ANNUAL CURRICULUM AND PEDAGOGICAL PLAN (ACPP)

CLASS: XII

SUBJECT: POLITICAL SCIENCE

TEACHER NAME: Vandana Rana

Month	Chapter Name	Book	Peri ods	Learning Outcomes	Teaching Learning Strategies / Activities	Resources	Assessment Tools (a) for Identifying Learning Gaps (b) for determining understandin g level	Interdisci plinary Approach
April	Ch-1 The End of Bipolarity Sub-topics a) The Soviet System b) Gorbachev and the disintegration c) Causes and Consequences of disintegration of Soviet Union d) Shock Therapy and its Consequences e) New entities in world politics • Russia • Balkan States • Central Asian States f) India's relations with	Contempora ry World Politics	6	Understand the disintegration of the USSR and its impact on world politics.	Map work, timeline analysis, group discussion	Textbook, videos, articles	Worksheets, MCQ, quiz	History: Soviet Union

			1	1	1			1
	Russia and other post-							
	communist countries							
April	Ch-1 Challenges of	Politics in	6	Evaluate	Role play	Textbook,	Reflection	Geography
-	Nation Building	India Since		partition,	on	documenta	worksheet,	: Partition
	Sub-Topics	Independen		integration of	partition	ries	short answer	map
	a) Challenges for the	ce		princely	debates.		test	1
	new Nation.			states, and	flowcharts			
	• Three Challenges.			challenges to				
	b) Partition:			national				
	Displacement and			unity.				
	Rehabilitation			unity.				
	Consequences of							
	Partition							
	Faithfull.							
	Drincely States							
	The mehlem							
	• The problem							
	• Government's							
	approach							
	• Hyderabad							
	Manipur							
	d) Reorganisation of							
	States.							
May	Chap. 2 Contemporary	Contempora	5	Understand	World	NCERT) MCQs,	Economics
	Centres of Power	ry World		the shift from	map	Textbook	concept maps	: Trade
	Sub-Topics	Politics		bipolarity to	marking	World	(b) Group	alliances
	a) European Union			multipolarity.	activity	map	discussion,	Geography
	b) Association of			• Identify the	(EU,	PPTs on	Q&A,	: Regional
	Southeast Asian Nations			role of the	ASEAN	regional	formative	map skills
	c) Rise of China as an			EU, ASEAN,	nations,	blocs	assessments	
	economic power d) Japan			China, and	China,	Articles on	via worksheets	
	and South Korea as			other	USA)	China and		
	emerging powers			emerging	• Case	ASEAN		
				powers in	study			
				global	analysis of			
				politics.	EU			
				• Analyze	integration			

				India's relationship with these centres of power.	and China's rise • Debate on India's strategic interests			
May	 2. Era of One-Party Dominance Sub- Topics Topics to be focused: a)Challenge of building democracy. b)Congress dominance in the first three general elect ions. Nature of Congress dominance Congress as social and ideological coalition. Tolerance and management of Factions Emergence of opposition parties. 	Politics in India Since Independen ce	5	Learn about electoral politics and Congress dominance post- independence	Election data analysis, chart work	Election Commissi on archives	Quiz, Q&A, class discussion	Civics: Election processes
May	Ch-3-Politics of Planned Development Sub-Topics a) Political contestation. • Ideas of Development. • Planning • Planning Commission	Politics in India Since Independen ce	6	Understand planning in India and its political implications.	Mock NITI Aayog, case study	Budget data, textbook	Graph analysis, worksheet	Economics : Five- Year Plans

	 b)The Early Initiatives The First Five Year Plan. Rapid Industrialisation. 							
July	 Ch-4- India's External Relations Sub-Topics a) International Context b) The Policy of Non-Alignment. Nehru's role Distance from two camps. Afro Asian Unity c) Peace and conflict with China The Chinese Invasion1962 War and Peace with Pakistan Bangladesh War 1971 d) India's Nuclear Policy. 	Politics in India Since Independen ce	7	Analyse India's foreign policy post- independence	Foreign policy simulation , interview script	MEA docs, textbook	Written reflection, policy critique	History: Nehru's policy
July	Ch-3- Contemporary South Asia Sub-Topics a) Military and Democracy in Pakistan and Bangladesh b) Monarchy and Democracy in Nepal c) Ethnic Conflict and Democracy in Sri Lanka d) India-Pakistan Conflicts e) India and its Neighbours f) Peace and Cooperation	Contempora ry World Politics	7	Understand relations among South Asian countries and India's role.	Debate, comparati ve table, regional analysis	SAARC docs, textbook	Comparative worksheet, quiz	Geography : SAARC map

July	Ch-5- Challenges to and Restoration of Congress System Sub-Topics a)Challenge of Political Succession • From Nehru to Shastri • From Shastri to Indira Gandhi b)Fourth General Election 1967 • Context of the Election. • Non Congressism • Electoral Verdict • Coalitions • Defections c)Split in the Congress • Indira vs the Syndicate • Presidential Election 1969 d)The 1971 Election and Restoration of Congress • The outcome and after • Restoration?	Politics in India Since Independen ce	7	Trace the rise of opposition and Congress decline.	Timeline creation, interview with 'voters'	Election data, textbook	Timeline quiz, Q&A	Civics: Electoral reforms
August	Ch-4- International Organizations Topics to be focused: a) Meaning and importance of International Organisations b) Evolution of the UN	Contempora ry World Politics	7	Understand the UN system and reforms in the Security Council.	UN simulation , country speeches	UN Charter, videos	Group project, rubric	Civics: Internation al bodies

August	f) India's Security strategy <u>Ch-6Environment and</u> Natural Resources Sub Topics	Contempora ry World	5	Understand environmenta	Document ary	NCERT, IPCC	Poster rubric, MCQ, short	Geography : Ecology
August	 g) India and the UN Reforms h) Key Agencies: IMF, World Bank, WTO, ILO, IAEA. i) NGO: Amnesty International, Human Rights Watch. j) Implications and Future of International Organizations Ch-5- Security in the Contemporary World Sub-Topics a) Meaning and Type of Security. b) Traditional concept of security. c) Non-tradition notions of Security. d) New Sources of Threats e) Cooperative Security f) India's Security 	Contempora ry World Politics	7	Learn about traditional and non- traditional security threats.	Crisis response activity, diagram drawing	Security studies excerpts	Short answer test, chart evaluation	Science: Climate and security
	 c) Structure and function of International Organisations d) Principal Organs of UN e) Reform of the UN after Cold War f) Reform of Structures, Processes and Jurisdiction 							

	 a) Environmental Concerns b) Global Commons c) Common but differentiated Responsibilities d) India's Stand on Environment Issues e) Environmental Movements f) Resource Geopolitics g) Rights of Indigenous 			global politics and India's ecological role.	poster- making, discussion on COPs	, newspaper clippings		conservati on
August	peoples Ch-6-The Crisis of Democratic Order Sub-Topics a)Background to Emergency. • Economic Context. • Gujarat and Bihar Movements • Conflict with Judiciary b)Declaration of Emergency • Crisis and response • Consequences c)Lessons of the Emergency. • Lok Sabha Elections 1977 • Janata Government • Legacy	Politics in India Since Independen ce	5	Evaluate the Emergency period and its implications.	Newspape r archive activity, oral history project	News clippings, textbook	Reflective essay, MCQ	History: 1975 Emergenc y
Septemb	Ch- 7- Globalisation	Contempora	7	Analyse	Case study	Textbook,	Group	Economics

er	Topics to be focused: a) Concept of globalization b) Causes and Consequences of globalization c) India and globalization d) Resistance to globalization e) India and resistance to globalisation	ry World Politics		economic, political, and cultural aspects of globalisation and its impacts.	discussion , debate (pro vs anti- globalisati on)	WTO briefs, TED Talks	presentation, quiz, worksheet	: Liberalisat ion and markets
Septemb er	Ch-7Regional Aspirations Sub-Topics a)Region and the Nation Indian Approach Areas of Tension Jammu and Kashmir Roots of the Problem External and Internal disputes Politics since 1948 Insurgency and After 2022 and Beyond b) Punjab Political Context Cycle of Violence Road to Peace c) The Northeast Demand for autonomy Secessionist Movements Movements against outsiders Assam and National	Politics in India Since Independen ce	7	Understand federal tensions and regional demands.	Map work, documenta ry screening	NCERT, news sources	Map quiz, MCQ	Geography : Regional distributio n
October	Ch8-Recent Developments in Indian	Politics in India Since	7	Discuss political	Debate on coalition	Current affairs,	Infographic rubric, quiz	Current Affairs,

	Politics	Independen		shifts,	governme	textbook		Economics
	Sub-Topics	ce		coalition	nts,			
	a) Context of 1990s			politics and	infographi			
	b) Era of Coalition			contemporary	c creation			
	Alliance Politics			trends.				
	c) Political rise if the							
	Backward Classes							
	Mandal Implemented							
	Political Fallouts							
	d) Communalism,							
	Secularism and							
	Democracy.							
	Ayodhya Dispute							
	• Demolition and after							
	e) Emergence of New							
	Consensus							
	f) Lok Sabha Elections							
	2004							
	g) Growing Consensus							
October	Revision + Internal	All Syllabus	As	Reinforce	Practice	Worksheet	Mock tests,	Integrated
	Assessments		need	concepts,	papers,	s	oral revision	review
			ed	bridge	group	Assessme		
				learning	revision	nts and		
				gaps, and	games,	feedback		
				prepare for	mock tests	tools		
				exams.				

ANNUAL CURRICULUM AND PEDAGOGICAL PLAN (ACPP)

CLASS : XII

NAME OF THE TEACHER: Bhavika Narang

SUBJECT : Economics

Learning Objectives:

- Understanding of some basic economic concepts and development of economic reasoning which learners can apply in day-to-day life.
- Realization of learners' role in Nation building.
- Equipment with basic tools of economics to analyze economic issues.
- Development of understanding that there can be more than one view on any economic issue and necessary skills to argue logically with reasoning.
- Understand the components which are used in measuring National Income.
- Understanding how the Macro model works in the economy and is helpful in achieving the objectives of macro economy.

Month	Chapter Name	Sub-topics	Periods	Learning Outcomes	Teaching Learning Strategies/Ac tivities	Resources	Assessment Tools (a) for Identifying Learning Gaps (b) for determining understanding level	Interdisciplinary Approach
April	Macroeconomic s: National Income and related aggregates	What is Macroecono mics? Basic concepts in macroecono mics: consumption goods, capital goods, final goods.	20	Differentiate between micro macroeconomic s. Site examples on micro and macroeconomic s. Understand the various concepts of National income and	Lecture method, class discussion, numerical practice, reasoning questions.	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Diagnostic tests, class test, worksheets on reasoning, numerical practice, concept mapping, quizzes.	Mathematics: Use of formulas, calculations, and interpretation of data tables. Geography: Link with economic geography—how national income varies across Indian states. Political Science:

		intermediate goods; stocks and flows; gross investment and depreciation Circular flow of income (two sector model) Aggregates related to National Income		their relevance in measuring NI. Enable them to draw circular flow of national income Enable the students to calculate various national income aggregates				Connect GDP growth with government policies and planning (e.g., Union Budget). Statistics : Use data interpretation and graphical representation of GDP/NDP trends.
May	Macroeconomic s: National income and related aggregates (cont.)	Methods of calculating National Income - Value Added or Product method, Expenditure method, Income method.	10	Chalk out the components of the Output Method and will enable them to formulate formulas. Enable them to calculate NI by output method.	Lecture method, class discussion, numerical practice, reasoning questions.	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Diagnostic tests, class test, worksheets on reasoning, numerical practice, concept mapping, quizzes.	 Mathematics: Use of formulas, calculations, and interpretation of data tables. Geography: Link with economic geography—how national income varies across Indian states. Political Science: Connect GDP growth

		1	1					
								with government policies and planning (e.g., Union Budget). Statistics : Use data interpretation and graphical representation of GDP/NDP trends
Note: Ins	tructions for the Proj	ect work will be	given in the	class and the guide	lines will be given	to students to com	plete the project work durin	g summer vacations.
July	Macroeconomic	Methods of	12	Differentiate	Lecture	Textbooks	Diagnostic tests, class	Mathematics: Use of
	s:	calculating		between	method, class		test, worksheets on	formulas,
	National income	National		nominal and real	discussion,	Digital platforms	reasoning, numerical	calculations, and
	and related	Income -		GDP.	numerical	Interactive tools	practice, concept	interpretation of
	aggregates	Value Added			practice,		mapping, quizzes.	data tables.
	(cont.)	or Product			reasoning	Class activities		Geography: Link
		method,		Chalk out the	questions.	Worksheets		with economic
		Expenditure		components of				geography—how
		Income		the income and		Assessments		national income
		method.		expenditure		and feedback		varies across Indian
				Method and Will		loois		states.
		Real and		formulate				Political Science:
		Nominal GDP		formulas.				Connect GDP growth
								with government
		GDP						policies and planning
		Deflator,		Enable them to				(e.g., Union Budget).
		GDP and		calculate NI by				Statistics: Use data
		Welfare		all these				interpretation and
				methous.				graphical
				The activities				representation of
1		1	1	inc activities	1	1		

						1		
				which are				GDP/NDP trends
				included in GNP				
				and why.				
				Lindorstand CDR				
				ds d welldle				
				index				
July	Macroeconomic	Money –	10	Chalk out	Lecture	Textbooks	Concept check quiz,	Business Studies:
	s:	meaning and		drawbacks of	method, flow		brainstorming, class test,	Financial institutions
	Money and	functions,		barter system.	charts, class	Digital platforms	presentations.	and services.
	Banking	supply of			discussions,	Interactive tools		
		money -		Explain	case study			Maths: Interest rate
		Currency		functions of	analysis.	Class activities		calculations.
		held by the		money.				
		public and				Worksheets		
		net demand		Name the		Assessments		
		deposits held		components of		and feedback		
		by		money supply.		tools		
		commercial						
		banks.						
				Enable them, to				
				numerically				
		Money		explain credit				
		creation by		creation by				
		the		commercial				
		commercial		banks.				
		banking						
		system.		Students will be				
				able to chalk out				
		Controlles		functions of				
		Central bank		Central Bank.				
		and its						
		functions				1		

				Enable the students to chalk out steps taken by the central banks to control the situation of money supply in the economy.				
July Mac s: Gov Bud	acroeconomic vernment dget	Government budget - meaning, objectives and components. Classification of receipts - revenue receipts and capital receipts Classification of expenditure – revenue expenditure and capital expenditure.	10	Student will be able to understand why budgeting for a government is important. Enable them to classify various budget receipts and expenditures into budget receipts and expenditures. They will be able to site examples of different receipts and expenditures.	Lecture method, worksheets, numericals, concept mapping, budget simulation, news analysis.	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Worksheet on deficit types and components of budget, quizzes, vocabulary test, activity on Indian government budget.	 Political Science: Role of legislature in approving budget. Accounts: Concepts of capital/revenue similar to accounting treatment. Maths: Budget percentage allocations, deficit calculation.

