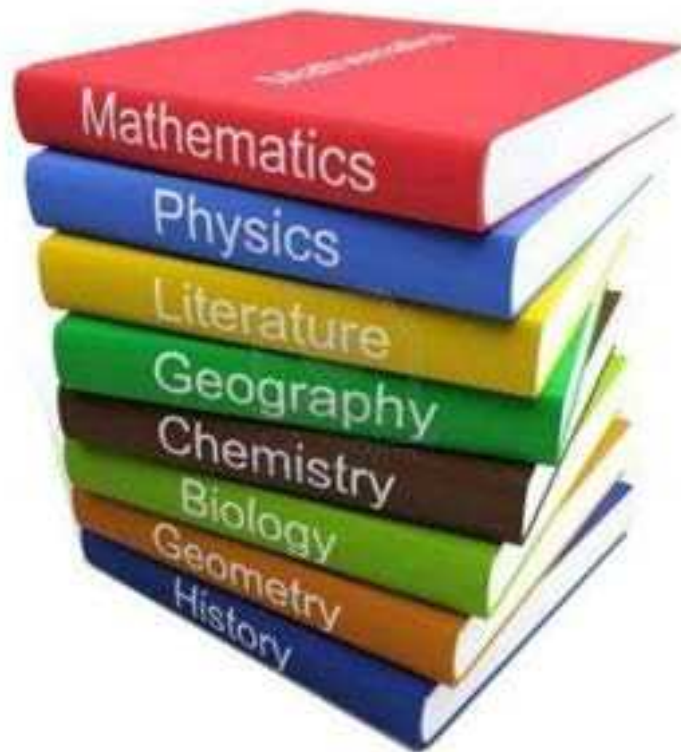


ACADEMIC PLANNER CLASS 12 SESION 2022-23



PSYCHOLOGY
ACADEMIC PLANNER XII
2022-2023

Unit I	<p>Variations in Psychological Attributes March-April</p> <p><i>The topics in this unit are:</i></p> <ol style="list-style-type: none"> 1. Introduction 2. Individual Differences in Human Functioning 3. Assessment of Psychological Attributes 4. Intelligence 5. Psychometric Theories of Intelligence, Information Processing Theory: Planning, Attention-arousal and Simultaneous successive Model of Intelligence, Triarchic Theory of Intelligence; Theory of Multiple Intelligences. 6. Individual Differences in Intelligence 7. Culture and Intelligence 8. Emotional Intelligence 9. Special Abilities: Aptitude: Nature and Measurement 10. Creativity 	30 Periods
Unit II	<p>Self and Personality MAY-JULY</p> <p><i>The topics in this unit are:</i></p> <ol style="list-style-type: none"> 1. Introduction 2. Self and Personality 3. Concept of Self 4. Cognitive and Behavioural aspects of Self 	32 Periods

	<p>5. Culture and Self</p> <p>6. Concept of Personality</p> <p>7. Major Approaches to the Study of Personality</p> <ul style="list-style-type: none"> • Type Approaches • Trait Approaches • Psychodynamic Approach and Post Freudian Approaches • Behavioural Approach • Cultural Approach • Humanistic Approach <p>8. Assessment of Personality</p> <ul style="list-style-type: none"> • Self-report Measures • Projective Techniques • Behavioural Analysis 	
Unit III	<p>Meeting Life Challenges JULY-AUGUST</p> <p><i>The topics in this unit are:</i></p> <ol style="list-style-type: none"> 1. Introduction 2. Nature, Types and Sources of Stress 3. Effects of Stress on Psychological Functioning and Health <ul style="list-style-type: none"> • Stress and Health • General Adaptation Syndrome • Stress and Immune System • Lifestyle 4. Coping with Stress <ul style="list-style-type: none"> • Stress Management Techniques 5. Promoting Positive Health and Well-being <ul style="list-style-type: none"> • Life Skills • Positive Health 	23 periods
Unit IV	<p>Psychological Disorders AUGUST</p> <p><i>The topics in this unit are:</i></p> <ol style="list-style-type: none"> 1. Introduction 2. Concepts of Abnormality and Psychological Disorders <ul style="list-style-type: none"> • Historical Background 3. Classification of Psychological Disorders 4. Factors Underlying Abnormal Behaviour 5. Major Psychological Disorders 	30 Periods

	<ul style="list-style-type: none"> • Anxiety Disorders • Obsessive-Compulsive and Related Disorders • Trauma-and Stressor-Related Disorders • Somatic Symptom and Related Disorders • Dissociative Disorders • Depressive Disorder • Bipolar and Related Disorders • Schizophrenia Spectrum and Other Psychotic Disorders • Neurodevelopmental Disorders • Disruptive, Impulse-Control and Conduct Disorders • Feeding and Eating Disorders • Substance Related and Addictive Disorders 	
Unit V	<p>Therapeutic Approaches AUG -SEP</p> <p><i>The topics in this unit are:</i></p> <ol style="list-style-type: none"> 1. Nature and Process of psychotherapy <ul style="list-style-type: none"> • Therapeutic relationship 2. Types of Therapies <ul style="list-style-type: none"> • Behaviour Therapy • Cognitive Therapy • Humanistic-Existential Therapy • Alternative Therapies • Factors contributing to healing in Psychotherapy • Ethics in Psychotherapy 3. Rehabilitation of the Mentally Ill 	25 Periods
Unit VI	<p>Attitude and Social Cognition SEPT-OCT</p> <p><i>The topics in this unit are:</i></p> <ol style="list-style-type: none"> 1. Introduction 2. Explaining Social Behaviour 3. Nature and Components of Attitudes 4. Attitude Formation and Change <ul style="list-style-type: none"> • Attitude Formation • Attitude Change • Attitude-Behaviour Relationship 5. Prejudice and Discrimination 6. Strategies for Handling Prejudice 	16 Periods

Unit VII	Social Influence and Group Processes <i>The topics in this unit are:</i> <ol style="list-style-type: none">1. Introduction2. Nature and Formation of Groups3. Type of Groups4. Influence of Group on Individual Behaviour<ul style="list-style-type: none">• Social Loafing• Group Polarization	OCT-NOV	14 Periods
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DAV PUBLIC SCHOOL, SECTOR-49, GURUGRAM
CURRICULUM FOR SESSION 2022-2023

WEB APPLICATION (SUBJECT CODE-803)

CLASS – XII

COURSE OVERVIEW:

Today the world is connected through the web socially and economically. Web development has become the best-paid career choice in the modern world. A web developer is a person/an individual/ personal who is proficient in creating web sites. Web development is the process of developing websites. The process includes coding or programming that empowers websites functionality.

OBJECTIVES OF THE COURSE:

In this course, the students will be familiarized with the web programming language & photo editing tool. Learners will be prepared to get the job in the different fields of website designing, website development and graphics designing.

The following are the main objections of the course:

- To acquaint the students with the basis of networking.
- To develop the understanding of the web Architecture.
- To enable the students to enhance their knowledge of client-server Architecture.
- To prepare the students to develop static and dynamic websites.
- To familiarize the students with the web programming languages and photo editing software.
- To make the students capable of publishing a website independently.
- To develop the skills which will help the students to do the following:
 - Graphics Designing
 - Website Designing
 - Website Development
 - Web Applications

SALIENT FEATURES OF THE COURSE:

Web development is an emerging industry worldwide. It is developing at a very fast pace. Web application is a short term job oriented course. This course will enable the learners to understand the web development process and technique.

The importance of the course:

- It helps the organization to develop their own website.
- It generates job opportunities in the field of internet and web development.
- Useful for promoting business and products.
- It connects the individual or an organization on a web server.
- It is used in all kinds of sectors i.e. education, Industry, ecommerce, Banking, Marketing, to enhance the functionalities of the organizations.

SCHEME OF UNITS

This course is a planned sequence of instructions consisting of units meant for developing employability and vocational competencies of students of Class XI opting for skill subject along with other education subjects.

The unit-wise distribution of hours and marks is given overleaf:

WEB APPLICATION (SUBJECT CODE-803)**CLASS – XII (SESSION 2022-2023)**

Total Marks: 100 (Theory-60 + Practical-40)

	UNITS	NO. OF HOURS for Theory and Practical		MAX. MARKS for Theory and Practical
PART A	Employability Skills			
	Unit 1 : Communication Skills-IV*	10		-
	Unit 2 : Self-Management Skills-IV	10		3
	Unit 3 : ICT Skills-IV	10		3
	Unit 4 : Entrepreneurial Skills-IV	15		4
	Unit 5 : Green Skills-IV *	05		-
	Total	50		10
PART B	Subject Specific Skills	Theory	Practical	Marks
	Unit 1: Movie Editing Tools	10	25	10
	Unit 2: Customizing and Embedding Multimedia Components in Web Pages	25	20	12
	Unit 3: Web Scripting – Java Script	30	60	20
	Unit 4: Work Integrated Learning IT– WA-II	20	20	8
	Total	85	125	50
PART C	Practical Examination			
	<ul style="list-style-type: none"> • Movie Editing Tools: (5 Marks) • Customizing and Embedding, Multimedia, Components in Web Pages (05 Marks) • Web Scripting - JavaScript (10 Marks) 			20
	Practical File			5
	Viva Voce			5
	Total			30
PART D	Project Work/Field Visit /Practical File/ Student Portfolio			10
	Total			10
	GRAND TOTAL		260	

Note: * marked units are to be assessed through Internal Assessment/ Student Activities. They are not to be assessed in Theory Exams

DETAILED CURRICULUM/ TOPICS FOR CLASS XII

PART-A: EMPLOYABILITY SKILLS

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-IV *	10
2.	Unit 2: Self-Management Skills-IV	10
3.	Unit 3: Information and Communication Technology Skills-IV	10
4.	Unit 4: Entrepreneurial Skills-IV	15
5.	Unit 5: Green Skills-IV *	05
	TOTAL DURATION	50

Note: * marked units are to be assessed through Internal Assessment/ Student Activities.
They are not to be assessed in Theory Exams

The detailed curriculum/ topics to be covered under Part A: Employability Skills can be downloaded from CBSE website.

PART-B – SUBJECT SPECIFIC SKILLS:

- Unit 1: Movie Editing Tools
- Unit 2: Customizing and Embedding Multimedia Components in Web Pages.
- Unit 3: Web Scripting – Java Script
- Unit 4: Work Integrated Learning IT – WA-II.

APRIL AND MAY

	UNIT TITLE	TOTAL MARKS
UNIT- 3	Web Scripting – JavaScript: <ul style="list-style-type: none">- Java Script review.- Functions -user defined.- String Object.- Math Object.- Array Object.- Events *- Case Studies. *	20

JULY

UNIT-4	Work Integrated Learning IT – WA-II: <ul style="list-style-type: none">– Advanced Features of Web Design.– Code view*, Add-ins / Snippets and Page Transitions*.– Dynamic Web templates.– SEO - Search Engine Optimization.– Forms - Advanced. *– Publishing web pages or Websites-I.– Publishing web pages or websites-II.– Authoring tools.– CSS templates.	8
	TOTAL MARKS	50

(*NOTE: To be assessed in Practicals only. No question shall be asked from this portion in Theory Exams)

AUGUST

	UNIT TITLE	TOTAL MARKS
UNIT-1	Movie Editing Tools: <ul style="list-style-type: none">- Familiarization of Interface Components.- Importing Pictures.- Importing Audio and Video Files.- Splitting and Joining Movie Clips.- Adding Titles and publishing	10

UNIT-2	Customizing and Embedding Multimedia components in Web Pages: <ul style="list-style-type: none"> - Compatible Multimedia file formats for Web Pages. - Embedding Audio file. - Embedding Video file. - Embedding Flash file. 	12
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SEPTEMBER – REVISION FOR TERM- 1 EXAMINATION

OCTOBER

PART-A: EMPLOYABILITY SKILLS

S. No.	Units
1.	Unit 1: Communication Skills-IV *
2.	Unit 2: Self-Management Skills-IV
3.	Unit 3: Information and Communication Technology Skills-IV
4.	Unit 4: Entrepreneurial Skills-IV
5.	Unit 5: Green Skills-IV *

Note: * marked units are to be assessed through Internal Assessment/ Student Activities.
They are not to be assessed in Theory Exams

NOVEMBER

Project work

DECEMBER

Preboard Examination

JANUARY

Practical and revision of Board Examination

LIST OF EQUIPMENT AND MATERIAL:

Following is the proposed list of basic tools and equipments for conducting the practical examination. The list given below is suggestive and not an exhaustive list to be prepared by the vocational teacher so that the routine tasks can be performed by the students regularly for practice and acquiring adequate practical experience:

1. Desktop / Laptop
2. Printer
3. Scanner
4. Digital image Capturing Device (Digital Camera/ Webcam etc.)
5. Software- GUI Operating System, Web Browser, GIMP, Text Editor (Notepad) etc.
6. Internet Connection

NOTE: Students should be exposed to various Networks, Websites, during Field Visits.

CAREER OPPORTUNITIES:

The Web Application course raised the opportunities in all the industries worldwide. The job profiles for the web developers are: -

- ❖ Web Applications Developer
- ❖ Front End Web Developer
- ❖ Back-end web Developer
- ❖ Design and Layout analyst
- ❖ Web marketing analyst
- ❖ Senior Web analyst
- ❖ Brand Development
- ❖ E-Commerce Design and Development
- ❖ Product Designer
- ❖ Design Studio
- ❖ IT companies
- ❖ UX Designer (User Experience Designer)
- ❖ U I Designer (User Interface Designer)

VERTICAL MOBILITY:

The students can do: -

- ❖ Graduation in Multimedia and Website Designing
- ❖ Diploma in Web Designing,
- ❖ PG Diploma in Internet & Web Designing.
- ❖ Graduation and Diploma courses in E-Commerce and web Design

CBSE | DEPARTMENT OF SKILL EDUCATION

CURRICULUM FOR SESSION 2022-23

LIBRARY AND INFORMATION SCIENCES (Sub. Code - 836)

JOB ROLE: LIBRARY ASSISTANT

SESSION 2021-2022

CLASS XII

1. Introduction

Library & Information Science Course at Senior Secondary level will fulfill the requirement of developing necessary skills, in learners to identify, locate, evaluate and use the required information efficiently. One of the important aspects of the curriculum is to improve the education system for Library and Information Science at school level. Learning of the professional attitudes and the interpersonal and interdisciplinary skills needed to communicate and collaborate with the colleagues and the information users and to understand the above goals within the perspective of prevailing and emerging technologies,

2. Course Objectives

This course aims at training basic theories and principles of administration for effective management of public, academic, special libraries and information centers. Practical and theoretical understanding of and basic competencies required in evaluating, selecting and organizing information sources will be taught. The objectives of the course at senior secondary level are as follows:

To develop among the students:

1. The basic understanding of theory and practice of Library & Information Science;
2. Knowledge and skill to pursue the subject for higher education in future; and
3. Basic skill to work as Semi -professional in a Library, which may be considered at par with the diploma course in LIS subject.

3. Curriculum

This course is a planned sequence of instructions consisting of Units meant for developing employability and Skills competencies of students of Class XII opting for Skills subject along with general education subjects.

Theory	70 marks
Practical	30 marks
Total Marks	100 marks

The unit-wise distribution of periods and marks for Class XII is as given on the next page:

LIBRARY & INFORMATION SCIENCES (SUB. CODE - 836)

CLASS – XII (SESSION 2021-2022)

Total Marks: 100 (Theory-70 + Practical-30)

	TERM	UNITS	NO. OF HOURS for Theory and Practical		MAX. MARKS for Theory and Practical	
Part A	Employability Skills					
	TERM I	Unit 1 : Communication Skills-IV	10	05		
		Unit 2 : Self-Management Skills-IV	10			
		Unit 3 : ICT Skills-IV	10			
	TERM II	Unit 4 : Entrepreneurial Skills-IV	15	05		
Unit 5 : Green Skills-IV		05				
	Total		50	10		
Part B	Subject Specific Skills		Theory (In Hours)	Practical (In Hours)	Marks	
	TERM I	Chapter -1: Library Management Unit -1A: Collection Development and its Management Unit -1:B: Human Resource Management (HRM) Unit -1:C: Financial Management Unit -2: Functions of different Sections of a Library.	40	10	15	
		Chapter -2: Organization of Library Resources: Advanced Unit -1: Library Classification (Theory) Unit -2: Library Cataloguing(Theory)	40	10	15	
		Chapter -3: Library and Information Services Unit -1: Library and Information Services: An Overview Unit -2: Library and Information Services: ICT Applications	30	10	15	
		Chapter -4: Computer Applications in Libraries: Advanced Unit -1: Use of Computer in Libraries Unit -2: Use of Social Networking Tools	35	10	10	
	TERM II	Chapter 5: Communication Skills Unit -1: Need & Importance of Communication Skills.	15	10	05	
		Total	160	40	60	
	Part C	Practical Work				
			Practical Examination			15
			Viva Voce			05
	Total				20	
Part D	Project Work/Field Visit Practical File/ Student Portfolio				10	
	Total				10	
		GRAND TOTAL	250		100	

4. CONTENTS

PART A: EMPLOYABILITY SKILLS

Units	
1.	Communication Skills –IV
2.	Self-management Skills –IV
3.	Information and Communication Technology Skills – IV
4.	Entrepreneurial Skills – IV
5.	Green Skills – IV

Detailed curriculum of Employability Skills is available separately

Part B – Subject Specific Skills

Chapter -1: Library Management

Objective: The objective is to provide an understanding about the management of a library and its activities. The chapter is divided into the following units:

Unit -1A: Collection Development and its Management

4. Collection Development Policy
 - (1) Print Resources
 - (2) E-Resources
5. Selection Criteria for Documents
6. Stack Maintenance
7. Stock Verification.
8. Shelf list.

Unit -1: B: Human Resource Management: Basic Concepts

- (1) Definition, Need and Purpose.
- (2) Job analysis.
- (3) Staffing pattern in different types of Libraries.

Unit -1:C: Financial Management

1. Financial Resources
2. Budgeting

Unit -2: Functions of different Sections of a Library.

1. Acquisition,
2. Technical Processing: Classification and Cataloguing.
3. Circulation.
4. Periodicals.
5. Binding and Preservation.
6. Information Technology support (I.T.)

Chapter -2: Organization of Library Resources: Advanced

Objective: The objective is to provide an understanding of Classification and Cataloguing systems. The chapter is divided into the following units:

Unit -1: Library Classification (Theory)

1. Concepts of Personality, Matter, Energy, Space and Time (PMEST).
2. Steps for Classification by Dewey Decimal Classification (DDC) and Colon Classification (CC).
3. Call number :
 1. Class number.
 2. Book number.
 3. Collection number.

Unit -2: Library Cataloguing (Theory)

1. Type of authors: (i) Personal (ii) Corporate
2. Subject Heading and key words: Sears list of Subject Headings
3. Machine Readable Catalogue 21 (MARC 21- Latest Edition).

Chapter -3: Library and Information Services

Objective: The objective is to provide an understanding about the importance and need of Library and Information Services. The chapter is divided into the following units:

Unit -1: Library and Information Services: An Overview

1. Types of Reference Services: -
 - (a) Responsive Services (on demand) vs. Anticipatory Services
 - (b) Short Range Services (Ready Reference) vs. Long Range Services

Unit -2: Library and Information Services: ICT Applications

1. Modern Library & Information Service
 - (1) Electronic Reference Service
2. Emerging Trends

Chapter -4: Computer Applications in Libraries: Advanced

Objective: The objective is to provide an understanding of computer applications for housekeeping jobs in a Library. The chapter is divided into the following units:

Unit -1: Use of Computer in Libraries: Library Automation Softwares

1. Study of proprietary Library Softwares: e-Granthalya
2. Study of Open-source Software: Koha

Unit -2: Use of Social Networking Tools

Facebook, Twitter, RSS, Blog, LinkedIn

Chapter 5: Communication Skills

1. Need & Importance of Communication Skills:

1. Types of Communication Skills.
2. Interpersonal Communication Skills.

5. TEACHING ACTIVITIES

The teaching and training activities have to be conducted in classroom, laboratory/ workshops and field visits. Students should be taken to field visits for interaction with experts and to expose them to the various tools, equipment, materials, procedures and operations in the workplace. Special emphasis should be laid on the occupational safety, health and hygiene during the training and field visits.

CLASSROOM ACTIVITIES

Classroom activities are an integral part of this course and interactive lecture sessions, followed by discussions should be conducted by trained teachers. Teachers should make effective use of a variety of instructional or teaching aids, such as audio-video materials, colour slides, charts, diagrams, models, exhibits, hand-outs, online teaching materials, etc. to transmit knowledge and impart training to the students.

PRACTICAL WORK IN LABORATORY/WORKSHOP

Practical work may include but not limited to hands-on-training, simulated training, role play, case based studies, exercises, etc. Equipment and supplies should be provided to enhance hands-on learning experience of students. Only trained personnel should teach specialized techniques. A training plan that reflects tools, equipment, materials, skills and activities to be performed by the students should be submitted by the teacher to the Head of the Institution.

SKILL ASSESSMENT (PRACTICAL)

Assessment of skills by the students should be done by the assessors/examiners on the basis of practical demonstration of skills by the candidate, Practical examination allows candidates to demonstrate that they have the knowledge and understanding of performing a task. This will include hands-on practical exam and viva voce. For practical, there should be a team of two evaluators. The same team of examiners will conduct the viva voce.

Project Work (individual or group project) is a great way to assess the practical skills on a certain time period or timeline. Project work should be given on the basis of the capability of the individual to perform the tasks or activities involved in the project. Projects should be discussed in the class and the teacher should periodically monitor the progress of the project and provide feedback for improvement and innovation. Field visits should be organised as part of the project work. Field visits can be followed by a small-group work/project work. When the class returns from the field visit, each group might be asked to use the information that they have gathered to prepare presentations or reports of their observations. Project work should be assessed on the basis of practical file or student portfolio.

Viva voce allows candidates to demonstrate communication skills and content knowledge. Audio or video recording can be done at the time of viva voce. The number of external examiners would be decided as per the existing norms of the Board and these norms should be suitably adopted/adapted as per the specific requirements of the subject. Viva voce should also be conducted to obtain feedback on the student's experiences and learning during the project work/field visits.

6. ORGANISATION OF FIELD VISITS/ EDUCATIONAL TOURS

In field visits, children will go outside the classroom to obtain specific information from experts or to make observations of the activities. A checklist of observations to be made by the students during the field visits should be developed by the Teachers for systematic collection of information by the students on the various aspects. Principals and Teachers should identify the different opportunities for field visits within a short distance from the school and make necessary arrangements for the visits. At least three field visits should be conducted in a year.

7. PRACTICAL GUIDELINES

Practical work for class XII includes the following:

1. Library Classification (Practice)
2. Library Cataloguing (Practice)
3. Computer Applications
4. Accessioning

Note: The student should be exposed to basic practice in the above fields.

Practical work in Classification should include classification of documents with Main Class and Subdivisions according to DDC. Cataloguing of Main Entry and Added Entries of Simple Books according to AACRII

Practical work in Computer Applications should include formulation of a simple query for Search and use of computers for use of internet and handling of any one Library Automation Software.

CBSE | DEPARTMENT OF SKILL EDUCATION

ARTIFICIAL INTELLIGENCE (SUBJECT CODE - 843)

Class XII (Session 2022-23)

Total Marks: 100 (Theory - 50 + Practical - 50)

	UNITS	NO. OF HOURS (Theory + Practical)	MAX. MARKS (Theory + Practical)
PART – A	Employability Skills		
	Unit 1: Communication Skills-IV*	10	-
	Unit 2: Self-Management Skills-IV	10	3
	Unit 3: ICT Skills-IV	10	3
	Unit 4: Entrepreneurial Skills-IV	15	4
	Unit 5: Green Skills-IV*	05	-
	Total	50	10
PART – B	Subject Specific Skills		
	Unit 1: Capstone Project	30	10
	Unit 2: Model Lifecycle	20	10
	Unit 3: Storytelling Through Data	30	20
	Total	80	40
PART – C	Student Capstone Project (PRACTICAL)		
	Student AI project Development & Presentation (Team work): Submission of Project Logbook and Video presentation	30	50
	Total	30	50
	GRAND TOTAL	160 Hours	100

Note: * marked units are to be assessed through Internal Assessment/ Student Activities. They are not to be assessed in Theory Exams

DETAILED CURRICULUM/ TOPICS FOR CLASS XII

PART-A: EMPLOYABILITY SKILLS

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-IV*	10
2.	Unit 2: Self-management Skills-IV	10
3.	Unit 3: Information and Communication Skills-IV Technology	10
4.	Unit 4: Entrepreneurial Skills-IV	15
5.	Unit 5: Green Skills-IV*	05
	TOTAL	50

Note: * marked units are to be assessed through Internal Assessment/ Student Activities. They are not to be assessed in Theory Exams

The detailed curriculum/ topics to be covered under Part A: Employability Skills can be downloaded from CBSE website

Part-B – SUBJECT SPECIFIC SKILLS

Level 3: AI Innovate	<ul style="list-style-type: none">• Unit 1: Capstone Project• Unit 2: Model lifecycle (Knowledge)
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Level 3: AI Innovate	<ul style="list-style-type: none">• Unit 3: Storytelling through data (Critical and Creative thinking Skills)
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DETAILED CURRICULUM/ TOPICS

AI Innovate - (Level 3)		
April- May		
Unit 1: Capstone Project	<ul style="list-style-type: none"> • Understanding the problem • Decomposing the problem through DT framework • Analytic Approach • Data Requirements • Data Collection • Modelling approach • How to validate model quality <ul style="list-style-type: none"> ➤ By test-train split ➤ Introduce concept of cross validation • Metrics of model quality by simple Maths and examples from small datasets – scaled up to capstone project (Apply) <ul style="list-style-type: none"> ➤ RMSE- Root Mean Squared Error ➤ MSE – Mean Squared Error ➤ MAPE – Mean Absolute Percent Error • Introduction to commonly used algorithms and the science behind them • Showcase through a compelling story 	10 hours to complete basic levels.
EMPLOYABILITY SKILLS		
Unit 1	Unit 1: Communication Skills-IV*	10 hours
Unit 5	Unit 5: Green Skills-IV*	05 hours
JULY		
Unit 2: Model lifecycle (Knowledge)	<ul style="list-style-type: none"> • Different aspects of Model <ul style="list-style-type: none"> ➤ Train, test, validate, ➤ What are hyper parameters ➤ Commonly used platforms to build and run models (Introduction) ➤ Recommended tools ➤ Links to different platforms <ul style="list-style-type: none"> o Watson • Lifecycle of an AI model <ul style="list-style-type: none"> ➤ Build ➤ Deploy ➤ Retrain 	10 hours to complete basic levels.

