning and importance b. Dimensions c. Economic environment in India <p>I <u>Nature & significance of management:</u></p> <ol style="list-style-type: none"> a. Concept, objectives, importance b. Science, art or profession c. Levels of management d. Management functions <p>Coordination</p> <p>XII <u>Consumer protection</u></p> <ol style="list-style-type: none"> a. Importance b. Rights c. Responsibilities d. Legal redressal e. Role of consumer organizations and NGO 	<ol style="list-style-type: none"> 1. Identify dimensions of business environment 2. Understand impact of business environment on working of business <ol style="list-style-type: none"> 1. Learn and understand traditional and modern concepts of management 2. Appreciate importance of management 3. Explain nature of management, levels of management <ol style="list-style-type: none"> 1. Learn and understand importance of consumer protection 2. Describe legal rights of consumers 3. State remedies available to consumers under CPA 	<p>Solve worksheet 1.</p> <p>Solve Worksheet 2</p> <p>Solve Worksheet 3</p>	<p>Develop skill of identifying dimensions of business environment and their impact on business</p> <p>Develop skill of time, material and men management</p> <ol style="list-style-type: none"> 1. Importance of consumer protection 2. Develop awareness of consumer rights and responsibilities in day to day life

Aug 23 days	X <u>Financial markets</u> a. Concept of financial market, money market and its instruments b. Capital market and types c. Stock exchange d. SEBI	1. Learn and understand concept, nature and importance of financial market and its functions 2. Appreciate functions of primary and secondary markets 3. State procedure of trading at stock exchange 4. Explain objectives and functions of SEBI	Solve worksheet 7	1. Develop skills of trading on stock exchange 2. Develop skill of raising money from the market for business
Sept 12 days	IX <u>Financial management</u> a. Meaning, role, objectives b. Financial decisions c. Financial planning d. Capital structure e. Fixed and working capital	1. Appreciate role of financial management 2. Discuss scope of financing, dividend decisions 3. Learn and understand concept of capital structure, fixed capital, working capital.	Solve worksheet 8	Develop skill of financial decision making
Oct 11 days	V <u>Organizing</u> a. Meaning and importance b. Steps in process of organizing c. Structure of organization d. Formal and informal organization e. Delegation f. Decentralization.	1. Highlight importance of organization 2. Differentiate between functional and divisional structure and formal and informal organization 3. State significance of delegation and decentralization	Solve worksheet 9	1. Develop skills of identifying and grouping of work to be performed 2. Develop skill of delegating authority and responsibility 3. Placing right person at right job.
Oct 11 days	VI <u>Staffing:</u> a. Meaning and importance	1. Learn and appreciate importance of staffing and HRM	Solve worksheet 10	1. Develop skills of efficiency in performing tasks and optimum utilization of human resources

	<ul style="list-style-type: none"> b. Human resource management c. Staffing process d. Recruitment e. Selection f. Training and development 	<ul style="list-style-type: none"> 2. Describe steps in staffing process 3. Learn and understand meaning and sources of recruitment, process of selection and methods of training 		<ul style="list-style-type: none"> 2. Develop human capital 3. Develop skills of motivation .
Nov 15 days	<p>VII <u>Directing:</u></p> <ul style="list-style-type: none"> a. Meaning, importance & principles b. Elements of directing <p>VIII <u>Controlling:</u></p> <ul style="list-style-type: none"> a. Meaning and nature b. Relationship between planning and controlling c. Steps in process of control 	<ul style="list-style-type: none"> 1. To learn and understand importance and principles of direction 2. Highlight Maslow's need hierarchy model 3. State qualities of a good leader 4. Discuss importance of communication <ul style="list-style-type: none"> 1. Learn and understand concept and importance of controlling 2. Discuss the relationship between Planning & controlling 	<p>Solve worksheet 11</p> <p>Solve worksheet 12.</p>	<ul style="list-style-type: none"> 1. Develop skills of identifying financial and non-financial incentives and their use. 2. Develop good leadership qualities 3. Develop skills of effective communication <ul style="list-style-type: none"> 1. Develop skills of effective implementation of plans 2. Develop skills of analyzing deviation

PORTION

UNIT TEST : 1) Business Environment (2) Nature & Significance of Management (3) Consumer Protection (4) Principles of Management

TERM I : UNIT TEST PORTION + Marketing Management

PREBOARD & FINAL: FULL PORTION

WEIGHTAGE :AS PER CBSE

UNIT TEST PAPER PATTERN		TERM 1,PREBOARD 1 & 2, CBSE BOARD PAPER PATTERN	
1m x 10 = 10m 3m x 4 = 12m 4m x 4 = 16m 6m x 2 = 12m 20 Ques = 50m		1m x 20 = 20m 3m x 6 = 18m 4m x 3 = 12m 6m x 5 = 30m 34 Ques = 80 m	

