Birla Public School, Pilani
Annual Curriculum Plan for the session 2021-22
Subject: English
Class- XI

Months	Lessons /Topics Covered	Learning Objectives Students will be able to-	Suggested Activities	RSD	Assessments	Learning Outcomes Students are able to-
July	L- 1 The Portrait of a Lady	1.Comprehend the lesson 2.understand the generation gaps	Grandparents today are the first causality in the modern world's nuclear family system. Make a poster on the above statement.	Communication Skills Sense of Responsibility Compassion	Students will be evaluated based on textual as well as extrapolative questions.	a. learn new words and phrases Enriching Vocabulary: veritable bedlam of chirruping, frivolous rebukes, serenity, seclusion with resignation, sagging skins of dilapidated drum b. improve reading skills c. develop respect for the grandparents d. They would develop their optimistic attitude towards life amidst many struggles.
	P-1. – A Photograph	to encourage the students to appreciate poetry and read aloud with proper intonation- to prepare the students for poetic forms and adept them with the figures of speech, rhyme and rhythm	A comparative study of the prose The Portrait of a Lady and the poem A Photograph in a group of four	Communication Skills Self-Awareness Compassion	Extra exercises – reference to context, short answers, long answers and value based answers.	a.Their vocabulary would be strengthened. b.They would be able to draw a comparative study between human life and nature. c.They would be able to study a photograph
	L-2. We're not Afraid to Die.	To allow a problem solving: identifying the problem; considering the options; weighing the pros and cons of each option; reaching a decision	Class Reading with suitable expression, pronunciation and intonation.(Individual Activity)	Problem- Solving Responsibility	Assignments:) What difference did you notice between the reaction of the adults and the children when facedwith danger?ii) What lesson do we learn from such hazardous	They would be able to inculcate the values of determination and will power.

				experiences?iii) Comprehension questions will be asked for understanding.iv) Textual questions/ Extracts/Value based/Character sketches	
1. **The Summer of the Beautiful White Horse.**	To facilitate an attitude to become honest and trustworthy in thought and action, responsible cooperative, understanding and tolerance, respect for national identities in relation to other people -democratic citizenship. [global aim] . Recognize Marginalization	Research on the Armenian genocide.PPT (a group presentation comprising all range of learners	Diversity Responsibility Internationalism	Assignments: comprehension questions:.What traits of Garoghlanian family are highlighted in the story?.Give an account of Mourad's joy ride?.How can you say that Mourad has a way with everything?.Comment on the role of Aram the narrator.	The learners would be able to apply the literal, interpretative and critical level in analyzing a short story.They would be able to determine the tone of a short story.They would be able to comprehend the irony hidden in the story
Notice	guide and motivate students to express and write effectively. Awareness of the form, content and process of writing. Able to retain a data and information	Groups would be formed according to the range of Learners and distributed the role of 5 Ws and frame a notice on the subject given.	Communication Skill	Different topics on different fields of notice for all range of learners.	Students will be able to analyse any NOTICE shown to them on the basis of the knowledge imparted.They will be able to frame notice about any event.They will be able to identify important information in any given notice.Students will be able to use appropriate style and format to write a NOTICE effectively
Determiners Gap Filling Editing Tasks	to establish a clear understanding of determiners to enable the learners to identify the types of	Worksheets for all range of learners.	Communication Skills	Worksheets for all range of learners	The learners would be able to identify determiners and use them appropriately. The comprehending skills would be improved.

		determiners and use them in sentences				Sentence construction skills would be strengthened
August CLASS TEST	P-2 -The Laburnum Top	To interpret the poem by relating the theme to the present-day context	Poster Making (Social issues, general awareness, commercial issues)	Problem solving	Extra exercises – reference to context, short answers, long answers and value based answers	The learner will realize that life is full of hardships but all the obstacles can be overcome by determination
September	L- 3. Discovering Tut….. The Saga Continues (Hornbill)	understand, enjoy and appreciate a factual text understand the meaning and usage of phrases like resurrection, circumvented, computed Tomography, scudded across etc iii)understand advancement in technologyIv)know about Egyptian belief of mummification	Draw a flowchart to draw King Tut's Family line and their description	Diversity Responsibility Internationalism	Textual questions will be discussed	The Students will be able to Think, analyse and observe Know the meanings of new phrases
	L-4. Landscape of the soul	Contrast and compare the Chinese and European form of art. Will be acquainted with **yin** and **Yang**, two complementary poles which can be correlated in different cultures in different styles.	Draw the signs of yin and yang and explain it.	Diversity Responsibility Internationalism	Textual questions will be discussed	The Students will be able toi)Think, analyse and observe ii)Know the meanings of new phrases
	-2. **The Address.**	To facilitate making connections between similar situations in different storylines/life experiences-To help learners distinguish different perspectives;	Compare the courage displayed by the protagonists of the lesson We are Not…… Die and The address	Problem Solving Responsibility	Textual questions will be discussed	They would be able to inculcate the values of determination and will power.

		analyzing them; drawing conclusion/s -To encourage the uncovering of motives; absorbing didactics				
	Re- arranging Jumbled words and Phrases	To be able to comprehend and use grammatical organization for quantifying and sentence completion.	Worksheets for all range of learners.	Communication Skill	Worksheets for all range of learners.	They will be able to identify errors and frame grammatically correct sentences.
	Advertisement (classified and display)	The students will be able to focus on the major skills of English. They will be able to express their ideas in the form of short writing skills. Guide and motivate students to express and write effectively.ii) Develop knowledge and purpose of writing advertisements.iii) Awareness of the form, content and process of writing.iv) Able to retain a dat a and information.v) Organize ideas on a particular subject.vi) Practice to enhance the skills.vii) Create social vi) writing, reading skill and thinking skill. awareness. viii) understand and recollect the formatsof advertisements .ix) express and write effectively .x) write with appropriate expressions and vocabulary.xi) link ideas and expressions.xii) encourage the students to develop their reading habit (newspapers,	Worksheets for all range of learners	Communication Skill	Worksheets for all range of learners	To enable the students toThe students will be able to-i) inculcate values like share ideas, freedom to express and acceptance of ideas.ii) make use of appropriate formats,expressions and vocabulary.iii) writeshort writing skills.iv) appreciate the skill of expressing and writing effectively.v) relate with business, issues relating to the environment and the society

		articles, journals etc)xiv) Retain information -adhere to word limit				
October PRE-MID TERM	L-5 **The Ailing Planet**	To sensitize learners to the imminent issues of declining health of planet Earth -To facilitate making connections between similar situations in different storylines/life experiences -To initiate the role of an ambassador in the educated students and make them stewards of the Earth	Slogan Writing on Go Green	Sustainability Compassion Tenacity	Textual questions will be discussed	. The Learners would be able to sensitize themselves towards the earth and environment. They would inculcate the values of Leadership and contribute to make our Earth green.
	-Poster Making	*To express ideas aesthetically and relevantly with definition in purpose, expressions, grammar usage, format usage, relevant vocabulary.*	Poster Making for all range of learners	Communication Skills	Poster Making for all range of learners	Comprehend an effective Poster making as a tool of Visual Communication. Focus on the message to be delivered. Keep the sequence well ordered. Use graphs and images effectively. Plan and organize a poster presentation. Use spacing, margins, colours, and layout to maximize
	3. **Ranga's Marriage.**	*to guide the students to relate the characteristics of literature to larger cultural and human values. -To facilitate making connections between similar situations in*	Listening Activity for all range of Learners to note their progress and as training ground for their ASL.	Communication Skills Responsibility Appreciation of Diversity Inquisitiveness	Activity: Listen to an Article about the issue of marriage and gender stereotyping and complete the	The students would be able to effectively provide a synopsis of the story. They will be able to analyze the values and thought process of the story.

		different storylines/life experiences. -To appreciate the timeless significance of the issue of marriage institution, role of English and gender stereotyping			worksheet.	Positive values and attitudes would be inculcated in the students. They would be able to appreciate the language, content and style of the prose. Vocabulary would be enriched. Their Listening skills would be enhanced.
	Letter Writing: Letter to the Editor /Official Letters (for making enquiries, complaint letters, asking for and giving information)	To express ideas fluently and relevantly without difficulty in expressions and purpose, grammar usage, format usage, relevant vocabulary.	Writing a letter to the editor on a recent disaster Write a letter making complaint/enquiry to the company.	Communication Skills	Worksheets for all range of learners	They would develop an interest towards writing thus enhancing their writing skills. Their thinking skills would be enhanced
November CLASS TEST	P-3. The Voice of the Rain	To recognize the purpose of economy of words and the nuances of the lines that highlights the cyclic nature of rain and appreciates the diligence and divine quality of the speaker.	group work of 3 on poetry writing on the wind, sun, moon or snow-highlighting the pride in their narration	Communication skills	Textual questions will be discussed	the students would be able to grasp the theme and meaning of the poem. They would be able to read the poem with proper tone and rhyme and develop an interest in poetry. Their vocabulary would be strengthened. They would be able to draw a comparative study between human life and nature.