		Balanced, Surplus and Deficit Budget – measures of government deficit.		to calculate different types of deficits in the Budget.				
July	Macroeconomic s: Balance of payment	Balance of payments account - meaning and components Balance of payments – Surplus and Deficit	09	Define meaning of BOP. Chalk out the components of BOP. Differentiate the concept of current and capital A/C with examples. Establish differences between accommodating and autonomous items. Give reasons for disequilibrium in BOP.	Lecture method, chart making, news analysis, class discussion	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	BOP statement practice questions, written reflection, concept check MCQ, real world examples	Geography: Trade routes and partners. Political Science: International economic organisations—IMF, WTO. Maths/Stats: Numerical data interpretation from BoP tables.

August	Indian	A brief	10	Understanding	Lecture	Textbooks	Quizzes, class tests,	History: Colonial
	economic development:	introduction		the economy before	method, timeline	Digital platforms	assignments.	policies.
	Indian Economy on The Eve of Independence	of Indian economy on the eve of		independence. British policies	activity, source-based questions,	Interactive tools Class activities		Geography: Trade routes, natural resources.
		independenc e. Indian		were more with the protection	class discussion,	Worksheets		
		economic system and common goals of Five Year Plans.		and promotion of British economic interests .	flow charts	Assessments and feedback tools		
				British India govt led to collapse of Indian agriculture, industry at the time of independence, the social and Economic challenges before the				
				country were large.				
August	Indian economic development:	Main features, problems	09	All economic planning is done through five-	Lecture method, class discussion,	Textbooks Digital platforms	Short and long answer questions, class test	Political Science: Planning process. Geography:

Indian Economy	and policies	year plans.	flow charts	Interactive tools	Agricultural zonos
(1950-1990)	of agriculture				and land reforms
-	(institutional	After		Class activities	
	aspects and	Independence		Worksheets	
	new	India adopted		Worksheets	
	agricultural	Mixed Economic		Assessments	
	strategy),	system.		and feedback	
	industry (IPR			tools	
	1956; SSI —	The Dependence			
	role &	on agriculture			
	importance)	was very large.			
	and foreign				
	trade.	Main policy			
		measures in			
		Agriculture were			
		the green			
		revolution and			
		land reforms.			
		The Main			
		drawback in			
		industrial sector			
		was insufficient			
		functioning of			
		the public			
		sector.			
		Our policies			
		were inward			
		oriented and so			
		we failed to			
		develop a strong			
		export sector.			

August	Indian	Features and	09	India was facing	Lecture	Textbooks	MCQs, class test, mind	Business Studies:
	economic development:	appraisals of liberalisation,		an economic crisis due to	method, role play, class	Digital platforms	mapping, quizzes	Corporate liberalisation.
	Economic reforms since 1991	globalisation and privatisation		which NEP was adopted Many domestic	discussion, case study	Interactive tools Class activities		Geography : Globalisation's
		(LPG policy) Concepts of		reforms were introduced in industrial and		Worksheets assessments		spatial impacts.
		demonetizati on and GST		financial sector. Role of Public		tools		
				sector was reduced, and many private				
				sector companies were				
				Outsourcing emerged as a				
				business activity.				
				demonetization and GST and				
				impacted Economics.				
Septemb	Indian	How people	15	Understand the	Lecture and	Textbooks	Short and long answer	Biology : Health and

er	economic	become		meaning of	discussion		questions, debate	nutrition.
	development:	resource		Human Canital	method real		(education vs health	
	Human canital	resource		and Physical	world	Digital platforms	which builds better	Psychology:
	development	Role of		Canital	examples		human canital)	Education and
	development	human			assignments	Interactive tools		cognitive
		canital in		Differentiate	assignments	Class activities		development.
		economic		between Human				
		development		canital and		Worksheets		
				Human				
		Growth of		development		Assessments		
		Education		development.		and feedback		
		Sector in		How Human		tools		
		India		Canital				
				formation can				
				he improved in				
				India				
				What are the				
				stens taken by				
				the Govt to				
				Improve human				
				canital				
				formation				
				lonnation				
Septemb	Indian	Key issues -	12	Will be able to	Lecture	Textbooks	MCQs, assignments, mind	Geography: Rural
er	economic	credit and		explain the term	method, class		mapping	settlements and
	development:	marketing -		rural	discussion	Digital platforms		agriculture.
	Rural	role of		development.		Interactive tools		Delitical Science
	development	cooperatives						Political Science:
				Chalk out the		Class activities		
		agricultural		features of rural				i urai governance.
		diversificatio		development in				
		n		India.				

forming	
Tarming - measures to	
organic Improve	
farming condition of	
rural	
development	
through	
infrastructure	
development	
Improving rural	
credit,	
marketing	
facilities,	
warehousing	
facilities.	
The students will	
be able to	
suggest various	
avenues to	
improve	
condition of	
rural sector.	
Students will be	
able to tell why	
organic farming	
is better.	
Septemb Revision for half yearly	
er	

October	Indian	Growth and	12	Enable the	Lecture	Textbooks	MCQs, flow charts, short	Maths: Statistics and
	economic	changes in		students to	method, class		and long answer	data handling.
	development:	work force		know basic	discussion,	Digital platforms	questions through	
	Employment	participation		concepts related	case studies	Interactive tools	worksheets and	Business Studies:
		rate in		to			assignments	Labour laws and HR.
		formal and		unemployment		Class activities		
		informal				Markshaats		
		sectors;		Students will be		VVOIKSHEELS		
		problems		able to				
		and policies		differentiate				
				between				
				worker,				
				workforce, and				
				unemployment,				
				formal and				
				informal sector				
				Differences				
				between types				
				OT				
				unemployment				
				will be explained				
				by students by				
				giving examples.				
				Students will be				
				able to give				
				answers based				
				on case studies.				
				Will be able to				
				discuss how				
				Govt during the				
				situation of				

				covid19 generated employment and help people come out this situation.				
October	Indian economic development: Sustainable economic development	Meaning, Effects of Economic Development on Resources and Environment, including global warming	12	Understand the concept of Environment. Chalk out the causes and effect of environmental degradation and resource depletion. Understand the Environmental challenges faced by India. Enable to relate environmental issues to the larger context of sustainable development.	Lecture method, class discussion, assignments and worksheets	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Group research on India's environmental policies, MCQs, Quizzes,	Biology/EVS: Ecosystems, conservation. Geography: Natural resource distribution.
				be able to take one initiative in				

Octobor	Indian		12	fulfilling the goal of attaining sustainability.	Lecture and	Taythooks		Goography:
	economic development: Development	comparison with neighbours		to comprehend the history of development of	discussion method.	Digital platforms	question, comparative chart, group discussions	Demographic spread.
	experiences in India	India and Pakistan, India and		3 nations. Chalk out the		Class activities		Political Science : Governance models in China, Pakistan,
		China. Issues: economic growth, population, sectoral development and other Human Development Indicators		struggles faced by the 3 countries in their path of development Enable them to compare the development indicators of the 3 countries and conclude which country is in the best position.				
Novembe r	Macroeconomic s: Foreign exchange rate	Foreign exchange rate - meaning of fixed and flexible rates and managed	09	They could relate it to their real life experience. Draw diagram how exchange	Lecture method, class discussion, graph plotting, assignments and worksheets.	Textbooks Digital platforms Interactive tools Class activities	Flow charts, news article discussion on depreciation of currency, quizzes, short and long answers.	Geography: Trade routes, international shipping, ports. Mathematics: Exchange rate calculations.

		floating.		rate is		Worksheets		Political Science:
				determined by				Polo of international
		Determinatio		DD and SS				
		n of		factors.				
		exchange						
		rate in a free		Differentiate				
		market,		between fixed				
				and flexible				
		Merits and		exchange rate				
		demerits of						
		flexible and		Enable the				
		fixed		students to				
		exchange		understand the				
		rate.		difference				
				between spot				
		Managed		and forward				
		Floating		market.				
		exchange						
		rate system						
Novembe	Macroeconomic	Aggregate	30	Understand the	Lecture and	Textbooks	Numerical tests, quizzes,	Mathematics: Use of
r	s:	demand and		meaning of AD	class		graphical interpretation	algebraic formulas
	Determination	its		and AS. Students	discussion,	Digital platforms	questions, concept maps	and graph
	of income and	components.		will be able to	numerical	Interactive tools		interpretation.
	employment			write equations	practice			
		Propensity to		of AD and AS	through	Class activities		Statistics: Plotting
		consume and		and draw the	assignments,	Workshoots		and interpreting
		propensity to		curves for	flow charts	worksneets		economic indicators
		save		consumption	and graphing			over time.
		(average and		saving and				Business Studies:
		marginal).		investment.				Link investment and
								consumption
								behaviour with

-				
	Short-run	Students will be		business cycles.
	equilibrium	able to do		,
	output;	numerical based		
	investment	on APC, APS,		
	multiplier	MPC, MPS .		
	and its			
	mechanism.	Students will be		
		able to locate an		
	Meaning of	equilibrium level		
	full	of income by the		
	employment	S and I approach		
	and	and the AD and		
	involuntary	AS approach.		
	unemployme			
	nt.	Numerically		
		calculate Y, C, I,		
	Problems of	S Multiplier and		
	excess	locate all on the		
	demand and	diagram also.		
	deficient			
	demand;	Enable the		
	measures to	students to		
	correct them	locate		
	- changes in	inflationary and		
	government	deflationary gap		
	spending,	in the diagram.		
	taxes and	Chalk out the		
	money	measures to		
	supply	rectify the		
		situation of		
		inflationary and		
		deflationary gap.		
- I	1			

			Calculate mathematically Equilibrium level of income, consumption and Investment				
			and saving.				
Decembe	Revision for		Students get lot		Sample papers		
r	Preboard 1 and		of practice				
	final check of		chapter wise to				
	project work		revise.				
lanuary	Sample papers will	l he discussed ar	d practice will be given for nu	merical questions		 he conducted in main subject	 t
January		i se discussed, di					
February	CBSE practical's XII	I and Board Exam	ns will be conducted.				

ANNUAL CURRICULUM PEDAGOGICAL PLAN

CLASS XII

SUBJECT CHEMISTRY

OBJECTIVES

1 Promote understanding of basic facts and concepts of chemistry while retaining the excitement of chemistry.

2 Make students capable of studying chemistry in academic and professional courses(such as medicine, engineering ,technology) at tertiary level.

3 Expose the students to various emerging new areas of chemistry and apprise them with their relevance in future studies and their application in various spheres of chemical science and technology.

4 Equip students to face various challenges related to health,

nutrition ,environment,population, weather, industries and agriculture.

5 Develop problem solving skills in students.

6 Apprise students with the interface of chemistry with other

disciplines of science such as Physics, Biology, Engineering Geology and Mathematics.