THERE WILL BE INTERNAL CHOICE IN QUESTIONS OF 1 m,3 m, 4m & 6m

Unit	Topics	Marks (80 + 20)
Part A	Principles and Functions of Management	
1	Nature and Significance of Management	
2	Principles of Management	
3	Business Environment	16
4	Planning	
5	Organizing	14
6	Staffing	
7	Directing	
8	Controlling	20
Part B	Business Finance and Marketing	
9	Financial Management	
10	Financial Markets	15
11	Marketing Management	
12	Consumer Protection	15
Part C	Project Work	20

D.A.V. PUBLIC SCHOOL, PUNE
MONTHLY SYLLABUS FOR CLASS –XII (2023-24)
SUBJECT-ECONOMICS

Month and days available for teaching	Unit / Content PART-I	Learning outcome	Assignment/Activities	Human Values/Skills
MARCH 04 Days	PART-B INDIAN ECONOMIC DEVELOPMENT. Unit-4 <u>Development policy and experience.(1947-90) and Economic Reforms since 1991:</u> Introduction of states of Indian economy in the eve of independence. Common goals of five years plan. Main features, problems and policies of agriculture (institutional aspects and new agricultural strategy), industry (IPR 1956; SSI- role & importance) and foreign trade.	Making them know about the Indian economy and it's states.	Get information of the goal of current five years plan.	Developing their curious thinking.
APRIL 19 Days	<u>Economic reforms since 1991.</u> Features and appraisals of liberalization, globalization and privatization (LPG policy); Concepts of demonetization and GST	Making the students aware about different reforms	Complete work-sheet 1 and 2	Thinking process.

<p>JUNE 19 Days</p> <p>JULY 24 Days</p> <p>AUGUST 23 Days</p>	<p><u>Project</u> will be given before Diwali vacation.</p> <p>Topics will be given in the class.</p> <p>Unit-5</p> <p><u>Current challenges facing by Indian economy.</u></p> <p><u>Human Capital Formation:</u> How people become resource; Role of human capital in economic development; Growth of Education Sector in India</p> <p><u>Rural development: key issues</u>-credit and marketing- role of co-operatives; agricultural diversification; alternative farming- organic farming</p> <p><u>Employment:</u> Growth and changes in work force participation rate informal and informal sectors; problems and policies.</p> <p><u>Sustainable Development:</u> Meaning, effects of economic development on Resources and Environment, including global warming.</p> <p><u>Development experience in India.</u></p> <p>Comparison with neighbours</p> <p>India and Pakistan.</p> <p>India and China.</p> <p>Issues: economic growth, population, sectorial development and other Human Development Indicators.</p> <p><u>Project</u> will be given before Diwali vacation.</p>	<p>Applying their knowledge in practice.</p> <p>Giving them knowledge about employment, health and education importance.</p> <p>Giving them knowledge of other countries.</p>	<p>Complete work-sheet 3.</p> <p>Complete work-sheet 4 and 5.</p> <p>Collect additional information of China and Pak</p>	<p>Application skill.</p> <p>Sensitivity towards poor</p> <p>Addition knowledge.</p>
--	--	---	--	--

OCTOBER 22 Days	Unit- 6 <u>Money and Banking.</u> Money- meaning and functions. Supply of money-currency held by public and net demand deposits held by commercial banks. Money creation by commercial bank system. Central bank and its functions (example of the Reserve Bank of India). Bank of issue, Government bank., Banker’s Bank, Controller of Credit through Bank Rate, CRR, SLR, Repo Rate, Open Market Operations, Margin requirement.	To know about different banking functions.	To complete work-sheet 7	Comparative skill.
OCTOBER 22 Days	Unit-7 <u>Determination of Income and Employment.</u> Aggregates demand and its components. Propensity to consume and propensity to save (average and marginal). Short-run equilibrium output; investment multiplier		To collect the examples and refer the concept.	Application and numerical skill.

	<p>and it's mechanism.</p> <p>Meaning and full employment and involuntary unemployment.</p> <p>Problems of excess demand and deficient demand; measures to correct them- changes in government spending, tax and money supply.</p>			
<p>NOVEMBER</p> <p>15 Days</p>	<p>Unit-8</p> <p><u>Government Budget and Economy.</u></p> <p>Government budget- meaning, objectives and components.</p> <p>Classification of receipts- revenue receipts and capital receipts;</p> <p>classification of expenditure- revenue expenditure and capital expenditure.</p> <p>Balanced, Surplus and Deficit Budget- measures of government deficit.</p>	<p>To know about working of government budget by preparing government budget account.</p>	<p>To solve worksheet discussed in the class.</p>	<p>Application skill.</p>
<p>NOVEMBER</p> <p>15 Days</p>	<p>Unit-9</p> <p><u>Balance of payments.</u></p> <p>Balance of payment account- meaning and components;</p> <p>Balance of payments- Surplus and Deficit</p> <p>Foreign exchange rate- meaning of fixed and flexible rates and managed floating.</p> <p>Determination of exchange rate in a free market,</p>	<p>To know concept of balance of payment and different exchange rates.</p>	<p>To solve the worksheet discussed in the class.</p>	<p>To develop curious thinking about evolution.</p>