	L-6 **The Browning Version**	To facilitate making connections between similar situations in different storylines/life experiences through the genre of drama. Understanding the universal theme of teacher-student relationship and the sanctity of it.	Theatrical presentation by a group of three students	Communication Skills Sense of Responsibility	Textual questions will be discussed	They would be able to respond to a personal dilemma. Their vocabulary would be enriched. The analytical skills would be enhanced.
	-4. **Albert Einstein at School.**	*To enhance familiarizing with specific background information of author / book excerpt / history* *-To facilitate making connections between similar situations in different storylines/life experiences.*	Write the contents of short story in the form of note making.	Internationalism Tenacity	Textual questions will be discussed	The students would be able to express their understanding through discussions. They would skim and scan the words according to their meaning. They would enhance their reading as well as writing skills.
December MID TERM 10th -23rd	P-4 **Childhood**	To facilitate making connections between similar situations in different storylines/life experiences To read and recognize the purpose of human loss and the hidden pathos and nuances of the lines, correlating them with personal experiences- to build up didactics, empathy and sympathy with the loss of the speaker and the final resigned acceptance and optimism.	i) share your childhood experience(How you were innocent) ii) how can you define 'maturity'? Can we exactly say at what age you became mature? iii) discuss: Is attainment of maturity a sigh of loss of innocence?	Communication Skills Self Awareness	. Textual questions will be discussed	The students will be able to i) Think, analyse and observe ii) Know how to identify rhyme scheme iii) Gain individuality iv) Differentiate between innocence and maturity v) Respect different people vi) Appreciate poem vii) Learn where and when has his childhood gone

		To enable the students to inculcate the values of accepting differences, understanding people, becoming sensible, valuing childhood and freedom develop individuality search for and gain innocence like a child				
	-5. **Mother's Day.**	i) imbibe values like care and concern, empathy, compassion, respect for elders, belongingness and tolerance ii) understand the struggles and sacrifices of parents and to draw inspiration from them ii) strengthen the family bonding with sharing and solving problems iii) accept the members of the family without complaining iv) develop analytical skills, thinking skills, decision making, management skills, logical skills v) realise the worth of sacrifice and struggles of parents for the children	Mother works from morning till night catering to the needs of everyone. Do we ever realise that she too is a human being and needs rest? Share your views about the role of mother in your life.	*compassion* Textual questions will be discussed	**Students will be able** i) to know that mothers have equal rights to enjoy their lives and deserve acknowledgement and appreciation ii) to strengthen the family bonding with sharing and solving problems iii) to develop analytical skills, thinking skills, decision making, management skills, logical skills iv) to identify and understand the central/main point and supporting details along with the phrases used in the lesson v) to imbibe values like care and concern, empathy, compassion, respect for elders, belongingness and tolerance
	Report Writing	*To express ideas harmoniously and chronologically without difficulty in expressions, grammar usage, format usage, relevant vocabulary*	Selecting and discussing Newspaper reports	*Communication Skills*	The learners would be able to organise their thoughts and express freely. They would develop an interest towards writing thus enhancing their writing skills.

| January | P-5Father to Son | To enable the students to
i) cultivate interest and appreciate poetry and develop the ability of reading with proper stress and intonation
ii) prepare the students for poetic
forms and adept them with the figures of speech, rhyme and rhythm
iii) develop the ability of appreciation of ideas
iv) develop thought, critical analysis based on the text read

To read and recognize the purpose of economy of words and the hidden pathos and nuances of a precious father-child relationships that is crumbling , correlating with personal experiences- to build up didactics, empathy and sympathy with the loss of the father | A video will be shown on generation gap and students will be asked to enter a debate about generation gap. The teacher will keep on throwing statements related to reasons, consequences and ways to find solutions to the problem. | Compassion
Self Awareness
Sense of Responsibility | Father to Son
i) Assignment
ii) Discussion
iii) Writing task:
As a child, write a diary entry expressing your confession of being responsible of cold indifferences between you and your parents and finding solutions to the | The students will be able to
i) Comprehend and appreciate poetry
ii) Learn new words
iii) Enhance understanding of literary devices
iv) Read with proper intonation and stress
v) Express effectively (both verbal and written form)
vi) Value relationship
vii) Confess and resolve conflicts
viii) Learn social norms
ix) Respect elders and their views problem. |
| | L-7 The Adventure | To introduce the students to the genre of science fiction
To facilitate making connections between similar situations in different storylines/life experiences. | Discuss in the group of two
A single event may change the course of action of the History of a nation | Tenacity
Adventure | Textual questions will be discussed | to identify and understand the central/main point and supporting details along with the phrases used in the lesson
reality is what is directly experienced through the senses.
The methods of inquiry of history ,science and the philosophy are similar. |

	L-6 **The Ghat of the only World**	Identifying the Indian Diaspora. To enable the students to inculcate the values of accepting differences, understanding people, becoming sensible	On a world map mark the Indian Diaspora in the world	Diversity	Assignments Related to the text	to identify and understand the central/main point and supporting details some people have Sorcerer's ability to transmute the ordinary into magical food can act as a mode to strengthen their friendship.
	L -7. **Birth**	To allow a problem solving: identifying the problem; considering the options; weighing the pros and cons of each option; reaching an empathetic decision with the protagonist -To facilitate making connections between similar situations in different storylines/life experiences -To help learners distinguish different perspectives; analyzing them; drawing conclusion/s -To encourage the uncovering of motives; absorbing didactics	In the group of two discuss the importance of job satisfaction	Compassion Tenacity	Assignments Related to the text	The learners would unfold their logical thinking skills. They will realize the importance of job satisfaction
February CLASS TEST	L-8 **Silk Road**	To identify the important of the Silk Road. explain what "goods" were traded via the Silk Road, including concepts such as ideas, religions, disease, etc.	Make the picto*rial presentation of the KORA completed by the protagonist of the lesson*	Adventure Internationalism Tenacity	Assignments	to identify and understand the central/main point and supporting details
	P-8 **The Tale of Melon City**	*To read and recognize the purpose of*	**Pre-activities:**	Self-awareness Team work		To enable the students to

		economy and the hidden satire, irony and pun in the nuances - to build up didactics on the role of democracy in a state identify the figures of speech and the rhyming scheme. iv) enhance their vocabulary. v) appreciate the theme and the style of writing of the poet.	*Classroom discussions based on - Examples of a kings and rulers. ii) Loud reading of the poem with voice intonation and modulation. iii) Theme and message will be explained and written in the notes copy. iv) Loud reading of each stanza and each line will be explained with word meanings, figures of speech and rhyming scheme. v) Summary of each stanza will be written in the notes copy. vi) Exercises from the book will be discussed and written in the notes copy.	Extra exercises – reference to context, short answers, long answers and value based answers will be discussed and written in the notes copy. ii) Word power and expressions checked in the form of a Quiz. iii) Extra exercises based on reference to context, short answers, long answers, value based answers and questions	i) inculcate values like social connect, trust, co-operation, confidence, faith, respect and integrity, ability to fight against all odds. ii) analyse situations and take appropriate decisions. iii) not to make foolish decisions. iv) proper use of power and skills. able to understand that the simplest way to maintain peace and liberty in a state is by following the principles of laissez-faire.
	Note Making & Summarizing	*To summarize information from different written text, reconstructing arguments and accounts in a coherent presentation.* -To express spontaneously, concisely and precisely, differentiating finer shades of significance even in the most	Group comprehension comprising all range of learners(3 students in one group)			The learners would be able to differentiate between annotation, outline notes, column notes, mind maps and summary notes from a text. They would be able to use the note taking suggestions to develop good notes based on classroom discussions.

		complex situations -To express ideas with extra information and complexity, fluently and without difficulty in sentence construction.				
March	Revision and Exam					

Vidya Niketan Birla Public School, Pilani Annual Curriculum Plan 2021-22 English Core; Class- XII

	Topic	*Learning Objective(s): Students will be able to-*	*Suggested Activities*	*RSD*	*Assessments*	*Learning Outcome(s) Students are able to-*
April& May	**The Last Lesson**	1. Comprehend, analyze and interpret the text 2. Interpret & evaluate the setting, plot & characters 3. Extract relevant information 4. Appreciate the message and theme(s) as suggested- a. Importance of mother tongue b. Procrastination c. Patriotism d. Chauvinism	Discuss and write some popular expressions in different languages And read the summary of English Education Act 1835 by Lord Macaulay	Communication Skills, Sense of responsibility, respect towards different languages	Students will be evaluated based on textual, extrapolative and extract based questions.	Learn new words and phrases, improve reading skills, appreciate the literary aspect of other languages, learn the value of time and timely action, appreciate the feeling of belongingness towards ones country, respect national identities in relation to other people, democratic citizenship
	My Mother @ 66	Analyze and explain the poem and read it aloud with proper intonation, recognize poetic forms and adept them with the figures of speech, comprehend analyze and appreciate the theme(s)as suggested- a. of separation b. phases of social life c. Contrast b/n emotions & responsibilities	comparative study of use of the poetic devices in popular songs and the poem	Literary Skills, Self-Awareness, Acceptability towards life	Reference to context, short answers and value based answers and extract based questions**.**	Appreciate the poem, critically analyze it, appreciate the subtle expression of the theme(s)
	Lost Spring	1. Comprehend, analyze and interpret the text 2. Interpret & evaluate the setting, plot & characters 3. Extract relevant information 4. Appreciate the message and theme(s) as	Students should share some anecdote on the themes;	Social responsibility, Empathy	Comprehension questions for understanding, Textual	Appreciate the text; connect it with the social issues. observe, learn new words and phrases, improve reading skills, use anecdotes for effective communication, empathize with the less privileged ones,

				questions, Extracts, Value based, issue based Qs; Listening Exercise on the speech	evaluate the role of good and bad practices of a society, practice of listening skills
	suggested- a. Issues of poverty, child labor b. Education of the underprivileged and marginalized c. Evil social practices and traditions d. Role of the privileged e. Importance of responsible promises Importance of timely help	Listen to Kailash Styarthi's Nobel prize winning speech And watch documentaries featuring rag pickers of Delhi and bangle makers of Firozabad.			
The Third Level	1. Comprehend, analyze and interpret the text 2. Interpret & evaluate the setting, plot & characters 3. Extract relevant information 4. Appreciate the message and theme(s) as suggested- a. Psychological refuge from grim realities b. Desire to stay with the past c. Importance of leisure time Escapism	Time travel short movie to be shown and questions to be asked based on it	self realization	Comprehension Qs, Textual questions, Extracts, Value based, issue based Qs;	Appreciate the psychological thriller, learn thematic vocabulary, improve reading skills, appreciate the genre, use descriptive words and phrases, connect the theme with real life observations, self realization
Notice	express and write effectively, retain a data and information and distribute it, write short paragraphs using appropriate vocabulary and grammar on given cues, Get acquainted with kinds of notices, Learn the format & requisites for drafting it, Draft notice correctly	Self/Cross evaluation based on five Ws	confidence & proficiency in the use of language skills	Different topics on different fields of notice for all range of learners.	analyze any notice shown to them on the basis of the knowledge imparted, frame notice about any event, identify important information in any given notice, use appropriate style and format to write a notice effectively
Poster Making	To express ideas aesthetically and relevantly with definition in purpose, expressions, grammar usage, format usage, relevant vocabulary.	The teacher will display several different posters from various sources. Some examples may include: Movie posters, Community events, Advertisements Campaign signs, Billboard pictures Full-	confidence & proficiency in the use of language skills	Poster Making for all range of learners.	analyze any poster shown to them on the basis of the knowledge imparted, frame notice about any event, identify important information in any given notice, use appropriate style and format to write a notice effectively