7 Acquaint students with different aspects of chemistry and its use in daily life.

8 Develop an interest in students to study chemistry as a discipline.

9 Integrate life skills and values in context of chemistry

EVALUATION AND ASSESSMENT

Examination	Month	Marks
Periodic I	May 2025	20

Periodic II/Half Yearly exam	September 2025	As per CBSE
Periodic III/	November 2025	As per CBSE
Pre Board I		
Practice exam I/	December 2025	As per CBSE
Pre Board II		
Internal Assessment/	January	As per CBSE
Practicals	2026	
Annual exams/ CBSE exams	February 2026	As per CBSE
	March 2026	

COURSE STRUCTURE

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

MONTH APRIL

NO. OF WORKING DAYS 21

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSESSM ENT TOOLS	TEACHING LEARNING STRATEGIES/AC TIVITIES	RESOUR CES/ INTERDI SCIPLIN ARY
UNIT	Students will be able to:	Class	:Interactive	NCERT
Solutions	• Describe the	Test MCQ	approach :Demonstration	Vol.I
No. of periods :10	different types	Subiectiv	ACTIVITIES	
ТОРІС	of solutions	e Assignme	:Preparation of Standard	
	• Express			

 Types of solutions Expression of concentration of solutions of solids in liquids Solubility of gases in liquids Solid solutions Raoult's law 	 concentration of solutions in different units State and explain Henry's law and Raoult's law Distinguish between ideal and non ideal solution 	nts Numerica ls	solution : Redox Titration :Positive deviation from Raoult's law Negative deviation from Raoult's law :Henry's law Soda water	
 Colligative properties Relative lowering of vapour 	 Explain deviations of ideal solutions from Raoult's law 			
 Elevation of boiling point Depression of freezing point Osmotic 	• Describe colligative properties of solutions and correlate with the molar masses of the solutes			
 Determination of molecular masses using colligative properties Abnormal molecular masses Van't Hoff factor 	 Explain abnormal colligative properties exhibited by some solutes in solutions Students will be able to: 	Class test Power Point presentat ion	Interactive approach Lecture method Peer teaching	NCERT Vol.1

UNIT Electrochemistry	 Describe an electrochemical cell and differentiate between Galvanic cell and electrolytic Apply Nernst Equation for calculating the EMF of electrochemical 		
TOPIC	cell and define Standard		
Redox reaction	potential Derive relation 		
 EMF of a cell Standard electrode potential Nernst equation and its application to chemical cells Relation between Gibbs energy change and EMF of a cell 	 Derive relation between Standard potential of the cell Gibbs energy of cell reaction and equilibrium constant 		

MONTH MAY

NO. OF WORKING DAYS 17

 Specific and molar conductivity Variation of conductivity with concentratio n Kohlrausch's law Electrolysis Laws of electrolysis Dry cell Electrolytic and Galvanic cells Lead accumulator Fuel cells Corrosion 	 Describe the construction of some primary and secondary batteries and fuel cells Explain corrosion as an electrochemical process 		
UNIT			
CHEMICAL KINETICS			
No. of periods:10			
ТОРІС			
• Rate of a	Students will be able to:		

J						
	reaction average and instantaneou	• Define the average and instantaneous rate of a reaction				
	S	 Express the rate of a 				
	 Factors affecting rate 	reaction in terms of change in				
	of reaction:	concentration of either of the reactants				
	n,temperatur	or products with time				
	Order and	Distinguish between elementary and complex reactions				
	molecularity of a reaction	 Differentiate between 		Interactive		
	• Rate Law	the molecularity and order of a reaction		approach		
	reaction rate	• Define rate constant		ion		
	 Integrated 	• Discuss the dependence of rate of			NCERT	
	rate equation and half life	a reaction on concentration		ACTIVITIES	V011	
	of zero and first order	temperature and catalyst		concentrati		
	reaction	• Derive integrated rate	Class test	retaining of reaction		
	collision theory	and first order reactions		:Effect of		
	(Elementary	• Describe collision		e on rate of		
	• Activation	theory		:Preparatio		
	energy			n of lyophobic		
	 Arrhenius equation 			and lyophobic sols		
					I I	

MONTH JULY

NO. OF WORKING DAYS 25

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSESSMEN T TOOLS	TEACHING LEARNING STRATEGIE S/ACTIVITI ES	RESOU RCES/ INTERD ISCIPLI NARY
UNIT Haloalkanes and haloarenes No. of periods:10 TOPIC • Haloalkanes • Nomenclature • Nature of C-X bond • Physical and chemical properties • Optical rotation • Mechanism of substitution reactions • Haloarenes	 Students will be able to: Name haloalkanes and haloarenes according to the IUPAC system of nomenclature Describe the reactions involved in preparation of haloalkanes and haloarenes and understand various reactions that they undergo Correlate the structure of Halo alkanes and haloarenes with various types of 	MCQ Class test Assignment Mind Maps/ Concept maps	:Lecture cum Interactive approach :practical demonstrati on :Collaborati ve learning	NCERT Vol.2 Art Integrat ed activitie s

• Nature of C-X bond	reactions		
 Substitution reactions Directive influence of halogen in monosubstituted compounds only Uses and en vironmental effects of dichloromethane,tr ichloromethane,tet ra chlorimethane,Iodo form,freon,DDT 	 Use stereochemistry as a tool for understanding the reaction mechanism Highlight the the environmental effects of polyhalogen compounds 		
	Students will be able to:		
	• Name alcohols phenols and ethers according IUPAC system of nomenclature		
UNIT Alcohols,phenols and ethers No. of periods;10 TOPIC	 Discuss the reactions involved in the preparation of alcohols from alkanes and aldehydes ketones and carboxylic acid 		
AlcoholsNomenclatureMethod of	• Discuss the reactions involved in preparation of		
• Nomenclature			
--	--	--	
• Methods of preparation			
 Physical and chemical properties 			
• Uses			

MONTH AUGUST

UNIT/TOPIC SUBTOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	TEACHING LEARNING STRATEGIE S/ACTIVITI ES	RESOU RCES/ INTER DISCIP LINAR Y
UNIT	Students will be able	Assignment	Interactive	NCERT
Aldehydes, Ketones and	to:	ClassTest	approach	Vol.2
carboxylic acids	 Write the common and 	Peer	Class Room Discussion	
No. of periods :10	IUPAC names of aldehydes	assessment	Concept	
ТОРІС	ketones and		maps	
Aldehydes and	acids			
ketones	• Write the			

 Nomenclature nature of carbonyl group Methods of preparation Physical and chemical properties Mechanism of nucleophilic addition Reactivity of Alpha hydrogen in aldehydes Uses Carboxylic acids Nomenclature Acidic nature Methods of preparation Physical and chemical properties Uses 	 structures of the compounds containing functional groups namely carbonyl and carboxyl group Describe the important methods of preparation and reactions of these classes of compounds Correlate physical properties and chemical reactions of aldehydes ketones and carboxylic acids with their structures Explain the mechanism of a few selective reactions of aldehydes and ketones 		ACTIVITIES 1 Identificatio n of functional group Aldehyde,ke tone,carbox ylic acids	
---	---	--	---	--

 Understand the various factors affecting the acidity of carboxylic acids and their reactions
 Describe the uses of aldehydes ketones and carboxylic acids
Students will be able to
 Describe amines as derivatives of ammonia having a pyramidal structure
 Classify amines as Primary, secondary and tertiary name a means by common names and

	IUPAC system	
	 Describe some important methods of preparation of amines 	
	• Explain the properties of amines	
UNIT	Distinguish	
Amines	primary	ACTIVITIES
No. of periods:10	secondary and tertiary	Identify
ТОРІС	amines	functional group
Amines	 Describe the method of 	Amines
Nomenclature	preparation of diazonium	
Classification	salts and their	Preparation of 2 -
• Structure	the synthesis	Naphthol aniline dye
 Methods of preparation 	of series of aromatic compounds	
• Physical and chemical properties	including azodyes	Salt Analysis
• Uses		
• Identification of primary, secondary and tertiary amines		
• Diazonium salts		

• Preparation		
Chemical reactions		
 Importance in synthetic organic compounds 		

MONTH SEPTEM BER

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSESSMEN T	TEACHING LEARNING STRATEGIES/ ACTIVITIES	RESOURC ES/ INTERDIS CIPLINAR Y
UNIT	Students will be able	Question	Interactive	NCERT
Biomolecules No. of periods:12 TOPIC Carbohydrates Classification aldoses and ketoses	to • Define the various molecules like carbohydrates proteins and nucleic acids,vitamins and harmones,enz	Answer session Revision Test Half Yearly exam Pen paper test	approach Class Room Discussion Peer learning	Vol.2

Monosaccharide	vmes		
 Monosaccharide s Glucose and Fructose D-L configuration Oligosaccharides ,sucrose, lactose,Maltese Polysaccharides, starch,cellulose,g lycogen Importance of carbohydrates Proteins Elementary idea of amino acids Peptide Bond Polypeptides Structure of proteins primary ,secondary, tertiary and quaternary structure Denaturation of 	ymes. • Classify carbohydrates , proteins and nucleic acids on the basis of their structures • Explain the difference between DNA and RNA • Appreciate the role of biomolecules		
 Denaturation of proteins 			
 Enzymes 			
 Hormones Elementary idea 			

 Vitamins Classification and functions Nucleic acids DNA and RNA 		
REVISION FOR HALF YEARLY EXAMS		

MONTH OCTOBER

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSESSME NT TOOLS	TEACHING LEARNING STRATEGIES/ ACTIVITIES	RESOUR CES/ INTERDI SCIPLINA RY
UNIT d block elements No. of periods:12 TOPIC • General introduction • Electronic configuration	 Students will be able to: learn position of d and f block elements in the periodic table Know the electronic configuration of transition elements and inner transition 	Pen Paper test Assignment Question Answer Session	Interactive approach Peer teaching Collaborative learning Art Integrated Learning	NCERT Vol.1

 Occurrence and characteristics of transition metals General trends in properties of the first row transition metal Metallic character and ionization enthalpy Oxidation states and ionic radii Colour Catalytic properties Catalytic properties Magnetic properties Interstitial characteristics of compounds Magnetic properties Interstitial Appreciate the relative stability of various oxidation states important compounds like potassium permanganate Magnetic properties Understand the general characteristics of compounds Alloy formation Preparation and proper of K2Cr2O7 and KMn04 Ianthanoids Electronic compounds Electronic comparative and give comparative and give comparative and give comparative 				
 General trends in properties of the first row transition metal Metallic character and ionization enthalpy Oxidation states and ionic radii Colour Colour Catalytic property Catalytic properties Magnetic compounds Magnetic properties Interstitial Compounds Alloy formation Preparation and proper of K2Cr207 and KMn04 Lanthanoids Electronic compounds Consume the first row transition Consume transition Colour Describe the preparation properties Understand the general characteristics of compounds Describe the properties Structures and properies Describe the properties of the F block elements and give complication Compounds Compounds Characteristics of compounds Compounds Characteristics of compounds Compounds Characteristics of compounds Characteristics of the properties Characteristics <	• Occurrence and characteristics of transition metals	 elements Appreciate the relative stability of various 		
 Metallic character and ionization enthalpy Oxidation states and ionic radii Oxidation states and ionic radii Colour Colour Catalytic property Catalytic property Magnetic compounds Interstitial Compounds Alloy formation Preparation and proper of K2Cr207 and KMn04 Lanthanoids Electronic configuration Describe the propertive Describe the properties of the F block elements and give comfiguration Describe the properties of the f block elements and give comfiguration 	• General trends in properties of the first row transition metal	oxidation states in terms of electrode potential values		
 Oxidation states and ionic radii Colour Catalytic property Magnetic properties Interstitial Compounds Alloy formation Preparation and proper of K2Cr207 and KMn04 Lanthanoids Electronic configuration Electronic configuration Describe the properties Lanthanoids Electronic configuration Describe the properties of the configuration Electronic configuration Describe the properative configuration 	 Metallic character and ionization enthalpy 	 Describe the preparation properties structures and 		
 Colour Catalytic property Magnetic properties Interstitial Compounds Alloy formation Preparation and proper of K2Cr207 and KMn04 Lanthanoids Electronic comfiguration Colour potassium permanganate Understand the general characteristics of d and f block elements and their general horizontal and group ttends Describe the properties of the F block elements and give comparative account of 	 Oxidation states and ionic radii 	uses of some important compounds like		
 Catalytic property Magnetic properties Magnetic properties Interstitial characteristics of Compounds Alloy formation Preparation and proper of K2Cr207 and KMn04 Ianthanoids Electronic comparative arcount of 	• Colour	potassium		
 Magnetic properties Interstitial Compounds Alloy formation Preparation and proper of K2Cr2O7 and KMnO4 Ianthanoids Electronic configuration Understand the general characteristics of d and f block elements and their general horizontal and group ttends Describe the properties of the F block elements and give comfiguration 	• Catalytic property	dichromate and potassium permanganate		
 Interstitial characteristics of Compounds Alloy formation Preparation and proper of K2Cr2O7 and KMnO4 Ianthanoids Electronic comparative account of comparative configuration 	• Magnetic properties	 Understand the general 		
 Alloy formation Preparation and proper of K2Cr207 and KMn04 Ianthanoids Electronic comparative account of configuration 	 Interstitial Compounds 	characteristics of d and f block elements and		
 Preparation and proper of K2Cr2O7 and KMnO4 lanthanoids Electronic comparative account of configuration 	• Alloy formation	their general		
 K2Cr207 and KMn04 Ianthanoids Electronic configuration Describe the properties of the F block elements and give Electronic comparative 	Preparation and proper of	horizontal and group ttends		
 lanthanoids Electronic configuration account of 	K2Cr2O7 and KMnO4	• Describe the properties of the		
Electronic comparative configuration account of	 lanthanoids 	F block elements and give		
	• Electronic configuration	comparative account of		
Oxidation States actinoids with	• Oxidation States	actinoids with		

 Chemical reactivity Lanthanoid contraction and its consequences 	respect to their electronic configuration Oxidation state and chemical behaviour		
ActinoidsElectronic	Students will be able to		
configurationOxidation states	 Appreciate the postulates of werner's theory 		
 Comparison with lanthanoids 	of coordination compounds		
	 Know the meaning of terms like coordination entity central 		
UNIT	atom ligand coordination		
Coordination compounds	number coordination		
No. of periods :12	sphere oxidation number		
TOPIC	heteroleptic complex		
compounds	Learn the rules of		
IntroductionLigands	nomenclature of coordination		
 Coordination number 	 Write the formulas and names of 		

 Colour Magnetic properties and shapes 	mononuclear coordination compoun		
• IUPAC nomenclature mononuclear coordination compounds			

MONTH NOVEMBER

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSESSM ENT TOOLS	TEACHING LEARNING STRATEGIES/ACT IVITIES	RESOU RCES/ INTERD ISCIPLI NARY
UNIT Coordination compounds No. of periods :12 TOPIC • Bonding • Werner's theory • Valence bond	 Students will be able to Appreciate the postulates of Werner's theory Define different types of isomerism of coordination compounds Understand the 	Pen Paper test Oral test	Learner centric Interactive approach Group Discussion Activities Salt Analysis	NCERT Vol.1

 crystal field theory Structure and stereoisomeris m Importance of coordination compounds in qualitative analysis, extraction 	 bonding in coordination compounds in terms of valence bond theory and crystal field theory Appreciate the importance and applications of coordination compounds in our day to day 		
Revision			
PRE BOARD I			