AI Innovate - (Level 3)

Unit 3: Story-telling through data (Critical and Creative thinking Skills)	<ul style="list-style-type: none"> • The Need for Storytelling <ul style="list-style-type: none"> ○ Information processing and recalling stories ○ Why is storytelling important? ○ Structure that story! • How to create stories? <ul style="list-style-type: none"> ○ Begin with a pen-paper approach ○ Dig deeper to identify the sole purpose of your story ○ Use powerful headings ○ Design a Road-Map ○ Conclude with brevity • Ethics of storytelling • Types of Data and Suitable Charts <ul style="list-style-type: none"> ○ Text [Wordclouds] ○ Mixed [Facet Grids] ○ Numeric [Line Charts/ Bar Charts] ○ Stocks [Candlestick Charts] ○ Geographic [Maps] • Stories During the Steps of Predictive Modeling <ul style="list-style-type: none"> ○ Data Exploration ○ Feature Visualizing ○ Model Creation ○ Model Comparisons • Best Practices of Storytelling • Reference Material /Online Resources: <ul style="list-style-type: none"> ○ Analytics Vidhya (https://www.analyticsvidhya.com/blog/2020/05/art-storytelling-analytics-data-science/) ○ Udemy: (https://www.udemy.com/course/tell-a-story-with-data/) ○ Coursera: (https://www.coursera.org/learn/intro-business-analytics) ○ Coursera: (https://www.coursera.org/learn/communicate-with-impact) 	15 hours to complete basic levels.
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AUGUST - NOVEMBER

Student Project Work (Practical)	Student capstone project development <ul style="list-style-type: none"> • Students to form teams and work on developing an AI based project • Resources like the AI Project Guide and AI Project LogBook to be used 	30 hours
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EMPLOYABILITY SKILLS

Unit 2	Unit 2: Self-management Skills-IV	10 hours
Unit 3	Unit 3: Information and Communication Technology Skills-IV	10 hours
Unit 4	Unit 4: Entrepreneurial Skills-IV	15 hours

DAV PUBLIC SCHOOL, UPPAL'S SOUTHEND , SECTOR 49, GURUGRAM

ACCOUNTANCY XII (055)

ACADEMIC PLAN (2022-23)

MAX MARKS :- 100

THEORY :- 80

PROJECT WORK:- 20

TIME:- 3 Hrs.

UNITS		Periods	Marks
PART- A	Accounting for , Partnership Firms and Companies.		
1.	Accounting for Partnership Firms	105	36
2.	Accounting for Companies	45	24
	Total	150	60
PART- B	Financial Statement Analysis		
3.	Analysis of Financial Statements	30	12
4.	Cash Flow Statement	20	8
	Total	50	20
PART- C	Project Work	20	20
	Project Work will include: Project File 4 marks Written Test 12 marks Viva Voce 4 marks		
TOTAL			100

MONTH WISE PLAN

	<u>Pds.</u>	<u>REMARKS</u>
APRIL	16	
<u>Part A: UNIT-I</u>		
<p style="text-align: center;"><u>ACCOUNTING FOR PARTNERSHIP FIRMS:-</u> <u>FUNDAMENTALS</u></p> <ul style="list-style-type: none">● Partnership Features, Partnership deed● Provisions of Indian Partnership Act, 1932 in the absence of Partnership Deed .● Fixed vs Fluctuating Capital Accounts● Preparation of Profit and Loss Appropriation Account-- division of profit among partners, guarantee of profits. <p><i>CONTINUED -----</i></p>		
MAY	19	
<ul style="list-style-type: none">● Past Adjustments (relating to interest on capital, interest on drawings, salary and Profit Sharing Ratio).● Goodwill: Meaning, Nature, Factors affecting and methods of valuation- Average Profit, Super Profit and Capitalization.● Need for valuation of Goodwill. , Adjusted through Partners capital /current Account or by raising and writing off goodwill (AS- 26) <p style="text-align: center;"><u>RECONSTITUTION OF PARTNERSHIP FIRM</u></p> <p>❖ <u>Admission of a partner:</u></p> <ul style="list-style-type: none">● Effect of admission of a partner on change in Profit Sharing ratio,● Treatment of goodwill as per AS 26, Treatment for Revaluation of assets and reassessment of liabilities.● Accounting for Revaluation of assets and reassessment of liabilities and		

<ul style="list-style-type: none"> ● Treatment of reserves and accumulated profits and losses ● Adjustment of Capital Accounts ● Preparation of Capital, Current Account and Balance Sheet. <p>(To be continued in July -----)</p>		
JULY	<u>22</u>	
<u>RECONSTITUTION OF PARTNERSHIP FIRM</u>		
<ul style="list-style-type: none"> ❖ <u>Change in Profit sharing Ratio among the existing partners:</u> ● Sacrificing Ratio, gaining Ratio, ● Accounting for Revaluation of assets and reassessment of liabilities and treatment of reserves and accumulated profits and losses. Preparation of Revaluation Account and Balance Sheet. 		
<ul style="list-style-type: none"> ❖ <u>Retirement and Death of a Partner:</u> ● Effect of retirement / death of a partner on change in profit sharing ratio. ● Treatment of goodwill (as per AS 26) ● Treatment for revaluation of assets and reassessment of liabilities ● Adjustment of accumulated profits and reserves and preparation of balance sheet. • ● Adjustment of Capital Accounts and preparation of Capital ,Current Account and Balance Sheet . ● Preparation of Loan Account of Retiring Partner <p><i>CONTINUED -----</i></p>		
AUGUST	18	
<ul style="list-style-type: none"> ● Calculation of deceased partner's share of profit till the date of death. ● Discuss the preparation of the capital accounts of the deceased partner and his executor's account. <ul style="list-style-type: none"> ❖ <u>Dissolution of Partnership Firm:</u> 		

- Meaning of dissolution of partnership and partnership firm, Types of dissolution of a firm. Settlement of accounts- Preparation of Realisation Account and other related accounts:
 - Capital Accounts of Partners and cash/ bank account (excluding piecemeal distribution, sale to a company and insolvency of any partner).
- ✓ NOTE:-(i) The realized value of each asset must be given at the time of dissolution. Otherwise it should be considered as realized at book value itself.
(ii) In case , the realization expenses are borne by a partner, clear indication should be given .
(iii) If the realized value of intangible assets is not given it should be considered as nil .

Part A: UNIT-III
ACCOUNTING FOR COMPANIES

❖ **Accounting for Share Capital:**

- Features and types of Companies
- Share and share capital: Nature and types.
- Accounting for share capital:-Issue and allotment of equity shares and preference shares.
- Public subscription of shares: Oversubscription 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.

Continued -----

SEPTEMBER	7	
<ul style="list-style-type: none"> ● Concept of private placement, Employee Stock Option Plan, Sweat Equity . ● Accounting treatment of forfeiture and reissue of shares. ● Disclosure of share capital in company's balance sheet. 		
Revision for Term Examinations		
OCTOBER	12	

<p>❖ <u>Accounting for Debentures:-</u></p> <ul style="list-style-type: none"> ● Debentures: Meaning ,types ,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. <p>✓ Note: Discount or loss on issue of debentures to be written off in the year debentures are allotted from Security Premium Reserve (if it exists) and then from Statement of Profit and Loss as Financial Cost (AS 16).</p>		
<p style="text-align: center;"><u>Part B: UNIT-IV</u></p> <p>❖ <u>Analysis of Financial Statements :-</u></p> <ul style="list-style-type: none"> ● Meaning, Nature ,Uses and importance of Financial Statement. ● Statement of Profit & Loss and Balance Sheet in the prescribed form with major headings and sub headings (as per Schedule III to the Companies Act, 2013 <p>Note:- Exceptional items, extraordinary items and profit (loss) from discontinued operations are excluded .)</p> <p><u>Financial Statement Analysis:</u></p> <ul style="list-style-type: none"> ● Objectives, Importance and Limitations. ● Tools for Financial Statement Analysis: Cash Flow Analysis and Ratio Analysis. 		
NOVEMBER	19	
<p>❖ <u>Accounting Ratios:</u></p> <ul style="list-style-type: none"> ● Meaning, Objectives, Classification and Computation. ● <u>Liquidity Ratios:</u> Current Ratio and Quick Ratio ● <u>Solvency Ratios:</u> Debt to equity ratio, Total assets to Debt ratio, Proprietary Ratio and Interest Coverage 		

Ratio, **Debt to Capital Employed Ratio**

- **Activity Ratios:** Inventory Turnover Ratio, Trade Receivables Turnover ratio, Trade Payables Turnover ratio and Working Capital Turnover ratio, **Fixed Assets Turnover Ratio, Net Assets Turnover Ratio** .
- **Profitability Ratios:** Gross Profit Ratio, Operating Ratio, Operating Profit Ratio, Net Profit Ratio and Return on Investment.

Note :-

Net Profit Ratio is to be calculated on the basis of Profit before and after tax .

Part B: UNIT-V

❖ **Cash Flow Statements:**

- Meaning , Objectives , Cash and Cash Equivalents , ,Benefits, Classification of Activities and preparation (as per AS 3 Revised) (Indirect Method only)

Note:-

- (i) Adjustments relating to depreciation and amortization , profit and loss on sale of assets including investments , dividend (both final and interim) and tax.
- (ii) Bank Overdraft and cash credit to be treated as short term borrowings.
- (iii) Current investments to be taken as Marketable securities unless otherwise specified .
- (iv) Previous years' Proposed Dividend to be given effect, as prescribed in As-4, Events occurring after the Balance Sheet date. Current years' Proposed Dividend will be accounted for in the next year after it is declared.

❖ **Project Work**

❖ **REVISION -----**

- **Revision Assignments**
- **Online tests**
- **Revision through sample papers .**

DECEMBER

PRE- BOARD EXAMINATIONS	
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✓ **Teaching Strategies:-**

1. Brain storming Assignments
2. Collaborative Learning
3. Flipped Learning
4. Time Management Assignments (These assignments will contain questions with allotted time for each question.)
5. Colorful Assignments with highlighted points
6. Innovative PPT's with art Integration
7. Assignments with fill up's , mind maps and crossword puzzle .
8. Micro teaching

✓ **Reference Books :**

- NCERT
- T.S. Gerewal's Double Entry Book Keeping ,
- Accountancy by D.K. Goel,
- Together With Accountancy (Rachna Sagar) .

SYLLABUS FOR EXAMINATIONS :-

UT -I:-	
1.	ACCOUNTING FOR PARTNERSHIP -FUNDAMENTALS

UT -II:-	
1.	GOODWILL
2.	ACCOUNTING FOR ADMISSION OF PARTNER

TERM- 1-	
1.	ACCOUNTING FOR PARTNERSHIP FIRMS
2.	COMPANY ACCOUNTS – SHARES

PREBOARD AND FINAL TERM EXAMINATION--	
	WHOLE SYLLABUS

Suggested Question Paper Design Accountancy
(Code No. 055) Class XII (2022-23)

Theory: 80 Marks

Project: 20 Marks

TIME :- 3 HRS.

S. N.	Typology of Questions	Marks	%
1	Remembering and Understanding: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	44	55%
3	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	19	23.75%
4	Analysing, Evaluating and Creating: Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations. Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	17	21.25%
	TOTAL	80	100%

**DAV PUBLIC SCHOOL, UPPAL'S SOUTHEND, SECTOR – 49,
GURUGRAM**

ACADEMIC PLAN (2022-2023)

SUBJECT: APPLIED MATHEMATICS

CLASS XII

One paper

Time: Three Hours

Max.Marks:80

No.	Units	No. of Periods	Marks
I.	Numbers, Quantification and Numerical Applications	30	11
II.	Algebra	20	10
III	Calculus	50	15
IV	Probability Distributions	35	10
V	Inferential Statistics	10	05
VI	Index Numbers and Time-based data	30	06
VII	Financial Mathematics	50	15
VIII	Linear Programming	15	08
	Total	240	80
	Internal Assessment		20

MONTHWISE DIVISION OF SYLLABUS

APRIL/MAY-2022

Unit I Numbers, Quantification and Numerical Applications (30 Periods)

(Weightage: 11 Marks)

LEARNING OUTCOMES:

The students will be able to

- i) understand modulo arithmetic, linear congruence and elementary functions
- ii) solve numerical problems on boats and streams; partnership; pipes and cistern; races and games, scheduling
- iii) understand numerical inequalities and linear inequations

SKILLS ENHANCED: Problem Solving, quantitative skills

Syllabus:

- Modulo Arithmetic
- Congruence modulo
- Allegation or Mixture
- Numerical problems on boats and streams; pipes and cistern; races and games
- Numerical inequalities

Unit II Algebra

(20 Periods)

(Weightage: 10 Marks)

LEARNING OUTCOMES:

The students will be able to

- iv) understand concept of matrices, types of matrices
- v) apply operations on matrices

SKILLS ENHANCED: Problem Solving, quantitative skills

Syllabus

- Matrices and types of matrices
- Equality of matrices, Transpose of a matrix, Symmetric and Skew symmetric matrix
- Algebra of matrices
- Determinants
- Inverse of a matrix
- Solving system of simultaneous equations using matrix method and Cramer's rule

Unit III Calculus

(50 Periods)

(Weightage: 15 Marks)

LEARNING OUTCOMES:

The students will be able to

- i) find increasing and decreasing nature of functions, and intervals in which function is increasing or decreasing
- ii) find the maximum and minimum value of various functions using differentials.
- iii) understand integration as inverse of differentiation.
- iv) integrate functions by substitution, by parts, partial fractions, special integrals.
- v) area bounded by the curves with axis
- vi) find the order, degree, formulating and solving differential equations.

SKILLS ENHANCED:

Critical thinking, ability to manipulate precise and intricate ideas, construct logical arguments and expose illogical arguments

Syllabus:

- Higher Order Derivatives
- Application of derivatives
- Marginal cost and marginal revenue using derivatives
- Increasing/Decreasing functions
- Maxima and Minima
- Integration
- Indefinite integral as family of curves
- Definite integral as area under the curve
- Application of Integration
- Formulating and solving linear differential equation
- Application of differential equations

JULY-2022

Unit III Calculus

(50 Periods)

(Weightage: 15 Marks)

Continued

LEARNING OUTCOMES:

The students will be able to

- i) find increasing and decreasing nature of functions, and intervals in which function is increasing or decreasing
- ii) find the maximum and minimum value of various functions using differentials.
- iii) understand integration as inverse of differentiation.
- iv) integrate functions by substitution, by parts, partial fractions, special integrals.
- v) area bounded by the curves with axis
- vi) find the order, degree, formulating and solving differential equations.

SKILLS ENHANCED:

Critical thinking, ability to manipulate precise and intricate ideas, construct logical arguments and expose illogical arguments

Syllabus:

- Application of derivatives
- Increasing/Decreasing functions
- Maxima and Minima
- Marginal cost and marginal revenue using derivatives
- Integration
- Indefinite integral as family of curves
- Definite integral as area under the curve
- Integration of simple algebraic functions (primitive, by substitution, by parts)
- Application of Integration (consumer surplus-producer surplus)
- Differential equation (definition, order, degree)
- Formulating and solving linear differential equation
- Application of differential equation (Growth and Decay Model)

Unit VIII Linear Programming

(15 Periods)

(Weightage: 08 Marks)

LEARNING OUTCOMES:

The students will be able to

- i) Formulate the problem using linear equations.
- ii) Optimize the function graphically using corner point method.

SKILLS ENHANCED: construct logical arguments and expose illogical arguments, Problem solving Analysis, construction and interpretation of graphs.

Syllabus:

- Introduction and related terminologies (constraints, objective function, optimization)
- Mathematical formulation of linear programming problems
- Different types of linear programming problems
- Graphical method of solution for problems in two variables
- Feasible and infeasible regions (bounded and unbounded)
- Feasible and infeasible solutions, optimal feasible solutions

AUGUST-2022**Unit IV Probability Distributions****(35 Periods)****(Weightage: 10 Marks)****LEARNING OUTCOMES:**

The students will be able to

- i) Find probability distribution of random variable.
- ii) Find mean and variance.
- iii) Find Poisson distribution and Normal distribution.

SKILLS ENHANCED:

Analytical thinking, Problem solving, Comprehension

Syllabus:

- Probability Distribution
- Mathematical Expectation
- Variance
- Binomial Distribution
- Poisson distribution
- Normal distribution

SEPTEMBER – 2022 TERM EXAM**OCTOBER-2022****Unit V Inferential Statistics****(10 Periods)**

(Weightage: 05 Marks)

LEARNING OUTCOMES:

The students will be able to

- i) Draw statistical inferences.
- ii) Understand and apply Students' t - distribution

SKILLS ENHANCED:

Analytical thinking, Problem solving, Comprehension

Syllabus:

- Population and sample
- Parameter, statistic and statistical inferences
- t-Test (one sample t-test and two independent groups t-test)

Unit VI Index numbers and Time-based data

(30 Periods)

(Weightage: 06 Marks)

LEARNING OUTCOMES:

The students will be able to

- i) understand characteristics, uses and types of index numbers.
- ii) Understand method of constructing weighted and unweighted index numbers.
- iii) Understand time series and method of moving averages.

SKILLS ENHANCED:

Analytical thinking, Problem solving.

Syllabus:

- Time series, Components of Time Series
- Time Series analysis for univariate data
- Secular Trend
- Methods of Measuring trend

NOVEMBER-2022

Unit VII Financial Mathematics

(50 Periods)

(Weightage: 15 Marks)

LEARNING OUTCOMES:

The students will be able to

- i) Understand Joint stock company.
- ii) Calculate shares and debentures.

SKILLS ENHANCED:

Analytical thinking, Problem solving, quantitative skills

Syllabus:

- Perpetuity, Sinking funds
- Calculation of EMI
- Calculation of returns, nominal rate of return, effective rate of interest
- Compound annual growth rate
- Linear method of depreciation

DECEMBER – 2022 REVISION + PREBOARD EXAMS (80 MARKS)

**DAV PUBLIC SCHOOL, UPPAL'S SOUTHEND, SECTOR 49,
GURUGRAM**

CLASS XII (BIOLOGY)

Academic plan for 2022-2023

CHAPTER NO.	NAME OF CHAPTERS	WEIGHTAGE
VI VII	Reproduction Genetics and Evolution	16 20
VIII IX X	Biology and Human Welfare Biotechnology and it's applications Ecology and Environment	12 12 10
TOTAL		70

CURRICULUM PLANNER FOR CLASS XII

MONTH	CHAPTER	
April		Remarks
No. of Teaching Days: 21	<p>Chapter-1: Reproduction in Organisms Reproduction, a characteristic feature of all organisms for continuation of species; modes of reproduction - asexual and sexual reproduction; asexual reproduction - binary fission, sporulation, budding, gemmule formation, fragmentation; vegetative propagation in plants.</p> <p>Chapter-2: Sexual Reproduction in Flowering Plants Flower structure; development of male and female gametophytes; pollination - types, agencies and examples; out breeding devices; pollen-pistil interaction; double fertilization; post fertilization events - development of endosperm and embryo, development of seed and formation of fruit; special modes- apomixis, parthenocarpy, polyembryony; Significance of seed dispersal and fruit formation.</p>	
May		Remarks

<p>No. of Teaching Days: 22</p>	<p>Chapter-3: Human Reproduction Male and female reproductive systems; microscopic anatomy of testis and ovary; gametogenesis -spermatogenesis and oogenesis; menstrual cycle; fertilisation, embryo development upto blastocyst formation, implantation; pregnancy and placenta formation (elementary idea); parturition (elementary idea); lactation (elementary idea).</p> <p>Unit Test</p>	
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MONTH	CHAPTER	
July	Remarks	
<p>No. of Teaching Days: 25</p>	<p>Chapter-4: Reproductive Health Need for reproductive health and prevention of Sexually Transmitted Diseases (STDs); birth control - need and methods, contraception and medical termination of pregnancy (MTP); amniocentesis; infertility and assisted reproductive technologies- IVF, ZIFT, GIFT (elementary idea for general awareness).</p>	
	<p>Chapter-5: Principles of Inheritance and Variation Heredity and variation: Mendelian inheritance; deviations from Mendelism – incomplete dominance, co-dominance, multiple alleles and inheritance of blood groups, pleiotropy; elementary idea of polygenic inheritance; chromosome theory of inheritance; chromosomes and genes; Sex determination - in humans, birds and honey bee; linkage and crossing over; sex linked inheritance - haemophilia, colour blindness; Mendelian disorders in humans - thalassemia; chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.</p> <p>Chapter-6: Molecular Basis of Inheritance Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central Dogma; transcription, genetic code, translation; gene expression and regulation - lac operon; Genome, Human and rice genome projects; DNA fingerprinting.</p>	

MONTH	CHAPTER	
August		Remarks
No. of Teaching Days: 21	<p>Chapter-7: Evolution Origin of life; biological evolution and evidences for biological evolution (paleontology, comparative anatomy, embryology and molecular evidences); Darwin's contribution, modern synthetic theory of evolution; mechanism of evolution - variation (mutation and recombination) and natural selection with examples, types of natural selection; Gene flow and genetic drift; Hardy - Weinberg's principle; adaptive radiation; human evolution.</p> <p>Chapter-8: Human Health and Diseases Pathogens; parasites causing human diseases (malaria, dengue, chikungunya, filariasis, ascariasis, typhoid, pneumonia, common cold, amoebiasis, ring worm) and their control; Basic concepts of immunology - vaccines; cancer, HIV and AIDS; Adolescence - drug and alcohol abuse.</p> <p>Chapter-10: Microbes in Human Welfare Microbes in food processing, industrial production, sewage treatment, energy generation and microbes as bio-control agents and bio-fertilizers. Antibiotics; production and judicious use.</p>	

MONTH	CHAPTER	
September		Remarks
No. of Teaching Days: 9	Chapter-11: Biotechnology - Principles and Processes Genetic Engineering (Recombinant DNA Technology).	

SEPTEMBER TERM EXAMINATION

MONTH	CHAPTER	
October		Remarks

No. of Teaching Days: 12	<p>Chapter-12: Biotechnology and its Applications</p> <p>Application of biotechnology in health and agriculture: Human insulin and vaccine production, stem cell technology, gene therapy; genetically modified organisms - Bt crops; transgenic animals; biosafety issues, biopiracy and patents.</p>	
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MONTH	CHAPTER	
November		Remarks
No. of Teaching Days: 22	<p>Chapter-13: Organisms and Populations</p> <p>Population interactions - mutualism, competition, predation, parasitism; population attributes - growth, birth rate and death rate, age distribution. (Topics excluded: Organism and its Environment, Major Abiotic Factors, Responses to Abiotic Factors, Adaptations)</p> <p>Chapter-14: Ecosystem</p> <p>Ecosystems: Patterns, components; productivity and decomposition; energy flow; pyramids of number, biomass, energy (Topics excluded: Ecological Succession and Nutrient Cycles)</p> <p>Chapter-15: Biodiversity and its Conservation</p> <p>Biodiversity-Concept, patterns, importance; loss of biodiversity; biodiversity conservation; hotspots, endangered organisms, extinction, Red Data Book, Sacred Groves, biosphere reserves, national parks, wildlife, sanctuaries and Ramsar sites.</p>	

PREBOARD EXAMINATION

PRACTICALS

Evaluation Scheme for Practical Examination	
One major experiment	5 Marks
One minor experiment	4 Marks
Slide preparation	5 Marks
Spotting	7 Marks
Practical record and Viva voce	4 Marks
Investigatory project and Viva Voce	5 Marks
Total	30 Marks

LIST OF EXPERIMENTS AND ACTIVITIES

A. List of Experiments

1. Prepare a temporary mount to observe pollen germination.
2. Study the plant population density by quadrat method.
3. Study the plant population frequency by quadrat method.
4. Prepare a temporary mount of onion root tip to study mitosis.
5. Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc.

B. Study and observe the following (Spotting):

1. Flowers adapted to pollination by different agencies (wind, insects, birds).
2. Pollen germination on stigma through a permanent slide or scanning electron micrograph.
3. Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice).
4. Meiosis in onion bud cell or grasshopper testis through permanent slides.
5. T.S. of blastula through permanent slides (Mammalian).
6. Mendelian inheritance using seeds of different colour/sizes of any plant.
7. Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colour blindness.
8. Controlled pollination - emasculation, tagging and bagging.
9. Common disease causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through permanent slides, models or virtual images or specimens.
Comment on symptoms of diseases that they cause.
10. Models specimen showing symbiotic association in root nodules of leguminous plants, Cuscuta on host, lichens.
11. Flash cards models showing examples of homologous and analogous organs.

Suggested Investigatory Projects

1. To Study on the Probiotics and their Preparation
2. To Study the Effects of Diet on the Blood Glucose
3. To Study the Effects of Antibiotics on the Micro-Organisms

4. To Study the Effects of Green Tea on the Oral Bacteria
5. Study the Effects of the Various Aromas on Animal Behaviour
6. Investigate Methods to Control the Human Blood Pressure
7. Study the Effect of Alkaline and Acids on the Bacterial Growth
8. To Study the Effect of Timing of the Application of Potassium on the Antirrhinum
9. To Study of the Adaptations of Animals and Plants found in Xerophytic Conditions
10. To Study the Growth Rate of *Poa pratensis* in Pure Humus
11. To Study the Effect of the Exercise on Pulse Rate and Blood Pressure
12. To Study the various Factors Affecting the Nodule Formations in Legumes
13. To Study and investigate the Bacteria Affected by the Ultra-Violet Light
14. To Study the Capacity of Cinnamon and Curry to the Inhibit Bacterial Growth
15. To Study of Drug Resistance In Bacteria by Using the Antibiotics
16. To Study the Biology Project on the Population Explosion and Control
17. To Study the Harmful Effects of the Mobile Radiation on Human Body
18. To Study the Isolation of *Staphylococcus aureus* from Raw and Pasteurized Milk
19. To Study the Harmful Effects of the Working and Reading on the Computer on Vision
20. To Study the Effect of Ingested Fluid Temperature on the Basal Body

DAV PUBLIC SCHOOL, SEC-49, UPPAL SOUTHEND, GURUGRAM

ACADEMIC PLAN (2022-23)

**BUSINESS STUDIES
(CODE – 54)**

1. Learning Outcomes:-

- To develop students with an understanding of the processes of business and its environment.
- To acquaint students with the dynamic nature and inter-dependent aspects of business.
- To develop an interest in the theory and practice of business, trade and industry.
- To familiarize students with theoretical foundations of the process of organizing and managing the operations of a business firm.
- To help students appreciate the economic and social significance of business activity and the social cost and benefits arising there from.
- To acquaint students with the practice of managing the operations and resources of business.
- To enable students to act more effectively and responsibly as consumers, employers, employees and citizens.
- To develop a business attitude and skills in students.
- To inculcate appropriate attitude and develop skills among students to pursue higher education, world of work including self- employment.