			page newspaper ads etc. .			
	Unseen Passage Comprehension, Data reading	read silently with comprehension and interpret layers of meaning, read with comprehension the given text/materials employing strategies like skimming, scanning, predicting, previewing, reviewing, inferring	Worksheets for all range of learners.	Comprehension Skills , make use of contextual clues to infer meanings of unfamiliar vocabulary	Worksheets for all range of learners	The comprehending skills would be improved, skim for main ideas and scan for details, select and extract relevant information, understand the writer's purpose and tone
July	An Elementary School Classroom…	Analyze and explain the poem and read it aloud with proper intonation, recognize poetic forms and adept them with the figures of speech, comprehend analyze and appreciate the theme(s)as suggested- a. Plight of deprivation b. Ineffectiveness of tools of change Social disparities	Compare the essence of the poem with that of the chapter Lost Spring.	Social responsibility, Empathy	reference to context, short answers and value based answers	Appreciate the poem, critically analyze it, appreciate the expression of the theme(s), empathize and compare the mentioned themes with what they observe themselves
	Keeping Quiet	Analyze and explain the poem and read it aloud with proper intonation, recognize poetic forms and adept them with the figures of speech, comprehend analyze and appreciate the theme(s)as suggested- a) Reasons of humans becoming less humans b) Inner voice c) Sustainability	Compare the theme with popular quotes & idioms	Self realization, internationalism	reference to context, short answers and value based answers	Appreciate the poem, critically analyze it, appreciate the expression of the theme(s), empathize and compare the mentioned themes with what they observe themselves
	Advertisements- Classified & Display	Learn the types of adv., Comprehend the purpose, Use correct format & language convention, write short answers using appropriate vocabulary and style; compare classified & non-classified adv	Discussion: influence of Adv. on our decisions	confidence & proficiency in the use of language skills	Form, language, style of the drafted Adv	learn related vocabulary, improve writing skills, appreciate the word economy, compare with real life observations
	Invitations & Reply-Formal & Informal	write short answers/ paragraphs using appropriate vocabulary and grammar on a given situation; Write formal/informal invitations in correct format & style. Reply them appropriately & correctly	Describe an invitation	confidence & proficiency in the use of language skills	Emphasis on form. Correct language &appropriat eness	learn related vocabulary, improve writing skills, appreciate the word economy, compare with real life observations
	Letters to Editor	write answers / paragraphs, reports using appropriate vocabulary and grammar on a given theme, demonstrate the ability to use	Discussion on importance and impact of such letters	ability &knowledge for independent reflection & enquiry	Impact of language &appropri	express opinions, facts, arguments on a wide ranging issues using a variety of accurate sentence structures, practice reading & listening skills

		appropriate persuasive language and style in a formal writing			ateness of style	

	Deep Water	1. Comprehend, analyze and interpret the text
		2. Interpret & evaluate the setting, plot & racters
		3. Extract relevant information
		4. Relate the information to their own erience
		5. Appreciate the message and theme(s) as gested-
		   a. Will power, courage hard work
		   b. Etched childhood experience
		   c. Bullying
		   d. Fear and determination to overcome it
		    Psychological effect of fears
			Share childhood experience of some other inspirational personality like Santosh Yadav , Bear Grylls etc.	confidence & proficiency in the use of language skills	Contextual & creative use of language	Appreciate the text; connect it with the issues like bullying. observe, learn new words and phrases, improve reading skills, use anecdotes for effective communication, empathize with the younger ones, articulate inner fears/conflicts, practice of speaking skills

	Application for a job	write short answers / paragraphs, reports using appropriate vocabulary and grammar on a given theme; Learn the correct conventions, structures & vocabulary needed	Mock interview	produce adequate details and support to reflect awareness	Verbal response	learn related vocabulary, improve writing skills, appreciate the word economy, compare with real life observations, practice listening & speaking skills

	The Tiger King	1. Comprehend, analyze and interpret the text
		2. Interpret & evaluate the setting, plot & characters
		3. Extract relevant information
		4. Relate the information to their own experience
		5. Appreciate the message and theme(s) as suggested-
		   a. Conceit of powerful people
		   b. Superstitions
		   c. Apathy of man towards wild life
		   d. Irony
			Read Mrs. Packeltide's Tiger by Saki and compare it with the present story.	Empathy for wild life and diffusing superstitions with rationality.	Comprehension Qs, Textual questions, Extracts, Value based, issue based Qs;	Appreciate the use of subtle dark humour in addressing the profound issue like ruthless attitude of human being for the wild life and self destructive nature of conceit. observe, learn new words and phrases, improve reading skills, practice of speaking skills

A	Revision					

The Rattrap	1. Comprehend, analyze and interpret the text
	2. Interpret and evaluate the setting, plot and characters
	3. Extract relevant information
	4. elicit meanings of words in different context
	5. Appreciate the message and theme(s) as suggested-
	   a. Human liability to fall in trap
	   b. Redemption, glory
	   c. Respecting to get respected
	   d. Lost conscience & gaining it back
	   e. Identity crisis
	   f. Genuineness of feelings
		Find the new words and categorize into groups and make a word web or mind map of the words and read Vicor Hugo's famous play Bishop's Candle Sticks.	confidence & proficiency in the use of language skills	understands and elicits meanings of the words in different contexts by employing strategies like skimming, scanning, predicting, etc.	Appreciate the text, connect it with the real life observations. observe, learn new words and phrases, Use word chunks and idioms, improve reading skills, use anecdotes for effective communication, empathize with the less privileged ones, evaluate the role of society in the life of downtrodden

Listening & Speaking Skills	1. Uses ICT for learning language
	2. Develop the following parameters:
	   a. Interactive competence (Initiation & turn taking, relevance to the topic).
	   b. Fluency (cohesion, coherence and speed of delivery).
	   c. Pronunciation
	   d. Language (accuracy and vocabulary).
		Listens for information, gist and details and responds accordingly, speaks fluently with proper pronunciation, intonation and pause, using appropriate grammar. Participation in class room Group Discussions.	confidence & proficiency in the use of language skills	takes notes and makes notes while listening to TV news, discussions, speech, reading aloud/silent reading of texts, etc., and summarizes	take organized notes, to discuss informally a wide ranging issues, respond in interviews and to participate in formal group discussions, make enquiries meaningfully and adequately and also to respond to them, extract relevant important information

Letter writing: Enquiry/Reply Order/Complain t /Reminder/Canc	to express ideas harmoniously and chronologically without difficulty in expressions, grammar usage, format usage, relevant vocabulary and mechanics	Writing a letter to the editor on a recent disaster Write a letter making complaint/enquiry to the company.	ability &knowledge for independent reflection & enquiry	Worksheets for all range of learners	They would develop an interest towards writing thus enhancing their writing skills. Their thinking skills would be enhanced
Article	bring out the topics or the matter of interest in the limelight, provide information on the topics, offer suggestions and pieces of advice, influence the readers and urge them to think	Read out short articles to each other in a group of two	Ability to express	Impact of language &appropriateness of style	express opinions, facts, arguments on a wide ranging issues using a variety of accurate sentence structures, practice reading & listening skills

	Journey to End the of Earth	1. Comprehend, analyze and interpret the text
		2. Interpret & evaluate the setting, plot & characters
		3. Extract relevant information
		4. Relate the information to their own experience
		5. Appreciate the message and theme(s) as suggested-
		  a. human endeavor to dominate nature
		  b. importance of protecting the Earth's environment
		  c. Understand relevance of geological phenomena which enable us to trace the history of mankind
			Find the new words and categorize into groups and make a word web or mind map of the words ..	Understand the role of explorations in fathoming deep in to the roots of genesis of human evolution.	Comprehension Qs, Textual questions, Extracts, Value based, issue based Qs;	Appreciate the use of scientific jargons in a lucid manner to delineate the exploratory nature of the essay. observe, learn new words and phrases, improve reading skills, practice of speaking skills

September	**The Enemy**	1. Comprehend, analyze and interpret the text
		2. Interpret and evaluate the setting, plot and characters
		3. Extract relevant information
		4. Appreciate the message and theme(s) as suggested-
		  a. Patriotism & humanitarianism
		  b. Professional ethics
		  c. Inner conflicts
		  d. Moral courage
		  Filial gratitude V/s commitment
			Extrapolating about the story read or life of characters after the story ends defending characters actions in the story	Ability to distinguish between patriotism and nationalism.	reference to context, short answers and value based answers	Appreciate the text, connect it with the themes like peace. observe, learn new words and phrases, improve reading skills, use anecdotes for effective communication, empathize with the younger ones, articulate inner fears/conflicts, practice of listening & speaking skills

	Report	express ideas harmoniously and chronologically without difficulty in expressions, grammar Usage, format usage, relevant vocabulary. writes short answers / paragraphs, reports using appropriate form, diction and grammar	Selecting and discussing Newspaper reports	confidence & proficiency in the use of language skills	uses language for purposes – collecting info from various sources, developing a report	Organize thoughts and express freely, identify relevance of information & style. Develop an interest towards writing thus enhancing writing skills. Learn related vocabulary, appreciate the word economy, compare with real life observations, practice listening & speaking skills