MONTH DECEMBER

UNIT	LEARNING	ASSESSMENT	TEACHING	RESOUR
	OUTCOMES	TOOLS	LEARNING	CES/

TOPIC / SUB TOPIC			STRATEGIES/ACT IVITIES	INTERDI SCIPLINA RY
Revision Pre Board Exam II	-	Pen paper test	-	-

MONTH JANUARY

NO. OF WORKING DAYS 17

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	TEACHING LEARNING STRATEGIES/ACT IVITIES	RESOUR CES/ INTERDI SCIPLINA RY
CBSE Practical exams	-	Pen Paper test Practical exam	-	-

MONTH FEBRUARY

UNIT	LEARNING	ASSESSMENT	TEACHING	RESOUR
	OUTCOMES	TOOLS	LEARNING	CES/
TOPIC / SUB TOPIC			STRATEGIES/ACT IVITIES	INTERDI SCIPLINA

				RY
CBSE Exam	-	Pen Paper test	-	-

MONTH MARCH

NO. OF WORKING DAYS 21

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	TEACHING LEARNING STRATEGIES/ACT IVITIES	RESOUR CES/ INTERDI SCIPLINA RY
CBSE Exams	-	Pen paper test	-	-

ANNUAL CIRCUILAM AND PEGAGOGICAL PLAN (ACPP)

CLASS XII	SUBJECT Physics		NAME OF TEACHER		PRADEEP KUMAR
Topic/no of period/month	Learning outcomes	Assessment tools for	Teaching/learning	Resources	interdisciplinary approach
unit 1 Electrostatics	students will able to define electric charge, coloumbb law electric fie	identifing learning gap	strategies		used in chemistry
sub topic	field electric field intensity . will able to calculate dipole field and	b for understanding level			intermolecular forces/ionic bond
Electric charges, Conservation of charge, Coulomb's law-force between two- point charges,	torque on dipole. will able to define area vector, electric flux	MCQ test /group discussion	Approach /Activity	NCERT	molecular structure and
forces between multiple charges; superposition principle and continuous charge distribution	will able to state gauss law and able to find	/quiz	inquiry method		geometry
Electric field, electric field due to a point charge, electric field lines, electric dipole, electric	electric field due to thin sheet infinite charged wire and spheical		lecture		
field due to a dipole, torque on a dipole in uniform electric field.	shell.		activity		
Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely	will able to distinguish between potential and potential difference				
long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical	will able to calculate potential due to dipole. will able				

shell (field inside and outside).	to define equipotential surface,capacitance. will able
Chapter–2: Electrostatic Potential and Capacitance	to calculate capacitance of parallel plate capacitor and equivalent c
Electric potential, potential difference, electric potential due to a point charge, a dipole and	capacitance of series/parallel combination of capacitor
system of charges; equipotential surfaces, electrical potential energy of a system of two- point	will able to calculate energy stored in capacitor
charges and of electric dipole in an electrostatic field.	students will able to devlope problem solving skills
Conductors and insulators, free charges and bound charges inside a conductor. Dielectrics	
and electric polarization, capacitors and capacitance, combination of capacitors in series and	
in parallel, capacitance of a parallel plate capacitor with and without dielectric medium	
between the plates, energy stored in a capacitor (no derivation, formulae only).	
month April	
no of periods 27	

Current Electricity

sub topic

Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and	students will able to distinguish between current and electricity. will able	MCQ test/group discussion	inquiry method	NCERT	chemistry
their relation with electric current; Ohm's law, V-I characteristics (linear and non-linear),	define ohm's law , resistance, resistivity and conductivity	/ohm's experiment	activity on ohm's law		electrolysis/electroplating
electrical energy and power, electrical resistivity and conductivity, temperature dependence	will able define/understand/calcul ate the various parameters/topic		combination of cells		/electrorefing
of resistance, Internal resistance of a cell, potential difference and emf of a cell, combination	mentioned in unit II students will able to develop vlope problem solving skills				
of cells in series and in parallel, Kirchhoff's rules, Wheatstone bridge.					
Month may					
no of periods 20					
Unit III:					
Magnetic Effects of Current and Magnetism					
sub topic Moving Charges and Magnetism					
Concept of magnetic field, Oersted's experiment.	students will able to define/calculate/determi e understand/ topics mentioned in	MCQ test/group discussion/	inquiry method	NCERT/ utube	Biology MRI

Biot - Savart law and its application to current carrying circular loop.	unit 3 &4. Students will able to develop problem solving skills	quiz	lecture	cell and tissue manipulation
Ampere's law and its applications to infinitely long straight wire. Straight solenoid (only,,			activity	cancer treatment
qualitative treatment), force on a moving charge in uniform magnetic and electric fields				
Force on a current-carrying conductor in a uniform magnetic field, force between two parallel				
current-carrying conductors-definition of ampere, torque experienced by a current loop in				
uniform magnetic field; Current loop as a magnetic dipole and its magnetic dipole moment,				
moving coil galvanometer- its current sensitivity and conversion to ammeter and voltmeter.				
Chapter–5: Magnetism and Matter				
Bar magnet, bar magnet as an equivalent solenoid (qualitative treatment only), magnetic field				
intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis				
(qualitative treatment only), torque on a magnetic dipole (bar magnet) in a uniform magnetic				

field (qualitative treatment only), magnetic field lines.

Magnetic properties of materials- Para-, diaand ferro – magnetic substances with examples,

Magnetization of materials, effect of temperature on magnetic properties.

Unit IV:

Electromagnetic Induction and Alternating Currents

sub topics

Electromagnetic induction; Faraday's laws,
induced EMF and current; Lenz's Law, Self
and

mutual induction.

month july

no of periods 30

unit IV EMI & AC

Alternating currents, peak and RMS value of alternating current/voltage; reactance and	students will able to define/calculate/determi ne/understand topics mentioned in	MCQ test/group discussion/	inquiry method	NCERT/Utube	in chemistry
impedance; LCR series circuit (phasors only), resonance, power in AC circuits, power factor,	unit 4,5 and 6	quiz	lecturer		ac impedance spectroscopy

wattless current. AC generator, Transformer.	activity	biology
Unit V:		ac stimulation for nerve and
Electromagnetic waves		muscle cell
sub topics		chemistry
Basic idea of displacement current, Electromagnetic waves, their characteristics, their		flame photometry
transverse nature (qualitative idea only).		biology
Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X- rays, gamma rays) including elementary facts about their uses.		opthomology and vision science
unit VI Ray optics		
Ray Optics: Reflection of light, spherical mirrors, mirror formula, refraction of light, total		
internal reflection and optical fibers, refraction at spherical surfaces, lenses, thin lens formula,		
lens maker's formula, magnification, power of a lens, combination of thin lenses in contact,		
refraction of light through a prism.		
Optical instruments: Microscopes and astronomical telescopes (reflecting and refracting)		

and their					
month August					
no of periods 26					
unit VI					
sub topics					
optical instruments;					
Microscope and telescope	students will able to draw ray digram of microscope and telescope		inquiry method	NCERT	chemistry
			lecturer		crystal structure nanotechnology
Month September					biology cell study ,histology
No of periods 10					
unit VI optics					
sub topics					
Wave optics: Wave front and Huygen's principle, reflection and refraction of plane wave at	students will able to define/calculate/determi ne/understand topics	MCQ test/group discussion/	inquiry method	NCERT	chemistry
a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygen's	mentioned in unit VI & VII	quiz	lecturer		spectroscopy, surface chemistry
principle. Interference, Young's double slit experiment and expression for fringe width (No					biology
derivation final expression only), coherent sources and sustained interference of light,					bio photonics , optical microscopy

diffraction due to a single slit, width of central maxima (qualitative treatment only).					chemistry
Unit VII: Dual Nature of Radiation and Matter					electron microscope
sub topics					biology
Dual nature of radiation, Photoelectric effect, Hertz and Lenard's observations; Einstein's					DNA
photoelectric equation-particle nature of light.					
Experimental study of photoelectric effect					
Matter waves-wave nature of particles, de- Broglie relation.					
Month October					
No of periods 20					chemistry
Unit VIII Atom and nuclei					atomic structure and reaction
sub topics	Students will able to define/calculate/determi ne/understand	MCQ test/ group discussion/	inquiry/lecture	NCERT	periodic table
Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model of hydrogen	topics mentioned in unit VIII & IX	quiz			nuclear chemistry
atom, Expression for radius of nth possible orbit, velocity and energy of electron in nth orbit,					biology
hydrogen line spectra (qualitative treatment only).					molecular biology
Nuclei:					radiation therapy
Composition and size of nucleus, nuclear force					chemistry

Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass	chemical sensor
number; nuclear fission, nuclear fusion.	solar cell for cher
unit IX Electronic Devices	biology
sub topics	bio sensor
Energy bands in conductors, semiconductors and insulators (qualitative ideas only) Intrinsic	DNA chip
and extrinsic semiconductors- p and n type, p-n junction	
Semiconductor diode - I-V characteristics in forward and reverse bias, application of junction	
diode and diode as rectifier	
Month November	
No of periods 26	
Month December pre board I	
Month January Prea board II	

chemical reaction

ANNUAL CIRCUILAM AND PEGAGOGICAL PLAN (ACPP)

CLASS XII	SUBJECT Physics		NAME OF TEACHER		PRADEEP KUMAR
Topic/no of period/month	Learning outcomes	Assessment tools for	Teaching/learning	Resources	interdisciplinary approach
unit 1 Electrostatics	students will able to define electric charge, coloumbb law electric fie	identifing learning gap	strategies		used in chemistry
sub topic	field electric field intensity . will able to calculate dipole field and	b for understanding level			intermolecular forces/ionic bond
Electric charges, Conservation of charge, Coulomb's law-force between two- point charges,	torque on dipole. will able to define area vector, electric flux	MCQ test /group discussion	Approach /Activity	NCERT	molecular structure and
forces between multiple charges; superposition principle and continuous charge distribution	will able to state gauss law and able to find	/quiz	inquiry method		geometry
Electric field, electric field due to a point charge, electric field lines, electric dipole, electric	electric field due to thin sheet infinite charged wire and spheical		lecture		
field due to a dipole, torque on a dipole in uniform electric field.	shell.		activity		
Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely	will able to distinguish between potential and potential difference				
long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical	will able to calculate potential due to dipole. will able				
shell (field inside and outside).	to define equipotential surface,capacitance. will able				
Chapter–2: Electrostatic Potential and Capacitance	to calculate capacitance of parallel plate capacitor and equivalent c				

Electric potential, potential difference, electric potential due to a point charge, a dipole and

system of charges; equipotential surfaces, electrical potential energy of a system of two-point

charges and of electric dipole in an electrostatic field.

Conductors and insulators, free charges and bound charges inside a conductor. Dielectrics

and electric polarization, capacitors and capacitance, combination of capacitors in series and

in parallel, capacitance of a parallel plate capacitor with and without dielectric medium

between the plates, energy stored in a capacitor (no derivation, formulae only).

month April

no of periods 27

Unit II:

Current Electricity

sub topic

Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and

students will able to distinguish between current and electricity. will able

define ohm's law , resistance, resistivity and

their relation with electric current; Ohm's law, V-I characteristics (linear and noncapacitance of series/parallel combination of capacitor

will able to calculate energy stored in capacitor

students will able to devlope problem solving skills

/ohm's experiment

MCQ test/group discussion

activity on ohm's law

inquiry method

chemistry

NCERT

electrolysis/electroplating

linear),	conductivity				
electrical energy and power, electrical resistivity and conductivity, temperature dependence	will able define/understand/calculate the various parameters/topic		combination of cells		/electrorefing
of resistance, Internal resistance of a cell, potential difference and emf of a cell, combination	mentioned in unit II students will able to develop vlope problem solving skills				
of cells in series and in parallel, Kirchhoff's rules, Wheatstone bridge.					
Month may					
no of periods 20					
Unit III:					
Magnetic Effects of Current and Magnetism					
sub topic Moving Charges and Magnetism					
Concept of magnetic field, Oersted's experiment.	students will able to define/calculate/determie understand/ topics mentioned in	MCQ test/group discussion/	inquiry method	NCERT/ utube	Biology MRI
Biot - Savart law and its application to current carrying circular loop.	unit 3 &4. Students will able to develop problem solving skills	quiz	lecture		cell and tissue manipulation
Ampere's law and its applications to infinitely long straight wire. Straight solenoid (only,,			activity		cancer treatment
qualitative treatment), force on a moving charge in uniform magnetic and electric fields					
Force on a current-carrying conductor in a uniform magnetic field, force between two parallel					

current-carrying conductors-definition of ampere, torque experienced by a current loop in

uniform magnetic field; Current loop as a magnetic dipole and its magnetic dipole moment,

moving coil galvanometer- its current sensitivity and conversion to ammeter and voltmeter.

Chapter-5: Magnetism and Matter

Bar magnet, bar magnet as an equivalent solenoid (qualitative treatment only), magnetic field

intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis

(qualitative treatment only), torque on a magnetic dipole (bar magnet) in a uniform magnetic

field (qualitative treatment only), magnetic field lines.

Magnetic properties of materials- Para-, diaand ferro – magnetic substances with examples,

Magnetization of materials, effect of temperature on magnetic properties.