CLASS–XII (2022-23)

Theory: 80 Marks

3 Hours

Project: 20 Marks

Units		Periods	Marks
Part A	Principles and Functions of Management		
1.	Nature and Significance of Management	12	16
2	Principles of Management	14	
3	Business Environment	12	
4	Planning	14	14
5	Organising	15	
6	Staffing	16	20
7	Directing	15	
8	Controlling	12	
	Total	110	50
Part B	Business Finance and Marketing		
9	Financial Management	20	15
10	Financial Markets	18	
11	Marketing Management	30	15
12	Consumer Protection	12	
	Total	80	30
Part C	Project Work (One)	30	20

***Part A: Principles and Functions of
Management***

1: Nature and Significance of Management

(APRIL 2022)

Concept	After going through this unit, the student/ learner would be able to:	REMARKS
Management - concept, objectives, and importance	<ul style="list-style-type: none">• Understand the concept of management.• Explain the meaning of 'Effectiveness and Efficiency.• Discuss the objectives of management.• Describe the importance of management.	
Management as Science, Art and Profession	<ul style="list-style-type: none">• Examine the nature of management as a science, art and profession.	
Levels of Management	<ul style="list-style-type: none">• Understand the role of top, middle and lower levels of management	
Management functions-planning, organizing, staffing, directing and controlling	<ul style="list-style-type: none">• Explain the functions of management	
Coordination- concept and importance	<ul style="list-style-type: none">• Discuss the concept and	

characteristics of coordination.

- Explain the importance of coordination.

Unit 2: Principles of Management(MID APRIL- MID MAY)

Principles of Management- concept and significance	<ul style="list-style-type: none"> • Understand the concept of principles of management. • Explain the significance of management principles. 	REMARKS
Fayol's principles of management	<ul style="list-style-type: none"> • Discuss the principles of management developed by Fayol. 	
Taylor's Scientific management- principles and techniques	<ul style="list-style-type: none"> • Explain the principles and techniques of 'Scientific Management'. • Compare the contributions of Fayol and Taylor. 	

Unit 3: Business Environment (MAY-JULY)

Business Environment- concept and importance	<ul style="list-style-type: none"> • Understand the concept of 'Business Environment'. • Describe the importance of business environment 	REMARKS
Dimensions of Business Environment- Economic, Social, Technological, Political and Legal	<ul style="list-style-type: none"> • Describe the various dimensions of 'Business Environment'. • Understand the concept of demonetization 	
Demonetization - concept and features		

Unit 4: Planning (JULY)

Concept, importance and limitation	<ul style="list-style-type: none"> • Understand the concept of planning. • Describe the importance of planning. • Understand the limitations of planning. 	REMARKS
Planning process	<ul style="list-style-type: none"> • Describe the steps in the process of planning. 	
Single use and standing plans. Objectives, Strategy, Policy, Procedure, method Rule, budget and Programme	<ul style="list-style-type: none"> • Develop an understanding of single use and standing plans • Describe objectives, policies, strategy, procedure, method, rule, budget and programme as types of plans. 	

Unit 5: Organising(JULY)

Concept and importance

- Understand the concept of organizing as a structure and as a

	<p>process.</p> <ul style="list-style-type: none"> • Explain the importance of organising.
Organising Process	<ul style="list-style-type: none"> • Describe the steps in the process of organizing
Structure of organisation- functional and divisional concept. Formal and informal organisation- concept	<ul style="list-style-type: none"> • Describe functional and divisional structures of organisation. • Explain the advantages, disadvantages and suitability of functional and divisional structure. • Understand the concept of formal and informal organisation. • Discuss the advantages, disadvantages of formal and informal organisation.
Delegation: concept, elements and importance	<ul style="list-style-type: none"> • Understand the concept of delegation. • Describe the elements of delegation. • Appreciate the importance of Delegation.
Decentralization: concept and importance	<ul style="list-style-type: none"> • Understand the concept of decentralisation. • Explain the importance of decentralisation. • Differentiate between delegation and decentralisation.

Unit 6: Staffing(JULY)

Concept and importance of staffing	<ul style="list-style-type: none"> • Understand the concept of staffing. • Explain the importance of staffing 	REMARKS
Staffing as a part of Human Resource Management concept	<ul style="list-style-type: none"> • Understand the specialized duties and activities performed by Human Resource Management 	
Staffing process	<ul style="list-style-type: none"> • Describe the steps in the process of staffing 	
Recruitment process	<ul style="list-style-type: none"> • Understand the meaning of recruitment. • Discuss the sources of recruitment. • Explain the merits and demerits of internal and external sources of recruitment. 	
Selection – process	<ul style="list-style-type: none"> • Understand the meaning of selection. • Describe the steps involved in the process of selection. 	
Training and Development - Concept and importance, Methods of training - on the	<ul style="list-style-type: none"> • Understand the concept of training and development. 	

<p>job and off the job - vestibule training, apprenticeship training and internship training</p>	<ul style="list-style-type: none"> • Appreciate the importance of training to the organisation and to the employees. • Discuss the meaning of induction training, vestibule training, apprenticeship training and internship training. • Differentiate between training and development. • Discuss on the job and off the job methods of training.
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Unit 7: Directing (AUGUST)

<p>Concept and importance</p>	<ul style="list-style-type: none"> • Describe the concept of directing. • Discuss the importance of directing
<p>Elements of Directing</p>	<ul style="list-style-type: none"> • Describe the various elements of directing
<p>Motivation - concept, Maslow's hierarchy of needs, Financial and non-financial incentives</p>	<ul style="list-style-type: none"> • Understand the concept of motivation. • Develop an understanding of Maslow's Hierarchy of needs. • Discuss the various financial and non-financial incentives.
<p>Leadership - concept, styles - authoritative, democratic and laissez faire</p>	<ul style="list-style-type: none"> • Understand the concept of leadership. • Understand the various styles of leadership.
<p>Communication - concept, formal and informal communication; barriers to effective communication, how to overcome the barriers</p>	<ul style="list-style-type: none"> • Understand the concept of communication • Understand the elements of the communication process. • Discuss the concept of formal and informal communication. • Discuss the various barriers to effective communication. • Suggest measures to overcome barriers to communication.

Unit 8: Controlling (AUGUST)

<p>Controlling - Concept and importance</p>	<ul style="list-style-type: none"> • Understand the concept of controlling. • Explain the importance of controlling.
<p>Relationship between planning and controlling</p>	<ul style="list-style-type: none"> • Describe the relationship between planning and controlling
<p>Steps in process of control</p>	<ul style="list-style-type: none"> • Discuss the steps in the process of controlling.

Part B: Business Finance and Marketing Unit 9:

Financial Management (SEPTEMBER)

Concept, role and objectives of Financial Management	<ul style="list-style-type: none">• Understand the concept of financial management.• Explain the role of financial management in an organisation.• Discuss the objectives of financial management
Financial decisions: investment, financing and dividend- Meaning and factors affecting	<ul style="list-style-type: none">• Discuss the three financial decisions and the factors affecting them.
Financial Planning - concept and importance	<ul style="list-style-type: none">• Describe the concept of financial planning and its objectives.• Explain the importance of financial planning.
Capital Structure – concept and factors affecting capital structure	<ul style="list-style-type: none">• Understand the concept of capital structure.• Describe the factors determining the choice of an appropriate capital structure of a company.
Fixed and Working Capital - Concept and factors affecting their requirements	<ul style="list-style-type: none">• Understand the concept of fixed and working capital.• Describe the factors determining the requirements of fixed and working capital.

Unit 10: Financial Markets (SEPTEMBER)

Financial Markets: Concept	<ul style="list-style-type: none">• Understand the concept of financial market.
Money Market: Concept	<ul style="list-style-type: none">• Understand the concept of money market.
Capital market and its types (primary and secondary)	<ul style="list-style-type: none">• Discuss the concept of capital market.• Explain primary and secondary markets as types of capital market.• Differentiate between capital market and money market.• Distinguish between primary and secondary markets.
Stock Exchange - Functions and trading procedure	<ul style="list-style-type: none">• Give the meaning of a stock exchange.• Explain the functions of a stock exchange.• Discuss the trading procedure in a stock exchange.

	<ul style="list-style-type: none"> • Give the meaning of depository services and demat account as used in the trading procedure of securities.
Securities and Exchange Board of India(SEBI) - objectives and functions	<ul style="list-style-type: none"> • State the objectives of SEBI. • Explain the functions of SEBI.

Unit 11: Marketing(OCTOBER)

Marketing – Concept, functions and philosophies	<ul style="list-style-type: none"> • Understand the concept of marketing. • Explain the features of marketing. • Discuss the functions of marketing. • Explain the marketing philosophies.
Marketing Mix – Concept and elements	<ul style="list-style-type: none"> • Understand the concept of marketing mix. • Describe the elements of marketing mix.
Product - branding, labelling and packaging – Concept	<ul style="list-style-type: none"> • Understand the concept of product as an element of marketing mix. • Understand the concept of branding, labelling and packaging.
Price - Concept, Factors determining price	<ul style="list-style-type: none"> • Understand the concept of price as an element of marketing mix. • Describe the factors determining price of a product.
Physical Distribution – concept, components and channels of distribution	<ul style="list-style-type: none"> • Understand the concept of physical distribution. • Explain the components of physical distribution. • Describe the various channels of distribution.
Promotion – Concept and elements; Advertising, Personal Selling, Sales Promotion and Public Relations	<ul style="list-style-type: none"> • Understand the concept of promotion as an element of marketing mix. • Describe the elements of promotion mix. • Understand the concept of advertising. • Understand the concept of sales promotion. • Discuss the concept of public relations.

Unit 12: Consumer Protection(OCTOBER)

Concept and importance of consumer protection	<ul style="list-style-type: none"> • Understand the concept of consumer protection. • Describe the importance of
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	<p>consumer protection.</p> <ul style="list-style-type: none"> • Discuss the scope of Consumer Protection Act, 2019
<p>The Consumer Protection Act, 2019: <i>Source:</i> http://egazette.nic.in/WriteReadData/2019/210422.pdf</p> <p>Meaning of consumer Rights and responsibilities of consumers Who can file a complaint? Redressal machinery Remedies available</p>	<ul style="list-style-type: none"> • Understand the concept of a consumer according to the Consumer Protection Act, 2019. • Explain the consumer rights • Understand the responsibilities of consumers • Understand who can file a complaint and against whom? • Discuss the legal redressal machinery under Consumer Protection Act, 2019. • Examine the remedies available to the consumer under Consumer Protection Act, 2019.
<p>Consumer awareness - Role of consumer organizations and Non-Governmental Organizations (NGOs)</p>	<ul style="list-style-type: none"> • Describe the role of consumer organizations and NGOs in protecting consumers' interests.

**PROJECT WORK IN BUSINESS STUDIES (ONLY ONE PROJECT):
GUIDELINES AS GIVEN IN CLASS XII CURRICULUM**

CHEMISTRY ACADEMIC PLANNER
CLASS XII
SESSION 2022-2023

S.no	Title	No. of Periods	Marks Allotted
1	Solutions	15	7
2	Electrochemistry	18	9
3	Chemical Kinetics	15	7
4	d -and f -Block Elements	18	7
5	Coordination Compounds	18	7
6	Haloalkanes and Haloarenes	15	6
7	Alcohols, Phenols and Ethers	14	6
8	Aldehydes, Ketones and Carboxylic Acids	15	8
9	Amines	14	6
10	Biomolecules	18	7
Total		160	70

S. NO.	MONTH	UNIT	
1.	MAY	Unit II - Solutions	<ul style="list-style-type: none"> • <u>Types of solutions</u> • Expression of <u>concentration of solutions</u> of solids in liquids • <u>Solubility of gases in liquids</u> • Solid solutions • Raoult's law • <u>Colligative properties</u> • <u>Relative lowering of vapour pressure</u> • <u>Elevation of boiling point</u> • <u>Depression of freezing point</u> • Osmotic pressure • Determination of molecular masses using colligative properties • <u>Abnormal molecular mass</u> • Van't Hoff factor
2.	JULY/AUGUST	Unit III - Electrochemistry	<p>The topics covered under Electrochemistry chapter are:</p> <ul style="list-style-type: none"> • <u>Redox reactions</u> • EMF of a cell • Standard electrode potential

			<ul style="list-style-type: none"> • <u>Nernst equation and its application to chemical cells</u> • Relation between Gibbs energy change and EMF of a cell • Conductance in electrolytic solutions • <u>Specific and molar conductivity</u> • Variations of conductivity with concentration • Kohlrausch's Law • <u>Electrolysis and law of electrolysis</u> (elementary idea) • <u>Dry cell-electrolytic cells and Galvanic cells</u> • Lead accumulator • <u>Fuel cells</u> • <u>Corrosion</u>
3.	OCT	Unit IV - Chemical Kinetics	<p>The topics covered under Chemical Kinetics chapter are:</p> <ul style="list-style-type: none"> • <u>Rate of a reaction (Average and instantaneous)</u> • Factors affecting rate of reaction: concentration, temperature, catalyst • Order and molecularity of a reaction • Rate law and specific rate constant • Integrated rate equations and half-life (only for zero and first order reactions) • <u>Concept of collision theory (elementary idea, no mathematical treatment)</u> • <u>Activation energy</u> • <u>Arrhenius equation</u>
4.	JULY	Unit VIII - d and f Block Elements	<p>The topics covered under d and f Block elements chapter are:</p> <ul style="list-style-type: none"> • General introduction • Electronic configuration • Occurrence and characteristics of transition metals • General trends in properties of the first-row <u>transition metals</u> – metallic character ionization enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic

			<p>properties</p> <ul style="list-style-type: none"> • Interstitial compounds • Alloy formation • Preparation and properties of $\text{K}_2\text{Cr}_2\text{O}_7$ and KMnO_4. • Lanthanoids – Electronic configuration, oxidation states, chemical reactivity and lanthanoid contraction and its consequences. • <u>Actinoids</u> - Electronic configuration, oxidation states and comparison with lanthanoids.
5.	OCT	Unit IX - Coordination Compounds	<p>The topics covered under Coordination Compounds chapter are:</p> <ul style="list-style-type: none"> • Coordination compounds - Introduction, ligands, coordination number, colour, magnetic properties and shapes • IUPAC nomenclature of mononuclear coordination compounds • Bonding • <u>Werner's theory</u> • VBT, and CFT • <u>Structure and stereoisomerism</u> • Importance of coordination compounds (in qualitative analysis, extraction of metals and biological system).
6.	APRIL	Unit X - Haloalkanes and Haloarenes	<p>The topics covered under Haloalkenes and Haloarenes chapter are:</p> <ul style="list-style-type: none"> • Haloalkanes: Nomenclature, nature of C–X bond, physical and chemical properties, optical rotation mechanism of substitution reactions. • Haloarenes: Nature of C–X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only). • Uses and environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, <u>iodoform</u>, <u>freons</u>,

			<u>DDT.</u>
7.	APRIL	Unit XI - Alcohols, Phenols and Ethers	<p>The topics covered under the Alcohols, Phenols and Ethers chapter are:</p> <ul style="list-style-type: none"> Alcohols: <u>Nomenclature</u>, methods of preparation, physical and chemical properties (of primary alcohols only), identification of <u>primary, secondary and tertiary alcohols</u>, <u>mechanism of dehydration</u>, uses with special reference to <u>methanol and ethanol</u>. Phenols: <u>Nomenclature</u>, <u>methods of preparation</u>, physical and chemical properties, acidic nature of phenol, electrophilic substitution reactions, uses of phenols. Ethers: <u>Nomenclature</u>, <u>methods of preparation</u>, physical and chemical properties, uses.
8.	AUGUST	Unit XII - Aldehydes, Ketones and Carboxylic Acids	<p>The topics covered under the Aldehydes, Ketones and Carboxylic Acids chapter are:</p> <ul style="list-style-type: none"> Aldehydes and Ketones: <u>Nomenclature</u>, nature of carbonyl group, methods of preparation, <u>physical and chemical properties</u>, mechanism of nucleophilic addition, reactivity of alpha hydrogen in <u>aldehydes</u>, uses. Carboxylic Acids: <u>Nomenclature</u>, acidic nature, methods of preparation, physical and chemical properties; uses.

9.	NOV	Unit XIII - Amines	<p>The topics covered under the Amines chapter are:</p> <ul style="list-style-type: none"> • Amines: <u>Nomenclature</u>, classification, <u>structure</u>, methods of preparation, <u>physical and chemical properties</u>, <u>uses</u>, identification of primary, secondary and tertiary amines. • Diazonium salts: <u>Preparation</u>, <u>chemical reactions</u> and importance in synthetic organic chemistry.
10.	NOV	Unit XIV - Biomolecules	<p>The topics covered under the Biomolecules chapter are:</p> <ul style="list-style-type: none"> • Carbohydrates: <u>Classification</u> (aldoses and ketoses), monosaccharides (glucose and fructose), D-L configuration oligosaccharides (<u>sucrose</u>, lactose, <u>maltose</u>), polysaccharides (starch, cellulose, glycogen); Importance of carbohydrates. • Proteins: Elementary idea of - amino acids, peptide bond, polypeptides, proteins, <u>structure of proteins</u> - primary, secondary, tertiary structure and quaternary structures (qualitative idea only), denaturation of proteins; • <u>Enzymes</u> • <u>Hormones: Elementary idea excluding structure.</u> • <u>Vitamins: Classification and functions.</u> • <u>Nucleic Acids: DNA and RNA</u>

Class 12 Chemistry Practicals

CBSE Class 12 Chemistry practicals has a weightage of 30 marks in total and the test shall be conducted for a duration of 3 hours.

Evaluation Scheme for Practicals	Marks
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Volumetric Analysis	8
Salt Analysis	8
Content-Based Experiment	6
Project Work	4
Class record and viva	4
Total	30

CBSE Class 12 Chemistry Practical Syllabus

1. Surface Chemistry

i. Preparation of one lyophilic and one lyophobic sol

Lyophilic sol - starch, egg albumin and gum

ii. Lyophobic sol - aluminium hydroxide, ferric hydroxide, arsenous sulphide.

Dialysis of sol-prepared in (a) above.

iii. Study of the role of emulsifying agents in stabilizing the **emulsion** of different oils.

2. Chemical Kinetics

i. Effect of concentration and temperature on the rate of reaction between **Sodium Thiosulphate** and **Hydrochloric acid**.

ii. Study of reaction rates of any one of the following:

- Reaction of Iodide ion with Hydrogen Peroxide at room temperature using different concentrations of Iodide ions.
- Reaction between Potassium Iodate, (KIO₃) and Sodium Sulphite: (Na₂SO₃) using starch solution as an indicator (clock reaction).

3. Thermochemistry

Any one of the following experiments

- Enthalpy of dissolution of Copper Sulphate or Potassium Nitrate.
- Enthalpy of neutralization of strong acid (HCl) and strong base (NaOH).
- Determination of **enthalpy** change during interaction (Hydrogen bond formation) between Acetone and Chloroform.

4. Electrochemistry

Variation of **cell potential** in Zn/Zn²⁺ || Cu²⁺/Cu with change in concentration of electrolytes (CuSO₄ or ZnSO₄) at room temperature.

5. Chromatography

- Separation of pigments from extracts of leaves and flowers by **paper chromatography** and determination of R_f values.
- Separation of constituents present in an inorganic mixture containing two cations only (constituents having large difference in R_f values to be provided).

6. Preparation of Inorganic Compounds

- Preparation of double salt of Ferrous Ammonium Sulphate or **Potash Alum**.
- Preparation of Potassium Ferric Oxalate.**

7. Preparation of Organic Compounds

Preparation of any one of the following compounds

- Acetanilide
- Di-benzalAcetone
- p-Nitroacetanilide

- iv. Aniline yellow
- v. 2 - Naphthol Anilinedye.

8. Tests for the functional groups present in organic compounds:

Unsaturation, alcoholic, phenolic, aldehydic, ketonic, carboxylic and amino (Primary) groups.

9. Characteristic tests of carbohydrates, fats and proteins in pure samples and their detection in given foodstuffs.

10. Determination of concentration/ molarity of KMnO_4 solution by titrating it against a standard solution of:

- i. Oxalic acid
- ii. Ferrous Ammonium Sulphate

(Students will be required to prepare standard solutions by weighing themselves).

11. Qualitative analysis

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

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

Anions: $(\text{CO}_3)^{2-}$, S^{2-} , $(\text{SO}_3)^{2-}$, $(\text{NO}_2)^-$, $(\text{SO}_4)^{2-}$, Cl^- , Br^- , I^- , $(\text{PO}_4)^{3-}$, $(\text{C}_2\text{O}_4)^{2-}$, CH_3COO^- , NO_3^-

CBSE Class 12 Chemistry Project Works

CBSE Class 12 Chemistry Project Works

- Study of the presence of oxalate ions in guava fruit at different stages of ripening.
- Study the quantity of casein present in different samples of milk.
- Preparation of soybean milk and its comparison with natural milk with respect to curd formation, the effect of temperature, etc.
- Study of the effect of Potassium Bisulphate as a food preservative under various conditions (temperature, concentration, time, etc.)
- Study of digestion of starch by **salivary amylase** and effect of pH and temperature on it.
- Comparative study of the rate of fermentation of the following materials: wheat flour, gram flour, potato juice, carrot juice, etc.
- Extraction of essential oils present in Saunf (aniseed), Ajwain (carum), Illaichi (cardamom).
- Study of common food adulterants in fat, oil, butter, sugar, turmeric powder, chilli powder and pepper.

Question Paper Design for CBSE Class 12 Chemistry

Question Paper Design for CBSE Class 12 Chemistry

The question paper shall be designed based on the criteria as mentioned in the table below.

S.no	Domains	Marks	Percent
1	Remembering and Understanding	28	40
2	Applying	21	30
3	Analyzing, Evaluating and Creating	21	30

Computer Science
CLASS-XII
Code No. 083
2022-23

1. Prerequisites

Computer Science- Class XI

2. Learning Outcomes

Student should be able to

- a) apply the concept of function.
- b) explain and use the concept of file handling.
- c) use basic data structure: Stacks
- d) explain basics of computer networks.
- e) use Database concepts, SQL along with connectivity between Python and SQL.

3. Distribution of Marks:

Unit No.	Unit Name	Marks	Periods	
			Theory	Practical
I	Computational Thinking and Programming - 2	40	70	50
II	Computer Networks	10	15	---
III	Database Management	20	25	20
	Total	70	110	70

4. Unit wise Syllabus

Unit I: Computational Thinking and Programming – 2

- Revision of Python topics covered in Class XI.
- 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)
- Introduction to files, types of files (Text file, Binary file, CSV file), relative and absolute paths
- Text file: opening a text file, text file open modes (r, r+, w, w+, a, a+), closing a text file, opening a file using with clause, writing/appending data to a text file using write() and writelines(), reading from a text file using read(), readline() and readlines(), seek and tell methods, manipulation of data in a text file

- Binary file: basic operations on a binary file: open using file open modes (rb, rb+, wb, wb+, ab, ab+), close a binary file, import pickle module, dump() and load() method, read, write/create, search, append and update operations in a binary file
- CSV file: import csv module, open / close csv file, write into a csv file using csv.writer() and read from a csv file using csv.reader()
- Data Structure: Stack, operations on stack (push & pop), implementation of stack using list.

Unit II: Computer Networks

- Evolution of networking: introduction to computer networks, evolution of networking (ARPANET, NSFNET, INTERNET)
- Data communication terminologies: concept of communication, components of data communication (sender, receiver, message, communication media, protocols), measuring capacity of communication media (bandwidth, data transfer rate), IP address, switching techniques (Circuit switching, Packet switching)
- Transmission media: Wired communication media (Twisted pair cable, Co-axial cable, Fiber-optic cable), Wireless media (Radio waves, Micro waves, Infrared waves)
- Network devices (Modem, Ethernet card, RJ45, Repeater, Hub, Switch, Router, Gateway, WIFI card)
- Network topologies and Network types: types of networks (PAN, LAN, MAN, WAN), networking topologies (Bus, Star, Tree)
- Network protocol: HTTP, FTP, PPP, SMTP, TCP/IP, POP3, HTTPS, TELNET, VoIP
- Introduction to web services: WWW, Hyper Text Markup Language (HTML), Extensible Markup Language (XML), domain names, URL, website, web browser, web servers, web hosting

Unit III: Database Management

- 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)
- Structured Query Language: introduction, Data Definition Language and Data Manipulation Language, data type (char(n), varchar(n), int, float, date), constraints (not null, unique, primary key), create database, use database, show databases, drop database, show tables, create table, describe table, alter table (add and remove an attribute, add and remove primary key), drop table, insert, delete, select, operators (mathematical, relational and logical), aliasing, distinct clause, where clause, in, between, order by, meaning of null, is null, is not null, like, update command, delete command, aggregate functions (max, min, avg, sum, count), group by, having clause, joins: cartesian product on two tables, equi-join and natural join

- Interface of python with an SQL database: connecting SQL with Python, performing insert, update, delete queries using cursor, display data by using fetchone(), fetchall(), rowcount, creating database connectivity applications

5. Practical

S.No	Unit Name	Marks (Total=30)
1	Lab Test:	8
	1. Python program (60% logic + 20% documentation + 20% code quality)	
	2. A stub program with Python SQL connectivity must be provided with blanks (4 blanks) to be filled by the student with the desired SQL query.	4
2	Report file: <ul style="list-style-type: none"> • Minimum 15 Python programs. • SQL Queries – Minimum 5 sets using one table / two tables. • Minimum 4 programs based on Python - SQL connectivity 	7
3	Project (using concepts learnt in Classes 11 and 12)	8
4	Viva voce	3

6. Suggested Practical List:

Python Programming

- Read a text file line by line and display each word separated by a #.
- Read a text file and display the number of vowels/consonants/uppercase/lowercase characters in the file.
- Remove all the lines that contain the character 'a' in a file and write it to another file.
- Create a binary file with name and roll number. Search for a given roll number and display the name, if not found display appropriate message.
- Create a binary file with roll number, name and marks. Input a roll number and update the marks.
- Write a random number generator that generates random numbers between 1 and 6 (simulates a dice).
- Write a Python program to implement a stack using list.
- Create a CSV file by entering user-id and password, read and search the password for given user-id.

Database Management

- Create a student table and insert data. Implement the following SQL commands on the student table:
 - ALTER table to add new attributes / modify data type / drop attribute
 - UPDATE table to modify data
 - ORDER BY to display data in ascending / descending order
 - DELETE to remove tuple(s)
 - GROUP BY and find the min, max, sum, count and average
- Similar exercise may be framed for other cases.
- Integrate SQL with Python by importing suitable module.