	Should The Wizard…	1. Comprehend, analyze and interpret the text
		2. Interpret and evaluate the setting, plot and characters
		3. Extract relevant information
		4. Appreciate the message and theme(s) as suggested-
		  a. Parental authority
		  b. Child's perspective V/s adult's perspective
			Write or tell the whole story / text in your language to parents or sibling	confidence & proficiency in the use of language skills	reference to context, short answers and value based answers	Appreciate the text, connect it with the real life observations. observe, learn new words and phrases, improve reading skills, improve art of storytelling, compare the way experience influence decision, evaluate the role of parents in the life of children, develop the ability to be

		c. Effect of transitions d. Story telling- purpose & effect Natural identity, social acceptability				original and creative in interpreting opinion, develop the ability to be logically persuasive in defending one's opinion
	A Thing of Beauty	Analyze and explain the poem and read it aloud with proper intonation, recognize poetic forms and adept them with the figures of speech, comprehend analyze and appreciate the theme(s)as suggested- a) Appreciation for beauty & truth b) Divine aspect of beauty c) Immortality & continuity	listen to the audio text and then read the same text on your own	Appreciation of nature, beauty	reference to context, short answers and value based answers	Appreciate the poem, critically analyze it, appreciate the expression of the theme(s), appreciate and analyze special features of languages that differentiate literary texts from non-literary ones

October	**Indigo**	1. Comprehend, analyze and interpret the text
		2. Interpret and evaluate the setting, plot and characters
		3. Extract relevant information
		4. Appreciate the effectiveness of style of narration
		5. Connect with the prior knowledge & other subjects
		6. Appreciate the message and theme(s) as suggested-
		  b. Self reliance
		  c. Science of non violence
		  d. Effective leadership
		  e. Planning
		  f. Moral transformation of opponents
		  g. unity
			Write newspaper report on some event mentioned in the extract	Non violence	reference to context, short answers and value based answers	Appreciate the text, connect it with the real life observations and previous knowledge. observe, learn new words and phrases, Use word chunks and idioms, improve reading skills, use anecdotes for effective communication, empathize with the less privileged ones, evaluate the role of leaders in the life of downtrodden, connect and compare the theme with day to day observations

	Road side stand	Analyze and explain the poem and read it aloud with proper intonation, recognize poetic forms and adept them with the figures of speech, comprehend analyze and appreciate the theme(s)as suggested- a. Plight of underprivileged section of society. b. Isolating nature of exclusive development meant for privileged society.	Compare the essence of the poem with that of the poem An elementary school classroom in a slum.	Social responsibility, Empathy	reference to context, short answers and value based answers	Appreciate the poem, critically analyze it, appreciate the expression of the theme(s), empathize and compare the mentioned themes with what they observe themselves
	Revision					

	On The Face of It	1. Comprehend, analyze and interpret the text
		2. Interpret & evaluate the setting, plot & characters
		3. Extract relevant information
		4. Appreciate the genre
		5. notice phrasal verbs and their uses
		6. Appreciate the message and theme(s) as suggested-
		  a. Alienation, seclusion, loneliness
		  b. Reluctance, Sadness, pessimism
		  c. Fear of being ridiculed
		  d. Appearance, social image
			Brainstorming	Sense of self respect, responsibility, respect towards survivors	reference to context, short answers and value based answers	Understand and appreciate the oral, mobile and visual elements of drama, connect it with the real life observations. observe, learn new words and phrases, Use word chunks and idioms, improve reading, speaking & listening skills, use anecdotes for effective communication, empathize with the less privileged ones, evaluate the role of society in the life of survivors, connect and compare the theme with day to day observations

		e. Transformation , resilience f. Role of family & society towards survivors Approach to life				
Poet and the Pancakes		1. Comprehend, analyze and interpret the text 2. Interpret & evaluate the setting, plot & characters 3. Extract relevant information 4. Appreciate the genre 5. notice phrasal verbs and their uses	Extrapolating about the story read or life of characters after the story ends defending characters actions in the story	develop Thinking Skills (Imaginative) , Negotiating skills, Critical Thinking, Observatory skills, Analytical skills	reference to context, short answers and value based answers reference to context, short answers and value based answers	Appreciate the text, connect it with the issues like need of right orientation and channelization of the energy of the youth. observe, learn new words and phrases, improve reading skills, use anecdotes for effective communication

Evans Tries An O Level		1. Comprehend, analyze and interpret the text
		2. Interpret and evaluate the setting, plot and characters
		3. Extract relevant information
		4. Appreciate the effectiveness of style of narration
		5. Connect with the prior knowledge & other subjects
		6. Appreciate the message and theme(s) as suggested-
		  a. Orientation of youth
		  b. Battle of wits, love for adventure
		  c. Crime & punishment
		  d. Compassion towards criminals
		  e. Effective leadership, plans & their execution
		  f. Planning, Role of media
		  g. Individualistic / generalized approach
		  Judgment of psychology
			organize the happenings into a logical sequence& discuss, Write a newspaper report on some event mentioned in the extract	Crime & punishment, orientation of youth	reference to context, short answers and value based answers	Appreciate the text, connect it with the issues like need of right orientation and channelization of the energy of the youth. observe, learn new words and phrases, improve reading skills, use anecdotes for effective communication,

	Speech/Debate Writing	express ideas harmoniously and chronologically without difficulty in expressions, grammar Usage, format usage, relevant vocabulary. writes short answers / paragraphs, reports using appropriate form, diction and grammar	Watching videos of various speeches and debates ,differentiate between them and participate in class room debates and speeches.	Confidence & proficiency in the use of language skills and improving speaking skills.	Uses language for writing speeches and debate.	Organize thoughts and express freely, identify relevance of information & style. Develop an interest towards writing thus enhancing writing skills. Learn related vocabulary, appreciate the word economy, compare with real life observations, practice listening & speaking skills
November	**Aunt Jennifer's Tigers**	Analyze and explain the poem and read it aloud with proper intonation, recognize poetic forms and adept them with the figures of speech, comprehend analyze and appreciate the theme(s)as suggested- a. Discrimination against women Need of empowerment of women	Discussion on the importance of education & financial stability in a person's life	Women empowerment	reference to context, short answers and value based answers	Appreciate the poem, critically analyze it, appreciate the expression of the theme(s), empathize and compare the mentioned themes with what they observe themselves
	Memories of Childhood	1. Comprehend, analyze and interpret the text 2. Interpret and evaluate the setting, plot and characters 3. Extract relevant information 4. Appreciate the effectiveness of style of narration 5. Connect with the prior knowledge & other subjects a. the social evils prevailing in the society(in context with Baima's story) b. injustice in any form cannot escape being noticed by children	Group Discussion- -Seeds of rebellion are sown in childhood.	learn and reflect / right perspective of treating underprivile ged and marginalized	reference to context, short answers and value based answers	Appreciate the text, connect it with the issues like racial prejudices and caste based atrocities. observe, learn new words and phrases, improve reading skills, use anecdotes for effective communication

The Interview	1. Comprehend, analyze and interpret the text 2. Interpret and evaluate the setting, plot and characters 3. Extract relevant information 4. Appreciate the effectiveness of style of narration 5. Connect with the prior knowledge & other subjects	Conduct formal /informal interviews of the teachers and your class mates.	develop communicati on Skills Negotiating skills, Critical Thinking, Analytical skills	reference to context, short answers and value based answers reference to context, short answers and value based answers	Appreciate the text, connect it with the issues like need of right orientation and channelization of the energy of the youth. observe, learn new words and phrases, improve reading skills, use anecdotes for effective communication

Going Places	6. Comprehend, analyze and interpret the text
	7. Interpret and evaluate the setting, plot and characters
	8. Extract relevant information
	9. Appreciate the effectiveness of style of narration
	10. Connect with the prior knowledge & other subjects
	    1. hard work is required to realize dreams
	    2. differentiate between unrealistic and realistic dreams
	    3. over fan fantasizing can lead tofailure
	    4. complexities of human relationships among different members of a family
		Write your own fantasies.	respect for elders and family, patience and perseverance, truthfulness, develop Thinking Skills (Imaginative) , Negotiating skills, Critical Thinking, Observatory skills, Analytical skills	reference to context, short answers and value based answers reference to context, short answers and value based answers	Appreciate the text, connect it with the issues like need of right orientation and channelization of the energy of the youth. observe, learn new words and phrases, improve reading skills, use anecdotes for effective communication

Birla Public School,Pilani
Annual Curriculum Plan for the session 2021-22
Subject: Biology Class- XI__ Term I

Months/No. Of Periods	Lessons /Topics Covered	Learning Objectives Students will be able to:	Suggested on line activities / Art Integrated Activities	Assessments	Expected Learning Outcomes Students are able to:	R.S.D
April 05 **Tentative.** **May 10**	Living world Biological Classificatio n	Analyze , differentiate between Living and Non Living	Make a list living and non living organisms and draw the diagram of living and non living	Oral Quiz. (By Extra marks)	Analyze and differentiate between living and Non Living	Group discussion and communication skill.
July 24 Tentative.	Plant kingdom. Animal kingdom.	Define and construct the diagram.	Observation of different types of plants in your garden,lawn,flower pots. Draw the at least one diagram from each phyllum	Oral quiz (Virtual)	Identification of different plants and their groups.	Self –awareness and responsibility.
August 14 Tentative.	Morphology of flowering plants. Animal Tissue	Describe, recognize of the different parts of plants.	Slide preparation of monocot and dicot.(Through virtual lab) Diagrams of Monocot and Dicot stem and root.	Oral quiz (Virtual) **First periodic from 9 to 19 august.**	Identification of different parts of plants.	Problem solving.