Unit IV:

Electromagnetic Induction and Alternating Currents

sub topics

Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law, Self and					
mutual induction.					
month july					
no of periods 30					
unit IV EMI & AC					
Alternating currents, peak and RMS value of alternating current/voltage; reactance and	students will able to define/calculate/determine/understand topics mentioned in	MCQ test/group discussion/	inquiry method	NCERT/Utube	in chemistry
impedance; LCR series circuit (phasors only), resonance, power in AC circuits, power factor,	unit 4,5 and 6	quiz	lecturer		ac impedance spectroscopy
wattless current. AC generator, Transformer.			activity		biology
Unit V:					ac stimulation for nerve and
Electromagnetic waves					muscle cell
sub topics					chemistry
Basic idea of displacement current, Electromagnetic waves, their characteristics, their					flame photometry
transverse nature (qualitative idea only).					biology
Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X- rays,					opthomology and vision science

gamma rays) including elementary facts about their uses.

unit VI Ray optics

Ray Optics: Reflection of light, spherical mirrors, mirror formula, refraction of light, total

internal reflection and optical fibers, refraction at spherical surfaces, lenses, thin lens formula,

lens maker's formula, magnification, power of a lens, combination of thin lenses in contact,

refraction of light through a prism.

Optical instruments: Microscopes and
astronomical telescopes (reflecting and
refracting)

and their

month August

no of periods 26

unit VI

sub topics

optical instruments;

Microscope and telescope

students will able to draw ray digram of microscope and telescope

inquiry method

chemistry

NCERT

crystal structure nanotechnology

lecturer

Month September					biology cell study ,histology
No of periods 10					
unit VI optics					
sub topics					
Wave optics: Wave front and Huygen's principle, reflection and refraction of plane wave at	students will able to define/calculate/determine/understand topics	MCQ test/group discussion/	inquiry method	NCERT	chemistry
a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygen's	mentioned in unit VI & VII	quiz	lecturer		spectroscopy, surface chemistry
principle. Interference, Young's double slit experiment and expression for fringe width (No					biology
derivation final expression only), coherent sources and sustained interference of light,					bio photonics , optical microscopy
diffraction due to a single slit, width of central maxima (qualitative treatment only).					chemistry
Unit VII: Dual Nature of Radiation and Matter					electron microscope
sub topics					biology
Dual nature of radiation, Photoelectric effect, Hertz and Lenard's observations; Einstein's					DNA
photoelectric equation-particle nature of light.					
Experimental study of photoelectric effect					
Matter waves-wave nature of particles, de- Broglie relation.					

Month October					
No of periods 20					chemistry
Unit VIII Atom and nuclei					atomic structure and reaction
sub topics	Students will able to define/calculate/determine/understand	MCQ test/ group discussion/	inquiry/lecture	NCERT	periodic table
Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model of hydrogen	topics mentioned in unit VIII & IX	quiz			nuclear chemistry
atom, Expression for radius of nth possible orbit, velocity and energy of electron in nth orbit,					biology
hydrogen line spectra (qualitative treatment only).					molecular biology
Nuclei:					radiation therapy
Composition and size of nucleus, nuclear force					chemistry
Mass-energy relation, mass defect; binding energy per nucleon and its variation with					
mass					chemical sensor
number; nuclear fission, nuclear fusion.					solar cell for chemical reaction
unit IX Electronic Devices					biology
sub topics					bio sensor
Energy bands in conductors, semiconductors and insulators (qualitative ideas only) Intrinsic					DNA chip

and extrinsic semiconductors- p and n type, p-n junction

Semiconductor diode - I-V characteristics in forward and reverse bias, application of junction

diode and diode as rectifier

Month November

No of periods 26

Month December pre board I

Month January Prea board II

ANNUAL CURRICULUM AND PEDAGOGICAL PLAN (ACPP)-2025-26

CLASS: XII SUBJECT: BUSINESS STUDIES NAME: SAVITA GUPTA

Topic/ No.of Periods/Date	Learning Outcomes	Assessment tools(a) for identifying learning gaps(b) for determining understanding level	Teaching learning strategies/ Activities	Resources	Interdisciplinar y approach
Part-B Unit- 11 Marketing Management 30 Periods April	After going through this Unit, the students will be able to: Understand the concept of marketing. Explain the features of marketing. Discuss the functions of marketing. Explain the marketing philosophies. Understand the concept of marketing mix. Describe the elements of marketing mix. Understand the concept of product as an element of marketing mix. Understand the concept of	Pre Knowledge test	Project based learning. Mind Maps, storytelling, Case studies & Role Play.	NCERT	Markets are connected to Economics

					1
	packaging, branding and labelling.				
	Understand the concept of price as an element of marketing mix.				
	Describe the factors determining price of a product.				
	Understand the concept of physical distribution.				
	Explain the components of Physical distribution.				
	Describe the various channels of distribution.				
	Understand the concept of promotion.				
	Describe the elements of the promotion mix. Understand the concept of advertising.				
	Understand the concept of sales promotion.				
	Discuss the concept of public relations.				
Part-A Unit-2 Principles of Management	 Understand the concept of principles of management. Explain the significance of management principles. 	Questions asked for understanding the meaning of principles. Discussions.	Project based learning. Mind Maps & Role Play	NCERT And Reference book.	
14 Periods May	 Discuss the principles of management developed by Fayol. Explain the principles and techniques of 'Scientific 				

	Management'. • Compare the contributions of Fayol and Taylor.				
Part-A Unit-3 Business Environment 12 Periods May	 Understand the concept of 'Business Environment'. Describe the importance of Business Environment Describe the various dimensions of 'Business Environment'. Understand the concept of Demonetization. 	Pre Knowledge test	Project Based Learning. Mind Maps, storytelling, Case studies	NCERT	Environment is related to Eco.
	Instructions regarding project work to be done during summer vacation.				
Part-B Unit- 12 Consumer Protection 12 Periods July	 Understand the concept of consumer protection. Describe the importance of consumer protection. Discuss the scope of Consumer Protection Act, 2019 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 	Pre-knowledge test will be conducted.	Problem based learning. Mind Maps,role play.	NCERT	It is related to Social studies.

	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 Describe the role of consumer organizations and NGOs in protecting consumers' interests.				
Part-B Unit-9 Financial management 20 Periods July	 Understand the concept of financial management. Explain the role of financial management in an organisation. Discuss the objectives of financial management Discuss the three financial decisions and the factors affecting them. Describe the concept of financial planning and its objectives. Explain the importance of financial planning. Understand the concept of capital structure. Describe the factors determining the choice of an appropriate capital structure of a company. Understand the concept of fixed and working capital. 	Questions related to uses of funds and its uses were asked.	Mind Maps, storytelling, Case studies & Role Play	NCERT	
	Describe the factors determining the requirements of fixed and working capital.				
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Part-B Unit-10 Financial Markets 18 Periods July	 Understand the concept of the financial market. Understand the concept of the money market. Discuss the concept of capital market. Explain primary and secondary markets as types of capital market. Differentiate between capital and money markets. Distinguish between primary and secondary markets. Give the meaning of a stock exchange. Explain the functions of a stock exchange. Discuss the trading procedure in a stock exchange. Oiscuss the trading procedure of securities. State the objectives of SEBI. 	Everybody Will be asked about stock market by talking about hindi movie 'GURU'	Storytelling and mind maps	NCERT	Related to Eco.
Part-A Unit-1 Nature and	 Understand the concept of management. 	Questions related to day to day activities will be asked to define	Mind Maps,storytelling	NCERT	

significance of Management 12 Periods August	 Explain the meaning of 'Effectiveness and Efficiency. Discuss the objectives of management. Describe the importance of management. Examine the nature of management as a science, art and profession. Understand the role of top, middle and lower levels of management Explain the functions of management Discuss the concept and characteristics of coordination. 	management.			
	• Explain the importance of coordination				
Part-A Unit-4 Planning 14 Periods August	 Understand the concept of planning. Describe the importance of planning. Understand the limitations of planning. Describe the steps in the process of planning. Develop an understanding of single use and standing plans. Describe objectives, policies, strategy, procedure, method, rule, budget and programme as types of plans. 	Pre-knowledge test conducted.	Problem based learning Mind Maps,case studies.	NCERT	

Part-A Unit-5 Organising 15 Periods August	 Understand the concept of organizing as a structure and as a process. Explain the importance of organising. Describe the steps in the process of organising. Describe functional and divisional structures of organisation. 	Quiz conducted to understand the concepts.	Inquiry based learning. Mind Maps, Case studies.	NCERT	
Part-A Unit-5 Organising September	 Explain the advantages, disadvantages and suitability of functional and divisional structure. Understand the concept of formal and informal organisation. Discuss the advantages and disadvantages of formal and informal organisation. Understand the concept of delegation. Describe the elements of delegation. Appreciate the importance of delegation. Understand the concept of decentralisation. Explain the importance of decentralisation. 				

	 Differentiate between delegation and decentralisation. 				
	Revision for Term Exam				
Part-A Unit-6 Staffing 16 Periods October	 Understand the concept of staffing. Explain the importance of staffing Understand the specialized duties and activities performed by Human Resource Management Describe the steps in the process of staffing. understand the meaning of recruitment. Discuss the sources of recruitment. Explain the merits and demerits of internal and external sources of recruitment. Understand the meaning of selection. Describe the steps involved in the process of selection. Understand the concept of training and development. Appreciate the importance of training to the organisation and to the employees. Discuss the meaning of induction training, vestibule training, and internaling. 	Pre-knowledge test.	Mind Maps, storytelling, Role Plays & Case studies	NCERT	Workforce as a factor of production related to Accountancy.

	 training. Differentiate between training and development. Discuss on the job and off the job methods of training. 				
Part-A Unit-7 Directing 15 Periods October	 Describe the concept of directing. Discuss the importance of directing Describe the various elements of directing Understand the concept of motivation. Develop an understanding of Maslow's Hierarchy of needs. Discuss the various financial and non- financial incentives. Understand the concept of leadership. Discuss the various styles of leadership. 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 	Question answer session to be conducted	Mind Maps, storytelling	NCERT	

	effective communication. • Suggest measures to overcome barriers to communication.				
Part-A Unit-8 Controlling 12 Periods November	Understand the concept of controlling. • Explain the importance of controlling - Describe the relationship between planning and controlling -Discuss the steps in the process of controlling	Interactive session to make the concept of controlling understandable.	Mind Maps, storytelling, Role Plays & Case studies	NCERT	Related to Accountancy and Eco.
December,Jan. &Feb	 Revision of chapters and discussion on previous 5 years question papers (CBSE) 				

ANNUAL CURRICULUM AND PEDAGOGICAL PLAN (ACPP)-2025-26

CLASS: XII SUBJECT: ACCOUNTANCY (055) NAME: SAVITA GUPTA

Topic/ No.of Periods/ Date	Learning Outcomes	Assessment tools(a) for identifying learning gaps(b) for determining understanding level	Teaching learning strategies/ Activities	Resources	Interdisciplin ary approach
Part-A Unit 1- Accounting for Partnership Firms 105 Periods April May July	After going through this Unit, the students will be able to state the meaning of partnership, partnership firm and partnership deed. • describe the characteristic features of partnership and the contents of partnership deeds. • discuss the significance of provision of Partnership Act in the absence of partnership deed. • differentiate between fixed and fluctuating capital, outline the process and develop the understanding and skill of preparation of Profit and Loss Appropriation Account. • develop the understanding and skill of preparing a profit	Pre Knowledge test	Problem Based Learning Mind maps Story telling Role play.	D.K. Goel & T.S. Grewal	Related to Mathematics

and loss appropriation account involving guarantee of profits. • develop the understanding and skill of making past adjustments.			
 state the meaning, nature and factors affecting goodwill · develop the understanding and skill of valuation of goodwill using different methods. 			
 state the meaning of sacrificing ratio, gaining ratio and the change in profit sharing ratio among existing partners. 			
 develop the understanding of accounting treatment of revaluation assets and reassessment of liabilities and treatment of reserves and accumulated profits by preparing a revaluation account and balance sheet. 			
 explain the effect of change in profit sharing ratio on admission of a new partner. 			
• develop the understanding and skill of treatment of goodwill as per AS-26, treatment of revaluation of assets and reassessment of liabilities, treatment of reserves and accumulated profits, adjustment of capital accounts and preparation of balance sheet of the new firm.• explain the effect of retirement / death of a partner on change in profit sharing ratio.			
\cdot develop the understanding of			

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	accounting treatment of goodwill, revaluation of assets and reassessment of liabilities and adjustment of accumulated profits and reserves on retirement / death of a partner and capital adjustment. • develop the skill of calculation of deceased partner's share till the time of his death and prepare deceased partner's executor's account. • discuss the preparation of the capital accounts of the remaining partners and the balance sheet of the firm after				
	retirement / death of a partner. understand the situations under which a partnership firm can be dissolved. • develop the understanding of preparation of realisation accounts and other related accounts.				
Part-A Unit 2- Accounting for Companies 45 Periods August	 After going through this Unit, the students will be able to: • state the meaning of share and share capital and differentiate between equity shares and preference shares and different types of share capital. understand the meaning of private	Pre Knowledge test.	Problem Based Learning Case Studies, Role play.	T.S. Grewal & D.K. goel.	Related to Mathematics

September	placement of shares and Employee Stock Option Plan. • explain the accounting treatment of share capital transactions regarding issue of shares. • develop the understanding of accounting treatment of forfeiture and re-issue of forfeited shares. • describe the presentation of share capital in the balance sheet of the company as per schedule III part I of the Companies Act 2013. • explain the accounting treatment of different categories of transactions related to the issue of debentures. • develop the understanding and skill of writing of discount / loss on the issue of debentures. • understand the concept of collateral security and its presentation in the balance sheet. • develop the skill of calculating interest on debentures and its accounting treatment. state the meaning of redemption of debentures.				
Part-B Unit-3 Analysis	After going through this Unit, the students will be able to:	Knowledge test.	Based Learning.	1.S. Grewal & D.K. Goel	Related to Mathematics

of Financial Statement 30 Periods October	 . develop the understanding of major headings and subheadings (as per Schedule III to the Companies Act, 2013) of the balance sheet as per the prescribed norms / formats. . state the meaning, objectives and limitations of financial statement analysis. . discuss the meaning of different tools of 'financial statements analysis'. . state the meaning, objectives and significance of different types of ratios. . develop the understanding of 	Case studies, Story telling.	
	computation of current ratio and quick ratio.		
	· develop the skill of computation of debt equity ratio, total asset to debt ratio, proprietary ratio and interest coverage ratio.		
	develop the skill of computation of inventory turnover ratio, trade receivables and trade payables ratio and working capital turnover ratio.		
	 develop the skill of computation of gross profit ratio, operating ratio, operating profit ratio, net profit ratio and return on investment. 		