	Merits and demerits of flexible and fixed exchange rate. Managed Floating exchange rate system.			
--	--	--	--	--

BLUE PRINT(CBSE-Weightage)

Unit	Title	
Part-A	INTRODUCTORY MACRO ECONOMICS	
1	National Income And Aggregates	10
2	Money And Banking	06
3	Determination of Income And Employment	12
4	Government Budget and the Economy	06
5	Balance of Payment	06
Part-B	INDIAN ECONOMIC DEVELOPMENT	
6	Development Experience (1947-90) and Economic Reforms since 1991	12
7	Current Challenges facing Indian Economy	20
8	Development Experience of India-A Comparison with Neighbours	08
	TOTAL	80
	PROJECT WORK (One)	20
	TOTAL	100

PORTION FOR EXAM

UT-1 :

Part B: Indian Economic Development:

Chapter 1: India in pre-independence period.

Chapter 2: Economic Reforms since 1990

Chapter 3: Liberalization, privatization, and Globalization

Chapter-4: Human capital formation (Current challenges facing in economy)

Term 1:

Part B: Indian Economic Development:

Chapter-5 Rural development

Chapter-6 Employment

Chapter-7 Sustainable development

Part A: Macro Economics

Unit 1: National income and related aggregates

And UT-1 Syllabus

Prelim I and II: Full Syllabus prescribed by CBSE.

Projects will be given as per CBSE guidelines and submission will be after Diwali Vacation.

D.A.V. PUBLIC SCHOOL, PUNE
MONTHLY SYLLABUS FOR CLASS –XII(2023-24)
SUBJECT:- CHEMISTRY

Month & Days available for teaching	Unit / lesson / Contents	Learning outcomes	Assignments & Activities	Values/ Skills
March 4 days April 19 days	<u>Unit-2</u> <u>Solutions</u>	<ul style="list-style-type: none"> • A solution is a homogenous mixture of two or more substances which are chemically non-reacting • We come across many types of solutions in our daily life 	<ul style="list-style-type: none"> • Class Assignments • Worksheets • Prepare different types of solutions using household ingredients 	<ul style="list-style-type: none"> • Understand different types of solution and express it in different concentration forms
	<u>Unit-3</u> <u>Electro</u> <u>Chemistry</u>	<ul style="list-style-type: none"> • To study reactions which produce electricity and other which take place with the help of electricity. • Various factors affecting electrolytic conductance 	<ul style="list-style-type: none"> • Class Assignments • Worksheets • Prepare Daniell cell in the laboratory. 	<ul style="list-style-type: none"> • Differentiate types of cells & chemical reactions which take place with the help of electricity
June 19 days	<u>Unit-4</u> <u>Chemical</u> <u>kinetics</u>	<ul style="list-style-type: none"> • Study of rate of chemical reaction s • 	<ul style="list-style-type: none"> • Laboratory experiment to determine rate of chemical reaction • 	<ul style="list-style-type: none"> • Understand dependency of rate of chemical reaction based on the concentration of reactants •

<p>June 19 days</p>	<p><u>Unit-8</u> <u>The d-block & f-block elements</u></p>	<ul style="list-style-type: none"> • To study the periodic trends and gradation in physical properties and chemical behaviors <p>Properties of transition elements, Lanthanoids and actinoids</p>	<ul style="list-style-type: none"> • Class Assignments • Intext Questions • Worksheets 	<ul style="list-style-type: none"> • Comprehend the properties of d & f block elements
<p>July 24 Days</p>	<p><u>Unit-10</u> <u>Haloalkanes & Halo arenes</u></p>	<ul style="list-style-type: none"> • Various factors affecting rate of reactions • Many halo alkanes occur in nature and some of them are used in medicine • These compounds are formed by reaction of hydrocarbons with halogens and hydrogen halides 	<ul style="list-style-type: none"> • Class assignments • Intext questions • Worksheets • Class Assignments • Worksheets • Charts- functional groups 	<ul style="list-style-type: none"> • Understand Mechanism of Substitution & elimination reaction • Develop idea about nature and medicinal uses of poly halogen compounds
<p>August 23 Days</p>	<p><u>Unit-11</u> <u>Alcohols phenols and ethers</u></p>	<ul style="list-style-type: none"> • To expose the students to various emerging new areas of chemistry and apprise them with their relevance in their future studies and their application in various spheres of chemical sciences and technology. • Preparation properties and uses 	<ul style="list-style-type: none"> • Intext questions • Worksheets • Class Assignments 	<ul style="list-style-type: none"> • Identify the structure of the compounds containing Alcoholic & Carboxylic acid functional group.