7. Suggested Reading Material

- NCERT Textbook for COMPUTER SCIENCE (Class XII)
- Support Materials on the CBSE website.

8. Project

The aim of the class project is to create something that is tangible and useful using Python file handling/ Python-SQL connectivity. This should be done in groups of two to three students and should be started by students at least 6 months before the submission deadline. The aim here is to find a real world problem that is worthwhile to solve.

Students are encouraged to visit local businesses and ask them about the problems that they are facing. For example, if a business is finding it hard to create invoices for filing GST claims, then students can do a project that takes the raw data (list of transactions), groups the transactions by category, accounts for the GST tax rates, and creates invoices in the appropriate format. Students can be extremely creative here. They can use a wide variety of Python libraries to create user friendly applications such as games, software for their school, software for their disabled fellow students, and mobile applications, of course to do some of these projects, some additional learning is required; this should be encouraged. Students should know how to teach themselves.

The students should be sensitised to avoid plagiarism and violations of copyright issues while working on projects. Teachers should take necessary measures for this.

CURRICULUM PLANNER FOR CLASS XII ECONOMICS (2022-23)

CODE 030

Rationale

Economics is one of the social sciences, which has great influence on every human being. As economic life and the economy go through changes, the need to ground education in children's own experience becomes essential. While doing so, it is imperative to provide them opportunities to acquire analytical skills to observe and understand the economic realities.

At senior secondary stage, the learners are in a position to understand abstract ideas, exercise the power of thinking and to develop their own perception. It is at this stage, the learners are exposed to the rigor of the discipline of economics in a systematic way.

The economics courses are introduced in such a way that in the initial stage, the learners are introduced to the economic realities that the nation is facing today along with some basic statistical tools to understand these broader economic realities. In the later stage, the learners are introduced to economics as a theory of abstraction.

The economics courses also contain many projects and activities. These will provide opportunities for the learners to explore various economic issues both from their day-to-day life and also from issues, which are broader and invisible in nature. The academic skills that they learn in these courses would help to develop the projects and activities. The syllabus is also expected to provide opportunities to use information and communication technologies to facilitate their learning process.

THEORY : 80 MARKS

PROJECT: 20 MARKS

S.NO	TOPICS	MARKS	PERIODS	
PART-A	<i>INTRODUCTORY MACROECONOMICS</i>			
1	National Income and Related Aggregates	10	30	
2	Money and Banking	6	15	
3	Determination of Income & Employment	12	30	
4	Government Budget & the Economy	6	17	
5	Balance of Payments	6	18	
		40		
PART- B	<i>INDIAN ECONOMIC DEVELOPMENT</i>			
	Development Experience (1947-90)			

	and Economic Reforms since 1991	12	28	
	Current Challenges facing Indian Economy	20	50	
	Development Experience of India- A comparison with Neighbours	8	12	
		40	200	
PART- C	Project work	20	20	
MONTH	UNITS		REMARKS	
APRIL Learning Objectives	Money and Banking <ul style="list-style-type: none"> To make the students aware about the concept of money and its supply in the economy. They will also understand the credit control measures used by central bank Topics <ul style="list-style-type: none"> Money: meaning Functions of money Money Supply: M1 (Currency held by public and net demand deposits held by commercial banks) Commercial Banks: Its meaning Process of Credit Creation by banking system Central Banking and its functions Credit control measures by central bank 			
Skills enhanced	Problem solving skills, decision making skills			
APRIL Learning objectives	Indian economy on the eve of Independence <ul style="list-style-type: none"> Factors that led to under-development and stagnation of Indian Economy. Learners will also able to compare demographic condition of our country on the eve of independence with the present situation. Topics <ul style="list-style-type: none"> Low level of economic development Agriculture sector Industrial sector Foreign trade Demographic condition Occupational structure Infrastructure 			

Skills enhanced	Reading and writing skills , logical thinking	
APRIL Learning Objectives	<p>Indian Economy 1950-90</p> <ul style="list-style-type: none"> • To help the students to understand the concept of planning commission and introduction of NITI Aayog • To make the students aware about the green revolution and agriculture • To introduce the industrial policy resolution 1956 <p>Topics</p> <ul style="list-style-type: none"> • Economic planning • Goals of five year plans • Agriculture • Industrial development • Foreign trade • Critical appraisal of industrial development (1950-90) 	
Skills enhanced	Problem solving , Analytical and Cognitive skills	
MAY Learning Objectives	<p>: Liberalisation, Privatisation and Globalisation: An Appraisal</p> <ul style="list-style-type: none"> • To understand the background of the reform policies introduced in India in 1991 • To comprehend the process of globalisation and its implications for India <p>Topics</p> <ul style="list-style-type: none"> • Background • Liberalisation • Privatisation • Globalisation • Indian Economy during Reforms: An assessment 	
Skills enhanced	Creativity and innovation , decision making	
MAY/ JUNE Learning Objectives	<p>Government Budget and the Economy</p> <ul style="list-style-type: none"> • To make the students aware about the concepts of government budget and enhance their ability to analyse it with respect to India. • To make the students aware about the various objectives of government budget. <p>Topics</p>	

	<ul style="list-style-type: none"> • Government budget :Its meaning and components • Objectives of government budget • Classification of Revenue receipts • Classification of capital receipts • Types of Deficits: Revenue, Fiscal and primary • Fiscal policy and its role 	
Skills enhanced	Analytical skills, Synthesis of data	
JULY Learning Objectives	<p>Unit 6: National Income and related aggregates</p> <ul style="list-style-type: none"> • To make concept of economic territory among the students • To introduce different aggregates of national income • Students will be able to calculate the national income by three methods <p>Topics</p> <ul style="list-style-type: none"> • Basic Concepts • National income at current and constant prices • Economy and three basic economic activities • Domestic Territory • Normal Resident • Stock and Flow • Economic growth and Per Capita income • Final and intermediate goods • Consumer and producer goods • Production for self-consumption and for Exchange • Consumption of fixed capital • Factor Cost v/s Market price • Net Factor income from abroad • Gross investment and Net investment • Factor payment v/s Transfer payment • National income Accounting and its uses • Value of output and value added • Circular flow of Income (Three Phases) • Product Method: Steps and precautions • Problem of Double counting • Income Method :Steps involved and precautions • Sources of domestic income • Expenditure Method: Steps involved and precautions • Components of GDP at market price 	

	<ul style="list-style-type: none"> • Real and nominal GNP: its significance • GDP Deflator • GDP and Welfare 	
Skills enhanced	Analytical thinking , logical thinking , Social skills	
AUGUST	Balance of Payments	
Learning objectives	<ul style="list-style-type: none"> • To help students to understand the causes of appreciation and depreciation of foreign currency. • To understand various components of Balance of Payments account. <p>Topics</p> <ul style="list-style-type: none"> • Foreign Exchange Rate: Meaning and determination through demand and supply in market • Appreciation of currency • Depreciation of currency • Meaning of Fixed Exchange Rate System and Flexible exchange rate system ;their differences , merits and demerits • Balance of payments Account : meaning and components • Balance of payment : deficit meaning 	
Skills enhanced	Presentation skills , Critical thinking skills	
AUGUST	Human capital formation in India	
Learning Objectives	<ul style="list-style-type: none"> • To understand the concepts of Human Resource, Human Capital formation and Human Development. • To understand the links between investment in human capital , economic growth and human development <p>Topics</p> <ul style="list-style-type: none"> • Human Capital: meaning and importance • Sources of Human Capital • Human capital and Human Development • State of Human Capital formation in India • Education sector in India and its future Prospects 	
Skills	Effective oral and written communication, enhance	

enhanced	motivation.	
AUGUST	Chapter 6: Rural Development	
Learning Objectives	<ul style="list-style-type: none"> • To understand the critical role of credit and marketing systems in rural development • To learn about the importance of diversification of Productive activities to sustain livelihoods • To understand the significance of organic farming. <p>Topics</p> <ul style="list-style-type: none"> • Meaning of Rural Development • Credit and Marketing in Rural Areas • Agricultural Marketing System • Diversification into Productive activities • Sustainable Development and Organic Farming 	
Skills enhanced	Social skills and life skills	
SETEMBER	FIRST TERM EXAMS	
OCTOBER	Determination of Income and Employment	
Learning Objectives	<ul style="list-style-type: none"> • To develop the understanding of determination of equilibrium level of national income • To develop an understanding of concept and working of investment multiplier. • To learn about the measures to correct excess and deficient demand. <p>Topics</p> <ul style="list-style-type: none"> • Aggregate Demand and its Components • Aggregate Supply: its meaning • Propensity to consume & save (APS, APC, MPS, MPC) • Short Run fixed price analysis in product market , equilibrium output • Meaning of Involuntary Unemployment and full employment • Determination of Income and Employment: two sector model • Concept and working of investment multiplier • Meaning of Excess and Deficient demand • Measures to correct Excess and Deficient Demand 	
Skills enhanced	Logical thinking , comparative and analytical skills	
OCTOBER	Environment and Sustainable development	
	<ul style="list-style-type: none"> • Understand the nature of environmental 	

Learning Objectives	<p>challenges</p> <ul style="list-style-type: none"> • To know the causes and effects of environmental degradation • Relate environmental issues to sustainable development <p>Topics</p> <ul style="list-style-type: none"> • Environmental : Definition and functions • State of India’s Development • Sustainable Development • Strategies for sustainable Development 	
Skills enhanced	<p>Critical and creative thinking , curiosity and imagination</p>	
<p>NOVEMBER</p> <p>Learning Objectives</p>	<p>Employment : Growth and Informalisation and other issues</p> <ul style="list-style-type: none"> • To Know the nature and extent of Unemployment • To assess the initiatives taken by the government in generating employment opportunities in various sectors and regions <p>Topics</p> <ul style="list-style-type: none"> • Workers and Employment • Participation of people in Employment • Self Employed and hired Workers • Employment in Firms, Factories and Offices • Growth and changing structure of Employment • Informalisation of Indian Workforce • Unemployment • Government and Employment Generation 	
Skills enhanced	<p>Initiative and entrepreneurialism skills</p>	
<p>NOVEMBER</p> <p>Learning Objectives</p>	<p>Comparative Development Experiences of India and its Neighbours</p> <ul style="list-style-type: none"> • To know the development strategy if India, China and Pakistan • To understand the policies pursued by our neighbours <p>Topics</p> <ul style="list-style-type: none"> • Development Path : An Overview • Demographic Indicators • Gross Domestic Product and sectors 	

	<ul style="list-style-type: none"> • Indicators of Human Development • Development Strategies –An appraisal 	
Skills enhanced	Analytical skills, Synthesis of data	
DECEMBER	I PREBOARD EXAMS	
JANUARY	REVISION , II PREBOARD EXAMS	
FEBRUARY	FINAL PRACTICALS, REVISION	

ACADEMIC PLAN 2022-23
CLASS XII
ENGLISH CORE (CODE NO. 301)

NEW SYLLABUS:

1. **Flamingo:** English Reader published by National Council of Education Research and Training, New Delhi

(Prose)

- The Last Lesson
- Lost Spring
- Deep Water
- The Rattrap
- Indigo
- Poets and Pancakes
- The Interview
- Going Places

(Poetry)

- My Mother at Sixty-Six
- Keeping Quiet
- A Thing of Beauty
- A Roadside Stand
- Aunt Jennifer's Tigers

2. **Vistas:** Supplementary Reader published by National Council of Education Research and Training, New Delhi

- The Third Level
- The Tiger King
- Journey to the end of the Earth
- The Enemy
- On the Face of It
- Memories of Childhood
 - The Cutting of My Long Hair
 - We Too are Human Beings

INTERNAL ASSESSMENT

Assessment of Listening Skills - 05 marks.
Assessment of Speaking Skills – 05 Marks
Project Work - 10 Marks

Question Paper Design 2022-23

Code No. 301

English CORE XII

Section	Competencies	Total marks
Reading Skills	Conceptual understanding, decoding, Analyzing, inferring, interpreting, appreciating, literary, conventions and vocabulary, summarizing and using appropriate format/s.	20
Creative Writing Skills	Conceptual Understanding, application of rules, Analysis, Reasoning, appropriacy of style and tone, using appropriate format and fluency, inference, analysis, evaluation and creativity.	20
Literature Text Books and Supplementary Reading Texts	Recalling, reasoning, critical thinking, appreciating literary convention, inference, analysis, creativity with fluency.	40
	TOTAL	80
	Assessment of Listening and Speaking Skills	10
	Internal Assessment <ul style="list-style-type: none">• Listening• Speaking• Project Work	5 5 10
	GRAND TOTAL	100

SYLLABUS PLANNED:

UT 1:

Reading -Comprehension Passage

Writing- Notice Writing

Literature-

The Last Lesson

My Mother at Sixty six

UT 2:

Reading- Comprehension Passage

Writing- Article Writing

Literature-

Lost Spring

Deep Water

Keeping Quiet

The Tiger King

TERM 1 SYLLABUS

Reading Section-

Unseen passage

Writing section-

Notice writing

Article writing

Literature-

FLAMINGO:

- The Last Lesson
- Lost Spring
- Deep Water
- The Rattrap
- Indigo
- My Mother At Sixty Six
- Keeping Quiet
- A Thing of Beauty
- Poets and Pancakes
- The Interview
- Going Places

VISTAS:

- The Third Level
- The Tiger King
- Journey to the end of the Earth

- Enemy

PREBOARD AND FINAL TERM SYLLABUS-

Reading Section-
Unseen passages

Writing section-

- Notice writing
- Invitations and Replies
- Letter Writing
- Article writing
- Report Writing

Literature-

FLAMINGO:

- The Last Lesson
- Lost Spring
- Deep Water
- The Rattrap
- Indigo
- Poets and Pancakes
- The Interview
- Going Places
- My Mother At Sixty Six
- Keeping Quiet
- A Thing of Beauty
- A Road side Stand
- Aunt Jennifer's Tigers

VISTAS:

- The Third Level
- The Tiger King
- Journey to the end of the Earth
- Enemy
- On the Face of it
- Memories of Childhood

MONTHLY PLAN-

April

22 periods

Introduction to the subject READING	1pd
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Unseen passage Flamingo	1 pd
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<p>My Mother at Sixty Six <u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ <i>to prepare the students for poetic forms and adept Pre-reading activity would be the first step wherein the students would delve deep into the title of the poem and make an interpretation of the title as it indicates the subject and theme.</i> ❖ <i>to read and recognize the purpose of economy of words and the hidden pathos and nuances of the lines, correlating them with author's background and personal experiences- to build up didactics, empathy and sympathy with the loss of the poet.</i> <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ <i>Interpersonal skills</i> ➤ <i>Comprehension skills</i> ➤ <i>Conceptualizing skills</i> ➤ <i>Creative skills</i> ➤ <i>Genuine Empathy</i> <ul style="list-style-type: none"> <input type="checkbox"/> Inevitability of ageing <input type="checkbox"/> The childhood fear <input type="checkbox"/> Literary devices: personification, metaphor, Repetition <p>BIBLIOGRAPHY: https://www.youtube.com/watch?v=geOGOgKLFwvI http://aminahussain.blogspot.in/2009/04/my-mother-at-sixty-six-question-bank.html</p>	3 pds
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Flamingo

<p>The Last Lesson <u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ <i>to enable them to comprehend the cultural background of the story.</i> ❖ <i>to enable them to realize the importance of a teacher in the life of a student.</i> <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ <i>Interpersonal skills</i> ➤ <i>Comprehension skills</i> ➤ <i>Conceptualizing skills</i> ➤ <i>Genuine Empathy</i> 	3 pds
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<input type="checkbox"/> Serenity in the classroom <input type="checkbox"/> The shock and the lament <input type="checkbox"/> M. Hamel's self reproach and anxiety and patriotism BIBLIOGRAPHY: http://www.dronstudy.com/book/the-last-lesson/	
Notice Writing	4 pds

Vistas

<p>The Third Level <u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ <i>To develop the understanding of time travel and intersection of space and time involved in it.</i> ❖ <i>To develop deeper understanding of the time before First World War and life at that time.</i> <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ <i>Critical thinking</i> ➤ <i>Perceptual skills</i> ➤ <i>Decoding and Encoding skills</i> ➤ <i>coherence detection</i> <p><input type="checkbox"/> psychological journey of the narrator <input type="checkbox"/> His apprehensions about the third level</p>	5 pds
<p>The Tiger king <u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ <i>to raise an awareness to conserve Wild Life.</i> ❖ <i>to enable them to understand the importance to sustaining ecological balance.</i> <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ <i>Comprehension skills</i> ➤ <i>Conceptualizing skills</i> ➤ <i>Creative skills</i> ➤ <i>coherence detection</i> <p><input type="checkbox"/> The Political Satire <input type="checkbox"/> Dramatic irony and humour <input type="checkbox"/> Stubbornness and obduracy of those in power</p> <p>BIBLIOGRAPHY: http://www.dronstudy.com/book/the-tiger-king-vistas-english-literature-class-xii-important-questions/</p>	5 pds

May & June
WRITING

22 periods

Speech and Debate	2 pds
Article	4 pds
Report Writing	4 pds

Flamingo

<p>Lost Spring</p> <p><u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ to sensitize the students to the problem of child labour. ❖ to facilitate making connections between similar situations in different storylines/life experiences. <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ Comprehension skills ➤ Conceptualizing skills ➤ Perceptual skills ➤ Genuine Empathy <ul style="list-style-type: none"> <input type="checkbox"/> Plight of children scrounging the dumps <input type="checkbox"/> Garbage wrapped in wonder for children, Means of survival for adults <input type="checkbox"/> Irony in Saheb's name <input type="checkbox"/> Saheb no longer master of his own wishes <input type="checkbox"/> Peril of bangle making industry <input type="checkbox"/> Labourers in Firozabad caught in the vicious circle <input type="checkbox"/> The silver lining through Mukesh <p>BIBLIOGRAPHY: https://liveenglish12.wordpress.com/flamingo/the-lost-spring-by-anees-jung/ http://www.dronstudy.com/book-category/02-lost-spring/ https://liveenglish12.wordpress.com/flamingo/the-lost-spring-by-anees-jung/</p>	5 pds
<p>Deep Water</p> <p><u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ to prepare them for Crisis Management. ❖ to inculcate the values of hard work and determination. <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ Comprehension skills ➤ Critical thinking ➤ Decoding and Encoding skills ➤ Genuine Empathy ➤ 'Self'-Creation <ul style="list-style-type: none"> <input type="checkbox"/> The fear and misadventure <input type="checkbox"/> Determination to overcome the fear <input type="checkbox"/> Experience of peace and serenity when close to death <input type="checkbox"/> The larger picture Spiritual progress <p>BIBLIOGRAPHY:</p>	4 pds

<p>http://www.dbquepem.com/academics/xii-science/english-2014/flamingo/deep-water/q-a-a-1.html</p> <p>http://www.dronstudy.com/book/deep-water-flamingo-english-literature-class-xii-important-questions/</p>	
<p>Journey to the end of Earth <u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ To make them understand the narrator’s journey to Antarctica. ❖ To develop deeper understanding of Antarctica in the students. <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ Comprehension skills ➤ Conceptualizing skills ➤ Critical thinking ➤ Decoding and Encoding skills <ul style="list-style-type: none"> <input type="checkbox"/> Geological phenomena <input type="checkbox"/> Study of Antarctica <input type="checkbox"/> Steps to conserve Earth 	3 pds

JULY

25 PERIODS

Flamingo

<p>The Rat Trap <u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ to guide the students to relate the characteristics of literature to larger cultural and human values. ❖ to facilitate making connections between similar situations in different storylines/life experiences. <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ Interpersonal skills ➤ Conceptualizing skills ➤ Genuine Empathy <ul style="list-style-type: none"> <input type="checkbox"/> The peddler’s philosophy <input type="checkbox"/> His Entrapment <input type="checkbox"/> Opportunity to redeem himself <input type="checkbox"/> The dignity raised to captain <input type="checkbox"/> The transmutation <p>BIBLIOGRAPHY: http://www.academicseasy.com/2013/10/class-xii-flamingo-ratrap.html http://www.dronstudy.com/book/the-ratrap-flamingo-english-literature-class-xii-important-questions/</p>	4 pds
<p>Indigo <u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ To develop the feeling of patriotism in the students. 	3 pds

<p>❖ <i>To make them understand the significant role played by Gandhiji in India's struggle for freedom.</i></p> <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ <i>Critical thinking</i> ➤ <i>Decoding and Encoding skills</i> ➤ <i>Genuine Empathy</i> <ul style="list-style-type: none"> <input type="checkbox"/> The Indigo contract <input type="checkbox"/> Britishers' attitude towards farmers <input type="checkbox"/> philosophy of fear <input type="checkbox"/> Gandhi a social reformer 	
<p>Keeping Quiet</p> <p><u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ <i>to read and recognize the purpose of economy of words and the hidden feelings and nuances of the lines, correlating them with author's background and personal experiences.</i> ❖ <i>to build up didactics, empathy and sympathy with the speaker -to enable them to realize the need of the hour and establish peace.</i> <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ <i>Conceptualizing skills</i> ➤ <i>Perceptual skills</i> ➤ <i>'Self'-Creation</i> <ul style="list-style-type: none"> <input type="checkbox"/> Selfintrospection <input type="checkbox"/> Moment of stillness and attitude <input type="checkbox"/> Literary device:hyperbole 	2 pds
<p>Letter writing - Letters based on verbal/visual input. Letter types include application for a job with bio data or resume. Letters to the editor (giving suggestions or opinion on issues of public interest)</p>	5 pds
<p>Poets and Pancakes</p> <p><u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ <i>To make them understand the transition of make up in the world of glamour.</i> ❖ <i>To enhance their understanding of hierarchy in different departments.</i> <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ <i>Interpersonal skills</i> ➤ <i>Conceptualizing skills</i> ➤ <i>Creative skills</i> <ul style="list-style-type: none"> <input type="checkbox"/> working of Gemini studios <input type="checkbox"/> film industry in India <input type="checkbox"/> Author's journey into communism and the disillusioned return 	4 pds
<p>The Interview</p> <p><u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ <i>To apprise the students about various kinds of Interviews.</i> ❖ <i>To make them understand the techniques of interviewing.</i> 	3 pds

<p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ <i>Interpersonal skills</i> ➤ <i>Communication skills</i> ➤ <i>Critical thinking</i> <p><input type="checkbox"/> Interview- its functions, methods, merits</p> <p><input type="checkbox"/> views of various artists on Interview</p>	
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Vistas

<p>The Enemy</p> <p><u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ <i>to make the students realize the essential worth of human life and universal brotherhood.</i> ❖ <i>to help them think beyond countries and continents and races and wars</i> <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ <i>Interpersonal skills</i> ➤ <i>Critical thinking</i> ➤ <i>coherence detection</i> <p><input type="checkbox"/> Professional duty v/s patriotism</p> <p><input type="checkbox"/> Hana's sympathetic attitude towards the 'enemy'</p> <p><input type="checkbox"/> Open rebelliousness by the domestic staff</p> <p><input type="checkbox"/> The escape</p> <p><input type="checkbox"/> General Takima's attitude</p> <p>BIBLIOGRAPHY:</p> <p>http://dbquepem.com/academics/xii-science/english/questions-a-answers/question-a-answers-1/prose/224-q-a-a--the-enemy.html</p> <p>http://www.dronstudy.com/book/the-enemy-vistas-english-literature-class-xii-important-questions/</p>	4 pds
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AUGUST

21 periods

Flamingo

<p>A Thing of Beauty</p> <p><u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ <i>To enhance the aesthetic sense of the students.</i> ❖ <i>To make them understand the impact of beautiful things provided by nature.</i> <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ <i>Comprehension skills</i> ➤ <i>Conceptualizing skills</i> ➤ <i>Decoding and Encoding skills</i> <p><input type="checkbox"/> Beauty is eternal</p>	4 pds
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<input type="checkbox"/> The materialistic attitude <input type="checkbox"/> Grandeur of the dooms/ mighty dead <input type="checkbox"/> Things of beauty <input type="checkbox"/> Heaven's blessings <input type="checkbox"/> Literary devices- transferred epithet, alliteration, oxymoron	
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Vistas

<p>Going Places <u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ <i>to make them accept the reality of life and shed away stubbornness.</i> ❖ <i>to be able to accept responsibility and devote their attention in their expected duties.</i> <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ <i>Interpersonal skills</i> ➤ <i>Conceptualizing skills</i> ➤ <i>Perceptual skills</i> <ul style="list-style-type: none"> <input type="checkbox"/> Adolescent fantasies/hero worshipping <input type="checkbox"/> Contrast between Sophie and Jansie <input type="checkbox"/> Sophie's dreams <input type="checkbox"/> Her date with Casey <input type="checkbox"/> Her disappointment/ disillusionment 	5 pds
<p>Article and Report Writing, descriptive and analytical in nature, based on verbal inputs</p>	4 pds
<p>A Roadside Stand <u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ <i>To develop the feeling of empathy and compassion in the students.</i> ❖ <i>To make them understand the social gap and plight of poor.</i> <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ <i>Genuine Empathy</i> ➤ <i>'Self'-Creation</i> ➤ <i>coherence detection</i> <ul style="list-style-type: none"> <input type="checkbox"/> Struggle of poor countryside people <input type="checkbox"/> Support of money from cities <input type="checkbox"/> Exploitation of these people by politicians <input type="checkbox"/> Appeal of the poet for their upliftment 	4 pds
<p>Aunt Jennifer's Tigers <u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ <i>to infer the deeper meaning/message</i> ❖ <i>to prepare the students for poetic forms and adept them with the figures of speech, rhyme and rhythm</i> <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ <i>Critical thinking</i> 	4 pds

<p>➤ <u>Perceptual skills</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Woman's position in a patriarchal society <input type="checkbox"/> Dormant ambitions and capabilities <input type="checkbox"/> Marriage a physical and emotional burden <input type="checkbox"/> Loss of identity <input type="checkbox"/> Symbols used <input type="checkbox"/> Universalization of the theme 	
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SEPTEMBER

REVISION

9 periods

I TERM EXAMINATION

OCTOBER

WRITING

12 periods

Invitations and Replies	6 pds
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Vistas

<p>On the Face of it <u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ -to enable the learners to view others by removing the glasses of prejudice, hatred, and dislike and to adapt reality of life bravely ❖ to build inner strength and look at the brighter sides of life. <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ <i>Perceptual skills</i> ➤ <i>Decoding and Encoding skills</i> <ul style="list-style-type: none"> <input type="checkbox"/> The physical deformity <input type="checkbox"/> The psychological scars <input type="checkbox"/> Mr. Lamb's lessons to Derry <input type="checkbox"/> Derry's transformation <input type="checkbox"/> Tragic end/lesson learnt 	3 pds
<p>Memories of Childhood <u>Learning Objectives:</u></p> <ul style="list-style-type: none"> ❖ to guide them to have a broader outlook. ❖ to understand the problems related to casteism and racial discrimination. <p><u>Skills Enhanced:</u></p> <ul style="list-style-type: none"> ➤ <i>Courage</i> ➤ <i>resilience</i> <ul style="list-style-type: none"> <input type="checkbox"/> The native Americans/ Red Indians <input type="checkbox"/> Eating by formula 	3 pds

<input type="checkbox"/> The embarrassment/ cutting of the long hair <input type="checkbox"/> Deeprooted cultural beliefs <input type="checkbox"/> The curse of untouchability <input type="checkbox"/> Bama's entertainment/mirth giving way to anger <input type="checkbox"/> Brother's guidance and her resolve	
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NOVEMBER

22 periods

Discussion of Sample Papers	4 pds
Reading	2 pds
Writing	4 pds
Flamingo – Poetry	4 pds
Prose	4 pds
Vistas- Prose	4 pds

DECEMBER PRE BOARD EXAMINATION

QUESTION PAPER PATTERN

ENGLISH CORE CODE NO. 301

CLASS – XII (2022-23)

Section A Reading Skills

Reading Comprehension through Unseen Passage

20 Marks

- I. One unseen passage to assess comprehension, interpretation and inference. Vocabulary and inference of meaning will also be assessed. The passage may be factual, descriptive or literary. **(10x1=10 Marks)**
 - II. One unseen **case-based** passage with verbal/visual inputs like statistical data, charts etc. **(10x1=10 Marks)**
- Note: The combined word limit for both the passages will be 700-750 words. Multiple Choice Questions / Objective Type Questions will be asked.