September 22 Tentative.	Cell - the unit of life Biomolecules.	Discuss and describe the different types of tissue and different parts of the cell.	Observation of different cell organelles and tissue under microscope. Chart prepration and dite chart on the basis presence of different minerals.	Oral questioning and discussion.	.Identification of different types of tissue and cell organelles.	Self awareness, team work. Group discussion.
October 20 Tentative.	Cell cycle and cell division. Photosynthesis in higher plants.	Analyze and prepare a list of different types of biomolecules. Diagram of different stages of cell division. Describe and analyze the process.	Term-II *Observation of different stages under microscope.* Demonstration of photosynthesis. (By virtual lab)	Oral questioning.(Virtual) Second periodic from 9 to 20 october.	Analyze chemical composition of different biomolecules. Recognize different stages of cell division.	Responsibility and awareness.
November 18 Tentative.	, Respiration in plants. plant growth and development	Discuss and analyze the process.	----	.	Define and analyze theprocess.	Communication skill and self awareness.
December 16 Tentative.	Body fluids and circulation Breating and exchange of gases	Discuss, construct diagram.	Observation of slides of different parts of alimentary canal and blood	CLASS TEST MID TERM- (Tentative)	Discuss,construct diagram and define the process.	Communication skill and self awareness.

January 14 Tentative.	Locomotion and movement Excretory products and their elimination	Discuss and construct diagram. Define and discuss the process of excretion	Observation of different types of joints by models and diagrams Observation of human kidney by the help of slides and model.	Third periodic from 17 to 28 Jan 2022.	.Identify and discuss the different types of joints. Define and discuss the process of excretion.	Awareness. Communication skill and awareness.
February 14 Tentative.	Neural control and coordination. Chemical coordination and integration.	Discuss and define theprocess of coordination.	Observation of slides under microscope.	Assignments. (By virtual mode)	. Discuss, define and construct the diagram.	Team work ,communication skill.
March	**Revision and Exam**	Revision.	Revision	ANNUAL EXAM As per CBSE	Revision	

PBL Activity – (1) Findout the Different kinds of Medicinal plants and there usable parts.
   (2)"Yoga and Pranayam"should be a important part of our physical and mental health.
   (3)DiabetesDiet, Eating habbit,and Physical active

Birla Public School,Pilani
Annual Curriculum Plan for the session 2021-22
Subject:--Biology
Class-XII
Term I

Months/Periods	Lessons /Topics Covered	Learning Objectives Students will be able to:	Suggested Activities/Art integerated activities	Assessments	Expected Learning Outcomes Students are able to:	R.S.Skill

April 05

Tentative. | How do organisms reproduce? | Analyze and discuss the different modes of reproduction.

Discuss to different mode of reproduction. | Observation of slides and draw the diagrams.

Draw the diagrams of different mode of asexual reproduction. | Oral questioning

Identification of diagrams. (Virtual mode) | Define,Analyze different mode of reproduction.

Define and construct the diagram. | Communication skill.

communication skill, team work. |
| May 10

Tentative. | Sexual reproduction in flowering plants | Define and construct the diagram. | Observation of slides. (Virtual mode) Draw the diagrams male and female reproduction. | CLASS TEST | Discuss and define the different types of contraceptive methods. | Awareness and communication skill. |
| **July 22**

Tentative. | Human reproduction.

Reproductive health. | Describe and define the topic and analyze the different kinds of conteraceptive methods. | --- | Oral Quiz | Describe and define the process. | Communication skill, awareness. |
| **August 14**

Tentative. | **Heridity and variations .Molecular basis of inheritance.** | Define, describe the process and construct the diagram of DNA and RNA. | DNA structure by the model.

Chart prepration.

PBL Activity-

COVID19 Pandemic | **First Periodic from- 9 to 19 august.**

PBL Activity- Different kinds of inheritable diseases in our country. | .Define and describe the process of inheritance.

Define and describe the different type of inheritance. | Communication skill and team work.

Awareness . |

			Term II			
September 24 Tentative.	Microbes in human welfare. Human health and disease.	Prepration of a table on different microbes and there uses. A chart prepration of different kind of disease.	Observation of different slides. Practical exercise(Virtual mode)	**Pen Paper test (on line)** Oral questioning PBL Activity- COVID19 Pandemic	Discuss ,describe,analyze the topic. Discuss and define the different activity of microbes.	Communication skill. Awareness and communication skill.
October 14 Tentative.	Biotechnology.	Discuss,Define the process.	------------	Second Periodic from- 9 to 20 October.	Discuss, define the topic.	Communication skill.
November 18 Tentative.	Ecology.Bio diversity,Enviornment issues.	Discuss,Define,Analyze the different ecological factors.	Construct a chart of Biodiversity and ecology.	**CLASS TEST(Virtual mode)**	Discuss,Define ,Analyze andDescribe the topic.	Awareness. Envirement elism.
December	Revision.	Revision.	Revision.(Tentative) Practicals (Virtual or Physical lab)		.Revision.	Team work
January	Revision.	Revision.	Revision (Virtual mode) Practicals (Rivision)	Third Periodic from 17Jan. to 28 Jan..	Revision.	

February			Rivision.	**CLASS TEST AND Revision.**	.
March	**Revision and Exam**			ANNUAL EXAM As per CBSE.	

Birla Public School, Pilani
Annual Curriculum Plan for the session 2021-22
Subject: PHYSICS
Class: 12

Month	UNIT	Lesson / Topic	Learning Objectives Students will be able to:	Suggested Activities (With Art Integration)	Assessments	Expected Learning Outcomes Students are able to:	Round square discoveries
July	Electrostatic	1. Electric Charge 2. Electric Field 3. Gauss law	# Define and explain the charge. # Discuss Coulombs Law. # Define and Discuss Electric Field. # Electric Field due to an Electric Dipole. # State and Prove Gauss law. # Discuss the application of Gauss law.	# Demonstration of Interaction between charged body using straws, handkerchief, curtain clothes. # Making Model of Electroscope.	* Worksheet * Question - Answer of NCERT Book.	# Explain the different properties of charge # Solve the numerical problems based on coulombs Law, Electric Field and Gauss law. # Apply the Gauss law in deduction of Electric Field due to line charge and Infinite Plane Charged Sheet.	# Problem Solving # Environmentalism
August/ September	Electrostatic	Electric potential Electric dipole capacitor	Define and explain electric potential Potential due to electric dipole Explain and derive capacitance of parallel plate capacitor	Activities based on potential and potential difference	* Worksheet * Question - Answer of NCERT Book.	Solve the numerical problems based on dipole and capacitor	# Problem Solving # Environmentalism

September	Current Electricity	Drift velocity Ohms law Cell Kirchhoff's law Wheatstone bridge	Derive ohms law in the terms of drift velocity Explain uses of Kirchhoff's law	Activities based on Ohms law meter bridge And potentiometer	Worksheet Question - Answer of NCERT Book	Solve the numerical problems based on combination of resistance and meter bridge	Problem Solving # Environmentalism
October	Moving charges and magnetism	Biot savart law Amperes circuital law galvanometer	Define and explain biot savart law State and Prove Ampere circuital law. Discuss the application of it Explanation of galvanometer	Activities based on electromagnet	Worksheet Question - Answer of NCERT Book	Solve the numerical problems based on biot savart law and solenoid Questions based on galvanometer	Problem Solving
November	Electromagnetic induction	Faraday's laws, induced EMF and current; Lenz's Law, Eddy currents. Self and mutual induction.	Define and explain Faraday's laws, Explanation of Self and mutual induction	Activities based on faraday laws of E M induction	Worksheet Question - Answer of NCERT Book	Solve the numerical problems based on faraday laws Self and mutual induction based questions	Problem Solving
November	Alternating currents	peak and RMS value of alternating current/voltage; reactance and impedance; LC oscillations (qualitative treatment only), LCR series	Derive and discuss Av and RMS value of AC Explanation of LCR circuit	Activities based on AC	Worksheet Question - Answer of NCERT Book	Solve the numerical problems based on Av and RMS value of Ac	Problem Solving

					circuit, resonance;			

BIRLA PUBLIC SCHOOL, PILANI (RAJ)
Annual Curriculum Plan for Class XII
Session: 2021-22   SUBJECT- FINE ART (PAINTING) CODE -049
CLASS-XI   TERM-1

S.N.	UNIT TERM	PERIOD	CHAPTER	EXPECTED MONTH	HOME ASSIGNMENT AND PROJECT	EXERCISE <mark>PREPARED</mark> TO SUPPLEMENT THESE GIVEN IN TEXT BOOK OR ASSIGNMENT SOURCES LIBRARY NEWS PAPER,MAGAZINE AND REFERENCE BOOK,INTERNET ETC.	LESSON AS PER SYLLABUS PRACTICAL AND THEORY
1.	01	45	Nature Study & THEORY	April and May	Landscape	NCERT CBSE BOOK STUDY PATTERN	**PRACTICAL**- Fruit Sketching and shading, Birds Sketching and shading. **THEORY**- 1. Prehistoric rock painting, 2. Indus Valley.
2.	01	48	2 D Design & THEORY	July	Objective Sketching	NCERT BOOK STUDY PATTERN	**THEORY**- Period and Location Study and appreciation of following painting. 1. Wizards dance, Bhimbethaka. 2. Indus valley Period and location, Harppa and Mohanjodaro ropar, lothal, Rangpur, alngirpur, Kalibanwali, Dholawera