Part-B Unit-4 Cash Flow Statement 20 periods November	 After going through this Unit, the students will be able to: state the meaning and objectives of the cash flow statement. develop the understanding of preparation of Cash Flow Statement using indirect method as per AS 3 with given adjustments. 	Pre Knowledge test	Project based Learning Case studies	T.S.Grewal & D.K Goel	Mathematics
	Instructions regarding Project work.				
December January Feb	Revision of chapters and discussion on last 5 yrs question paper of CBSE.				

<u>MTHEMATICS – CLASS XII</u>

ANNUAL CURRICULUM AND PEDAGOGICALPLAN (ACPP) 2025-26

Topic/No. of	Learning Outcomes	Assessment Tools	Teaching Learning	Resources	Inter Disciplinary approach
periods/Date		(a) For Identifying Learning Gaps	Strategies/Activities		
		(b) For Determining			
		Understanding Level			
<u>April' 2025</u>	(1) Matrices	(a) Assignment Sheets: Given as	- Lecture Method: Used	Resources	(1) Matrices
	The students will learn	homework at the end of the topic	to introduce concepts	- NCERT Textbook:	<u>Physics: -</u>
1. Matric	about the:	- Logical Thinking and Higher-	and explain theorems.	Primary resource for	Matrices are used to describe the motion of
es	concept, notation, order of	Order Thinking Skills: Separate		learning	objects in 3D space, rotations, and
2. Deter	matrices. Types of matrices &	sheets with questions to assess	- Learning by Doing:	- NCERT Exemplar	transformations.
minant	equality of	critical thinking	Students practice	Book: Additional	
S	matrices.	(b) Class Tests: Conducted to	problems and	practice problems	- <u>Computer Science:</u>
	Transpose of a matrix.	evaluate understanding	participate in group	- Online Resources:	Matrices are crucial in computer graphics, game
No. of periods:	Symmetric and Skew	- Oral Tests: To assess students'	activities.	CBSE Website and	development, and data analysis.
30	symmetric matrices.	ability to explain concepts	- Consistency: Regular	related Links.	

	Addition & subtraction and multiplication of matrices. (2) Determinants The students will learn about the: Process of finding the determinant of the square matrix. Using determinants find the area of triangle, equation of straight line. Using determinant solve the linear systems of equations.	- Worksheets: To practice problems and reinforce learning - Re-tests: Conducted based on student performance	practice and review of concepts - Understanding: Focus on understanding concepts rather than memorizing formulas - Group Study: Collaborate with peers to discuss problems and solutions - Seek Help: Ask teachers for assistance when needed.	lesson plans and study materials	 Economics: Matrices can be used to model economic systems, input-output analysis, and game theory. Biology: Matrices can be applied to population dynamics, epidemiology, and genetics. (2)Determinants Physics: Determinants are used to calculate the area of parallelograms, volumes of parallelepipeds, and in the study of rigid body dynamics. Computer Science: Determinants are applied in computer graphics, game development, and machine learning. Engineering: Determinants are used to solve systems of linear equations, analyse structures, and model electrical circuits. Economics: Determinants can be used to model economic systems, input-output analysis, and game theory.
May' 20251.Relatio ns and Functi ons2.Invers e Trigon ometri c Functi onsNo. of periods: 28	(1) <u>Relations and Functions.</u> The students will learn about the: Types of relations reflexive, symmetric, transitive and equivalence relations. One to one and onto functions.	 (a) Assignment Sheets: Given as homework at the end of the topic Logical Thinking and Higher- Order Thinking Skills: Separate sheets with questions to assess critical thinking (b) Class Tests: Conducted to evaluate understanding Oral Tests: To assess students' ability to explain concepts Worksheets: To practice problems and reinforce learning Re-tests: Conducted based on student performance 	 Lecture Method: Used to introduce concepts and explain theorems. Learning by Doing: Students practice problems and participate in group activities. Consistency: Regular practice and review of concepts Understanding: Focus on understanding concepts rather than memorizing formulas Group Study: Collaborate with peers to discuss problems and solutions 	Resources - NCERT Textbook: Primary resource for learning - NCERT Exemplar Book: Additional practice problems - Online Resources: CBSE Website and related Links. provide lesson plans and study materials	 (1)Relations and Functions Computer Science: Relations and functions are fundamental concepts in programming, data structures, and algorithms. Physics: Functions are used to model physical phenomena, such as motion, energy, and forces. Economics: Functions are used to model economic systems, supply and demand, and costbenefit analysis. Biology: Functions can be used to model population growth, ecosystem dynamics, and biochemical processes. (1)Inverse Trigonometric Functions Physics: Inverse trigonometric functions are used to calculate angles and directions in problems involving right triangles, projectile motion, and wave propagation. Engineering: Inverse trigonometric functions are applied in navigation systems, robotics, and

	(2) <u>Inverse Trigonometric</u> <u>Functions.</u> The students will learn about the: Definition, range, domain, principal value branch. Graphs of inverse trigonometric functions.		- Seek Help: Ask teachers for assistance when needed.		computer-aided design (CAD). - <u>Computer Science:</u> Inverse trigonometric functions are used in computer graphics, game development, and geographic information systems (GIS).
July' 2025 (1) Contin uity and Differe ntiabili ty (2) Applic ation of Deriva tives No. of periods: 32	(1) <u>Continuity and</u> <u>Differentiability</u> The students will learn about the: Derivative of composite functions, chain rule, derivative of inverse trigonometric functions like sin ⁻¹ x, cos ⁻¹ x and tan ⁻¹ x, derivative of implicit functions. Concept of exponential and logarithmic functions. derivatives of logarithmic and exponential and logarithmic functions. Derivatives of logarithmic and exponential functions. Logarithmic differentiation, derivative of functions expressed in parametric forms. Second order derivatives.	(a)Assignment Sheets: Given as homework at the end of the topic - Logical Thinking and Higher- Order Thinking Skills: Separate sheets with questions to assess critical thinking (b) Class Tests: Conducted to evaluate understanding - Oral Tests: To assess students' ability to explain concepts - Worksheets: To practice problems and reinforce learning - Re-tests: Conducted based on student performance	 Lecture Method: Used to introduce concepts and explain theorems. Learning by Doing: Students practice problems and participate in group activities. Consistency: Regular practice and review of concepts Understanding: Focus on understanding concepts rather than memorizing formulas Group Study: Collaborate with peers to discuss problems and solutions Seek Help: Ask teachers for assistance when needed. 	Resources - NCERT Textbook: Primary resource for learning - NCERT Exemplar Book: Additional practice problems - Online Resources: CBSE Website and related Links. provide lesson plans and study materials	 (1) Continuity and Differentiability <u>Physics:</u> Continuity and differentiability are crucial in physics to describe the motion of objects, including velocity and acceleration. <u>Engineering:</u> Engineers use continuity and differentiability to design and optimize systems, such as bridges, buildings, and electronic circuits. <u>Economics:</u> Continuity and differentiability are applied in economics to model economic systems, including supply and demand curves. <u>Computer Science:</u> Continuity and differentiability are used in computer graphics, game development, and machine learning. (2) <u>Application of derivatives:</u> <u>Physics:</u> Derivatives are used to describe motion, including velocity and acceleration. <u>Engineering:</u> Derivatives are applied in engineering to design and optimize systems.

	(2) <u>Application of</u> <u>derivatives:</u> The students will learn about the: Rate of change of quantities, increasing/decreasing functions, maxima and minima (first derivative test motivated geometrically and second derivative test given as a provable tool). Simple problems (that illustrate basic principles and understanding of the subject as well as real-life situations).				 <u>Economics</u>: Derivatives are used in economics to model economic systems and make predictions. Computer Science: Derivatives are used in computer graphics, game development, and machine learning.
<u>August' 2025</u> (1) Integr	(1) <u>Integrals</u> The students will learn	(a)Assignment Sheets: Given as homework at the end of the tonic	- Lecture Method: Used to introduce concepts	Resources - NCERT Textbook:	(1) Integrals - Physics: Integrals are used to calculate areas.
als	about the:	- Logical Thinking and Higher-	and explain theorems. - Learning by Doing: Students practice	Primary resource for learning - NCERT Exemplar Book: Additional	volumes, and physical quantities, such as work
(2) Applic	Integration as inverse	Order Thinking Skills: Separate			and energy.
ation		sheets with questions to assess			
0f	process of differentiation.	(b) Class Tests: Conducted to			- <u>Engineering</u> : Integrals are applied in
als		(D) Class Tests: Conducted to evaluate understanding	problems and participate in group	- Online Resources:	including structures mechanisms and
No. of periods:	Integration of a variety of	- Oral Tests: To assess students'	activities.	CBSE Website and	electronic circuits.
27		ability to explain concepts	- Consistency: Regular	related Links.	
	functions by substitution, by	- Worksheets: To practice	practice and review of	provide lesson plans	- Economics: Integrals are used in economics to
		problems and reinforce learning	concepts	and study materials	model economic systems, including supply and
	partial fractions and by parts,	- Re-tests: Conducted based on student performance	- Understanding: Focus		demand curves.
	Evaluation of	student performance	concepts rather than		- Computer Science: Integrals are used in
			memorizing formulas		computer graphics, game development, and
	simple integrals of the		- Group Study:		machine learning.
			Collaborate with peers		
	The students will learn		solutions		
	about the:		- Seek Help: Ask		
	following types and		teachers for assistance		
			when needed.		
	problems based on them.				(2) <u>Application of Integrals</u>
					 <u>Physics</u>: Application of integrals in physics

	$\int \frac{dx}{x^2 \pm a^2} \int \frac{dx}{\sqrt{a^2 \pm a^2}} \int \frac{dx}{\sqrt{a^2 + a^2}} \int \frac{dx}{ax^2 + bx + c} \int \frac{dx}{\sqrt{a^2 \pm bx + c}} \int \frac{dx}{\sqrt{a^2 \pm bx + c}} dx \int \sqrt{a^2 \pm x^2} dx \int \sqrt{x^2 - a^2} dx$ $\int \sqrt{ax^2 + bx + c} dx,$ 2. Application of Integrals The students will learn about the: Fundamental Theorem of Calculus (without proof). $Area(x) = \int_{a}^{b} f(x) = [F(x)]_{a}^{b}$ $= F(b) - F(a)$ Basic properties of definite integrals and evaluation of definite integrals. Applications in finding the area under simple curves, especially lines, circles/ parabolas/ellipses (in standard form only)				to calculate physical quantities, such as area, volume, and centre of mass. - <u>Engineering</u> : Application of integrals in engineering to design and optimize systems, including structures and mechanisms. - <u>Economics</u> : Application of integrals in economics to model economic systems and calculate aggregate quantities. - <u>Computer Science</u> : Application of integrals in computer graphics and game development.
September' 2025 (1) Differe ntial Equati ons	(1) <u>Differential Equations</u> The students will learn about the: Definition, order and degree, general and particular solutions of a	(a) Assignment Sheets: Given as homework at the end of the topic - Logical Thinking and Higher- Order Thinking Skills: Separate sheets with questions to assess critical thinking	 Lecture Method: Used to introduce concepts and explain theorems. Learning by Doing: Students practice 	Resources - NCERT Textbook: Primary resource for learning - NCERT Exemplar Book: Additional	 (1) <u>Differential Equations</u> <u>Physics:</u> Differential equations are used to model physical phenomena, such as motion, energy, and waves. Engineering: Differential equations are applied