August 23 Days	<u>Unit-13</u> <u>Organic</u> <u>compounds</u> <u>containing</u> <u>Nitrogen</u> <u>(Amines)</u>	<ul style="list-style-type: none"> The structure, preparation, properties & uses of amines These are organic compound which contains – NH₂, -NH, -N-groups 	<ul style="list-style-type: none"> Class Assignments Worksheets Compound classification according to primary, secondary, tertiary amines 	<ul style="list-style-type: none"> Practice classification of organic compound
September 21 days	<u>Unit-12</u> <u>Aldehydes,</u> <u>ketones &</u> <u>carboxylic</u> <u>acids</u>	<ul style="list-style-type: none"> To expose the students to various emerging new areas of chemistry and apprise them with their relevance in their future studies and their application in various spheres of chemical sciences and technology. Preparation properties and uses 	<ul style="list-style-type: none"> Intext questions Worksheets Class Assignments 	<ul style="list-style-type: none"> Identify the structure of the compounds containing carbonyl & Carboxylic acid
October 22 days	<u>Unit-14</u> <u>Bio-molecules</u>	<ul style="list-style-type: none"> Carbohydrates, fats and protines functions as fuel a well as provide the raw material for building our tissues The chemical properties of bio-molecules and their functions 	<ul style="list-style-type: none"> Make a chart of sources of vitamins and deficiency disease Intext Questions Worksheets 	<ul style="list-style-type: none"> Memorize Vitamin deficiency and disease Identify bio-molecules in daily food items
November 15 days	<u>Unit-9</u> <u>Coordination</u> <u>compounds</u>	<ul style="list-style-type: none"> These are extensively used in animals, plants and minerals Transition metals formed coordination compound 	<ul style="list-style-type: none"> Worksheets Intext Questions Prepare the summary/ chart of transition metals 	<ul style="list-style-type: none"> Understand the chemistry of coordination compounds
	Revision	<ul style="list-style-type: none"> Revision 	<ul style="list-style-type: none"> Revision 	<ul style="list-style-type: none"> Revision

Practical:

Prescribed practicals and projects according to CBSE/ NCERT syllabus

- A) Surface chemistry
- B) Chemical Kinetics
- C) Thermo chemistry
- D) Electro chemistry
- E) Chromatography
- F) Preparation of inorganic compounds
- G) Preparation of organic compounds
- H) Test for functional groups present in organic compounds
- I) Study of carbohydrates, fats, proteins in pure form and their detection
- J) Volumetric analysis
- K) Qualitative analysis

Projects:

Scientific investigations involving laboratory testing and collecting information from other sources

1. 16Q with one mark each = 16 marks	<u>Evaluation scheme for Practical Exam</u> Time : 3 hours Marks : 30 1. Volumetric analysis = 8marks 2. Salt analysis = 08 marks 3. Content based experiments = 06marks 4. Class record/Project and Viv = 08marks Total = 30 marks
2. 5Q with two mark each = 10 marks	
3. 7Q with three mark each = 21 marks	
4. 4 Q with four mark each = 8 marks	
4.3 Q with five mark = 15 marks	
Total theory = 70 marks	
Terminal Exam practical = 30 marks	
TOTAL=100 marks	

Exam	portion
Unit I	Solution , Electrochemistry, Chemical kinetics,
Half Yearly Exam	Solutions, Electrochemistry, Chemical kinetics, d and f block element haloalkane and haloarenes, alcohol , phenol and ether
Pre board I Exam	Full syllabus
Pre board II Exam	Full syllabus

Portion

Unit	Weightage for board exam
Physical	23
Inorganic	14
Organic	33

Months And Days Available For Teaching	Unit / Lesson /Content	Learning Outcome	Assignments / Activities	Values/ Skills
March -4 days	UNIT II ALGEBRA Matrices :- concept and types of matrices and basic operations on matrices.	Students learn the fundamentals of matrix and matrix algebra.	Finding inverse of a matrix.	Students learn to apply the concept of matrices and determinants in engineering , science etc.
April -19days	Determinants :- properties, minor, cofactor and applications of determinants. Matrix method, Cramer's rule	Determinants have wide application in engineering, science ,economics etc.	Solving linear equations using determinants. Finding adjoint of a matrix	Students learn to apply the concept of matrices and determinants in engineering , science, economics etc.
JUNE - 19 days.	UNIT I : UNIT I: NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS Modulo Arithmetic, Congruence Modulo, Alligation and Mixture , Boats and Streams (upstream and downstream) , Pipes and Cisterns, Races and Games , Numerical Inequalities UNIT III: CALCULUS Differentiation and its Applications : Higher Order Derivatives, Application of Derivatives, Marginal Cost and Marginal Revenue using derivatives , Increasing /Decreasing Functions, Maxima and Minima	Students will apply arithmetic operations using modular arithmetic rules. Understand and write numerical inequalities Students study the concepts of differentiation of parametric functions and implicit functions and higher order derivatives, rate of change , tangent and normal local maximum and local minimum values , absolute maximum and absolute minimum value of a function	Problems based on speed of stream and the speed of boat in still water. Calculation of the time taken/ distance covered / speed of each player Finding derivatives of the given function. Finding the tangent and normal to the curve. Solve the real life problems	Students learn the Application of the techniques of numerical solution of algebraic inequations Students learn to apply differential calculus in practical problem involve in rate of change of speed and velocity etc.