3.	02	48	Man maid Drawing & THEORY	August	Human Sketching	NCERT & CBSE BOOK STUDY PATTERN	PRACTICAL- Still jug draw and paint. THEORY- Art of Mauryan period. Buddhist, Jain and Hindu Art. Art Mauryan, Shunga, Kushana, & Gupta period: Lion Capital, Chauri Beare, Seated Buddha katara tila, Jain Tirathankara.
4.	02	45	Landscape Painting & THEORY	September	Sketching	NCRT & CBSE BOOK STUDY PATTERN	PRACTICAL- School Campus, THEORY- Post- Maurayn Trends Ajanta caves.
	02	48	Still Life & THEORY	October	5.Nature Sketching	NCRT & CBSE BOOKS STUDY PATTERN	PRACTICAL- Plastic Bucket and Plate and Fruits Banana. THEORY- Later mural Tradition Buddhist, Jain and Hindu Art.
				Term- II			
06.	03	45	2 D Design & THEORY	November	Building Architecture Sketching	NCERT & CBSE STUDY PATTERN	PRACTICAL- Painting composition- Festival THEORY- Temple Architecture and Sculpture
7.	03	48	Still-life & THEORY	December	Winter vacation project Based on Landscape painting	NCERT & CBSE STUDY PATTERN	PRACTICAL- still life three group object Theory- Indian Temple and architecture Introduction to Temple Sculpture I) Descent of Ganga ii) Trimurti iii) Lakshmi Narayana Temple iv) Cymbal Player, v) Mother & Child
8.	04	48	Painting composition & THEORY	January		NCERT & CBSE STUDY PATTERN	PRACTICAL- Indian railway station THEORY- Bronzes and artistic aspect of Indi Islamic architecture i) Nataraj ii) Qutub Minar iii) Gol Gumbad of Bijapur
9.	09	35	Revision	February	Portfolio Submission	NCERT & CBSE STUDY PATTERN	PRACTICAL- Revision of all Practical Materials, THEORY- Revision
10.	10	31	Revision	March	Annual Examination	NCERT & CBSE STUDY PATTERN	PRACTICAL- Practical Examination with portfolio / note book

BIRLA PUBLIC SCHOOL, PILANI (RAJ)

ACP- 2021-22 SUBJECT- FINE ART (PAINTING) CODE -049
CLASS-XII TERM-1

S.N.	UNIT	PERIOD	CHAPTER	EXPECTED MONTH	HOME ASSIGN. AND PROJECT	EXERCISE PREPARED TO SUPPLEMENT THESE GIVEN IN TEXT BOOK OR ASSIGNMENT SOURCES LIBRARY NEWS PAPER,MAGAZINE AND REFERENCE BOOK,INTERNET ETC.	LESSON AS PER CBSE SYLLABUS PRACTICAL AND THEORY
1.	01	45	Anatomy Study & THEORY	April and May	25 Sketches Objective , Nature	NCERT CBSE BOOK STUDY PATTERN	**PRACTICAL**- Face , Human Body Struthers and proportion THEORY- Pala, Rajasthani School Origin & development, Features & Paintings Description. 1,2,3,4,5. and
2.	01	48	Outdoor landscape & THEORY	July	Rapid Sketching	NCERT BOOK STUDY PATTERN	PRACTICAL- Campus View. THEORY- Pahari school of miniature paining . Origin & development, Features & Paintings Description 1,2. 1 Krishna with Gopi . 2) Nand, Yashoda and Krishna with kinsmen Going to Vrindavana
3.	02	48	2 D Design & Theory	August	Human Sketching	NCERT & CBSE BOOK STUDY PATTERN	PRACTICAL- Festival Dewali THEORY- Mughal School of miniature Painting Origin & development, Features & Paintings Description.1,2,3,4
4.	02	45	Still Life Painting & Theory	September	Building architecture Sketching	NCRT & CBSE BOOK STUDY PATTERN	PRACTICAL- 4 group nature and object Plastic Bucket, flower vase , THEORY- Deccan school of miniature paintings. Origin & development, Features & Paintings Description.1,2.

					Term- II		
5.	03	48	Composition painting & Theory	October	Related subject drawing and scathing	NCRT & CBSE BOOKS STUDY PATTERN	PRACTICAL- Geometrical Object and dimensional object THEORY- Bangle school of miniature Painting. **Flag** innovation Origin & development, Features & Paintings Description.1,2.3,4
06.	06	45	2 D Design & Theory	November	Building Architecture Sketching , Objective sketching	NCERT & CBSE STUDY PATTERN	PRACTICAL- Traffic signal / Music THEORY- Modern trend in Indian art Origin & development, Paintings Description.1, 2.3,4
07.	07	48	Still-life & Theory	December	Winter vacation project Based on Landscape painting	NCERT & CBSE STUDY PATTERN	PRACTICAL- still life three group object Theory- Modern trend in Indian art Print- 1,2,3,4.Sculptures-1,2,3,4.
8.	08	48	Painting & Theory	January		NCERT & CBSE STUDY PATTERN	PRACTICAL- My Village THEORY- Revision
9.	09	35	Revision	February	Portfolio Submission	NCERT & CBSE STUDY PATTERN	PRACTICAL- Revision of all Practical Materials, THEORY- Revision
10.	10	31	Revision	March	Annual Examination	NCERT & CBSE STUDY PATTERN	PRACTICAL- Practical Examination with portfolio / note book

CLASS-XI, MATHEMATICS (2021-22), TERM – I

	Unit	Lessons/Topics covered	Learning Objectives Students will be able to :	Activity /Project	Assess ment	Expected learning outcomes Students are able to :
April 2021	**Sets**	Sets and their representations. Empty set. Finite and Infinite sets. Equal sets. Subsets. Subsets of a set of real numbers especially intervals (with notations). Power set. Universal set. Venn diagrams. Union and Intersection of sets	Concept of sets and apply them to problems, problem pictorially using venn diagrams	**Activity** ; To find the number of subsets of a given set and verify that if a set has n number of elements, then the total number of subsets is 2^n		Develops the idea of Set from the earlier learnt concepts in number system , geometry etc.

July 2021	**Relations & Functions**	Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself (R x R only).Definition of relation, pictorial diagrams, domain, co-domain and range of a relation. Function as a special type of relation. Pictorial representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs..	To understand relation and functions., To identify domain and codomain of functions	Activity :To distinguish between a Relation and a Function	**Quiz MCQ**	Identifies relations between different sets.
Aug 2021	**Complex Numbers and Quadratic Equations** **Sequence and Series**	Need for complex numbers, especially$\sqrt{-1}$, to be motivated by inability to solve some of the quadratic equations. Algebraic properties of complex numbers. Argand plane. Statement of Fundamental Theorem of Algebra, solution of quadratic equations (with real coefficients) in the complex number system. Sequence and Series. Arithmetic Progression (A. P.). Arithmetic Mean (A.M.) Geometric Progression (G.P.), general term of a G.P., sum of n terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation between A.M. and G.M.	Need of complex numbers, use of complex numbers, modulus and argument of complex numbers. General term of series in AP and GP, Calculate sum of n terms of series.	**Activity** To inerpret geometrically the meaning of i and its integral powers**.** **Activity** To demonstrate that the Arithmetic mean of two different positive numbers is always greater than the Geometric mean.	**Quiz MCQ** **First Periodical test**	Extends the idea of real numbers to a larger system of complex numbers. Extends the ideas related to Arithmetic Progressions learnt earlier to new types of sequences and their series.
Sept 2021	**Straight Lines** **Limits**	Brief recall of two dimensional geometry from earlier classes. Slope of a line and angle between two lines. Various forms of equations of a line: parallel to axis, point -slope form, slope-intercept form, two-point form, intercept form and normal form. General equation of a line. Distance of a point from a line. Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions	Slope of line, Calculate angle between 2 line, various forms of equation of line. To calculate distance between 2 Parallel lines. Limiting values of different functions,	.	**Quiz MCQ** MCQ MS TEAM	Constructs different forms of a straight line using the earlier learnt concepts of coordinate geometry. Evolves the concepts of limit and derivative of a function by analyzing the behaviour of functions when the corresponding variable approaches a certain value.
Oct 2021	**Statistics**	Measures of Dispersion: Range, mean deviation, variance and standard deviation of ungrouped/grouped data.	Mean deviation about mean and median, variance and standard deviation, coefficient of variation and analyze the data	**Project :**Collection of statistical data and analysing it for standard deviation and mean deviation**.**	**MCQ MS TEAM Second Periodical test**	.Applies Measures of dispersion to get a better interpretation of data of different daily life situations.
Nov 2021		**Revision**			**MCQ MS**	

					TEAM	
Dec 2021		**TERM 1** **Examination**	....	....	..	....

CLASS- XI
Term - 1

Sl. No.	LEARNING OBJECTIVE	Learning Outcomes: Students will be able to	Notes / Explanation
UNIT – 1 NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS (JULY-AUGUST)		
Numbers & Quantification		
1.2	Binary Numbers	● Express decimal numbers in binary system ● Express binary numbers in decimal system	● Definition of number system (decimal and binary) ● Conversion from decimal to binary system and vice - versa
1.4	Indices, Logarithm and Antilogarithm	● Relate indices and logarithm /antilogarithm ● Find logarithm and antilogarithms of given number	● Applications of rules of indices ● Introduction of logarithm and antilogarithm ● Common and Natural logarithm
1.5	Laws and properties of logarithms	● Enlist the laws and properties of logarithms ● Apply laws of logarithm	● Fundamental laws of logarithm
1.6	Simple applications of logarithm and antilogarithm	● Use logarithm in different applications	● Express the problem in the form of an equation and apply logarithm/ antilogarithm
Numerical Applications		
1.7	Averages	● Determine average for a given data	● Definition and meaning ● Problems on average, weighted average