Section B

III .Creative Writing Skills

20 Marks

The section has Short and Long writing tasks.

- i. Notice up to 50 words. One out of the two given questions to be answered.
(5 Marks: Format : 1 / Organisation of Ideas: 1/Content : 2 / Accuracy of Spelling and Grammar : 1).
- ii. Formal/Informal Invitation and Reply up to 50 words. One out of the two given questions to be answered.
(5 Marks: Format : 1 / Organisation of Ideas: 1/Content : 2 / Accuracy of Spelling and Grammar :1).

- iii. Letters based on verbal/visual input, to be answered in approximately 120-150 words. Lettertypes include application for a job with bio data or resume. Letters to the editor (giving suggestions or opinion on issues of public interest) . One out of the two given questions to be answered .
(5 Marks: Format : 1 / Organisation of Ideas: 1/Content : 2 / Accuracy of Spelling and Grammar :1).
- iv. Article/ Report Writing, descriptive and analytical in nature, based on verbal inputs, to be answered in 120-150 words. One out of the two given questions to be .
(5 Marks: Format : 1 /Organisation of Ideas: 1/Content : 2 / Accuracy of Spelling and Grammar :1).

Section C

This section will have variety of assessment items including Multiple Choice Questions, Objective Type Questions, Short Answer Type Questions and Long Answer Type Questions to assess comprehension, analysis, interpretation and extrapolation beyond the text.

IV. Reference to the Context

40 Marks

- i. One Poetry extract out of two from the book **Flamingo** to assess comprehension, interpretation, analysis and appreciation. (6x1=6 Marks)
- ii. One Prose extract out of two from the book **Vistas** to assess comprehension, interpretation, analysis and appreciation. (4x1=4 Marks)
- iii. One prose extract out of two from the book **Flamingo** to assess comprehension, interpretation and analysis. (6x1=6Marks)
- iv. Short answer type question (one from Prose and one from Poetry from the book **Flamingo**), out of four, to be answered in 40-50 words. Questions should elicit inferential responses through critical thinking. Five questions out of the six given are to be answered. (5x2=10 Marks)
- v. Short answer type question, from **Prose (Vistas)**, to be answered in 40- 50 words. Questions should elicit inferential responses through critical thinking. Any 2 out of 3 questions to be done. (2x2=4 Marks)
- vi. One Long answer type question, from **Prose/Poetry (Flamingo)**, to be answered in 120-150 words. Questions can be based on incident / theme / passage / extract / event as reference points to assess extrapolation beyond and across the text. The question will elicit analytical and evaluative response from student. Any 1 out of 2 questions to be done. (1x5=5 Marks)
- vii. One Long answer type question, based on the chapters from the book **Vistas**, to be answered in 120-150 words to assess global comprehension and extrapolation beyond the text. Questions to provide evaluative and analytical responses using incidents, events, themes as reference points. Any 1 out of 2 questions to be done. (1x5=5 Marks)

Academic plan for Class XII Geography

2022-23

RATIONALE

Geography is introduced as an elective subject at the senior secondary stage. After ten years of general education, students branch out at the beginning of this stage and are exposed to the rigors of the discipline for the first time. Being an entry point for the higher education, students choose Geography for pursuing their academic interest and, therefore, need a broader and deeper understanding of the subject. For others, geographical knowledge is useful in daily lives because it is a valuable medium for the education of young people. Its contribution lies in the content, cognitive processes, skills and values that Geography promotes and thus helps the students explore, understand and evaluate the environmental and social dimensions of the world in a better manner.

COURSE CONTENT

	ARRIL PERIODS	22	STATUS OF SYLLABUS
Part A:	Fundamentals of Physical Geography		
Unit 1:	Human Geography: Nature and Scope		
Unit 2:	People <ul style="list-style-type: none">□ Population-distribution, density and growth□ Population change-spatial patterns and structure; determinants of population change□ Human development - concept; selected indicators, international comparisons		
Part B:	India: People and Economy		
Unit 1:	<ul style="list-style-type: none">□ Population: distribution, density and growth; composition of population - linguistic, religious; sex, rural-urban and occupational-regional variations in growth of population		□
	□ MAY 26 Periods		□
Part A:	Fundamentals of Physical Geography		
Unit 4:	Human Settlements <ul style="list-style-type: none">□ Settlement types – rural and urban; morphology of cities (case study); distribution of mega cities; problems of human settlements in developing countries		

Unit 3:	Primary Activities, Secondary Activities	
Part B:	India: People and Economy	
Unit 2:	Human Settlements <ul style="list-style-type: none"> □ Rural settlements - types and distribution Urban settlements - types, distribution and functional classification	
Unit 1:	PRACTICAL Processing of Data and Thematic Mapping <ul style="list-style-type: none"> □ Type and Sources of data: Primary, Secondary and other sources □ Tabulating and processing of data; calculation of averages, measures of central tendency □ Representation of data- construction of diagrams: bars, circles and flowchart; thematic maps; construction of dot; choropleth and isopleths maps □ Data analysis and generation of diagrams, graphs and other visual diagrams using computers 	
	JULY 25 Periods	
Part A:	Fundamentals of Physical Geography	
Unit 3:	Tertiary and Quaternary Activities, Transport and Communication, International Trade	
Unit 2:	PRACTICAL <ul style="list-style-type: none"> □ Spatial Information Technology Introduction to GIS; hardware requirements and software modules; data formats; raster and vector data, data input, editing and overlay and buffer. 	
	AUGUST 22 Periods	
Part A:	Fundamentals of Physical Geography	
Unit 3:	Resources and Development <ul style="list-style-type: none"> □ Land resources- general land use; agricultural land 	

	<p>use;geographical conditions and distribution of major crops (Wheat, Rice, Tea, Coffee, Cotton, Jute, Sugarcane and Rubber); agricultural development and problems</p> <ul style="list-style-type: none"> □ Water resources-availability and utilization-irrigation, domestic, industrial and other uses; scarcity of water and conservation methods-rain water harvesting and watershed management □ Mineral and energy resources- distribution of metallic (Iron ore, Copper, Bauxite, Manganese); non-metallic (Mica, Salt) minerals; conventional (Coal, Petroleum, Natural gas and Hydroelectricity) and non-conventional energy sources (solar, wind, biogas) and conservation <p>Planning in India- target group area planning (case study); idea of sustainable development (case study)</p>	
	September 8 Periods	
	REVISION	
	OCTOBER 15 Period	
Part B:	India: People and Economy	
UNIT 4:	<p>Transport, Communication and International Trade</p> <ul style="list-style-type: none"> □ Transport and communication-roads, railways, waterways and airways: oil and gas pipelines; Geographical information and communication net works □ International trade- changing pattern of India's foreign trade; sea ports and their hinterland and airports 	
	November 22 Period	
Part B:	India: People and Economy	
UNIT 5:	<p style="text-align: center;">Geographical Perspective on selected issues and problems</p> <ul style="list-style-type: none"> □ Environmental pollution; urban-waste disposal □ Urbanization, rural-urban migration; problems of slums <p>Land degradation</p>	
	Revision	
Map Work on identification of features based on 1-5 units on the outline		

Physical/Political map of World.	
Map work on locating and labeling of features based on above units on outline map of India.	

Prescribed Books:

1. Fundamentals of Human Geography, Class XII, Published by NCERT
2. India - People and Economy, Class XII, Published by NCERT
3. Practical Work in Geography, Class XII, Published by NCERT
4. JPH Geography class XII

**Fundamentals of Human
Geography Class XII -
Textbook I (NCERT)**

**Map Items for identification only on outline political map of
the World.**

Unit-1	Ch.-1	Nil	
Unit-2	Ch. 2 to 4	1	The largest country in each continent in terms of area
Unit-3	Ch. 5 to 7 Primary Activities	1	Areas of subsistence gathering
		2	Major areas of nomadic herding of the world
		3	Major areas of commercial livestock rearing
		4	Major areas of extensive commercial grain farming
		5	Major areas of mixed farming of the World
		6	Major areas of Mediterranean agriculture of the World
Unit - 4	Ch. 8 to 9	1	Ruhr region, Silicon Valley, Appalachian region, Great Lakes region
		2	Transcontinental Railways: Terminal Stations of transcontinental railways— Trans siberian, Trans Canadian, Trans Australian Railways
		3	Major Sea Ports : Europe: North Cape, London, Hamburg North America: Vancouver, San Francisco, New Orleans South America: Rio De Janeiro, Colon, Valparaiso Africa: Suez, Durban and Cape Town Asia: Yokohama, Shanghai, Hong Kong, Aden, Karachi, Kolkata

- Australia: Perth, Sydney, Melbourne
4. Inland Waterways: Suez canal, Panama canal, Rhine waterway and St. Lawrence Seaway
 5. Major Airports:
 - Asia: Tokyo, Beijing, Mumbai, Jeddah, Aden
 - Africa: Johannesburg & Nairobi
 - Europe: Moscow, London, Paris, Berlin and Rome
 - North America: Chicago, New Orleans, Mexico City
 - South America: Buenos Aires, Santiago
 - Australia: Darwin and Wellington
- Unit - 5 Ch. 10
- Mega cities of the world – Tokyo, Delhi, Shanghai, Mumbai, Saopaulo

**India - People and
Economy Class
XII-Textbook II
(NCERT)**

Map Items for locating and labelling only on the outline political map of India

- Units - 6 & Ch. 1 to 4
7
- State with highest level of urbanization and lowest level of urbanization
 - One state with highest level of HDI & One lowest level of HDI
 - State with higher level of population density & one state with lowest level of population density
 - One out migrating state
 - One in migrating state
 - Any city with more than 10 million population – Greater Mumbai, Delhi, Kolkata, Chennai, Bengaluru
- Unit - 8 Ch. 5 to 9
- Leading producing states of the following crops:
(a) Rice (b) Wheat (c) Jowar (d) Cotton, (e) Jute (f) Sugarcane (g) Tea and (h) Coffee

Mines:

- Iron-ore mines: Mayurbhanj, Bailadila, Ratnagiri, Bellary
- Manganese mines: Balaghat, Shimoga
- Copper mines: Hazaribagh, Singhbhum, Khetari
- Bauxite mines: Katni, Bilaspur and Koraput
- Coal mines: Jharia, Bokaro, Raniganj, Neyveli
- Oil Refineries: Mathura, Jamnager, Baroni Industries

Iron and Steel Plants:Bhadravati, Bhilai,
Bokaro, Durgapur, Rourkela and Jamshedpur

Cotton Textile:Surat, Varanasi, Murshidabad,
Solapur and Coimbatore

Software Technology Parks: Gandhinagar, Shrinagar,
Mohali, Noida, Indore, Hyderabad, Bengaluru and Major
Industrial Regions

Unit - 9 Ch. 10 - 11 Transport:

(i) Important nodes on north south
corridor,eastwest corridor & goldenquadrieteral

(ii) Major Sea Ports: Kandla, Mumbai,
Marmagao, Kochi, Mangalore,
Tuticorin, Chennai, Vishakhapatnam,
Paradwip,Haldia

(iii) International Air ports: Ahmedabad, Mumbai,
Bengaluru, Chennai, Kolkata, Guwahati, Delhi,
Amritsar, Thiruvananthapuram & Hyderabad

Unit-10 Ch.12 NIL

ACADEMIC
PLAN (2022-23)

SUBJECT: HISTORY

CLASS: XII

MAX MARKS (THEORY):80

PRACTICAL MARKS: 20

INDEX

SYLLABUS

MONTH WISE DIVISION OF SYLLABUS

UT-1 SYLLABUS

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SEPTEMBER TERM SYLLABUS

PREBOARD SYLLABUS

FINAL EXAM SYLLABUS

NEW QUESTION PAPER PLAN

NEW QUESTION PAPER SAMPLE

SYLLABUS

S.NO	UNITS	MARKS
1.	Themes in Indian History Part-I (THEMES 1 -4) Theme 1 Bricks, Beads and Bones Theme 2 Kings, Farmers and Towns Theme3 Kinship, Caste and Class Theme 4 Thinkers, Beliefs and Buildings	25

2.	Themes in Indian History Part-II (THEMES 5 – 8) Theme 5 Medieval Society through Travellers' Accounts Theme 6 Bhakti –Sufi Traditions Theme 7 An Imperial Capital: Vijayanagar Theme 8 Agrarian Relations: The Ain-i-Akbari	25
3.	Themes in Indian History Part-III (THEMES 10 – 15) Theme 10 Colonialism and the Countryside Theme 11 Rebels and the Raj Theme 13 Mahatma Gandhi and the Nationalist Movement Theme 15 Framing the Constitution	25
4.	Map Work	05
	TOTAL	80
	PROJECT WORK (INTERNAL ASSESSMENT)	20
	GRAND TOTAL	100

❖ Deleted/Removed chapters-

Theme 9 Kings and Chronicles

Theme 12 Colonialism and Indian Towns

Theme 14 Partition through Oral Sources

MONTH WISE DIVISION OF SYLLABUS

MONTH	THEMES	Remarks
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<p>APRIL</p>	<p>CHAPTER 1- The Story of the First Cities:Harappan Archaeology: Broad overview: Early urban centres. Story of discovery: Harappan civilization. Excerpt: Archaeological report on a major site. Discussion: How it has been utilized by archaeologists/historians.</p> <p>Chapter 2: Political and Economic History: How Inscriptions tell a story. Broad overview: Political and economic history from the Mauryan to the Gupta period. Story of discovery: Inscriptions and the decipherment of the script. Shifts in the understanding of political and economic history. Excerpt: Ashokan inscription and Gupta period land grant. Discussion: Interpretation of inscriptions by historians.</p> <p>Map work</p>	
<p>MAY</p>	<p>CHAPTER 3. Social Histories: Using the Mahabharata. Broad overview: Issues in social history, including caste, class, kinship and gender. Story of discovery: Transmission and publications of the Mahabharata. Excerpt: from the Mahabharata, illustrating how it has been used by historians. Discussion: Other sources for reconstructing social history.</p> <p>Map work, Homework and project work for summer vacations.</p> <p>CHAPTER 4- A History of Buddhism: Sanchi Stupa Broad overview: (a) A brief review of religious histories of Vedic religion, Jainism, Vaishnavism, Saivism (Puranic Hinduism). (b) Focus on Buddhism. Story of discovery: Sanchi stupa. Excerpt: Reproduction of sculptures from Sanchi. Discussion: Ways in which sculpture has been interpreted by historians, other sources for reconstructing the history of Buddhism.</p> <p>Map Work</p>	

<p>JULY</p>	<p>CHAPTER 5- Medieval Society through Travelers' Accounts Broad Overview: Outline of social and cultural life as they appear in travelers 'accounts. Story of their writings: A discussion of where they travelled, why they travelled, what they wrote, and for whom they wrote. Excerpts: from Alberuni, IbnBatuta, And Francois Bernier. Discussion- What these travel accounts can tell us and how they have been interpreted by historians.</p> <p>CHAPTER 6- Religious Histories: The Bhakti-Sufi Tradition Broad overview: (a) Outline of religious developments during this period. (b) Ideas and practices of the Bhakti-Sufi saints. Story of Transmission: How Bhakti-Sufi compositions have been preserved. Excerpt: Extracts from selected Bhakti-Sufi works.</p> <p>Discussion on Ways in which these have been interpreted by historians.</p> <p>Chapter 7: New Architecture: Hampi Broad overview: (a) Outline of new buildings during Vijayanagar period- temples, forts, irrigation facilities (b) Relationship between architecture and the political system. Story of Discovery: (c) Account of how Hampi was found. (d) Excerpt: Visuals of buildings at Hampi. Discussion: Ways in which historians have (e) Analyzed and interpreted these structures.</p> <p>Map work</p>	
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AUGUST	<p>Chapter 8- Agrarian Relations: The Ain-i- Akbari Broad overview: (a) Structure of agrarian relations in the 16th and 17th centuries. (b) Patterns of change over the period. Story of Discovery: Account of the compilation and translation of Ain-i-Akbari. Excerpt: from the Ain-i-Akbari Discussion: Ways in which historians have used the text to reconstruct history.</p> <p>Map Work</p> <p>CHAPTER 10: Colonialism and Rural Society: Broad overview: (a) Life of zamindars, peasants and artisans in the late 18th century (b) East India Company, revenue settlements and surveys. (c) Changes over the nineteenth century. Official records: An account of why official investigations into rural societies were undertaken and the types of records and reports produced. Excerpts: From Fifth Report, Accounts of Frances Buchanan-Hamilton and Deccan Riots Report. Discussion: What the official records tell and do not tell, and how they have been used by historians.</p>	
SEP	<p>REVISION WORK MID TERM EXAM DISCUSSION ON QUESTION PAPER, PROJECT WORK</p>	

OCT	<p>CHAPTER 11- Representations of 1857 Broad overview: (a) The events of 1857-58. How these events were recorded and narrated? Focus: Lucknow. Excerpts: Pictures of 1857. Extracts from contemporary accounts. Discussion: How the pictures of 1857 shaped British opinion of what had happened.</p> <p>Map Work</p> <p>CHAPTER 13- Mahatma Gandhi and Indian Nationalist movement Broad overview: (a) The Nationalist Movement 1918 - 48. (b) The nature of Gandhian politics and leadership. Focus: Mahatma Gandhi and the three movements and his last days as “finest hours” Excerpts: Reports from English and Indian language newspapers and other contemporary writings. Discussion: How newspapers can be a source of history.</p> <p>Map work</p>	
NOV	<p>CHAPTER 15- The Making of the Constitution. Broad overview: (a) Independence and the new nation state. (b) The making of the Constitution. Focus: The Constitutional Assembly debates. Excerpts: from the debates. Discussion: What such debates reveal and how they can be analyzed.</p> <p>Map work</p>	
DEC- MAR	<p style="text-align: center;">CHAPTER 1-15 REVISION FROM SUPPORT MATERIAL AND MAP PRACTICE WORK. PRE-BOARD EXAM QUESTION PAPER DISCUSSION AND SOLUTION OF STUDENTS PROBLEMS PRACTICE OF CBSE QUESTION PAPERS. REVISION WORK BOARD EXAMS 2022-23</p>	

UT-1 SYLLABUS

S.NO	TOPIC
1.	Theme 1 Bricks, Beads and Bones
2.	Theme 2 Kings, Farmers and Towns

UT-2 SYLLABUS

MM. 40

S.NO	TOPIC
1.	Theme 3 Kinship, Caste and Class
2.	Theme 4 Thinkers, Beliefs and Buildings
3.	Theme 5 Through the Eyes of Travellers

TERM-1 SYLLABUS

MM. 80

S.NO	TOPIC
1.	Theme 1 Bricks, Beads and Bones
2.	Theme 2 Kings, Farmers and Towns
3.	Theme3 Kinship, Caste and Class
4.	Theme 4 Thinkers, Beliefs and Buildings
5.	Theme 5 Medieval Society through Travellers' Accounts
6.	Theme 6 Bhakti –Sufi Traditions
7.	Theme 7 An Imperial Capital: Vijayanagar
8.	Theme 8 Agrarian Relations: The Ain-i- Akbari
9.	Theme 10 Colonialism and The Countryside

❖ **PREBOARD AND FINAL EXAM SYLLABUS WILL INCLUDE ALL THE CHAPTERS:**

❖ BOOK 1: THEME 1-4

❖ BOOK 2: THEME 5-8

❖ BOOK 3: THEME 10-15

❖ **Deleted chapters- Theme 9,12 and 14**

SAMPLE QUESTION PAPER (2020-21)

HISTORY (027)

CLASS-XII

Time Allowed: 3hrs.

Max. Marks: 80

GENEREAL INSTRUCTIONS:

- ❖ Please check this question paper contains 9 printed pages + Map
- ❖ Answer all the questions. Some questions have an internal choice. Marks are indicated against each question. This question paper comprises of *six* sections.
- ❖ Section A: Question numbers 1 to 16 are objective type questions carrying 1 mark and should be answered in one word or one sentence each (Attempt any 15)
- ❖ Section B: Question numbers 17 to 19 are Case Based/ Source Based having Multiple Choice questions. Each question has 4 sub-parts. Attempt any three sub-parts from each question.
- ❖ Section C: Answer to questions carrying 3 marks (Question 20 to 23) should not exceed 100 words each.
- ❖ Section D: Answer to questions carrying 8 marks (Question 24 to 26) should not exceed 350 words each.
- ❖ Section E: Question number 27 to 29 are Source-based questions carrying 5 marks each.
- ❖ Section F: Question number 30 is a Map question that includes the identification and location of significant test items. Attach the map with the answer book.

SECTION A

1*15=15

Attempt any 15 questions.

1. Consider the following statements regarding John Marshall's stint as Director General of ASI: 1
- He was the first professional archaeologist to work in India.
 - He brought his working experience of Greece.
 - He was interested in spectacular finds.
 - He was not keen to look for patterns of everyday life.

Which of the following statements is/are correct?

- Only i
 - Both i and ii
 - i, ii, iii
 - ii, iii and iv
2. Differentiate between endogamy and exogamy. 1
3. ----- was a form of ceremonial salutation during the Mughal rule in which the courtier placed the palm of his right hand against his forehead and bent his head. 1
4. Who started the khilafat movement? 1
5. Correct the following statement and rewrite it: 1
According to Jainism, asceticism and the middle path are required to free oneself from the cycle of Karma.
6. Who among the following declared- Separate Electorate was a 'poison that has entered the body politic of our country'? 1
- G. B. Pant
 - Sardar Patel
 - R. V. Dhulekar
 - Begum Aizaz Rasul
7. Who painted the famous painting 'Relief of Lucknow'? 1
8. Find out from the following pairs which one is correctly matched: 1
- Magadha's capital- Ujjayini
 - Most Ashokan inscriptions- Prakrit language
 - Chanakya minister of – Ashoka
 - Ashoka inscribed his message- on polished pillars only
9. Who was the first woman to enter Sangha? 1
- Gotami
 - Gargi
 - Prabhavati
 - Maithili

10. Given below are two statements, one labelled as Assertion(A) and the other labelled as Reason (R). 1

Assertion (A): in the early decades after the permanent settlement, zamindars regularly failed to pay the revenue demand and unpaid balances accumulated.

Reason (R): the company had recognized the zamindars as important, but it wanted to control and regulate them, subdue their authority and restrict their autonomy.

Choose the correct option-

- A) Both (A) and (R) are correct and (R) is the correct explanation of (A)
- B) Both (A) and (R) are correct, but (R) is not the correct explanation of (A)
- C) (A) is correct, but (R) is not correct
- D) (R) is correct, but (A) is not correct

11. Identify the following image and write its name. 1



12. Identify the Bhakti tradition which favoured widow remarriage. 1
- A) Alvars
 - B) Nayanars
 - C) Lingayat's
 - D) Siddhas

13. The rulers of Vijayanagar called themselves as ----- 1

14. Consider the following statements. 1

- I. Akbar Nama was written in Persian language.
- II. The Mahabharata was translated as the Razmnama (Book of Wars).

Choose the correct.

- (a) Only I
- (b) Only II
- (c) Both I and II
- (d) None of these

15. Why some people were labelled as mlechchha? Mention one reason. 1

16. The form of government where power is exercised by a group of men is known as _____ 1

SECTION B

17. Read the following Text carefully and **answer any three** questions: 3*3=9
1+1+1=3

Vijayanagar or “city of victory” was the name of both a city and an empire. The empire was founded in the fourteenth century. In its heyday it stretched from the river Krishna in the north to the extreme south of the peninsula. In 1565 the city was sacked and subsequently deserted. Although it fell into ruin in the seventeenth-eighteenth centuries, it lived on in the memories of people living in the Krishna-Tungabhadra doab. They remembered it as Hampi, a name derived from that of the local mother goddess, Pampadevi. These oral traditions combined with archaeological finds, monuments and inscriptions and other records helped scholars to rediscover the Vijayanagar Empire.

A. In which battle did Vijayanagar empire declined?

- i. Battle of Talikota
- ii. Battle of Tarain
- iii. Battle of Gogara
- iv. Battle of Khanwa

B. Consider the following about Vijayanagar.

- I. The first dynasty was known as Tuluva dynasty.
- II. Krishna deva Raya belonged to the Sangam dynasty.