(2) <u>Revisi</u> <u>on for</u> <u>Half</u> <u>yearly</u> <u>Exam</u> No. of periods: 29	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: dy/dx + px = q, where p and q are functions of x or constants. dx/dy + py = q, where p and q are functions of y or constants. (1) (2) <u>Revision for Half</u> <u>yearly Exam</u>	(b) Class Tests: Conducted to evaluate understanding - Oral Tests: To assess students' ability to explain concepts - Worksheets: To practice problems and reinforce learning - Re-tests: Conducted based on student performance	problems and participate in group activities. - Consistency: Regular practice and review of concepts - Understanding: Focus on understanding concepts rather than memorizing formulas - Group Study: Collaborate with peers to discuss problems and solutions - Seek Help: Ask teachers for assistance when needed.	practice problems - Online Resources: CBSE Website and related Links. provide lesson plans and study materials	 in engineering to design and optimize systems, including control systems and electronic circuits. <u>Biology:</u> Differential equations are used to model population dynamics, epidemiology, and biochemical processes. <u>Economics</u>: Differential equations are used to model economic systems and predict economic growth.
October' 2025 (1) Vector <u>§</u> (2) Three Dimen sional Geome try No. of periods: <u>24</u>	1. <u>Vectors</u> The students will learn about the: 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	 (a) Assignment Sheets: Given as homework at the end of the topic Logical Thinking and Higher- Order Thinking Skills: Separate sheets with questions to assess critical thinking (b) Class Tests: Conducted to evaluate understanding Oral Tests: To assess students' ability to explain concepts Worksheets: To practice problems and reinforce learning Re-tests: Conducted based on student performance 	 Lecture Method: Used to introduce concepts and explain theorems. Learning by Doing: Students practice problems and participate in group activities. Consistency: Regular practice and review of concepts Understanding: Focus on understanding concepts rather than memorizing formulas Group Study: Collaborate with peers to discuss problems and solutions Seek Help: Ask teachers for assistance when needed. 	Resources - NCERT Textbook: Primary resource for learning - NCERT Exemplar Book: Additional practice problems - Online Resources: CBSE Website and related Links. provide lesson plans and study materials	 (1) <u>Vectors</u> <u>Physics</u>: Vectors are used to describe physical quantities, such as displacement, velocity, and acceleration. <u>Engineering</u>: Vectors are applied in engineering to design and optimize systems, including structures, mechanisms, and electronic circuits. <u>Computer Science</u>: Vectors are used in computer graphics, game development, and machine learning. <u>Navigation</u>: Vectors are used in navigation systems, including GPS. <u>Three Dimensional Geometry</u> <u>Physics</u>: Three-dimensional geometry is used to describe the motion of objects in space, including nrojectiles and orbits

	vector (cross) product of vectors. 2. <u>Three Dimensional</u> <u>Geometry</u> The students will learn about the: 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				 <u>Engineering</u>: Three-dimensional geometry is applied in engineering to design and optimize systems, including buildings, bridges, and machines. <u>Computer Science</u>: Three-dimensional geometry is used in computer graphics, game development, and computer-aided design (CAD). <u>Architecture</u>: Three-dimensional geometry is used in architecture to design and visualize buildings and structures.
November' 2025 (1) Linear Progra mming Proble ms (2) Proba bility No. of periods: 28	lines. (1) Linear Programming Problems The students will learn about the: 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). (2) <u>Probability</u> The students will learn about the: Conditional probability, multiplication theorem on probability, independent events, total probability, Bayes' theorem, Random variable and its	(a) Assignment Sheets: Given as homework at the end of the topic - Logical Thinking and Higher- Order Thinking Skills: Separate sheets with questions to assess critical thinking (b) Class Tests: Conducted to evaluate understanding - Oral Tests: To assess students' ability to explain concepts - Worksheets: To practice problems and reinforce learning - Re-tests: Conducted based on student performance	 Lecture Method: Used to introduce concepts and explain theorems. Learning by Doing: Students practice problems and participate in group activities. Consistency: Regular practice and review of concepts Understanding: Focus on understanding concepts rather than memorizing formulas Group Study: Collaborate with peers to discuss problems and solutions Seek Help: Ask teachers for assistance when needed. 	Resources - NCERT Textbook: Primary resource for learning - NCERT Exemplar Book: Additional practice problems - Online Resources: CBSE Website and related Links. provide lesson plans and study materials	 (1) Linear Programming Problems <u>Economics</u>: Linear programming is used to optimize economic systems, including resource allocation and production planning. <u>Business Studies</u>: Linear programming is applied in business to make decisions about production, inventory, and supply chain management. <u>Engineering</u>: Linear programming is used in engineering to design and optimize systems, including logistics and transportation systems. <u>Operations Research</u>: Linear programming is a key technique in operations research, used to optimize complex systems. (1) <u>Probability</u> <u>-Statistics</u>: Probability is a fundamental concept in statistics, used to analyse and interpret data. <u>Economics</u>: Probability is used in economics to model uncertainty and risk in economic systems. <u>Biology</u>: Probability is used in biology to model genetic inheritance and population dynamics.

	probability distribution, mean of random variable.		- <u>Computer Science:</u> Probability is used in computer science to model and analyze algorithms, including machine learning and artificial intelligence.
December" 2025			
REVISION AND PRACTICE PRE-BOARD EXAMS			
January' 2026 <u>REVISION AND</u>			
PRE-BOARD EXAMS			
February' 2026 _No. of periods: 26			
REVISION AND PRACTICE PRE-BOARD EXAMS			
<u>CBSE</u> <u>INTERNAL</u> <u>ASSESSMENT</u> <u>EXAM</u>			
March CBSE FINAL EXAM			

ANNUAL CURRICULUM AND PEDAGOGICAL PLAN (ACPP)

2025-2026

SUBJECT:PHYSICAL

CLASS : XII

EDUCATION

NAME OF THE TEACHER:

GEETA SRIVASTAVA

Topic/	No. of Periods Date	Learning Outcomes	Assessment Tools	(a) for	Teaching Learning Strategies/	Resources	Inter-

		Identifying Learning Gaps	Activities		Disciplinary
		level			approton
Topic :	Students will be able to :				
MANAGEMENT OF SPORTING EVENTS		Quizzes			
Sub-topics		Group Discussion			Computer Science
(1)FUNCTIONS OF SPORTS EVENTS	*To describe the functions of sports event management	Assignment	Technology-based learning	Text books	Sociology
(2)various committees and their responsibilities	*To classify the committees and their responsibilities in the sports event.		kinesthetic learning	Technology	
(3)fixtures and their procedures	*To prepare fixtures of different tournament.		Game Based Learning	Teaching Aids(charts,posters)	
(4)intramural and extramural	*To distinguish between intramural and extramural		Group Learning		
(5)community sports program	*To design and prepare different types of community program		Individual Learning		
NO OF PERIODS					
20					
DATE/MONTH					
APRIL					

Topic:	Students will be able to :				
CHILDREN AND WOMEN IN SPORTS					
Sub-topics					
(1)Exercise guidelines for different	*Differentiate exercise guidelines for different stages of growth and	Observations,	Lecture-Based Instructions	Text books	Computer science
age groups	development	Homework	Inquiry-based learning	Digital and Online resources	Psychology
(2)Common postural deformities	*Classify common postural deformities and their corrective measures	Questioning	Individual Learning	Case studies	sociology
(3)Women' participation in sports	*Aware of less participation of women in sports in India		Expeditionary Learning		Biology
(4)Special consideration-menarche	*Identify special considerations related to menarche and menstrual				
and menstrual disfunction	dysfunction				
(5)Female athlete triad(osteoporosis,	*Express the female athlete triad according to eating disorders				
amenorrhea, eating disorder					
NO OF PERIODS:					
12					

DATE /MONTH					
MAY					
Topic:	Students will be able to :				
PHYSICAL EDUCATION AND SPORTS					
FOR CWSN					
Sub topics:		Class Discussion	Lecture-Based Instructions	Text Books	Sociology
	*Value the advantages of physical				
(1)Organizations promoting Disability	activities for children with special	Short Assignment	Kinesthetic Learning	Websites	Psychology
					Anthropomet
sports	needs	Questioning	Game-Based Learning	Case Studies	ry
	*Differentiate between the				
(2)Concept of classification and	methods of categorization in sports for CWSN				
Divioning in sports					
(3)Concept of Inclusion in sports	*Understand the concept and the Importance of Inclusion in sports				
Its need and Implementation					
	*Create advantages for the children with special needs				
(4)Advantages of physical activities	through physical				
for children with special needs	activites				
(5)Strategies to make physical activites	* Strategies for physical activities accessible for children with				

	special				
accessible for children with special	needs				
needs					
NO OF PERIODS:					
14					
DATE/MONTH					
JULY					
Торіс:	Students will be able to:				
SPORTS AND NUTRITION					
Sub topic:					
	* Understand the concept of				
(1)Concept of Balanced Diet and	Balanced Diet and nutrition	Quizzes	Individual Based Learning	Text Books	Biology
Nutrition		Self-Reflection	Inquiry Based Learning	Websites	Chemistry
	* Differentiate between Macro				
(2)Macro and Micro Nutrients : Food	and Micro Nutrients	Assignment	Expeditionary Learning		Mathematics
sources and functions					Computer Science
	* Classify Nutritive and Non-				
(3)Nutritive and Non-Nutritive	Nutritive components of Diet				
components of Diet					

(4)Eating for Weight Control-	* Identify the ways to maintain a healthy weight				
A Healthy Weight , The Pitfalls of					
Dieting, Food Intolerance, and Food	* Know about foods commonly causing food intolerance				
Myths					
(5)Importance of Diet in Sports -	* Recognize the pitfalls of dieting and food myths				
Pre ,During and Post competition					
requirements					
NO OF PERIODS:					
12					
DATE /MONTH					
JULY					
Topic:	Students will be able to:				
TEST AND MEASUREMENT IN SPORTS					
Sub topic:]	Short assignment			
(1)FitnessTest-SAI KHELO INDIA	*Perform SAI KHELO India Fitness Test in school (age group 5- 8years/	Class Discussion	Kinesthetic Learning	Text Books	Mathematics

	(class1-3)and age				
fitness test in school:	group9-18yrs/(class 4-12)	Observations	Game Based Learning	Digital and online resources	Physiology
					Anthropomet
Age Group:5-8years/class 1-3			Group Learning		ry
BMI, Flamingo Balance Test, Plate			Technology Based Learning		Biology
					Computer
Tapping Test			Experiential Learning		Science
Age Group:9-18years/class4-12					
BMI,50mts Speed Test,600mts Run/					
Walk, Sit and Reach Flexibility Test,					
Strength Test(Partial Abdominal Curl					
Ups, Push-Ups for boys, Modified					
Push-ups for girls)					
	*Determine physical fitness index				
	through Harvard Step Test/Rock				
(2)Measurement of Cardio Vascular	Port				
Fitness - Harvard Step Test	Test				
	*Compute Basal Metabolic Rate				
(3)Computing Basal Metabolic Rate	(BMI)				
(BMR)					
	*Describe the procedure of Rikli				
(4)Rikli and Jones-Senior Citizen	and Jones -Senior Citizen Test				
fitness test					

<u>Chair Stand Test</u> for the lower body			
Strength Test			
<u>Arm Curl Test</u> for upper body strength			
Chair Sit and Reach Test for lower			
body flexibility			
Back Stretch Test for upper body			
flexibility			
Eight Foot Up and Go Test for agility			
Six Minute Walk Test for Aerobic			
Endurance			
(5) Johnsen Methany Test of Motor			
Educability(front roll,back roll,			
jumping half turn, jumping full turn			
NO OF PERIODS:			
12			
DAYS /MONTH			
AUGUST			
1			

Topic :	Students will be able to:				
PHYSIOLOGY AND INJURIES IN SPORTS					
Sub topic:					
	*Recognize the physiological factors determining the				
(1)Physiological factors determining	components of	Quizzes	Individual Learning	Text Books	Biology
components of physical fitness	physical factor	Home work	Group Learning	Websites	Chemistry
(2)Effects of exercise on the muscular	* Comprehend the effects of exercise on muscular system	Observation	Kinesthetic Learning	Chalk Board	Physics
system		Assignment	Inquiry Based Learning		Physiology
(3)Effects of exercise on Respiratory					
system					
(4)Physiological changes due to aging	*Figure out the physiological changes due to aging				
(5)Sports Injuries : Classification	* Classify sports injuries with its management				
(Soft tissue injuries-Abrasion,					
Contusion,Laceration, Incision					
sprain and strain; Bone and joint					
injuries-Dislocation, Fractures-					
Green Stick, Comminuted ,					
Transeverse ,Oblique, and Impacted					

NO OF PERIODS: 12 DAYS /MONTH AUGUST					
TOPIC :	Students will be able to:				
BIOMECHANICS AND SPORTS					
Sub topic :		Quizzes	Technology-Based Learning	Text Books	Physics
	*Understanding Newton's Laws of				
(1)Newton's Laws of motion and its	sports	Assignments	Kinesthetic Learning	Pictures	Physiology
application		Observation	Lecture-Based Instructions	Digital and Online resources	Kinesiology
(2)Types of levers and their application		Questioning	Games Based Learning		Music
in sports					Arts
(3)Equilibrium -Dynamic and Static	*Recognize the concept of Equilibrium and its application in sports				
and centre of gravity and its	* Know about the Centre of Gravity and will be able to apply it in sports				
application in sports					

(4)Friction and Sports	* Define Friction and its application in sports				
(5)Projectile in sports	*Understand the concept of Projectile in sports				
NO OF PEROIDS:					
18					
DATE /MONTH					
SEPTEMBER					
TOPIC :	Students will be able to :				
PSYCHOLOGY AND SPORTS					
Sub topic:		Homework	Lecture-Based Instructions	Text Books	Psychology
	*Classify different types of personality and their relationship				
(1)Personality;its definition & types	with sports	Assignment	Group Learning	Case Study	Philosophy
(Jung classification&Big Five Theory	performance	Observation	Inquiry Based Learning	Website	Computer Science
	*Recognize the concept of				
(2)Motivation and its types& technique	types of	Questioning	Individual Learning		Sociology
(3)Exercise Adherence ; Reasons ,	motivation	Role Play	Game Based Learning		