1.8	Clock	● Evaluate the angular value of a minute ● Calculate the angle formed between two hands of clock at given time ● Calculate the time for which hands of clock meet	● Number of rotations of minute hand / hour hand of a clock in a day ● Number of times minute hand and hour hand coincides in a day
1.9	Calendar	● Determine Odd days in a month/ year/ century ● Decode the day for the given date	● Definition of odd days ● Odd days in a year/ century. ● Day corresponding to a given date
1.10	Time, Work and Distance	● Establish the relationship between work and time ● Compare the work done by the individual / group w.r.t. time ● Calculate the time taken/ distance covered/ Work done from the given data	● Basic concept of time and work ● Problems on time taken / distance covered / work done
1.11	Mensuration	● Solve problems based on surface area and	● Comparison between 2D and 3D shapes ● Combination of solids

		volume of 2D and 3D shapes ● Calculate the volume/ surface area for solid formed using two or more shapes	● Transforming one solid shape to another
1.12	Seating arrangement	● Create suitable seating plan/ draft as per given conditions (Linear/circular) ● Locate the position of a person in a seating arrangement	● Linear and circular seating arrangement ● Position of a person in a seating arrangement

UNIT – 2 ALGEBRA(SEPTEMBER)

Sets

2.1	Introduction to sets – definition	● Define set as well-defined collection of objects	● Definition of a Set ● Examples and Non-examples of Set
2.2	Representation of sets	● Represent a set in Roster form and Set builder form	● Write elements of a set in Set Builder form and Roster Form ● Convert a set given in Roster form into Set builder form and vice versa
2.3	Types of sets and their notations	· Identify different types of sets on the basis of number of elements in the set · Differentiate between equal set and equivalence set	· Types of Sets: Finite Set, Infinite Set, Empty Set, Singleton Set

2.4	Subsets	· Enlist all subsets of a set · Find number of subsets of a given set · Find number of elements of a power set	· Subset of a given set · Familiarity with terms like Superset, Improper subset, Universal set, Power set
2.5	Intervals	· Express subset of real numbers as intervals	· Open interval, closed interval, semi open interval and semi closed interval
2.6	Venn diagrams	· Apply the concept of Venn diagram to understand the relationship between sets · Solve problems using Venn diagram	· Venn diagrams as the pictorial representation of relationship between sets · Practical Problems based on Venn Diagrams
2.7	Operations on sets	· Perform operations on sets to solve practical problems	· Operations on sets include i) Union of sets ii) Intersection of sets iii) Difference of sets iv) Complement of a set v) De Morgan's Laws

Relations

2.8	Ordered pairs Cartesian product of two sets	· Explain the significance of specific arrangement of elements in a pair · Write Cartesian product of two sets · Find the number of elements in a Cartesian product of two sets	· Ordered pair, order of elements in an ordered pair and equality of ordered pairs · Cartesian product of two non empty sets
2.9	Relations	· Express relation as a subset of Cartesian product · Find domain and range of a relation	· Definition of Relation, examples pertaining to relations in the real number system
2.10	Types of relations	· Define and illustrate different types of relations: Empty relation and universal relation · Examine whether the relation is equivalence or not · Define function as a special type of relation · Categorize relations that are functions and non functions	· Types of relations: Empty relation, universal relation, reflexive relation, symmetric relation, transitive relation, equivalence relation · Introducing a function as a special type of relation · Examples and non-examples of functions

Sequences and Series

2.11	Sequence and Series	● Differentiate between sequence and series	Sequence: a_1, a_2, a_3 ----- Series; $a_1 + a_2 + a_3$ ---- a_n

2.12	Arithmetic Progression	• Identify Arithmetic Progression (AP) • Establish the formulae of finding nth term and sum of n terms • Solve application problems based on AP • Find arithmetic mean (AM) of two positive numbers	• General term of AP: $t_n = a + (n-1)d$ • Sum of n terms of AP : $S_n = n/2\ [2a + (n-1)d]$

2.13	Geometric Progression	· Identify Geometric Progression (GP) • Derive the n^h term and sum of n terms of a given GP • Solve problems based on applications of GP • Find geometric mean (GM) of two positive numbers • Solve problems based on relation between AM and GM	• General term of GP: $t_n = ar^{n-1}$ • Sum of n terms of a GP: $S_n = a(r^n - 1)/r - 1$ · Sum of infinite term of GP $= \dfrac{a}{1-r}$ Where -1<r<1 • Geometric mean of a and b $= \sqrt{ab}$
2.14	Applications of AP and GP	• Apply appropriate formulas of AP and GP to solve application problems	Applications based on • Economy Stimulation • The Virus spread etc.

UNIT -3 MATHEMATICAL REASONING(SEPTEMBER)

3.1	Mathematical reasoning	• Identify mathematically acceptable statements • Express the implications of the compound statement • Validate mathematical statements	• Meaning of mathematical statements • Negation • Compound statements • Quantifiers • Converse and Contrapositive of the statement • Implications • Validating statements
3.2	Logical reasoning	• Solve logical problems involving odd man out, syllogism, blood relation and coding decoding	• Odd man out • Syllogism • Blood relations • Coding Decoding

UNIT – 4 CALCULUS (OCTOBER)

4.1	Functions	· Identify dependent and independent variables · Define a function using dependent and independent variable	● Dependent variable and independent variable ● Function as a rule or law that defines a relationship between one variable (the independent variable) and another variable (the dependent variable)
4.2	Domain and Range of a function	· Define domain, range and co-domain of a given function	● Domain as a set of all values of independent variable ● Co-domain as a set of all values of dependent variable ● Range of a function as set of all possible resulting values of dependent variable
4.3	Types of functions	· Define various types of functions	· Following types of functions with definitions and characteristics

		· Identify domain, co domain and range of the function	Constant function, Identity function, Polynomial function, Rational function, Logarithm function, Exponential function, Modulus function, Greatest integer function, Signum function, Algebraic function
4.4	Graphical representation of functions	● Representation of function graphically	● Graph of some polynomial functions, Logarithm function, Exponential Function, Modulus function, Greatest integer function, Signum function

UNIT- 6 DESCRIPTIVE STATISTICS(NOVEMBER)

6.1	Types of data	· Identify real life situations for collecting data · Categorize data based on nature of data (Primary and Secondary Data, Raw and Organized Data) · Identify and differentiate univariate, bivariate and multi-variate data · Identify and differentiate discrete data and continuous data · Collect raw data from practical examples	·Examples of raw data from different surveys, sports · Multi-variate data from not more than three variables ·Collection of data up to three variables from real life examples, such as, data of students (age, weight, height)
6.2	Data on various scales	● Describe nominal, ordinal, interval and ratio scale of data collection ● Collect and classify data on different scales of measurement	●Examples and non-examples of data on different scales ●Benefit and limitations of collecting data on various scales

| 6.3 | Data representation and data visualization | ● Organize raw data in discrete and continuous form
● Represent data on nominal and ordinal scales of measurement using pie chart and bar graphs
● Represent data on interval and ratio scale using histogram and frequency polygon
● Represent bivariate continuous data using line graph
● Choose appropriate graph to represent data of various kinds | ●Data organization in increasing/decreasing order, using frequency table and in class intervals of various length
●Graphical representation of data using pie-chart/bar graphs/histogram using class interval of equal and unequal length ●Visualization of data using Excel Spreadsheet or any other computer assisted tool |

6.4	Data Interpretation		
	Measure of Dispersion	● Understand meaning of dispersion in a data set ● Differentiate between range, quartile deviation, mean deviation and standard deviation ● Calculate range, quartile deviation, mean deviation and standard deviation for ungrouped and grouped data set ● Choose appropriate measure of dispersion to calculate spread of data	●Mean deviation around mean and median ●Standard deviation and variance ●Examples of different kinds of data helping students to choose and compare different measures of dispersion
	Skewness and Kurtosis	● Define Skewness and Kurtosis using graphical representation of a data set ● Interpret Skewness and Kurtosis of a frequency distribution by plotting the graph ● Calculate coefficient of Skewness and interpret the results	●Examples of symmetrical and asymmetrical data ●Visualization of graphical representation of data using Excel Spreadsheet or any other computer assisted tool
6.5	Percentile rank and Quartile rank	● Define Percentile rank and Quartile rank ● Calculate and interpret Percentile and Quartile rank of scores in a given data set	●Emphasis on visualizing, analysing and interpreting percentile and quartile rank scores

6.6	Correlation	● Define correlation in values of two data sets ● Calculate Product moment correlation for ungrouped and grouped data ● Calculate Karl Pearson's coefficient of correlation ● Calculate Spearman's rank correlation ● Interpret the coefficient of correlation	●Emphasis on application, analysis and interpreting the results of coefficient of correlation using practical examples

Internal Assessment:

The weightage of internal assessment may be as under:

Term	Area and Weightage	Assessment Area	Marks allocated
Term 1	Project	Project work and record	5
		Term-end Presentation + Viva of the Project	5
		Total	10

Note: The list of suggested projects is given in the end

Assessment Plan (First term)

1. First term assessment of the course is out of 50 marks.

2. The assessment plan consists of an External Exam and Internal Assessment. 3. There will be end term external exam of 40 marks.