Choose the correct option-

- (a) Only I
- (b) Only II
- (c) Both I and II
- (d) Neither I nor II

C. Who brought to light the ruins of Hampi?

- (a) William Bentick
- (b) Colonel Colin Mackenzie
- (c) John Marshall
- (d) McMahan

D. Guardian deity of Vijayanagar kingdom?

- i. Ayyanar
- ii. Virupaksha
- iii. Maramma
- iv. Pampa Devi

18. Study this picture of the terracotta bull with respect to agriculture technologies carefully and answer three of the following questions by choosing the correct option:

1+1+1=3



- A. What evidence was collected by archaeologists to indicate that the bull was known?
- Representations on beads and weights were found
 - The terracotta models of plough found at sites in Cholistan indicated that the bull and the oxen were used for ploughing
 - Representations on seals and terracotta sculpture were found
 - Both a and b
- B. Archaeologists extrapolate that the oxen were used for ploughing from _____
- The evidence of a ploughing field found at Kalibangan
 - The terracotta models of plough found at sites in Cholistan and Banawali
 - Representations on seals and terracotta sculpture that indicate that the bull was known
 - Traces of canals
- C. Choose the correct option:

Assertion (A): The field had two sets of furrows at right angles to each other

Reason (R): This suggested that two different crops were grown together

- Both A and R are true and R is the correct explanation of A
 - Both A and R are true but R is not the correct explanation of A
 - A is true but R is false
 - A is false but R is true
- D. At which of the following places the terra cotta models of the plough were found?
- Cholistan and Banawali
 - Harappa and Dholavira
 - Rakhigarhi and Kalibangan
 - Kot Diji and Balakot

19. Read the following Text carefully and answer any three questions:

1+1+1

Who is a better patriot?

Sir A. Ramaswamy Mudaliar from Mysore said during the debate on 21 August 1947: Let us not lay the flattering unction to our soul that we are better patriots if we propose a strong Centre and that those who advocate a more vigorous examination of these resources are people with not enough of national spirit or patriotism.

- A. The rights of the states were most eloquently defended by?
- Jawaharlal Nehru
 - K. Santhanam
 - Sir A. Ramaswamy Mudaliar
 - Balakrishna Sharma
- B. Given below are two statements, one labelled as Assertion(A) and the other labelled as Reason (R).

Assertion (A): Before Partition the Congress had agreed to grant considerable autonomy to the provinces.

Reason (R): This had been part of an effort to assure the Muslim League.

Choose the correct option-

- A) Both (A) and (R) are correct and (R) is the correct explanation of (A)
B) Both (A) and (R) are correct, but (R) is not the correct explanation of (A)
C) (A) is correct, but (R) is not correct
D) (R) is correct, but (A) is not correct

- C. Choose the incorrect statement-
- Article 356 gave the Centre the powers to take over a state administration on the recommendation of the Governor.
 - Ambedkar had declared that he wanted “a strong and united Centre
 - After Partition most nationalists changed their position related to centre state relation
 - Among those arguing for a strong State was Jawaharlal Nehru.
- D. The Constitution of India was framed between
- December 1946 and November 1949
 - January 1946 and December 1948
 - March 1 1946 and August 1949
 - July 1946 and September 1947

SECTION C

3*4=12

20. Explain the strategies used by the archeologists to understand socio-economic differences among the Harrapans. 3
21. Discuss the role of the begums of Bhopal in preserving the Stupa at Sanchi. 3
22. What factors led the sepoys to spearhead the revolt against the British? 3
23. “the discussion within the constituent assembly were also influenced by the opinions expressed by the public” examine the statement. 3

SECTION D

8*3=24

24. Who composed the original story of the test of Mahabharata? Describe the various stages through which Mahabharata was composed between 5th century BCE to 400 CE? 8

OR

25. Describe that the Mahabharata is a dynamic text. “The most striking features of the bhakti tradition was the association of the women” justify by giving example. 8

OR

Explain giving examples the connection between the State and the Bhakti Tradition and the State and the Sufi Traditions.

26. “Individuals make history”. Examine the statement in the context of how Gandhi transformed the Indian National Movement into a mass movement. 8

OR

Examine the different kinds of sources from which political career of Gandhi and the history national movement could be reconstructed.

SECTION E

5*3=15

27. Read the following source carefully and answer the questions that follow: 1+2+2=5

The anguish of the king

When the king Devanampiya Piyadassi had been ruling for eight years, the (country of the) Kalinga's (present day coastal Orissa) was conquered by (him). One hundred and fifty thousand men were deported, a hundred thousand were killed, and many more died. After that, now that (the country of) the Kalinga's has been taken, Devanampiya (is devoted) to an intense study of Dhamma, to the love of Dhamma, and to instructing (the people) in Dhamma. This is the repentance of Devanampiya on account of his conquest of the (country of the) Kalinga's. For this is considered very painful and deplorable by Devanampiya that, while one is conquering an unconquered (country) slaughter, death and deportation of people (take place) there ...

- | | | |
|------|--|---|
| i. | Who was called 'Devanampiya Piyadassi'? | 1 |
| ii. | Mention the importance and limitation of inscriptions. | 2 |
| iii. | Why did the king repent after the war of Kalinga? | 2 |

28. Read the following source carefully and answer the questions that follow: 1+2+2=5

In praise of taswir

Abu'l Fazl held the art of painting in high esteem:

Drawing the likeness of anything is called taswir. His Majesty from his earliest youth, has shown a great predilection for this art, and gives it every encouragement, as he looks upon it as a means both of study and amusement. A very large number of painters have been set to work. Each week, several supervisors and clerks of the imperial workshop submit before the emperor the work done by each artist, and His Majesty gives a reward and increases the monthly salaries of the artists according to the excellence displayed. ... Most excellent painters are now to be found, and masterpieces, worthy of a Bihzad, may be placed at the side of the wonderful works of the European painters who have attained worldwide fame. The minuteness in detail, the general finish and the boldness of execution now observed in pictures are incomparable; even inanimate objects look as if they have life. More than a hundred painters have become famous masters of the art. This is especially true of the Hindu artists. Their pictures surpass our conception of things. Few, indeed, in the whole world are found equal to them.

- | | | |
|------|--|---|
| i. | What is a taswir? | 1 |
| ii. | How did Mughal Emperor Akbar encourage painting? | 2 |
| iii. | Write any 2 features of the paintings made by Hindu artists. | 2 |

29. Read the following source carefully and answer the questions that follow: 1+2+2=5

From the Fifth Report

Referring to the condition of zamindars and the auction of lands, the Fifth Report stated: The revenue was not realized with punctuality, and lands to a considerable extent were periodically exposed to sale by auction. In the native year 1203, corresponding with 1796-97, the land advertised for sale comprehended a jumma or assessment of sicca rupees 28,70,061, the extent of land actually sold bore a jumma or assessment of 14,18,756, and the amount of purchase money sicca rupees 17,90,416. In 1204, corresponding with 1797-98, the land advertised was for sicca rupees 26,66,191, the quantity sold was for sicca rupees 22,74,076, and the purchase money sicca rupees 21,47,580. Among the defaulters were some of the oldest families of the country. Such were the rajahs of Nuddea, Rajeshaye, Bishenpore (all districts of Bengal), ... and others, the dismemberment of whose estates at the end of each succeeding year, threatened them with poverty and ruin, and in some instances presented difficulties to the revenue officers, in their efforts to preserve undiminished the amount of public assessment.

- i. What was the fifth report about? 1
- ii. What was the condition of the Zamindars according to the report? 2
- iii. Write any 2 points of criticism regarding this report. 2

SECTION F

30. (30.1) On the given political map of India, locate and label the following with appropriate symbols: 3+2=5

- a) Lothal, a mature Harappan site 1

OR

 Sanchi, a major Buddhist site 1
- b) Agra, a territory under Babur, Akbar, and Aurangzeb 1

OR

 Calcutta, a main centre of the revolt 1857 1
- c) Dandi

- (30.2) On the same outline map, two places have been marked as A and B, which are centers of the National movement. Identify, them and write their correct names on the lines drawn near them. 1+1



LINKS FOR MORE SAMPLE PAPERS:

[http://cbseacademic.nic.in/web_material/SQP/Class XII 2018 19/XII History SQP 2018-19.pdf](http://cbseacademic.nic.in/web_material/SQP/Class_XII_2018_19/XII_History_SQP_2018-19.pdf)

[http://cbseacademic.nic.in/web_material/SQP/CLASS XII 2017 18 final/History SQP.pdf](http://cbseacademic.nic.in/web_material/SQP/CLASS_XII_2017_18_final/History_SQP.pdf)

<http://cbseacademic.nic.in/>

ACADEMIC PLAN (2022-2023)

SUBJECT: MATHEMATICS

CLASS XII

One paper

Three Hours

Max.Marks:80

S.No.	Topic	Marks
1.	RELATIONS, FUNCTIONS AND INVERSE TRIGONOMETRIC FUNCTIONS	08
2.	ALGEBRA	10
3.	CALCULUS	35
4.	VECTORS AND THREE –DIMENSIONAL GEOMETRY	14
5.	LINEAR PROGRAMMING	05
6.	PROBABILITY	08
	TOTAL	80
	INTERNAL ASSESSMENT	20

UNIT – ALGEBRA		Weightage	No. of Periods
		10 Marks	18
Concept Note :	Matrices and determinants are used in different areas of business, science like budgeting, sales projection, cost estimation, analyzing the results of experiments etc. It is not only used in certain branches of science but also in genetic, economics, sociology, modern psychology and industrial management.		
Topics: MARCH/APRIL – 2022	MATRICES :	Periods (08)	
	LEARNING OUTCOMES: The students will be i) understand concept of matrices and types of matrices ii) apply operations on matrices iii) Define inverse of a matrix SKILLS ENHANCED: Problem Solving, quantitative skills 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 and multiplication with a scalar. Simple properties of addition, multiplication and scalar multiplication. Non-commutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrix (restrict to square matrices of order 2). Invertible matrices and proof of the uniqueness of inverse, if it exists; (Here all matrices will have real entries).		
APRIL – 2022	DETERMINANTS:	Periods (10)	
	LEARNING OUTCOMES: The students will be i) able to find determinants of order upto 3×3 , area of triangle using determinant, minors, cofactors and adjoint of a matrix. ii) understand properties of adjoint of a matrix. iii) check the consistency of system of linear equations and hence solve it. SKILLS ENHANCED: ability to manipulate precise and intricate ideas, analytical thinking Determinant of a square matrix (up to 3×3 matrices), minors, co-factors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Consistency, inconsistency and number of		

	solutions of system of linear equations by examples, solving system of linear equations in two or three variables (having unique solution) using inverse of a matrix.
Reference books :	<ul style="list-style-type: none"> • Mathematics Part – I, Textbook for class XII, NCERT Publication • NCERT Mathematics Exemplar
Common Errors :	<ul style="list-style-type: none"> ➤ While finding the determinant, students write [] instead of ➤ While finding out the minors and cofactors students generally forget to consider the –ve sign, when sum of i and j is odd.

UNIT - RELATIONS, FUNCTIONS AND INVERSE TRIGONOMETRIC FUNCTIONS		Weightage	No. of Periods
		08 Marks	10
Concept Note :	<p>Trigonometry as the name implies, involves the study of measurement of triangles in relation to their sides and angles. It is interesting to note that trigonometry has a very significant relevance in real life hunting, travelling and is well applied in the field of sciences, engineering, and navigation of ships, aero planes and astronomy.</p> <p>-</p>		
Topics: APRIL MAY– 2022	<p>INVERSE TRIGONOMETRIC FUNCTIONS : Periods (10)</p> <p>LEARNING OUTCOMES: The students will</p> <p>i) understand the domain and range of inverse trigonometric functions. ii) draw the graphs of various inverse trigonometric functions. iii) apply the properties of inverse trigonometric functions.</p> <p>SKILLS ENHANCED: Problem Solving, drawing of graphs.</p> <p>Definition, range, domain, principal value branch. Graphs of inverse trigonometric functions</p>		
Reference books :	<ul style="list-style-type: none"> • Mathematics Part – I, Textbook for class XII, NCERT Publication • NCERT Mathematics Exemplar 		

<p>JULY,AUGUST-2022</p>	<p>INDEFINITE INTEGRALS : Periods (14)</p> <p>LEARNING OUTCOMES: The students will be able i) understand integration as inverse of differentiation. ii)integrate functions by substitution,by parts, partial fractions, special integrals</p> <p>SKILLS ENHANCED: Construct logical arguments and expose illogical arguments problem solving</p> <p>Integration as inverse process of differentiation. Integration of a variety of functions by substitution, by partial fractions and by parts. Evaluation of simple integrals of the following types and problems based on them</p> $\int \frac{dx}{x^2 \pm a^2}, \int \frac{dx}{\sqrt{x^2 \pm a^2}}, \int \frac{dx}{\sqrt{a^2 - x^2}}, \int \frac{dx}{ax^2 + bx + c}, \int \frac{dx}{\sqrt{ax^2 + bx + c}},$ $\int \frac{(px+q)}{ax^2+bx+c} dx, \int \frac{(px+q)}{\sqrt{ax^2+bx+c}} dx, \int \sqrt{a^2 \pm x^2} dx, \int \sqrt{x^2 - a^2} dx,$ $\int \sqrt{ax^2 + bx + c} dx,$ <p>Fundamental Theorem of Calculus (without proof). Basic properties of definite integrals and evaluation of definite integrals</p>
<p>AUGUST - 2022</p>	<p>APPLICATIONS OF INTEGRALS : Periods (06)</p> <p>LEARNING OUTCOMES: The students will be able to i) find the area under simple curves ii) area bounded by the curves with axis</p> <p>SKILLS ENHANCED: Creative thinking, Problem Solving, Curve Tracing</p> <p>Applications in finding the area under simple curves, especially lines, arcs of circles/parabolas/ellipses (in standard form only).</p>
<p>AUGUST-2022</p>	<p>DIFFERENTIAL EQUATIONS : Periods (08)</p> <p>LEARNING OUTCOMES: The students will be able to i) find the order and degree of differential equations. ii) Form differential equations by eliminating constants</p>

<p>Reference books :</p>	<p>iii) Find general and particular solutions of equations by variable separable form, homogeneous form, linear order form.</p> <p>SKILLS ENHANCED: Ability to manipulate precise and intricate ideas, Computational skills</p> <p>Definition, order and degree, general and particular solutions of a differential equation. Solution of differential equations by method of separation of variables, solutions of homogeneous differential equations of first order and first degree. Solutions of linear differential equation of the type:</p> $\frac{dy}{dx} + Py = Q, \text{ where } P \text{ and } Q \text{ are functions of } x \text{ or constant}$ $\frac{dx}{dy} + Px = Q, \text{ where } P \text{ and } Q \text{ are functions of } y \text{ or constant}$ <ul style="list-style-type: none"> • Mathematics Part – I, Textbook for class XII, NCERT Publication • Mathematics Part – II, Textbook for class XII, NCERT Publication • NCERT Mathematics Exemplar
<p>Common Errors :</p>	<ul style="list-style-type: none"> ➤ Dropping the limit notation. ➤ Dropping the integration constant C. ➤ Dropping the absolute value when integrating $\int \frac{1}{x} dx$. ➤ While finding the intervals on which given function is increasing or decreasing, firstly factorize the $f'(x)$ into linear factors. When –ve sign is there, generally students forget to take that –ve sign while finding out the sign of $f'(x)$. ➤ While finding the degree of a differential equation involving the radical sign as $\frac{1}{2}$ or $\frac{1}{3}$, students should not square or cube both the sides of the differential equation to get the degree, as it changes the parent differential equation.

<p>UNIT – LINEAR PROGRAMMING</p>		<p>Weightage</p>	<p>No. of Periods</p>
		<p>05 Marks</p>	<p>06</p>
<p>Concept Note :</p>	<p>Linear programming is the process of taking various linear inequalities relating to some situation, and finding the "best" value obtainable under those conditions. A typical example would be taking the limitations of materials and labor, and then determining the "best" production levels for maximal profits under those conditions. In "real life", linear programming is part of a very important area of mathematics called "optimization techniques". This field of study is used every day in the organization and allocation of resources. These "real life" systems can have dozens or</p>		

	hundreds of variables, or more. In algebra, though, you'll only work with the simple two-variable linear case.
OCTOBER – 2022	<p>LINEAR PROGRAMMING: Periods (06)</p> <p>LEARNING OUTCOMES: The students will be able to</p> <ol style="list-style-type: none"> i) Formulate the problem using linear equations. ii) Optimize the function graphically using corner point method. <p>SKILLS ENHANCED: construct logical arguments and expose illogical arguments, Problem solving Analysis, construction and interpretation of graphs.</p> <p>Introduction, related terminology such as constraints, objective function, optimization, graphical method of solution for problems in two variables, feasible and infeasible regions (bounded or unbounded), feasible and infeasible solutions, optimal feasible solutions (up to three non-trivial constraints).</p>
Reference books :	<ul style="list-style-type: none"> • Mathematics Part – II, Textbook for class XII, NCERT Publication • NCERT Mathematics Exemplar
Common Errors :	<ul style="list-style-type: none"> ➤ Students forget to shade required portion according to less than or greater than inequality per line. ➤ Students forget to shade final solution set of all the inequalities.

UNIT – PROBABILITY	Weightage	No. of Periods
	08 Marks	15
Concept Note :	<p>Probability is ordinarily used to describe an attitude of mind towards some proposition of whose truth we are not certain. The proposition of interest is usually of the form "Will a specific event occur?" The attitude of mind is of the form "How certain are we that the event will occur?" The certainty we adopt can be described in terms of a numerical measure and this number, between 0 and 1. The concept has been given an axiomatic mathematical derivation in probability theory, which is used widely in such areas of study as mathematics, statistics, finance, gambling, science, artificial intelligence/machine learning and philosophy to, for example, draw inferences about the likeliness of events. Probability is used to describe the underlying mechanics and regularities of complex systems.</p>	

OCTOBER – 2022	<p style="text-align: right;">Periods (15)</p> <p>PROBABILITY: LEARNING OUTCOMES: The students will be able to</p> <ol style="list-style-type: none"> i) Find the conditional probabilities of various events ii) Understand independent events and calculate their probabilities iii) Calculate conditional probability using Baye’s Theorem iv) Find probability distribution of random variable. <p>SKILLS ENHANCED: Analytical thinking, Problem solving, Comprehension</p> <p>Conditional probability, multiplication theorem on probability, independent events, total probability, Bayes’ theorem, Random variable and its probability distribution, mean of random variable</p>
Reference books :	<ul style="list-style-type: none"> • Mathematics Part – II, Textbook for class XII, NCERT Publication • NCERT Mathematics Exemplar
Common Errors :	<ul style="list-style-type: none"> ➤ Generally, students confuse in evaluating $P(A/E)$ or $P(E/A)$ in Baye’s theorem. ➤ In Baye’s theorem, students are not able to define and describe the events properly.

UNIT – VECTORS AND THREE – DIMENSIONAL GEOMETRY	Weightage	No. of Periods
	14 Marks	20
Concept Note :	<p>Vectors are drawn usually to determine the resultant force. This application is used in the construction of buildings, such as houses. The different forces acting on the house are calculated. In this case, vectors are applied, so as to ensure that there isn't a resultant force, and ensure that the building will be stable and not collapse. Three-dimensional geometry is used to create 3-D models that can be created by hand, algorithmically or scanned. Many computer games used pre-rendered images of 3-D models as sprites before computers could render them in real-time. 3-D models are used in the medical industry, video game industry .The architecture industry uses them to demonstrate proposed buildings and landscapes through Software Architectural Models. The engineering community uses them as designs of new devices, vehicles and structures as well as a host of other uses. In recent decades the earth science community has started to construct 3-D geological models as a standard practice.</p>	

<p>OCTOBER– 2022</p>	<p>VECTORS: Periods (08)</p> <p>LEARNING OUTCOMES: The students will be able to</p> <ol style="list-style-type: none"> i) Understand scalar and vector quantities, types of vectors. ii) Apply operations on vectors. iii) Find direction cosines and direction ratios, projections of vectors. <p>SKILLS ENHANCED: Visualisation of space, applying operations, Computational skills</p> <p>Vectors and scalars, magnitude and direction of a vector. Direction cosines and direction ratios of a vector. Types of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components 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, Geometrical Interpretation, properties and application of scalar (dot) product of vectors, vector (cross) product of vectors.</p>
<p>NOVEMBER-2022</p>	<p>THREE – DIMENSIONAL GEOMETRY</p> <p>LEARNING OUTCOMES: The students will be able to</p> <ol style="list-style-type: none"> i) Find Cartesian and vector equations of lines. ii) Find distance between skew lines. iii) Find Cartesian and vector equations of planes. iv) Find distance between line and plane. <p>SKILLS ENHANCED: Visualisation of lines and planes in space, computational skills, Problem solving</p> <p>(THREE – DIMENSIONAL GEOMETRY: LINES) Periods (10)</p> <p>Direction cosines and direction ratios of a line joining two points. Cartesian equation and vector equation of a line, skew lines, shortest distance between two lines. Angle between two lines.</p>
<p>Common Errors :</p>	<ul style="list-style-type: none"> ➤ Dropping the vector notation. ➤ Dropping the n in the cross product ➤ Generally students forget to put the dot sign in the dot product of two vectors.
<p>TOPIC : NOVEMBER - 2022</p>	<p>RELATIONS AND FUNCTIONS: Periods (08)</p> <p>LEARNING OUTCOMES: The students will be able to</p>

	<p>i) Understand reflexive , symmetric, transitive , equivalent functions</p> <p>ii) Find one –one and onto nature of function</p> <p>iii) Find inverse of functions.</p> <p>SKILLS ENHANCED:</p> <p>Analytical thinking and Problem solving</p> <p>Types of relations: reflexive, symmetric, transitive and equivalence relations. One to one and onto functions.</p>
Common Errors :	<ul style="list-style-type: none"> ➤ In the questions of equivalence relation, while proving the symmetric relation, they actually prove the reflexivity & vice-versa. ➤ In onto function, generally students find the value of x in terms of y but they forget to show that the value of x (in terms of y) belongs to domain of given function.
Reference books :	<ul style="list-style-type: none"> • Mathematics Part – I, II Textbook for class XII, NCERT Publication • NCERT Mathematics Exemplar

CLASS XII

ACADEMIC PLAN (2022-23)

SUBJECT:FINEARTS (PAINTING)

CODE:049

THEORY-30 marks

PRACTICAL-70MARKS

Unitwise Weightage (Theory)

1. a) Six Limbs of Indian painting & fundamentals
b)The Rajasthani and pahari schools of miniature painting **10 marks**
2. The mughal and deccan schools of miniature painting **10 marks**
3. The Bengal school of painting & **10 marks**
The modern trends in Indian art

Practical

1. Nature and object study **20 marks**
2. Painting composition **20 marks**
3. Portfolio assessment **25 marks**

(Theory)

1. **The Rajasthani and pahari schools of miniature painting** 10 marks
 - CHAPTER 1 –(A) RAJASTHANI SCHOOLS
(B) PAHARI SCHOOLS

SKILLS ENHANCED: The objective of including the history of Indian Art for the students is to familiarise them with the various styles and modes of art expressions from different parts of India. This would enrich their vision and enable them to appreciate and develop an aesthetic sensibility to enjoy the beauty of nature and life. The students will also have an opportunity to observe and study the evolution of its mutations and synthesis with other style and the rise of an altogether new style.

LEARNING OUTCOME: The students should be made aware of art as a human experience. The teachers should be able to expose them to the wide range of artistic impressions, the media and the tools used. The history of Indian art is a long one. Hence the students would be acquainted with brief glimpses of the development of Indian visual art as are required for concept formation.

2. The mughal and deccan schools of miniature painting 10 marks

- CHAPTER 2- (A) MUGHAL MINIATURES
(B) DECCAN SCHOOL

SKILLS ENHANCED: The objective of including the history of Indian Art for the students is to familiarise them with the various styles and modes of art expressions from different parts of India. This would enrich their vision and enable them to appreciate and develop an aesthetic sensibility to enjoy the beauty of nature and life. The students will also have an opportunity to observe and study the evolution of its mutations and synthesis with other style and the rise of an altogether new style.

LEARNING OUTCOME: The students should be made aware of art as a human experience. The teachers should be able to expose them to the wide range of artistic impressions, the media and the tools used. The history of Indian art is a long one. Hence the students would be acquainted with brief glimpses of the development of Indian visual art as are required for concept formation.

3. The Bengal school of painting & 10 marks

The modern trends in Indian art

- CHAPTER 3-(A) INTRODUCTION TO BENGAL PAINTING
(B)MODERN TRENDS OF CONTEMPORY ARTISTS

SKILLS ENHANCED: The objective of including the history of Indian Art for the students is to familiarise them with the various styles and modes of art expressions from different parts of India. This would enrich their vision and enable them to appreciate and develop an aesthetic sensibility to enjoy the beauty of nature and life. The students will also have an opportunity to observe and study the evolution of its mutations and synthesis with other style and the rise of an altogether new style.

LEARNING OUTCOME: The students should be made aware of art as a human experience. The teachers should be able to expose them to the wide range of artistic impressions, the media and the tools used. The history of Indian art is a long one. Hence the students would be acquainted with brief glimpses of the development of Indian visual art as are required for concept formation.

Practical

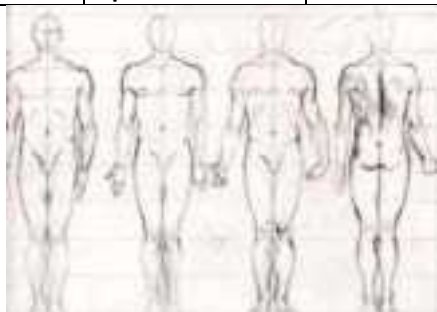
1. **Nature and object study** 25 marks
 SKILLS ENHANCED: To develop skill of using drawing and painting material (surface, tools and equipment, etc.) effectively.
 LEARNING OUTCOME: - Sharpening observation skills through study of common objects and various geometrical and non-geometrical forms found in life and nature.

2. **Painting composition** 25 marks
 SKILLS ENHANCED: To develop their skills to draw and paint these observations. - To develop an understanding of painting-composition (The use of the elements and the principles of painting -composition). - To create the forms and the colour schemes in imagination with an ability to express them effectively in drawing and painting.
 LEARNING OUTCOME: - To express the different feelings and moods of life and nature in lines, forms and colours.

3. **Portfolio assessment** 20 marks
 SKILLS ENHANCED: Identifying name and life of artists and art works.
 LEARNING OUTCOME: learned different art techniques and preparing art works presentable and preparing for future.