<p>JULY – 24 days.</p>	<p>Integration and its Applications:</p> <p>Integration, Indefinite Integrals as family of curves , Definite Integrals as area under the curve, Application of Integration</p> <p>Differential Equations and Modeling: Differential Equations, Formulating and Solving Differential Equations , Application of Differential Equations.</p>	<p>Students study the various methods of solving integrals and apply the definite integral to find consumer surplus-producer surplus.</p> <p>The definite integral is used in various disciplines like economics, finance and probability. Differential equations are used in physics, chemistry, biology and economics etc.</p>	<p>Solving integrals of different types.</p> <p>Solve the differential equations.</p> <p>Growth and Decay Model in Biological sciences, Economics and business, etc.</p>	<p>Students learn to apply definite integral in finance, economics and probability.</p> <p>Students learn to apply differentials equations</p>
<p>AUGUST -23 days</p>	<p>UNIT- IV PROBABILITY DISTRIBUTIONS : Probability Distribution, Mathematical Expectation, Variance, Binomial Distribution, Poison Distribution, Normal Distribution</p> <p>UNIT – VI: INDEX NUMBERS AND TIME BASED DATA : Time Series , Components of Time Series, Time Series analysis for univariate data, Secular Trend, Methods of Measuring trend</p>	<p>Students will understand the concept of Random Variables and its Probability distributions, Identify the Bernoulli Trials and apply Binomial Distribution, Area relationship between Mean and Standard Deviation</p> <p>Distinguish between different components of time series</p>	<p>Find probability distribution of discrete random variable Questions based on variance and standard deviation , Evaluate value of Standard normal variate</p> <p>Solve practical problems based on statistical data and Interpret the result</p>	<p>Students learn the Characteristics of the binomial distribution, Poisson Probability distribution, Normal Distribution.</p> <p>Moving Average method Method of Least Squares</p>
<p>SEPTEMBER-21 days</p>	<p>UNIT – VIII : LINEAR PROGRAMMING Introduction and related terminology Mathematical formulation of Linear Programming Problem , Graphical method of solution for problems in two variables, Feasible and infeasible solutions, optimal feasible solution</p>	<p>Students study the formulation and method of solving LPP. LPP is used in making decision in business, industrial ,agriculture etc.</p>	<p>Solve the given linear programming problem.</p>	<p>Students learn to apply LPP in making decision in business, industrial, agriculture etc.</p>

<p>OCTOBER - 22 days</p>	<p>UNIT VII: FINANCIAL MATHEMATICS</p> <p>Perpetuity, Sinking Funds , Calculation of EMI, Calculation of Returns, Nominal Rate of Return , Compound Annual Growth Rate, Linear method of Depreciation</p>	<p>Students study the methods to calculate EMI: i) Flat-Rate Method ii) Reducing-Balance Method Formula for Compound Annual Growth Rate , formula for Linear Method of Depreciation,</p>	<p>Calculate EMI using various methods</p> <p>Calculate rate of return and nominal rate of return, Calculate depreciation,</p>	<p>Students learn to solve real life examples of sinking fund , Real life examples to calculate EMI of various types of loans, purchase of assets, etc. , Apply formula for Linear Method of Depreciation</p>
-------------------------------------	--	--	--	---

<p>NOVEMBER 15 days</p>	<p>UNIT V</p> <p>INFERENCEAL STATISTICS :</p> <p>Population and Sample , Parameter and Statistics and Statistical Interferences, t-Test (one sample t-test and two independent groups t-test)</p>	<p>Students study the concept of relation between Parameter and Statistic , Central Limit Theorem,</p> <p>Test Null hypothesis and make inferences using t-test statistic for one group / two independent groups</p>	<p>Problems based on random sampling using simple random sampling and systematic random sampling (sample size less than 100) ,</p> <p>Use of t-table</p> <p>Testing a Null Hypothesis to make Statistical Inferences for small sample size</p>	<p>Students will have the Conceptual understanding of Parameter and Statistics , Unbiased and biased sampling, conceptual understanding of Sampling Distribution through simulation and graphs</p>
<p>DECEMBER – 19 days</p>	<p>First Pre board exams</p>			
<p>JANUARY – 23 days</p>	<p>Second Pre board exams + Remedial</p>			

Syllabus for UT:

Chapter 1: Numbers, Quantification and Numerical Applications

Chapter 2: Numerical Inequalities

Chapter 3: Matrices

Chapter 4: Determinants

Syllabus for Term 1:

Chapter 1: Numbers, Quantification and Numerical Applications

Chapter 2: Numerical Inequalities

Chapter 3: Matrices

Chapter 4: Determinants

Chapter 5: Differentiation

Chapter 6: Applications of Derivatives

Chapter 7: Integrals

Chapter 8: Differential Equations

Unit wise weightage of marks:

For final exams: Full syllabus (Chapter 1 to 15)

I.	NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS	11
II.	ALGEBRA	10
III.	CALCULUS	15
IV.	PROBABILITY DISTRIBUTIONS	10
V.	INFERENCEAL STATISTICS	05
VI.	INDEX NUMBERS AND TIME BASED DATA	06
VII.	FINANCIAL MATHEMATICS	15
VIII.	LINEAR PROGRAMMING	08
	TOTAL	80