Demofite Queterstanics for each and in a it	*Identify varios reasons to exercise, its associuated benefits				
Benefits & strategies for enhancing it	and stratigies				
(4)Meaning, Concept, and Types of	to promote exercise adherence				
Aggression in sports	*Differentiate between different types of aggression in sports				
(5)Psychological Attributes in Sports-	*Explain various psychological attributes in sports				
Self-Esteem, Mental Imagery, Self-Talk					
Goal Setting					
NO OF PERIODS:					
12					
DATE/MONTH					
OCTOBER					
TOPIC:	Students will be able to :				
YOGA AS PREVENTIVE MEASURF					
FOR LIFESTYLE DISEASES					
Sub topic:					
(1) Obesity:Procedure, Benefits&	*Identify the asanas beneficial for different ailments and health	Questioning	Group Learning	Text Books	Physiology

	problems				
Contraindications for Tadasana,Katich-		Observation	Inquiry-based Learning	Websites	Philosophy
akrasana, Pavan muktasana, Matsyasana					
,		Homework	Individual Learning		Chemistry
	*Recognize the importance of				
Halasana,Pachimottansana,Ardh Mats-	measures of		Lecture Based Learning		Biology
	obesity diabetes asthma				
	hypertension, back pain, and				
yendrasana, Dhanurasana, Ushtrasana,	arthritis		Kinesthetic Learning		Physics
Suryabhedan Pranayam					
	*Describe the procedure for				
(2) Disheter Dresedure Deposite 9	performing various types of				
(2)Diabetes: Procedure, Benefits &	d5d11d5 101				
Contraindications for Katichakrasana	maximal benefits				
PavanMuktasana, Bhujangasana,					
	*Distinguish the contraindications				
Shalabhacana Dhanuracana Sunta	associated with performing				
Silalabilasalla, Dilaliulasalla, Supta	asarias				
Vajrasana, Pachimottanasana, Ardh-					
	*Outline the role of yogic				
matsvendrasana, Mandukasana,	management for various health benefits and				
Gomukhasana Yogmudra Ushtrasana	proventive measures				
	preventive measures				
Kapalbhati					

(3) Asthma: Procedure, Benefits &		
Contraindications for Tadasana,		
Urdhwahastottasana, Uttanmandukas-		
ana,Bhujangasana,Dhanurasana,		
Ushtrasana, Vakrasana, Kapalbhati,		
Gomukhasana, Matsyaasana		
AnulomVilom		
(4)Hypertension: Procedure,Benefits,		
& Contraindications for Tadasana,		
Katichakrasana, Uttanpadasana, ardh-		
Halasana, Sarala Matsyasana,		
Gomukhasana, Uttanmandukasana,		
Vakrasana, Bhujangasana, Makarasana		
Shavasana,Nadishodhan Pranayam		
Sitlipranayam		
(5) Back Pain & Arthritis:		
Procedure, Benefits & Contraindication		
of Tadasana, Urdhwahastottanasana,		
Ardhchakrasana, Ushtrasana, Vakrasana,		
Sarala Matsyendrasana, Bhujangasana		

Gomukhasana, Bhadrasana, Makarasana					
Nadishodhan Pranayam					
NO OF PERIODS:					
12					
DATE /MONTH:					
OCTOBER					
ТОРІС:	Students will be able to :				
TRAINING IN SPORTS					
Sub topic:					
	*Understand the concept of				
(1)Concept of Talent Identification and	Talent Identification and the methods used for	Assignment	Lecture Based Instructions	Text Books	Mathematics
Talent Development in sports	Talent Development in sports	Quizzes	Kinesthetic Learning	Website	Physiology
	*Understand sports training and				
(2)Introduction to Sports Training cycle	the different cycles used in the	Observation			Dhusias
-	training	Observation	Group Learning		Physics
Micro, Meso,Macro Cycle	process		Individual Learning		Computer Science
	*Understand different types and				
(2) Turner and Mathedate data	methods to develop-				
(3) Types and Methods to develop-	Strength,endurance,				

Strength, Endurance and Speed	and speed		
	*Understand the different types		
	and methods to develop-		
(4) Types and Methods to develop-	flexibility		
Flexibility and coordinative ability	and coordinative ability		
	*Understand Circuit Training and		
(5)Circuit Training - Introduction &	its importance		
its importance			
NO OF PERIODS:			
15			
DATE/MONTH			
NOVEMBER			

ANNUAL CURRICULUM AND PEDAGOGICAL PLAN (ACPP)

CLASS: XII SUBJEC: BIOLOGY

TEACHER NAME: PRIYAMVADA MISHRA
Month	Chapter Name	Book	Peri ods	Learning Outcomes	Teaching Learning Strategies / Activities	Resources	Assessment Tools (a) for Identifying Learning Gaps (b) for determining understandin g level	Interdisci plinary Approach
April	Unit-VI Reproduction Ch-1 Sexual Reproduction in Flowering Plants -Flower structure; -Development of male and female gametophytes; - Pollination - types, agencies, and examples; out breeding devices;	Biology	6	Identify and describe the structures involved in sexual reproduction in angiosperms (e.g., flower parts, male and female reproductive structures). Explain the	Flow chart work, diagramm atic analysis, group discussion	Textbook, videos, articles	Worksheets, MCQ, quiz	Chemistry : Mechanis ms of seed and pollen dispersal (e.g., wind dynamics, water surface tension).

	 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. 			 process of microsporogenesis and megasporogenesis, and the development of male and female gametophytes Understand & illustrate pollination mechanisms and the agents of pollination (biotic and abiotic). Describe double fertilization and post- fertilization events (endosperm and embryo development, seed and fruit formation). 				Use of light in photoperio dism and flowering. Mathemat ics: Statistical analysis of pollination success rates. Genetic probabiliti es in plant breeding (Mendelia n ratios).
April	Ch-2 Human Reproduction - Male and female reproductive systems; - Microscopic anatomy of testis and ovary;	Biology	6	Identify and describe the structure & functions of male & female reproductive systems.	Role plays on partition debates, flowcharts Diagrams	Textbook, documenta ries	Reflection worksheet, short answer test, draw the diagram,	Chemistry : Hormonal chemistry (steroid hormones like

	 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). 			Understand & explain the process of gametogenesis (spermatogenesis & oogenesis). Describe the menstrual cycle, hormonal control, and its phases. The process of fertilization, implantation, & embryonic development up to parturition. Understand the role of placenta & maternal health during pregnancy				estrogen, testosteron e, progestero ne). Biochemic al aspects of gamete formation.
Мау	<u>Chap. 3 Reproductive</u> <u>Health</u> - Need for reproductive health and prevention of Sexually Transmitted -Diseases (STDs); - Birth control - need and methods, -Contraception, and medical termination of	Biology	5	Understand and explain methods of contraception (natural, barrier, hormonal, surgical) and their advantages/disadv antages. Recognize common Sexually Transmitted	Role plays on partition debates, flowchart s Diagrams	NCERT Textbook World map PPTs on different reproducti ve health	MCQs, concept flow chart (b) Group discussion, Q&A, formative assessments via worksheets	Chemistry : Understan ding hormonal contracepti ves and their chemical basis. STD-

July	pregnancy (MTP);Amniocentesis;- Infertility and assistedreproductive technologies -IVF, ZIFT, GIFT(elementary idea forgeneralawareness).Unit-VII Genetics and	Biology	5	Diseases (STDs), their causes, symptoms, and prevention.	Genetical	NCERT	Quiz,	causing pathogens and their treatment using antibiotics/ antivirals. History:
	Evolution Chapter-4: 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			explain Mendel's laws of inheritance and apply them to genetic crosses (monohybrid and dihybrid). Analyze deviations from Mendelian genetics (e.g., incomplete dominance, codominance, multiple alleles) Interpret human pedigree charts and solve problems related to genetic disorders (e.g., haemophilia, sickle-cell anaemia).	data analysis, chart work Flow chart of genetical disease	Textbook PPTs on different genetic evolution and flowcharts of genetics disease	Q&A, class discussion	Historical timeline of discoveries in genetics and evolution — from Mendel to the Human Genome Project.

	inheritance - haemophilia, colour blindness; Mendelian disorders in humans - thalassemia; chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.							
July	Chapter-5: 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.	Biology	6	Explain the structure and function of DNA and RNA, including Watson and Crick's model. Understand the process of DNA replication, including semi- conservative mechanism and enzymes involved.	Mock on genetic material case study on lac operon	Worksheet s, quizzes, concept on central dogma, project on rice genome fingerprint ing	Analysis, worksheet, and draw the diagram	Mathemat ics: Use of probability in base pairing and codon frequency, data interpretati on in genome sequencing and population genetics.

Augu	IstChapter-6: Evolution Orig of life; biological evolution evidencesfor biological evolution	in Biolog and	gy 7	Understand the evidence for evolution from fossil records,	Mock on modern synthetic theory	NCERT Textbook l on differen	PPTs dra nt dra	alysis, rksheet, and w the gram	Geograph y: Biogeogra phy: how
	(palaeontology, 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.			comparative anatomy, and molecular biology. Describe the key concepts of Darwin's theory of natural selection and contrast it with Lamarckism and other theories.	case study on biological Evolution and Evidences	genetic evolution and flowcharts of genetics disease		continental environme changes inf species dist and evoluti	drift and ntal luenced ributio n on.

August	Unit-VIII: Biology and	Biology	7	Identify and	Debate,	NCERT	Comparativ	Study of drugs
	Human Welfare			explain the causes,	comparati	Book	e	(antibiotic,
	Chapter-7: Human			symptoms,	ve study	digital	worksheet,	analgesic, vaccines,
	Health and Diseases			transmission, and	of human	nlatform	quiz	and their chemical
	Pathogens; parasites			control of common	disease	flow charts		properties;
	causing human diseases			diseases (e.g.,		now charts		biochemic al nature
	(malaria, dengue,			malaria, typhoid,		different		of
	chikungunya, filariasis,			HIV/AIDS,		disease		-11
	ascariasis, typhoid,			aanaan) Dagariha		uisease		allergens and toxins.
	pneumonia, common			the structure and				
	cold, amoebiasis, ring			function of the				
	worm) and their control;			function of the				
	Basic concepts of			immune system, including innate				

Septemb er	 immunology - vaccines; cancer, HIV and AIDS; Adolescence - drug and alcohol abuse. Chapter-8: 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. 	Biology	7	and acquired immunity. Understand the principles and types of vaccination and immunization. Identify and classify different types of microbes (bacteria, fungi, protozoa, viruses) used in industrial, medical, and environmental applications. Describe the role of microbes in the production of food (curd, cheese, bread), beverages (alcohol), and antibiotics (penicillin).	Debate, comparati ve study of microbes' and human welfare	NCERT Book, digital platform, flow charts on biocontrol agents	MCQ, Q&A, group presentation, Laboratory work	Chemistry : Fermentati on reactions, enzyme action, alcohol production , and chemical compositio n of antibiotics and organic acids.
Septemb er	Unit-IX Biotechnology and its Applications Chapter-9: Biotechnology - Principles and Processes	Biology	4	Describe tools of recombinant DNA technology (restriction enzymes, plasmids, ligases, etc.).	Group discussion , chart on recombina nt DNA properties	NCERT Book, digital platform, flow charts	Group project, MCQ, Q&A, group presentation, Laboratory work	Physics: Functionin g of instrument s like PCR machines,

	Genetic Engineering (Recombinant DNA Technology).			Understand the steps involved in recombinant DNA technology — isolation of DNA, cutting, amplification, insertion, and selection.	Genetic Engineerin g			centrifuges , & electropho resis units (voltage, resistance, molecular movement).
Septemb er	Chapter-10: Biotechnology and its Applications 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	Biology	4	Explain the concept and creation of genetically modified organisms (GMOs), especially in crops like Bt cotton and Golden Rice.	activity, diagram drawing Group discussion	NCERT Book, digital platform, flow charts Of stem cell technolog y	Short answer test, chart evaluation Assignments	Economic : impact of biotechnol ogy in healthcare, agriculture , and industry; cost- benefit analysis of GM crops.
Septemb er	Unit-X Ecology and Environment Chapter-11: Organisms and Populations	Biology	3	Understand the various abiotic factors (temperature, water, light, soil)	Flowchart s for population growth types	NCERT, book digital platforms, flow chart	Poster, MCQ, short questions and answer	Geograph y: Study of ecosystem s, climatic zones, and

	Population interactions - mutualism, competition, predation, parasitism; population attributes - growth, birth rate and death rate, age distribution			and their effects on organisms. Describe adaptations of organisms to different environments (e.g., altitude, salinity, heat, cold)	(exponenti al vs logistic); Venn diagrams to compare mutualism and parasitism.	on population competitiv e animals		population distributio n; impact of geography on species distributio n.
Octobe	er Chapter-12: Ecosystem Ecosystems: Patterns, components; productivity and decomposition; energy flow; pyramids of number, biomass, energy.	Biology	5	Describe types of ecosystems (terrestrial and aquatic) and their energy flow mechanisms. Understand the concept of food chains, food webs, ecological pyramids, and trophic levels.	Concept Mapping Group Discussion s Case Studies Project- Based Learning	Textbooks Diagrams/ Charts Digital Media Field- based Resources	Reflective pattern of question, MCQ	Physics: Laws of energy flow (first and second laws of thermodyn amics), solar energy input, & heat transfer in ecosystem s.
Octobe	er Chapter-13: Biodiversity and its Conservation Biodiversity-Concept, patterns, importance; loss of biodiversity;	Biology	7	Understand the patterns of biodiversity, including latitudinal gradients and	Case study discussion , debate, Field Projects, Group	Textbooks Multimedi a Charts/Mo dels Field-	Group presentation, quiz, worksheet	Geograph y: Biodiversit y hotspots, ecological zones, and

	biodiversity			species-area	Discussion	based		biogeograp
	conservation; hotspots,			relationships.	s Cross-	Resources		hical
	endangered organisms,			Recognize the	Curricular			classificati
	extinction, Red Data			importance of	Projects,			on of
	Book, Sacred Groves,			biodiversity in	Inquiry-			India.
	biosphere reserves,			ecosystem	Based			
	national parks, wildlife,			stability, human	Learning,			
	sanctuaries, and Ramsar			survival, and				
	sites.			climate resilience.				
October	Revision + Internal	All	As	Reinforce	Practice	Worksheet	Mock tests,	Integrated
	Assessments	Syllabu	need	concepts, bridge	papers,	s	oral revision	review
		s	ed	learning gaps, and	group	Assessme		
				prepare for exams.	revision	nts and		
					games,	feedback		
					mock tests	tools		