MONTH –APRIL'22

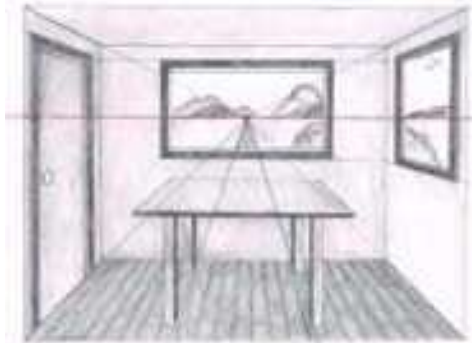
S.NO.	WEEK/DATE/pds.	BASE	MEDIUM/QUANTITY	TOPIC/DESCRIPTION
1.	5apr-9apr 5pds.	Sketch file/Half imperial	Pencil (2b,4b,6b)/Min.2	STILL LIFE OBJECTS-object drawing sketches.(some in monochrome)
2.	12apr-16apr 4pds.	Sketch file/half imperial	Pencil,pen &ink/min. 2	STILL LIFE OBJECTS-object drawing sketches.(some in watercolor)
3.	19apr-23apr 4pds.	Sketch file/Half imperial	Pencil shading,pencil color/atleast 5	NATURE STUDY-sketches of trees,plants,flowers,etc. (outdoor class)
4.	26apr-30apr 5pds.	-	ONLINE CLASSES	UNIT-1 (THEORY)





MONTH –MAY'22

SNO	WEEK/DATE	BASE	MEDIUM/QUANTITY	TOPIC/DESCRIPTION
1.	3may-7May 5pds. 10-14 May 4pds.	Half imperial -do-	Pencil shading/atleast 4	ANATOMY DRAWING-sketches of human figures,face,hands and foot,etc.(some sketches in water color)
2.	17-21may 5pds.	Half imperial	Water colour/atleast 4	Painting composition –daily life,school life,any festival ,etc.
3.	24-28may 4pds.	Half imperial	Pencil,scale,etc/4	Perspective drawing-railway station perspective,worms eye view,birds eye view.



MONTH –JUNE -22

- REVISE THEORY NOTES
- SKETCHING OF NATURE,HUMAN FIGURES ,STILL LIFE OBJECTS,ETC.
- One canvas painting (18x24),on any topic.

MONTH-JULY'22

S.NO.	WEEK/DATE	BASE	MEDIUM/QUANTITY	TOPIC/DESCRIPTION
1.	1-9JULY 7pds	Half imperial	Poster colours/atleast 2	STILL LIFE –POSTER COLOURS(objects composed in class) ,
2.	12-16JULY 5pds	-	-	Unit-2(Theory)
3.	19-23JULY 5pds	Half imperial	Water colours/atleast 2	Folk art-madhubani painting,miniature painting,etc
4.	26-30JULY 5pds	Half imperial	Pencil colours/2	Portrait study-any two famous personalities



MONTH-AUGUST'22

S.NO.	WEEK/DATE	BASE	MEDIUM/QUANTITY	TOPIC/DESCRIPTION
1.	2-6AUG 5pds	-	-	Unit-3(theory)
2.	9-13AUG 3pds	Half imperial sheets	Any medium/2	Painting composition from memory
3.	16-20AUG 5pds	Half imperial sheets	Poster colours/3	Painting composition includes human figures on given topics.
4.	23-27,5pds.	Sketch	Pencil colour/2	Portrait making –self portraits,local people

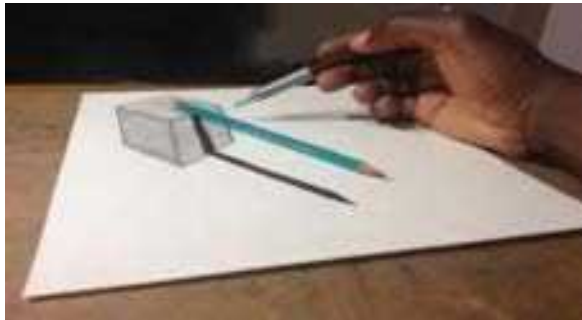
**MONTH-SEPTEMBER'22**

S.NO.	WEEK/DATE	BASE	MEDIUM/QUANTITY	TOPIC/DESCRIPTION
1.	1-9SEP 2pds	Half imperial	Poster colours/water colors	STILL LIFE-MONOCHROME COLOURS/poster colors
2.	13-17 SEP 2pds	Half imperial	Any medium/2	MEMORY PAINTING-ABSTRACT ART
3.	20-24SEP 2pds	Half imperial	Water colour,pencil colour/4	Vegetables and fruit study
4.	27-30SEP 2pds	Half imperial	Pencil shading/Poster color	Drape study



MONTH-OCTOBER'22

S.NO.	WEEK/DATE	BASE	MEDIUM/QUANTITY	TOPIC/DESCRIPTION
1.	4-8 OCT 4ds.	Sketch file	Water colour	Learning basic principles and elements of art,tints and tones by drawing and colouring.
2.	11-29oct	Sketch file/Half imperial sheets	Pencil color,pencil shading/poster color	Still life –furniture drawings Still life poster color



MONTH-NOVEMBER'22

S.NO.	WEEK/DATE	BASE	MEDIUM/QUANTITY	TOPIC/DESCRIPTION
1.	1-5NOV 5pds.	Half imperial	Poster colour,oil pastel/4	Painting composition-games and sports activities.
2.	8-12NOV 4pds.	Half imperial	Pencil shading/2	Still life -objects and drapery
3.	15-18NOV 5pds.	Half imperial	Acrylic painting/2	Black and white painting
4.	22-26NOV 5pds.	Canvas(18x24)	Oil colour/1	Still life composition

**MONTH-DECEMBER'22**

S.NO.	WEEK/DATE	BASE	MEDIUM/QUANTITY	TOPIC/DESCRIPTION
1.	1-3 DEC 3pds	-	-	Portfolio designing
2.	6-10DEC 5pds.	Half imperial	Poster colours	Poster making-any given topics
3.	13-17DEC 5pds.	Sketh file	Black and white colour	Illustrations-cartoon story board
4.	20-24DEC 4pds.	Half imperial	Any medium	Copy work of artists –indian
5.	27-30dec	-	-	Painting in water color composition

MONTH- JANUARY '23

13 JAN -31 JAN

REVISION OF THEORY AND PORTFOLIO MAKING

REVISION

**D.A.V. PUBLIC SCHOOL, UPPAL'S SOUTHEND, SECTOR 49,
GURUGRAM
ACADEMIC PLAN CLASS XII (2022-23)
SUBJECT: Physical Education (048)
COURSE STRUCTURE (THEORY)**

Time: 3 Hours

M.M.:70 marks

UNIT NO.	NAME OF THE UNIT	MARKS
Unit I	Management of Sporting events	7
Unit II	Children and women in sports	7
Unit III	Yoga as preventive measure for lifestyle diseases	5
Unit IV	Physical education and sports for CWSN	7
Unit V	Sports and Nutrition	7
Unit VI	Test and measurement in sports	7
Unit VII	Physiology and Injuries in sports	9
Unit VIII	Biomechanics & sports	7
Unit IX	Psychology & sports	6
Unit X	Training in sports	8

MONTH	CHAPTER	CONTENTS	NO OF PERIODS REQUIRED (1 PERIOD=50 MIN)
April	Unit I Management of Sporting events	<ul style="list-style-type: none"> ● Functions of sports events management ● Various Committees & their Responsibilities (pre; during & post) ● Fixtures and its procedures: Knock-Out (Bye & Seeding) & League (Staircase & Cyclic) <p>TEACHING OBJECTIVE</p> <ul style="list-style-type: none"> ● Planning and organizing various competitions. ● Drawing of various fixtures will also be taught. 	7
May	Unit V Sports & Nutrition	<ul style="list-style-type: none"> ● Balanced Diet & Nutrition: Macro & Micro Nutrients ● Nutritive & Non-Nutritive Components of Diet <p>TEACHING OBJECTIVE</p> <ul style="list-style-type: none"> ● Nutritive and non-nutritive components of diet ● Maintenance of healthy body weight 	4
	Unit III Yoga as preventive measure for lifestyle diseases	<ul style="list-style-type: none"> ● Obesity: Procedure, Benefits & contraindications for Vajrasana, Hastasana, Trikonasana, Ardh Matsyendrasana ● Diabetes: Procedure, Benefits & contraindications for Bhujangasana, Paschimottasana, Pavan Muktasana, Ardh Matsyendrasana ● Asthma: Procedure, Benefits & contraindications for Sukhasana, Chakrasana, Gomukhasana, Parvatasana, Bhujangasana, Paschimottasana, Matsyasana ● Hypertension: Tadasana, Vajrasana, Pavan Muktasana, Ardha Chakrasana, Bhujangasana, Sharasana <p>TEACHING OBJECTIVE</p> <ul style="list-style-type: none"> ● Lifestyle diseases: prevention and cure 	7

<p>June</p>	<p>Unit II Children & women in Sports</p>	<ul style="list-style-type: none"> ● Common Postural Deformities – Knock Knee; Flat Foot; Round Shoulders; Lordosis, Kyphosis, Bow Legs and Scoliosis ● Corrective Measures for Postural Deformities ● Special considerations ● FEMALE ATHLETE TRIAD <p style="text-align: center;">TEACHING OBJECTIVE</p> <ul style="list-style-type: none"> ● Learning about growth and development and common postural deformities ● Participation and problems faced by women during participation in sports 	<p>5</p>
<p>July</p>	<p>Unit IV Physical Education & Sports for CWSN (Children With Special Needs – Divyang)</p>	<ul style="list-style-type: none"> ● Organisations promoting disability sports ● Advantages of physical activities for CWSN ● Strategies to make Physical Activities accessible for children with special needs. <p>TEACHING OBJECTIVE</p> <ul style="list-style-type: none"> ● To teach different types of physical activities for CWSN 	<p>6</p>
	<p>Unit VI Test & Measurement in Sports</p>	<ul style="list-style-type: none"> ● Fitness test: SAI Khelo India Fitness Test in School ● Computing basal metabolic rate BMR ● Rikli & Jones – Senior Citizen Fitness Test <ol style="list-style-type: none"> 1. Chair Stand Test for lower body strength 2. Arm Curl Test for upper body strength 3. Chair Sit & Reach Test for lower body flexibility 4. Back Scratch Test for upper body flexibility 5. Eight Foot Up & Go Test for agility 6. Six Minute Walk Test for Aerobic Endurance <p>TEACHING OBJECTIVE</p> <ul style="list-style-type: none"> ● Different tests to analyze the physical fitness components 	<p>4</p>

<p style="text-align: center;">July</p>	<p>Unit VII Physiology & Injuries in Sports</p>	<ul style="list-style-type: none"> ● Physiological factor determining component of Physical Fitness ● Effect of exercise on Cardio respiratory System ● Effect of exercise on Muscular System ● Sports injuries: Classification, Causes & Prevention ● Management of Injuries: Soft Tissue Injuries: (Abrasion, Contusion, Laceration, Incision, Sprain & Strain) Bone & Joint Injuries: (Dislocation, Fractures: Stress Fracture, Green Stick, Comminatedf, Transverse Oblique & Impacted) TEACHING OBJECTIVE <ul style="list-style-type: none"> ● Applied physiology ● Injuries: prevention, treatment and rehabilitation in sports 	<p style="text-align: center;">8</p>
<p style="text-align: center;">August</p>	<p>Unit VIII Biomechanics & Sports</p>	<ul style="list-style-type: none"> ● Newton’s Law of Motion & its application in sports ● Equilibrium: dynamic and static ● Center of gravity and its application in sports ● Friction and sports ● Projectile and sports TEACHING OBJECTIVE <ul style="list-style-type: none"> ● Need and importance of biomechanics in sports ● Laws of motion 	<p style="text-align: center;">4</p>
	<p>Unit IX Psychology & Sports</p>	<ul style="list-style-type: none"> ● Personality; its definition & types – Trait & Types (Jung Classification) & Big Five Theory ● Meaning, Concept & Types of aggressions in Sports ● Psychological attributes in sports TEACHING OBJECTIVE <ul style="list-style-type: none"> ● Personality, motivation and aggression ● The psychological traits will be covered in this chapter 	<p style="text-align: center;">8</p>
<p>September Term Examination</p>			

October	Unit X Training in Sports	<ul style="list-style-type: none"> ● concept of talent identification and talent development in sports ● introduction of training cycles ● Strength – Definition, types & methods of improving Strength – Isometric, Isotonic & Isokinetic ● Endurance – Definition, types & methods to develop Endurance – Continuous Training, Interval Training & Fartlek Training ● Speed – Definition, types & methods to develop Speed – Acceleration Run ● Flexibility – Definition, types & methods to improve flexibility ● Coordinative Abilities – Definition & types <p>TEACHING OBJECTIVE</p> <ul style="list-style-type: none"> ● Application based, scientific ways of training 	10
November and December: Revision-Presentations by the students			

**DAV PUBLIC SCHOOL, UPPAL'S SOUTHEND, SECTOR 49,
GURUGRAM**

CLASS XII (PHYSICS)

Academic plan for 2022-2023

CHAPTER NO.	NAME OF CHAPTERS	WEIGHTAGE
1.	Electric charges and field	16
2.	Electric Potential and Capacitance	
3.	Current Electricity	
4.	Magnetic effect of current	17
5.	Magnetism and Matter	
6.	Electromagnetic Induction	
7.	Alternating current	
8.	Electromagnetic Waves	18
9.	Wave Optics	
10.	Ray Optics	
11.	Dual Nature of Radiation & Matter	12
12.	Atoms	
13.	Nuclei	
14.	Electronic Devices	07
TOTAL		70

CURRICULUM PLANNER FOR CLASS XII

MONTH	CHAPTER	
April	Electric charges and field Electric Potential and Capacitance	Remarks
No. of Teaching Days: 21	<p><u>Electric charges and field</u> Electric Charges; Conservation of charge, Coulomb's law-force between two point charges, forces between multiple charges; superposition principle and continuous charge distribution. Electric field, electric field due to a point charge, electric field lines, electric dipole, electric field due to a dipole, torque on a dipole in uniform electric field. Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside).</p> <p><u>Electric Potential and Capacitance</u> Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges.</p>	
May	Electric Potential and Capacitance Current electricity	Remarks
No. of Teaching Days: 22	<p><u>Electric Potential and Capacitance (contd...)</u> 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.</p> <p><u>Current electricity</u> Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, V-I characteristics (linear and non-linear), electrical energy and power, electrical resistivity and conductivity, temperature dependence of resistance.</p>	

MONTH	CHAPTER	
July	Current electricity Magnetic effects of current	Remarks
No. of Teaching Days: 25	<p><u>Current electricity</u> Internal resistance of a cell, potential difference and emf of a cell combination of cells in series and in parallel. Kirchhoff's laws, Wheatstone bridge</p> <p><u>Magnetic effects of current</u> Concept of magnetic field, Oersted's experiment. Biot – Savart's law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight solenoids, force on a moving charge in uniform</p>	

	magnetic and electric fields.	
MONTH	CHAPTER	
August	Magnetic effects of current Magnetism Electromagnetic induction	Remarks
No. of Teaching Days: 21	<p><u>Magnetic effects of current</u> 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><u>Magnetism</u> 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; Para-, dia- and ferro - magnetic substances, with examples.</p> <p><u>Electromagnetic induction</u> Electromagnetic induction; Faraday's law, induced EMF and current; Lenz's Law, Eddy currents. Self and mutual induction</p>	

MONTH	CHAPTER	
September	Electromagnetic Waves	Remarks
No. of Teaching Days: 9	<p><u>Electromagnetic Waves</u> 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>	

SEPTEMBER TERM EXAMINATION

MONTH	CHAPTER	
October	Alternating current Electronic devices Atoms & Nuclei	Remarks
No. of Teaching Days: 12	<p><u>Alternating current</u> Alternating currents, peak and RMS value of alternating current/voltage; reactance and impedance ;LCR series circuit (phasor only), resonance; power in AC circuits, wattless current.AC generator and transformer.</p> <p><u>Electronic devices</u> Energy bands in solids (Qualitative ideas only) Insulator and semiconductor; Intrinsic and Extrinsic Semiconductor, P-type and N-type Semiconductor, semiconductor diode; I-V characteristics in forward and reverse bias, diode as a rectifier;</p>	

	<p><u>Atoms & Nuclei</u> Bohr model of hydrogen atom, Expression for radius of nth possible orbit, velocity and energy of electron in his orbit, of hydrogen line spectra (qualitative treatment only). Composition and size of nucleus. Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission, nuclear fusion.</p>	
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MONTH	CHAPTER	REMARKS
November	<p style="text-align: center;">Ray Optics Wave Optics Dual nature of Matter and Radiation</p>	
<p><i>No. of Teaching Days: 22</i></p>	<p><u>Ray Optics:</u> Reflection of light, spherical mirrors, mirror formula. Refraction of light, total internal reflection, optical fibers. Refraction at spherical surfaces, lenses, thin lens formula, lens maker's Formula. Magnification, power of a lens, combination of thin lenses in contact, combination of a lens and a mirror. Refraction and dispersion of light through a prism. Optical instruments: Microscopes, astronomical telescopes (reflecting and refracting) and their magnifying powers.</p> <p><u>Wave optics:</u> Wave front and Huygens' principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygens' principle. Interference, Young's double slit experiment and expression for fringe width, coherent sources and sustained interference of light. Diffraction due to a single slit, width of central maximum.</p> <p><u>Dual nature of Matter and radiation</u> Dual nature of radiation. Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation- particle nature of light. Matter waves-wave nature of particles, de Broglie relation.</p>	

PREBOARD EXAMINATION

PRACTICALS

The record to be submitted by the students at the time of their annual examination has to include:

1. Record of at least 08 Experiments [with 4 from each section], to be performed by the students.
2. Record of at least 6 Activities [with 3 each from section A and section B], to be performed by the students.
3. The Report of the project to be carried out by the students.

Evaluation Scheme for Practical Examination	
Two experiments one from each section:	7+7 Marks
Practical record (experiments & activities):	5 Marks
One activity from any section	3 Marks
Investigatory Project	3 Marks
Viva on experiments, activities and project	5 Marks
Total	30 Marks

LIST OF EXPERIMENTS AND ACTIVITIES

SECTION A

Experiments:

1. To determine resistivity of two / three wires by plotting a graph for potential difference versus current.
2. To find resistance of a given wire / standard resistor using metre bridge.
3. To verify the laws of combination (series) of resistances using a metre bridge.

OR

To verify the laws of combination (parallel) of resistances using a metre bridge.

4. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.
5. To convert the given galvanometer (of known resistance and figure of merit) into a voltmeter of desired range and to verify the same.

OR

To convert the given galvanometer (of known resistance and figure of merit) into an ammeter of desired range and to verify the same.

6. To find the frequency of AC mains with a sonometer.

Activities

1. To measure the resistance and impedance of an inductor with or without iron core.
2. To measure resistance, voltage (AC/DC), current (AC) and check continuity of a given circuit using multimeter.
3. To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source.
4. To assemble the components of a given electrical circuit.
5. To study the variation in potential drop with length of a wire for a steady current.
6. To draw the diagram of a given open circuit comprising at least a battery, resistor/ rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram.

SECTION B

Experiments

1. To find the value of v for different values of u in case of a concave mirror and to find the focal length.
2. To find the focal length of a convex lens by plotting graphs between u and v or between $1/u$ and $1/v$.
3. To find the focal length of a convex mirror, using a convex lens.
4. To find the focal length of a concave lens, using a convex lens.
5. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.
6. To determine refractive index of a glass slab using a travelling microscope.
7. To find refractive index of a liquid by using convex lens and plane mirror.
8. To find refractive index of a liquid by using concave mirror and plane mirror.
9. To draw the I-V characteristic curve for a p-n junction diode in forward bias and reverse bias.

Activities

1. To identify a diode, an LED, a transistor, and IC, a resistor and a capacitor from mixed collection of such items.
2. Use of multimeter to (i) identify base of transistor (ii) distinguish between npn and pnp type transistors (iii) see the unidirectional flow of current in case of a diode and an LED (iv) check whether a given electronic component (e.g. diode, transistor or IC) is in Working order.
3. To study effect of intensity of light (by varying distance of the source) on an L.D.R.
4. To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab.
5. To observe polarization of light using two Polaroids.
6. To observe diffraction of light due to a thin slit.
7. To study the nature and size of the image formed by (i) convex lens (ii) concave mirror, on a screen by using a candle and a screen (for different distances of the candle from the lens mirror).
8. To obtain a lens combination with the specified focal length by using two lenses from the given set of lenses.

Suggested Investigatory Projects

1. To study various factors on which the internal resistance/EMF of a cell depends.
2. To study the variations in current flowing in a circuit containing an LDR because of a variation in (a) the power of the incandescent lamp, used to 'illuminate' the LDR (keeping all the lamps at a fixed distance). (b) the distance of an incandescent lamp (of fixed power) used to 'illuminate' the LDR.
3. To find the refractive indices of (a) water (b) oil (transparent) using a plane mirror, an equi convex lens (made from a glass of known refractive index) and an adjustable object needle.
4. To design an appropriate logic gate combination for a given truth table.
5. To investigate the relation between the ratio of (i) output and input voltage and (ii) number of turns in the secondary coil and primary coil of a self-designed transformer.
6. To investigate the dependence of the angle of deviation on the angle of incidence using a hollow prism filled one by one, with different transparent fluids.
7. To estimate the charge induced on each one of the two identical styrofoam (or pith) balls suspended in a vertical plane by making use of Coulomb's law.
8. To study the factor on which the self-inductance of a coil depends by observing the effect of this coil, when put in series with a resistor/(bulb) in a circuit fed up by an A.C. source of adjustable frequency.
9. 9. To study the earth's magnetic field using a tangent galvanometer.

DAV PUBLIC SCHOOL, SEC 49, GURUGRAM

DAV PUBLIC SCHOOL UPPAL'S SOUTHEND SECTOR 49, GURGAON

ACADEMIC PLAN

CLASS XII POLITICAL SCIENCE (THEORY)

POLITICAL SCIENCE (Code No. 028)(2022-23)

Rationale

At the senior secondary level, students who opt for Political Science are given an opportunity to get exposed to the diverse concepts of the discipline helping them to be a global citizen and develop skills to understand, apply and evaluate. At this level, there is a need to enable students to have the skills to engage with political processes that surround them and provide them with an understanding of the historical context that has shaped the present. The different courses expose the students to various streams of the discipline of Political Science: Political Theory, Indian Politics and International Politics. Concerns of the other two streams - Comparative Politics and Public Administration- are accommodated at different places in these courses. In introducing these streams, special care has been taken not to burden the students with the current jargon of the discipline. The basic idea here is to lay the foundations for a serious engagement with the discipline and develop competencies related to Political Science to prepare them for higher education, learning and knowledge.

Competencies and Outcomes:

1. Indian Constitution at Work:

Competency: Understanding, identifying and analyzing the key features, historical processes and working of the Constitution of India.

Outcomes: The students will:

Understand the historical processes and the circumstances in which the Constitution was drafted.

Be familiar with the diverse perspectives that guided the makers of the Indian Constitution.

Identify key features of the Constitution and compare these to other constitutions in the world.

Analyse the working of the Constitution in real life.

2. Political Theory:

Competency: Understanding, critically evaluating and applying political theory

Outcomes: After the course the students will:

Understand different themes and thinkers associated with the real life.

Develop the skills for logical reasoning

Meaningfully participate in the issues and concerns of political life surrounding them.

3. Contemporary World Politics:

Competency: Understanding, analyzing the Contemporary World Politics

Outcomes: After the course the students will:

Understand the contemporary world.

Understand the key political events and processes in the post-cold war era.

Analyze various global institutions, processes and events shaping their lives.

4. Politics in India after Independence:

Competency: Critically evaluate and understand, analyze politics in India after Independence

Outcomes: After the course the students will:

Understand and analyze constitutional institutions, figures and their working in the post-independence period; political events, trends, other facts and figures and contribution of eminent personalities from the post-independence to contemporary India.

Develop their capacity to link political policies and processes with contemporary realities.

Encourage the students to understand and analyse the challenges for contemporary India.

DAV PUBLIC SCHOOL UPPAL'S SOUTHEND SECTOR 49, GURGAON
ACADEMIC PLAN
CLASS XII POLITICAL SCIENCE (THEORY)

POLITICAL SCIENCE (028)
Class XI (2022-23)

Total Marks = 100(80+20)

A. Theory

Max Marks: 80
Time: 3 hrs.

Part A: Indian Constitution at Work

Units	Contents	Marks
1	Constitution	12
2	Election and Representation	10
3	The Legislature	
4	The Executive	08
5	The Judiciary	
6	Federalism	10
7	Local Governments	
	Total	40

Part B: Political Theory

Units	Contents	Marks
8	Political Theory: An Introduction	04
9	Liberty	10
10	Equality	
11	Justice	08
12	Rights	
13	Citizenship	10
14	Nationalism	
15	Secularism	08
	Total	40

B. Project Work:

20 Marks

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ACADEMIC PLAN
CLASS XII POLITICAL SCIENCE (THEORY)

Grand Total = 100

DAV PUBLIC SCHOOL UPPAL'S SOUTHEND SECTOR 49, GURGAON

ACADEMIC PLAN

CLASS XII POLITICAL SCIENCE (THEORY)

COURSE CONTENT

Part A: Indian Constitution at Work

MAY

- 1. Constitution** **28 Periods**
Constitution: Why and How, The Making of the Constitution, Fundamental Rights and Duties, Directive Principles of State Policy, constitutional Amendments.

JULY

- 2. Election and Representation** **12 Periods**
Elections and Democracy, Election System in India, Electoral Reforms.
- 3. Legislature** **16 Periods**
Why do we need a Parliament? Unicameral / Bicameral Legislature. Functions and Power of the Parliament, Parliamentary committees. Parliamentary Officials: Speaker, Deputy Speaker, Parliamentary Secretary.
- 4. Executive** **16 Periods**
What is an Executive? Different Types of Executive. Parliamentary Executive in India, Prime Minister and Council of Ministers. Permanent Executive: Bureaucracy.

AUGUST

- 5. Judiciary** **16 Periods**
Why do we need an Independent Judiciary? Structure of the Judiciary, Judicial Review, Judicial Activism, Judicial Over-reach.
- 6. Federalism** **14 Periods**
What is Federalism? Evolution & Growth of the Indian Federalism: Quasi Federalism, Cooperative Federalism & Competitive Federalism.
- 7. Local Governments** **12 Periods**
Why do we need Local Governments? Growth of Local Government in India, 73rd and 74th Amendments, Working and Challenges of Local Governments.

Part B: Political Theory

SEPTEMBER

- 8. Political Theory: An Introduction** **08 Periods**
What is Politics? Politics V/s Political Theory, Importance of Political Theory.
- 9. Liberty** **12 Periods**
Liberty V.s Freedom, Negative and Positive Liberty.

OCTOBER

- 10. Equality** **12 Periods**
What is Equality? Significance of Equality. Various dimensions of Equality. How can we promote Equality?
- 11. Justice** **14 Periods**
What is Justice? Different dimensions of Justice, Distributive Justice.

NOVEMBER

- 12. Rights** **14 Periods**
What are Rights? Where do Rights come from? Legal Rights and the State. Kinds of Rights. Human Rights.