Months And Days Available For Teaching	Unit / Lesson /Content	Learning Outcome	Assignments / Activities	Values/ Skills
March-4 days April -19 days	UNIT II Algebra Matrices :- concept and types of matrices and basic operations on matrices. Determinants :- properties, minor, cofactor and applications of determinants.	Students learn the fundamentals of matrix and matrix algebra.	Finding inverse of a matrix.	Students learn to apply the concept of matrices and determinants in engineering , science etc.
		Determinants have wide application in engineering, science ,economics etc.	Solving linear equations using determinants. Finding adjoint of a matrix.	Students learn to apply the concept of matrices and determinants in engineering , science etc.
JUNE - 19 days.	UNIT I Inverse Trigonometric Functions:- Definition, range, domain, principal value, graph, etc. UNIT III Calculus:- Continuity and differentiability :- continuity and differentiability, chain rule , derivative of inverse functions, logarithmic differentiation	The concept of inverse trigonometric functions is used in science and engineering.	Learning the properties of inverse trigonometric functions. Preparing models to represent inverse trigonometric functions	Students learn to apply inverse trigonometric functions in science and engineering.
		Students study the concepts of continuity, derivatives of various functions and applications of derivatives.	Checking continuity of a function. Finding derivatives of the given function.	Students learn to apply differential calculus in practical problem involve in rate of change of speed and velocity etc.

<p>JULY – 24 days.</p>	<p>Application of derivatives :- Rate of change, increasing / decreasing functions, maxima and minima simple problems</p> <p>Unit - V Linear Programming Mathematical formulation and graphical method of solutions of LPP.</p>	<p>We study applications of derivatives in various disciplines like engineering, science etc.</p> <p>Students study the formulation and method of solving LPP. LPP is used in making decision in business, industrial ,agriculture etc.</p>	<p>Finding the tangent and normal to the curve and maxima and minima.</p> <p>Solve the given linear programming problem.</p>	<p>Students learn to apply LPP in making decision in business, industrial, agriculture etc</p>
<p>AUGUST -23 days</p>	<p>UNIT – I Relations and Functions :- Types of relations and functions. Invertible functions,</p> <p>UNIT III Integrals:- Integration by substitution, by partial fraction and by parts, definite integrals.</p>	<p>Students study different types of relations and functions .composition of functions, invertible functions, inverse trigonometric functions</p> <p>Students study the various methods of solving integrals and also to find area using integration</p>	<p>Verify the given relation is an equivalence relation.</p> <p>Checking whether the function is invertible.</p> <p>Solving integrals</p>	<p>Students learn to apply integration in science and engineering.</p>
<p>SEPTEMBER- 21 days</p>	<p>UNIT III Applications of Integrals:- Finding area under simple curves, area enclosed by circles, parabola, ellipse, etc, area between two curves.</p> <p>UNIT III Differential Equations:-Order and degree, general and particular solutions.</p>	<p>The definite integral is used in various disciplines like economics, finance and probability.</p> <p>Students study to solve differential equations by different methods. Differential equations are used in physics, chemistry and biology etc.</p>	<p>Finding area under the curve given. Preparing charts to represent the area under simple curves , closed curves ,area between two curves etc.</p> <p>Solve the differential equations.</p>	<p>Students learn to apply definite integral in finance, economics and probability.</p> <p>Students learn to apply differentials equations .</p>

OCTOBER - 22 days	UNIT IV Vectors and three dimension Geometry:- Vectors, scalars, magnitude and direction. Types of vectors basic operations on vectors direction cosine Cartesian and vector equations.	Students study the concept of vectors and scalars and product of two vectors, and equations of line in space.	Finding the scalar and vector product of two vectors. Finding angle between the two vectors. Finding equation of the plane passing through the given direction.	Students learn to apply the concept of vectors to derive geometrical formulae.
------------------------------	--	--	--	---

NOVEMBER - 15 days	UNIT VI Probability: Multiplication theorem on probability, conditional probability, Bayes theorem,	And also study the conditional probability, Bayes' theorem	Solving the given problem by using Bayes' theorem.	Students learn to apply the concept of probability in different fields.
DECEMBER – 19 days	Revision			
JANUARY – 23 days	Revision + Remedial classes			

Syllabus for UT:

Chapter 2: Inverse trigonometric functions

chapter 3: Matrices

Chapter 4: Determinants

Chapter 5: Continuity and differentiability

Syllabus for Term 1:

Chapter 1: Relations and Functions

Chapter 2: Inverse trigonometric functions

Chapter 3: Matrices

Chapter 4: Determinants

Chapter 5: Continuity and differentiability

Chapter 6: Applications of Derivatives

Chapter 12: Linear Programming

Syllabus for Term 2:

Chapter 1: Relations and Functions

Chapter 2: Inverse trigonometric functions

Chapter 3: Matrices

Chapter 4: Determinants

Chapter 5: Continuity and differentiability

Chapter 6: Applications of Derivatives

Chapter 7: Integration

Chapter 8: Application of Integrals

Chapter 9: Differential Equations

Chapter 10: Vectors

Chapter 11: Three dimensional Geometry

Chapter 12: Linear Programming

Chapter 13: Probability

Working days.	Unit/ Lesson & Content	Learning outcome	Assignment/Activities	Values/Skills
<p>March (4days)</p> <p>&</p> <p>April (19 days)</p>	<p>Unit-9 : Ray Optics</p> <p>Introduction, Reflection, Refraction, spherical surfaces, total internal reflection, thin lens formula, lens maker formula, magnification, power of lens, combination of lenses, Prism, Dispersion & optical instruments.</p> <p>Unit-10: Wave optics</p> <p>Wave front, and Huygens principle, reflection, refraction using wave front, law of reflection, law of refraction using wave theory. Interference, YDSE experiment and expression for fringe width (No derivation final expression only), coherent sources and sustained interference of light, diffraction due to single slit, width of central maxima(qualitative treatment only)</p>	<ul style="list-style-type: none"> • Students imbibe knowledge of different properties of light. • They can study different colour pattern of light by using surfaces like CD...., • To study the different optical Instruments like astronomical telescope , compound microscope etc., on the basis of property of light. • Students understand wave nature of light on the basis of different theories. • Students understand interference , Diffraction of light. 	<ul style="list-style-type: none"> • To observe lateral deviation of a beam of light by using any refracting surface. • To construct any optical device to study properties of light. • To study the pattern of bands formed in a photographic film • To study polarization by using the polaroids. 	<ul style="list-style-type: none"> • To develop practical skills of handling optical instruments. • To develop scientific attitude towards wave nature of light.

<p>June (19days)</p>	<p>Unit-1: Electrostatics -I 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 point charges, electric field lines, electric dipole, electric field due to axial and equatorial point, torque due to a dipole, electric flux, Gauss's theorem and its applications, , electric field due to long wire, spherical shell</p> <p>Unit-2: Electrostatics-II Electric potential, potential difference , electric potential due to point charge, a dipole and a system of charges, equipotential surfaces, electric potential energy of a system of two point charges. Conductors and insulators, free charges and bound charges inside conductor, dielectric and electric polarization, capacitance and their combinations, dielectrics, energy stored in a capacitor(No derivation), capacitance of a parallel plate capacitor with and without dielectric medium.</p>	<ul style="list-style-type: none"> • Students will learn about different type of capacitors. • To study various types of energy storing devices and their applications. • To distinguish various types of charges present around us. • To use different components assembled in the electrical circuits. 	<ul style="list-style-type: none"> • To detect presence of charges by using electroscope. • To prepare any suitable model to understand properties of charges. • To prepare series and parallel combinations of capacitors . • To prove the series and parallel combination using meter bridge. • To verify Ohm's law. 	<ul style="list-style-type: none"> • To inculcate knowledge of static and dynamic electric charges and to handle electrical components • To develop practical skills of making electrical appliances.
<p>July (24days)</p>	<p>Using lecture method, explanation, discussion, question answer method, demonstration and smart boards</p> <p>Unit – 3: Current Electricity</p>			

<p>August (23days)</p>	<p>Electric current, flow of charges in metals, Drift velocity, mobility, Ohm's law characteristics (linear and non linear), electrical energy and power, electrical resistivity and conductivity, temp dependence of resistance, internal resistance of a cell, terminal potential difference, emf of a cell, combination of cells in series and parallel, Kirchoff's rules, Wheatstone bridge.</p> <p>Unit-4 :Moving charges and magnetism. Unit 5 -Magnetism and matter. <u>Revision & First Unit Test</u></p> <p>Biot-savart law and its applications to current carrying circular loop,Ampere's circuital law and its applications to infinitely long straight wire , straight Solenoid(only qualitative treatment) force on a moving charge in uniform electric and magnetic field.Force on a current carrying conductor in uniform magnetic field, force between two parallel current carrying conductors,definition of ampere, torque experienced by a current loop in uniform magnetic field, current loop as a magnetic dipole and its magnetic dipole moment, moving coil Galvanometer-its current sensitivity and conversion to ammeter and voltmeter.</p>	<ul style="list-style-type: none"> • Students will understand about the use of Wheatstone bridge • Students imbibe knowledge of production of current by moving a magnet. • Students understand magnetic effects of electric current and different properties of magnetic materials. • Students apply this knowledge to study about magnetic phenomenon in terms of moving charges/currents in various magnetic 	<ul style="list-style-type: none"> • To convert galvanometer into an ammeter and voltmeter of any range required. 	<ul style="list-style-type: none"> • To create interest towards magnetic applications of current.
----------------------------	---	---	--	--