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CLASS XII POLITICAL SCIENCE (THEORY)

13. Citizenship

12 Periods

What is citizenship? Citizen and Citizenship, Citizen and Nation, Global Citizenship

DECEMBER-JANUARY

14. Nationalism

16 Periods

Nations and Nationalism, Variants of Nationalism, Nationalism, Pluralism and Multiculturalism.

15. Secularism

18 Periods

What is Secularism? What is Secular State? The Western and the Indian perspectives to Secularism. Salient Features of Indian Secularism.

FEBRUARY-MARCH

*REVISION AND FINAL EXAMINATIONS

Prescribed Books:

1. Indian Constitution at work, Class XI, Published by NCERT
2. Political Theory, Class XI, Published by NCERT
3. Reference Material available with the document

Note: The above textbooks are also available in Hindi and Urdu versions.

DAV PUBLIC SCHOOL UPPAL'S SOUTHEND SECTOR 49, GURGAON
ACADEMIC PLAN
CLASS XII POLITICAL SCIENCE (THEORY)

Question Paper Design (2022-23) POLITICAL SCIENCE (CODE NO. 028) CLASS XI	
TIME: 3 Hours	Max. Marks: 80
S.No.	Competencies
1	Demonstrative Knowledge + Understanding (Knowledge based simple recall questions, to know specific facts, terms, concepts, principles or theories, identify, define, or recite, information) (Comprehension – to be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase information)
2	Knowledge / Conceptual Application (Use abstract information in concrete situation, to apply knowledge to new situations; use given content to interpret a situation, provide an example or solve a problem)
3	Formulation Analysis, Evaluation and Creativity Analysis & Synthesis- classify, compare, contrast, or differentiate between different pieces of information; organize and/or integrate unique pieces of information from a variety of sources; includes map interpretation

Project Work: 20 Marks

<p><u>Details of Project Work</u></p> <ol style="list-style-type: none"> 1. The Project work will be implemented for 20 Marks. 2. Out of 20 marks, 10 marks are to be allotted to viva voce and 10 marks for project work. 3. For class XII, the evaluation for 20 marks project work should be done jointly by the internal as well as the external examiners. 4. The project can be individual/pair/group of 4-5 each. The Project can be made on the topics given in the syllabus of a particular class. 5. The suggestive list of activities for project work is as follows: - Role Play, Skit, Presentation, Model, Field Survey, Mock Drills/Mock Event etc. 6. The teacher should give enough time for preparation of the Project Work. The topics for Project Work taken up by the student must be discussed by the teacher in classroom.
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DAV PUBLIC SCHOOL UPPAL'S SOUTHEND SECTOR 49, GURGAON

ACADEMIC PLAN

CLASS XII POLITICAL SCIENCE (THEORY)

POLITICAL SCIENCE (Code No. 028)

Class XII (2022-23)

Time: 3 hrs.

Max. Marks: 80

Part A: Contemporary World Politics

Units	Contents	Marks
1	The End of Bipolarity	8
2	New Centres of Power	12
3	Contemporary South Asia	
4	United Nations and its Organizations	10
5	Security in Contemporary World	
6	Environment and Natural Resources	10
7	Globalization	
	Total	40

Part B: Politics in India since Independence

Units	Contents	Marks
1	Challenges of Nation-Building	08
2	Planned Development	
3	India's Foreign Policy	08
4	Parties and Party System in India	12
5	Democratic Resurgence	
6	Regional Aspirations	12
7	Indian Politics: Recent Trends and Development	
	Total	40

DAV PUBLIC SCHOOL UPPAL'S SOUTHEND SECTOR 49, GURGAON**ACADEMIC PLAN****CLASS XII POLITICAL SCIENCE (THEORY)****COURSE CONTENTS**

Part A: Contemporary World Politics		
	MARCH-APRIL	
1.	The End of Bipolarity Disintegration of Soviet Union, Unipolar World, Middle East Crisis – Afghanistan, Gulf War, Democratic Politics and Democratization – CIS and the 21 st Century (Arab Spring).	22 Periods
	MAY-JUNE	
2	New Centers of Power Organizations: European Union, ASEAN, SAARC, BRICS. Nations: Russia, China, Israel, India, Japan and South Korea.	18 Periods
3	Contemporary South Asia Conflicts and efforts for Peace Democratization in South Asia: Pakistan, Nepal, Bangladesh, Sri Lanka, Maldives.	18 Periods
4	United Nations and its Organizations Principal Organs, Key Agencies: UNESCO, UNICEF, WHO, ILO, Security Council and the Need for its Expansion.	10 Periods
	JULY-AUGUST	
5	Security in Contemporary World Security: Meaning and Type; Terrorism.	12 Periods
6	Environment and Natural Resources Environmental Movements, Global Warming and Climate Change, Conservation of Natural Resources.	12 Periods
7	Globalization Globalization: Meaning, Manifestation and Debates.	12 Periods
Part B: Politics in India since Independence		
	AUGUST-SEPTEMBER	
1	Challenges of Nation-Building Nation and Nation Building. Sardar Vallabh Bhai Patel and Integration of States. Nehru's approach to nation-building; Legacy of partition: challenge of 'refugee' Resettlement, the Kashmir problem. Political conflicts over language. Linguistic Organisation of States.	16 Periods
2	Planned Development Changing nature of India's Economic Development Planning Commission and Five Year Plans, National Development Council, NITI Aayog.	08 Periods
	OCTOBER	

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CLASS XII POLITICAL SCIENCE (THEORY)

3	India's Foreign Policy Principles of Foreign Policy; India's Changing Relations with Other Nations: US, Russia, China, Israel; India's Relations with its Neighbours: Pakistan, Bangladesh, Bhutan, Nepal, Sri Lanka and Myanmar; India's Nuclear Programme.	20 Periods
4	Parties and Party System in India One Party Dominance, Bi-Party System, Multi-Party Coalition System.	30 Periods
	NOVEMBER	
5	Democratic Resurgence Jaya Prakash Narayan and Total Revolution, Ram Manohar Lohia and Socialism, Pandit Deendayal Upadhyaya and Integral Humanism, National Emergency, Democratic Upsurges – Participation of the Adults, Backwards and Youth.	
6	Regional Aspirations Rise of regional parties. Punjab Crisis. The Kashmir Issue, Movements for Autonomy.	36 Periods
7	Indian Politics: Recent Trends and Development Era of Coalitions, National Front, United Front, United Progressive Alliance (UPA) – I & II, National Democratic Alliance (NDA) I, II, III & IV, Issues of Development and Governance.	

DAV PUBLIC SCHOOL UPPAL'S SOUTHEND SECTOR 49, GURGAON

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CLASS XII POLITICAL SCIENCE (THEORY)

Prescribed Books:

1. Contemporary World Politics, Class XII, Published by NCERT
2. Politics in India since Independence, Class XII, Published by NCERT
3. Reference Material available with this document.

Note:

- The above textbooks are also available in Hindi and Urdu versions.

POLITICAL SCIENCE (CODE NO. 028) CLASS XII	
S. No.	Competencies
1	Demonstrative Knowledge + Understanding (Knowledge based simple recall questions, to know specific facts, terms, concepts, principles or theories, identify, define, or recite, information) (Comprehension – to be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase information)
2	Knowledge / Conceptual Application (Use abstract information in concrete situation, to apply knowledge to new situations; use given content to interpret a situation, provide an example, or solve a problem)
3	Formulation Analysis, Evaluation and Creativity Analysis & Synthesis- classify, compare, contrast, or differentiate between different pieces of information; organize and/or integrate unique pieces of information from a variety of sources; includes map interpretation

Project Work: 20 Marks

Details of Project Work

1. The Project work will be implemented for 20 Marks.
2. Out of 20 marks, 10 marks are to be allotted to viva voce and 10 marks for project work.
3. For class XII, the evaluation for 20 marks project work should be done jointly by the internal as well as the external examiners.
4. The project can be individual/pair/group of 4-5 each. The Project can be made on any of the topics given in the syllabus of a particular class.
5. The suggestive list of activities for project work is as follows: -
Role Play, Skit, Presentation, Model, Field Survey, Mock Drills/Mock Event etc.
6. The teacher should give enough time for preparation of the Project Work. The topics for Project Work taken up by the student must be discussed by the teacher in classroom.

DAV PUBLIC SCHOOL UPPAL'S SOUTHEND SECTOR 49, GURGAON

ACADEMIC PLAN

CLASS XII POLITICAL SCIENCE (THEORY)

Guidelines for Subject having Project Work: 20 Marks

(Political Science)

One Project to be done throughout the session, as per the existing scheme.

1. The objectives of the project work:

Objectives of project work are to enable learners to:

acquired during the course of class XI-XII.

ation of critical and creative thinking skills and abilities to produce an independent and extended piece of work

2. Role of the teacher:

The teacher plays a critical role in developing thinking skills of the learners. A teacher should:

ect work of the learner through periodic discussions;

in their projects and duly acknowledge the same;

during the research and give appropriate references used in doing the research work.

ortance of quoting the source of the information to ensure authenticity of research work.

3. Steps involved in the conduct of the project:

Students may work upon the following lines as a suggested flow chart:

Choose a Title/Topic



Need of the Study, Objective of the Study Hypothesis



Content -Timeline, Maps, Mind maps, Pictures, etc.



(Organization of Material/Data



Present Material/Data)

DAV PUBLIC SCHOOL UPPAL'S SOUTHEND SECTOR 49, GURGAON

ACADEMIC PLAN

CLASS XII POLITICAL SCIENCE (THEORY)

Analyzing the Material/Data for Conclusion



Draw the Relevant Conclusion



Bibliography

4. Expected Checklist for the Project Work:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] term and long-term implications of strategies suggested in the course of research

[REDACTED]

in the project file

[REDACTED]

[REDACTED]

5. Assessment of Project Work:

- Project Work has broadly the following phases: Synopsis/ Initiation, Data Collection, Data Analysis and Interpretation, Conclusion.
- The aspects of the project work to be covered by students can be assessed during the academic year.
- 20 marks assigned for Project Work can be divided in the following manner:

The teacher will assess the progress of the project work in the following manner:

Month	Periodic Work	Assessment Rubrics	Marks
April -July	Instructions about Project Guidelines, Background reading Discussions on Theme and Selection of the Final Topic, Initiation/ Synopsis	Introduction, Statement of Purpose/Need and objectives of the study, Hypothesis/Research Question, Review of Literature, Presentation of Evidence, Methodology, Questionnaire, Data Collection.	6
August - October	Planning and organization: forming an action plan, feasibility, or baseline study, Updating/modifying the action plan, Data Collection	Significance and relevance of the topic; challenges encountered while conducting the research.	5
November - January	Content/data analysis and interpretation. Conclusion, Limitations, Suggestions, Bibliography, Annexures and overall	Content analysis and its relevance in the current scenario. Conclusion, Limitations, Bibliography, Annexures and Overall Presentation.	5

DAV PUBLIC SCHOOL UPPAL'S SOUTHEND SECTOR 49, GURGAON
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CLASS XII POLITICAL SCIENCE (THEORY)

	presentation of the project.		
January/ February	Final Assessment and VIVA by both Internal and External Examiners	External/ Internal Viva based on the project	4
		TOTAL	20

6. Suggestive Topics:

Students can choose any topic related to the syllabus.

- Assessment will be done by external examiner in coordination with internal examiner and the date of Project Assessment will be fixed by CBSE in the month of February/March 2023.

7. Viva-Voce

☑ At the end of the stipulated term, each learner will present the research work in the Project File to the External and Internal examiner.

_____ /her own original work.

DAV PUBLIC SCHOOL UPPAL'S SOUTHEND SECTOR 49, GURGAON
ACADEMIC PLAN
CLASS XII POLITICAL SCIENCE (THEORY)

POLITICAL SCIENCE

REFERENCE MATERIAL

DAV PUBLIC SCHOOL UPPAL'S SOUTHEND SECTOR 49, GURGAON

ACADEMIC PLAN

CLASS XII POLITICAL SCIENCE (THEORY)

The 2019 Lok Sabha elections, the 17th since independence, once again brought back BJP led NDA [NDA IV] to the centre of power by winning more than 350 seats out of 543. The BJP on its own won 303 seats in Lok Sabha, the biggest number any single party has won in the lower house since 1984 when Congress swept the elections in the aftermath of Mrs Indira Gandhi's assassination. Based on the tumultuous success of the BJP in 2019, Social Scientists have started equating the contemporary party system with the 'BJP System' where an era of one party dominance, like the 'Congress System' has once again started appearing on the democratic politics of India.

Sub-Unit: 'Issues of Development and Governance'

In addition to schemes already existing, several socio-economic welfare schemes have been initiated to make development and governance accessible to the masses such as -

Pradhan Mantri Ujjwala Yojana, Swachh Bharat Abhiyan, Jan-Dhan Yojana, Deendayal Upadhyaya Gram Jyoti Yojana, Kisan Fasal Bima Yojna, Beti Bachao Beti Padhao, Ayushman Bharat Yojana, etc.

All these schemes intended to take administration to the doorstep of the common man by making the rural households, particularly the women, real beneficiaries of the Central Government schemes.

D.A.V. PUBLIC SCHOOL, SECTOR-49, UPPAL'S SOUTHEND, GURUGRAM
ACADEMIC PLANNER FOR THE SESSION 2022-23

- **SUBJECT:- HOME-SCIENCE**
- **CLASS:- Grade XII**
- **MAX MARKS:- 100 (70-Theory and 30- Practical)**

- **Learning Objectives:**

The Home Science curriculum at senior secondary level has been framed to enable the learners to:

1. Develop an understanding of the self and one's role and responsibilities as a productive individual and as a member of family, community and society.
2. Integrate learning across diverse domains and undertake a critical analysis of issues and concerns specific to family, community and society.
3. Appreciate the discipline of Home Science for professional careers.
4. Acquaint learners with the basic knowledge specific to five domains

namely, Foods and nutrition, Human Development and Family studies, Fabric and Apparel, Resource Management and Communication and Extension.

5. Develop functional skills in the five domains for career and employment.
6. Equip learners for enrichment and higher studies.

Learning outcomes:

After undertaking the course students will be able to:

1. Function as a productive and responsible individual in relation to self, family, community and society.
2. Apply the basics of human development with specific reference to self, family and community.
3. Utilize the skills of judicious management of various resources.
4. Be sensitized to fabric and apparel, their selection and care.
5. Inculcate healthy food habits and lifestyle to enable prevention and management of diseases.
6. Become alert and aware consumer.
7. Appreciate the potential of entrepreneurship and other varied professional opportunities to make informed career choices.

• MONTHWISE DIVISION OF SYLLABUS:-

HOME SCIENCE (2021-22) **CLASS XII**

IN THE MONTH OF 'April'

UNIT I WORK ,LIVELIHOOD AND CAREER (15-periods)

Chapter: WORK ,LIVELIHOOD AND CAREER

- Introduction
 - Work and meaningful work
 - Work, careers and livelihood
- Traditional occupation in India
 - Agriculture
 - Handicrafts
 - Indian cuisine
 - Visual arts

- Work ,Age and Gender
 - Gender issues in relation to work
 - Issues and concerns related to women and work

✓ KGBV

✓

Beti bachao ,Beti Padhao Yojana

- Attitudes and approaches to work and life skills for livelihood
 - Attitudes and approaches to work
 - Lifeskills for livelihood
 - Essential soft skills at workplace
- Ergonomics
 - Definition and need for ergonomics
 - Benefits of Ergonomics
- Entrepreneurship
 - Definition and characteristics

UNIT II NUTRITION, FOOD SCIENCE AND TECHNOLOGY (30 periods)

Chapter: CLINICAL NUTRITION AND DIETETICS

- Introduction
 - Nutrition
 - Clinical Nutrition
- Significance
- Basic concepts
 - Diet therapy
- Types of diets: Regular Diet and Modified diets
 - Changes in consistency
 - Feeding routes
 - Prevention of chronic diseases
- Preparing for career
- Scope

IN THE MONTH OF 'May'

Chapter: PUBLIC NUTRITION AND HEALTH

- Introduction
- Significance

- Basic concept
 - Public health nutrition
 - Nutritional Problems of India
 - Protein energy malnutrition
 - Micronutrient deficiencies
 - Iron deficiency anemia
 - Vitamin A deficiency
 - Iodine deficiency disorders
- Strategies/Intervention to tackle Nutritional problems
 - Diet or food based strategies
 - Nutrient based strategies
- Nutrition programmes operating in India
 - ICDS
 - Nutrient Deficiency Control Programmes
 - Food Supplementation Programmes
 - Food Security Programme
- Health Care
- Scope

Chapter: CATERING AND FOOD SERVICE MANAGEMENT

- Introduction
- Significance
- Basic concepts
 - Food service Industry
 - Food Service Management
 - Food Service
 - Food service Manager
 - Menu compiling
- Types of Catering Services
 - Welfare or non-commercial
 - Commercial Services
- Types of food service systems
 - Conventional food service system
 - Commissary food service system
 - Ready prepared food service system
 - Assembly service system
- Menu planning
- Management in food service
- Preparing for a career
- Scope
- Careers in the catering and food service industry

Chapter: FOOD PROCESSING AND TECHNOLOGY

- Introduction
- Significance
- Basic Concepts
 - Food Science
 - Food Processing
 - Food Technology
 - Food Manufacturing
- Development of food processing and technology
- Importance of Food processing and Preservation
- Classification of food on the basis of extent and type of processing
- Preparing for a career
- Scope

IN THE MONTH OF 'June'

Chapter: FOOD QUALITY AND FOOD SAFETY

- Introduction

- Significance
- Basic Concepts
 - Food safety (Toxicity & Hazard)
 - Hazards (Physical, chemical and biological)
 - Food infection
 - Food poisoning
 - Food quality
- Food standards regulation in India-FSSA (2006)
- International Organization and agreements in the area of Food Standards, Quality, Research and Trade
 - Codex Alimentarius Commission
 - International Organization for Standardisation
 - World Trade Organization
- Food Safety Management Systems
 - Good manufacturing practices (GMP)
 - Good handling practices (GHP)
 - Hazard Analysis Critical Control Points (HACCP)
- Scope

JUNE MONTH - SUMMER BREAK

IN THE MONTH OF 'July'

UNIT III HUMAN DEVELOPMENT AND FAMILY STUDIES (24-periods)

Chapter: Early Childhood Care and Education

- Significance
- Basic concepts
- Preparing for a career
- Scope

Chapter: Special Education and Support Services

- Significance
- Basic Concepts
 - Disability and its classification
 - Causes of disabilities
 - Special education methods
- Knowledge and Skills
- Preparing for a career in special education

- Scope

IN THE MONTH OF 'August'

Chapter: Management of support services, Institutions and programmes for children, youth and elderly

- Significance
- Basic concepts
- Why are children vulnerable?
- Institutions, programmes and initiatives for children
 - ICDS
 - SOS Children's Village
 - Children's Homes run by the Government
 - Adoption
- Why are Youth vulnerable?
- Youth programmes in India
- Why are the elderly vulnerable?
- Some programmes for the elderly
- Preparing for a career
- Scope

UNIT IV FABRIC AND APPAREL (28-periods)

Chapter: Design for Fabric and Apparel

- Introduction
- Basic concepts (Design: Structural & Applied)
- Elements of design
 - Colour
 - Texture
 - Line
 - Shapes or form
- Principles of Design
 - Proportion
 - Balance
 - Emphasis
 - Rhythm
 - Harmony
- Preparing for career
- Scope

Chapter: Fashion Design and Merchandising

- Introduction
- Significance
- Basic Concepts
 - Fashion terminology –Fashion ,fads, style, classic
- Fashion Development

- France-The centre of fashion
- Fashion Evolution
- Fashion Merchandising
- Fashion Retail Organization
- Preparing For a career
- Scope

IN THE MONTH OF ‘September’

Chapter: Production and Quality Control in the garment industry

- Introduction
 - Garment industry in India
 - Production
 - Importance of production
- Basic concepts
 - Fabric Inspection and Testing
 - Laying and cutting of fabric
 - Assembly of the product
 - Finishing and packaging
- Quality assurance in the garment industry
- Preparing for a career
- Scope

Chapter: Care and maintenance of fabrics in Institution

- Introduction
- Basic concepts
 - Washing equipment
 - Drying equipment
 - Ironing/pressing equipment
- Institutions
- Preparing for a career
- Scope

IN THE MONTH OF ‘October’

UNIT V RESOURCE MANAGEMENT (24-periods)

Chapter: Human Resource Management

- Introduction

- Significance
 - Recruiting and staffing
 - Training and Developing employees
 - Retention and redressal
- Preparing for a career

Chapter: Hospitality Management

- Introduction
- Significance
- Basic concepts
- Departments involved in hospitality management of an organization
- Scope

Chapter: Consumer Education and Protection

- Introduction
- Significance of consumer education and protection
- Basic concepts
 - Consumer product
 - Consumer behaviour
 - Consumer forum
 - Consumer footfalls
 - Consumer problems
 - Consumer rights
 - Standardized marks (ISI, Wool Mark, Hall Mark, Silk Mark)
 - Protection Councils
 - Consumer Responsibilities
- Scope

IN THE MONTH OF 'November'

UNIT VI COMMUNICATION AND EXTENSION (7- periods)

Chapter: Development communication and Journalism

- Introduction
- Significance
- Basic concepts
 - Development
 - Development journalism
 - Development Communication
- Methods of communication
 - Campaign
 - Radio and television
 - Print media
 - Information and communication technologies
- Knowledge and skills required for a career in this field
- Scope and career avenues in development communication

Chapter: Media Management, Design and Production

- Introduction
- Significance
- Basic concepts
 - Media
 - Media planning
 - Media designing and production
 - Media evaluation and feedback
- Scope

PRACTICALS FOR CLASS XII

UNIT II NUTRITION, FOOD SCIENCE AND TECHNOLOGY

1. Modification of normal diet to soft diet for elderly person.
2. Development and preparation of supplementary foods for nutrition programme.
3. Planning a menu for a school canteen or mid-day meal in school for a week.
4. Design, prepare and evaluate a processed food product.
5. Qualitative test for food adulteration in: pure ghee, tea leaves, whole black pepper, turmeric powder, milk, asafoetida.

UNIT III HUMAN DEVELOPMENT AND FAMILY STUDIES

6. Preparation and use of any one teaching aid to communicate socially relevant messages for children/ adolescents /adults in the community.

OR

Preparation of any one toy for children (age appropriate) using locally available and indigenous material

UNIT IV FABRIC AND APPAREL

7. Preparation of any one article using applied textile design techniques; tie and dye/batik/block printing.
8. Application of quality control techniques in garment industry(any one readymade garment)-
 - a) Fabric inspection
 - b) Quality of seams and fasteners/notions
 - c) Size labels
9. Remove different types of stains from white cotton cloth –Ball pen, curry, grease, ink, lipstick, tea and coffee.

UNIT V RESOURCE MANAGEMENT

10. Evaluate any one advertisement for any job position.

11. Develop a leaflet/pamphlet for Consumer Education and Protection on any one of the following-

- a) Consumer Protection Act (CPA)
- b) Consumer responsibilities
- c) Consumer organization
- d) Consumer Problems

UNIT VI COMMUNICATION AND EXTENSION

12. Analysis and discussion of any one print/radio/electronic media with reference to focus, presentation, technology and cost.

PROJECT

ANY ONE OF THE FOLLOWING PROJECT MAY BE UNDERTAKEN AND EVALUATED-

1. Study of an integrated community based, nutrition/health programme being implemented in own area, with reference to-
 - a) Programme objectives
 - b) Focal Group/Beneficiaries
 - c) Modalities of implementation
2. Visit to the neighbouring areas and interview two adolescents and two adults regarding their perception of persons with special needs.
3. Profile any two person (child/adult) with special needs to find out their diet, clothing, activities, physical and psychological needs.
4. Planning any five messages for nutrition, health and life skills using different modes of communication for different focal groups.
5. Market survey any five processed foods with their packaging and label information.

• ASSESSMENT DETAILS & SYLLABUS SCHEDULE:-

QUESTION PAPER DESIGN 2020-21 HOME SCIENCE (CODE NO. 064) CLASS- XI & XII			
TIME: 3 HOURS		Max. Marks: 70	
S. No	Typology of Questions	Total Marks	% Weightage
1.	Knowledge and understanding based question terms, concepts, principles, or theories; Identify, define, or recite interpret, compare, contrast, explain, paraphrase information)	28	40%

2.	Application - or knowledge/concepts based questions (Use abstract information in concrete situation, to apply knowledge to new situations. Use given content to interpret a situation, provide an example, or solve a problem)	21	30%
3..	Formulation, analysis, Evaluation and creativity based question (Appraise, judge, and /or justify the value or worth of a decision or outcome, or to predict outcomes) Classify, compare, contrast, or differentiate between different pieces of integrate unique piece of information from a variety of sources)	21	30%
TOTAL		70	100

NOTE: Internal Choice of 30% will be given

Easy- 20%
Average- 60%
Difficult- 20%

SCHEME FOR PRACTICAL EXAMINATION

30 Marks

1. Project

(5 marks)

2. Modification of any one family meal for elderly person. Preparing any one of the modified dish.

(5 marks)

OR

Development and preparation of any one supplementary food for pre-schooler (2-6 years) nutrition programme.

OR

Planning a menu for school canteen and preparing any one nutritious dish.

3. Identify adulterant using chemical test in any one of the following- pure ghee, tea leaves, whole black pepper, turmeric powder, milk, asafoetida.

(2 marks)

4. Prepare a sample using applied textile design techniques tie and dye/batik/block printing. (4 marks)

5. Remove any one of the stain from white cotton cloth –Ball pen, curry, grease, ink, lipstick, tea, coffee. (2 marks)

6. Develop a leaflet/pamphlet for Consumer Education and Protection on any one of the following- (5 marks)

- a) Consumer Protection Act (CPA)
- b) Consumer responsibilities
- c) Consumer organization
- d) Consumer Problems

7. File (5 marks)

8. Viva (2 marks)

a) UT-1- To be conducted in the month of April-May (FOR 30 MARKS)
b) UT-2- To be conducted in the month of July (FOR 30 MARKS)
c) SEPTEMBER TERM – Half yearly exams (FOR 70 MARKS OF THEORY AND 30 MARKS OF PRACTICAL = TOTAL 100 MARKS)
d) UT-3- To be conducted in the month of October (FOR 30 MARKS)
e) FINAL EXAMS- complete term exam in the month of Feb-March (FOR 70 MARKS OF THEORY AND 30 MARKS OF PRACTICAL = TOTAL 100 MARKS)
f) PRACTICAL EXAMS: - During Half yearly and Final examination. Internal evaluations are also maintained throughout the session during Practical classes.