<p>September (21days)</p>	<p>Unit-5: Magnetic properties of materials- dia, para and ferromagnetic substances with examples, magnetization of materials, effect of temperature on magnetic properties.</p> <p>Unit- 14: Electronic Devices Semiconductors –</p> <p>Energy bands in conductors(qualitative ideas only), intrinsic and extrinsic semiconductors- p type and n type, PN junction, semiconductor diode, I-V characteristics in forward and reverse biasing, application of diode-rectifiers.</p> <p>Unit-6 Electromagnetic Induction</p> <p>Electromagnetic Induction, induced emf, Faraday’s law, Lenz’ law, self induction and mutual induction.</p> <p>Unit 7 Introduction of alternating current , peak and RMS value of AC, reactance and impedance and its applications on inductor, capacitor, resistor and on LCR circuits(phasors only), Resonance , power in AC circuits, power factor, wattles currents, AC generator, Transformer and its types (step down and step up</p>	<p>materials.</p> <ul style="list-style-type: none"> • Students imbibe knowledge of semiconducting devices and their operations • Students apply this knowledge to study about magnetic phenomenon in terms of moving charges/currents in various magnetic materials. • To study production of eddy currents by the damping force from a moving copper plate between pole-pieces. • Students understand variation of current due to various factors and transmission and distribution of current through long distances. • To study phase relationship between current and voltage by phasor diagrams 	<ul style="list-style-type: none"> • To identify the components like IC, transistor, diode, • To construct any suitable model to study Lenz’s law. • To construct a model of an a.c generator. • To make a working model of a Transformer. 	<ul style="list-style-type: none"> • To create interest towards applications of current based semiconductor devices. • To develop practical skills of production of current in different ways . • To inculcate mathematical skills of differentiating alternating and direct current by Plotting graphs. • To understand the existence of di ferent EM waves around us through
-------------------------------	---	--	--	--

<p>transformers)</p> <p>October (22days)</p>	<p>transformers)</p> <p><u>First Term Exams.,</u></p> <p>Unit 8-Electromagnetic waves.</p> <p>Basic idea of Displacement current, electromagnetic waves and their characteristics, Their transverse nature (qualitative idea only) electromagnetic spectrum (Radio waves, microwaves, infrared waves, UV rays, X rays, gamma rays,) including elementary facts about their uses.</p> <p>Unit 11- Dual nature of matter Dual nature of radiation, Photo electric effect, Hertz and Lenard's observations, Einstein photoelectric equation, - particle nature of light Experimental study of photoelectric effect, matter waves, wave nature of Particles, de Broglie's relation.</p>	<ul style="list-style-type: none"> • Students imbibe knowledge of changing magnetic and electric field and production of EM waves in a medium. • To study application of EM spectrum in terms of cellular phones, gun diodes, microwave ovens, destruction of cancer cells glass goggles etc., • Students understand dual nature of light as a ray and a wave. • To study wave properties of electrons in the design of electron microscope with higher resolution. • Students imbibe knowledge of acceleration of electron in spiral into the nucleus and emission of spectral lines. • Students understand various properties of nuclei such as size, mass and stability. • To study the design and operation of nuclear reactors in different parts of the world 	<ul style="list-style-type: none"> • To prepare graph on availability of nuclear resources and energy production in India. • To predict the age of rocks using carbon dating technique. 	<p>various gadgets.</p> <ul style="list-style-type: none"> • To inculcate effects of dual nature of light in our daily lives. • To understand the effects of NUCLEAR PHYSICS in our daily life and make the society to implement some preventive measures against radioactive emissions.
<p>November (15days)</p>	<p>Unit- 12 ,13 Atoms &Nuclei.</p> <p>Alpha particle scattering experiment, Rutherford's model of atom, Bohr's model of hydrogen atom, Expression of radius of nth possible orbit, velocity and energy of electron in his orbit, of Hydrogen line spectra (qualitative treatment only)</p> <p>Nuclei</p>			

	Composition and size of nucleus, nuclear force , mass energy relation, mass defect , binding energy per nucleon and its variation with mass number, nuclear fission, nuclear fusion.			
December (19days)	Revision First Pre Board Exams.,			
January (23days)	Revision & Mock practical Exams., & Second Pre Board Exams., Final Board Practical Exam.,			
February (23days)	Remedial classes Revision			
March (22 days)	BOARD EXAMS			

Portion for UT-1: Chapters 9,10, & 1,2

Portion for Term – 1: Chapters 1,2,3,4,5,6

Portion for Pre Board – 1 & 2 Full syllabus

CHAPTER WISE – WEIGHTAGE OF MARKS (AS PER CBSE BOARD PATTERN) :

ELECTROSTATICS	-	8 Marks	RAY AND WAVE OPTICS	-	14 Marks
CURRENT ELECTRICITY	-	7 Marks	DUAL NATURE OF LIGHT	-	4 Marks
MOVING CHARGES AND					

MAGNETISM - **8 Marks**
ELECTRO MAGNETIC INDUCTION - **8 Marks**
ALTERNATING CURRENT
ELECTRO MAGNETIC WAVES - **3 Marks**

ATOMS & NUCLEI - **6 Marks**
ELECTRONIC DEVICES - **7 Marks**

Type of Question(s)	Mark(s)	Total Marks
Experiment 1	07	30
Experiment 2	07	
Journal	05	
Viva	05	
Project Activity	03	