4. The weightage of the Internal Assessment is 10 marks. It consists of a project work. Teachers may choose a project from the suggested list

<table>
<thead>
<tr><th colspan="4" align="center">CLASS- XI
Term - 2</th></tr>
<tr><th>Sl.
No.</th><th>Contents</th><th>Learning Outcomes:
Students will be able to</th><th>Notes / Explanation</th></tr>
</thead>
<tbody>
<tr><td colspan="4">Permutations and Combinations(DECEMBER)</td></tr>
<tr>
<td>2.15</td>
<td>Factorial</td>
<td>● Define factorial of a number
● Calculate factorial of a number</td>
<td>● Definition of factorial:
n!=n(n-1)(n-2)…3.2.1 Usage of factorial in counting principles</td>
</tr>
<tr>
<td>2.16</td>
<td>Fundamental Principle of Counting</td>
<td>● Appreciate how to count without counting</td>
<td>● Fundamental Principle of Addition ● Fundamental Principle of Multiplication</td>
</tr>
<tr>
<td>2.17</td>
<td>Permutations</td>
<td>● Define permutation

● Apply the concept of permutation to solve
simple problems</td>
<td>● Permutation as arrangement of objects in a definite order taken some or all at a time
● Theorems under different conditions resulting in $^nP_r = \dfrac{n!}{n-r}$</td>
</tr>
<tr>
<td>2.20</td>
<td>Combinations</td>
<td>● Define combination

● Differentiate between permutation and combination

● Apply the formula of combination to solve the related problems</td>
<td>-The number of combinations of n different objects taken r at a time is given by   nCr= $n!/r!.(n-r)!$
Some results on combinations: $\bullet\,^nC_0 = 1 = {}^nC_n$
$\bullet\,^nC_a = {}^nC_b \Rightarrow$ a=b or a+ b=n
$\bullet\,^nC_r = {}^nC_{n-r}$
$\bullet\,^nC_r + {}^nC_{r-1} = {}^{n+1}C_r$</td>
</tr>
<tr><td colspan="4">UNIT – 4 CALCULUS(JANUARY)</td></tr>
</tbody>
</table>

4.5	Concepts of limits and continuity of a function	● Define limit of a function ● Solve problems based on the algebra of limits ● Define continuity of a function	● Left hand limit, Right hand limit, Limit of a function, Continuity of a function
4.6	Instantaneous rate of change	● Define instantaneous rate of change	The ratio $\Delta y/\Delta x = f(x+\Delta x) - f(x)/\Delta x$ as) instantaneous rate of change, where Δy is change in y and Δx is change in x at any instant
4.7	Differentiation as a process of finding derivative	● Find the derivative of the functions	● Derivatives of functions (non trigonometric only)
4.8	Derivatives of algebraic functions using Chain Rule	● Find the derivative of function of a function	If $y = f(u)$ where $u = g(x)$ then differential coefficient of y w.r.t x is $\frac{dy}{dx} = \frac{dy}{du} \times \frac{du}{dx}$

UNIT – 5 PROBABILITY(JANUARY)

5.1	Introduction	● Appreciate the use of probability in daily life situations	● Probability as quantitative measure of uncertainty ● Use of probability in determining the insurance premium, weather forecasts etc.

5.2	Random experiment and sample space	● Define random experiment and sample space with suitable examples	● Sample space as set of all possible outcomes
5.3	Event	· Define an event · Recognize and differentiate different types of events and find their probabilities	· Types of Event: Impossible and sure event, Independent and dependent event, mutually exclusive and exhaustive event
5.4	Conditional Probability	· Define the concept of conditional probability · Apply reasoning skills to solve problems based on conditional probability	Conditional Probability of event E• given that F has occurred is: $P(E|F) = P(E \cap F)| P(F)$, $P(F) \neq 0$
5.5	Total Probability	· Interpret mathematical information and identify situations when to apply total probability · Solve problems based on application of total probability	Total Probability: Let $E1, E2, \dots, En$ be a partition of the sample space S, then probability of an event A associated with S is: $P(A) = \sum P(E)P(A|E)$
5.6	Bayes' Theorem	· State Bayes' theorem · Solve practical problems based on Bayes' Theorem	●Bayes' Theorem: If $E1, E2, \dots, En$ be n non empty events which constitute a partition of a sample space S and A be any event with non zero probability, then: $P(Ei |A) = P(Ei)P(A|Ei)/ \sum P(Ej)P(A|Ej)$
UNIT – 7 FINANCIAL MATHEMATICS(FEBURARY)			

7.1	Interest and Interest Rates	● Define the concept of Interest Rates ● Compare the difference between Nominal Interest Rate, Effective Rate and Real Interest Rate ● Solve Practical applications of interest rate	● Impact of high interest rates and low interest rates on the business
7.2	Accumulation with simple and compound interest	● Interpret the concept of simple and compound interest ● Calculate Simple Interest and Compound Interest	●Meaning and significance of simple and compound interest ●Compound interest rates applications on various financial products
7.3	Simple and compound interest rates with equivalency	● Explain the meaning, nature and concept of equivalency ● Analyze various examples for	● Concept of Equivalency ● Annual Equivalency Rate

		understanding annual equivalency rate	

7.4	Effective rate of interest	● Define with examples the concept of effective rate of interest	● Effective Annual Interest Rate $= (1 + i/n)^n - 1$
			where:
			  i = Nominal Interest Rate
			  n = No. of Periods

7.5	Present value, net present value and future value	· Interpret the concept of compounding and discounting along with practical applications
		·Compute net present value
		  ·Apply net present value in capital budgeting decisions
			· Formula for Present Value:
			$PV = CF/(1 + r)^n$
			Where:
			CF = Cash Flow in Future Period r = Periodic Rate of return or Interest (also called the discount rate or the required rate of return)
			n = no. of periods
			· Use of PVAF, FVAF tables for practical purposes
			· Solve problems based on
			
			                    Application of net present value

7.6	Annuities, Calculating value of Regular Annuity	●Explain the concept of Immediate Annuity, Annuity due and Deferred Annuity ●Calculate General Annuity	●Definition, Formulae and Examples
7.7	Simple applications of regular annuities (upto 3 period)	●Calculate the future value of regular annuity, annuity due ●Apply the concept of Annuity in real life situations	●Examples of regular annuity: Mortgage Payment, Car Loan Payments, Leases, Rent Payment, Insurance payouts etc.

7.8	Tax, calculation of tax, simple applications of tax calculation in Goods and service tax, Income Tax	·Explain fundamentals of taxation ·Differentiate between Direct and indirect tax ·Define and explain GST ·Calculate GST ·Explain rules under State Goods and Services Tax (SGST) Central Goods and Services Tax (CGST) and Union Territory Goods and Services Tax (UTGST)	·Computation of income tax Add Income from Salary, house property, business or profession, capital gain, other sources, etc. Less deductions PF, PPF, LIC, Housing loan, FD, NSC etc. ·Assess the Individuals under Income Tax Act ·Formula for GST Different Tax heads under GST
7.9	Bills, tariff rates, fixed charge, surcharge, service charge	·Describe the meaning of bills and its various types ·Analyze the meaning and rules determining tariff rates ·Explain the concept of fixed charge	·Tariff rates- its basis of determination ·Concept of fixed charge service charge and their applications in various sectors of Indian economy

7.10	Calculation and interpretation of electricity bill, water supply bill and other supply bills	·To interpret and analyze electricity bills, water bills and other supply bills ·Evaluate how to calculate units consumed under electricity bills/water bill	·Components of electricity bill/water supply and other supply bills: i) overcharging of electricity ii) water supply bills iii) units consumed in electricity bills

UNIT – 8 COORDINATE GEOMETRY(MARCH)

8.1	Straight line	● Find the slope and equation of line in various form ● Find angle between the two lines ● Find the perpendicular from a given point on a line ● Find the distance between two parallel lines	● Gradient of a line ● Equation of line: Parallel to axes, point-slope form, two-points form, slope intercept form, intercept form ● Application of the straight line in demand curve related to economics problems
8.2	Circle	● Define a circle ● Find different form of equations of a circle ● Solve problems based on applications of circle	● Circle as a locus of a point in a plane ● Equation of a circle in standard form, central form, diameter form and general form
8.3	Parabola	● Define parabola and related terms ● Define eccentricity of a parabola ● Derive the equation of parabola	● Parabola as a locus of a point in a plane. ● Equation of a parabola in standard form: ● Focus, Directrix, Axis, Latus rectum, Eccentricity

Internal Assessment:
The weightage of internal assessment may be as under:

Term	Area and Weightage	Assessment Area	Marks allocated
Term 2	Practical	Performance of practical and record	5
		Term-end test of any one practical + Viva	5
		Total	10

Practical: Use of spreadsheet
Calculating average, interest (simple and compound), creating pictographs, drawing pie chart, bar graphs, calculating central tendency visualizing graphs (straight line, circles and parabola using real-time data)
Suggested practical using spreadsheet

1. Plot the graph of functions on excel study the nature of function at various points, drawing lines of tangents
2. Create a budget of income and spending
3. Create and compare sheet of price & features to buy a product
4. Prepare the best option plan to buy a product by comparing cost, shipping charges, tax and other hidden costs
5. Smart purchasing during sale season
6. Prepare a report card using scores of the last four exams and compare the performance
7. Collect the data on weather, price, inflation, and pollution. Sketch different types of graphs and analyze the results

Assessment Plan (Second term)

1. Second term assessment of the course is out of 50 marks.
2. The assessment plan consists of an External Exam and Internal Assessment. 3. There will be external exam of 40 marks.
4. The weightage of the Internal Assessment is 10 marks. It consists of practical work. Teachers can choose activities from the suggested list of practical or they can plan activities of a similar nature. For data-based practical, teachers are encouraged to use data from local sources to make it more relevant for students.

ACP CLASS-XII, MATHEMATICS (2021-22), TERM – I

	Unit	Lessons/Topics covered	Learning Objectives Students will be able to :	Activity /Project	Assesment	Expected learning outcomes Students are able to :
April 2021	Calculus	Continuity and differentiability, derivative of composite functions, chain rule, derivative of inverse trigonometric functions, derivative of implicit functions. Concept of exponential and logarithmic functions. Derivatives of logarithmic and exponential functions. Logarithmic differentiation, derivative of functions expressed in parametric forms. Second order derivatives.	Points of discontinuity of functions, identify points of non-differentiability of functions, derivatives of exponential and logarithmic functions, derivatives of functions in parametric form	▪▪▪▪▪▪▪	▪▪▪▪▪	To identify points of discontinuity of functions, To identify points of non-differentiability of functions, To find derivatives of exponential and logarithmic functions, To find derivatives of functions in parametric form
July 2021	Relations and Functions Inverse Trigonometric Functions	Types of relations: reflexive, symmetric, transitive and equivalence relations. One to one and onto functions. Definition, range, domain, principal value branch.	To explain different type of relation and Identify one to one, onto and invertible functions. Inverse of a function if it exists. Find Inverse values of trigonometric functions	**Activity** To explore the principal value of the function $\sin^{-1}x$ using a unit circle	Quiz MCQ	Identifies different types of relations and functions. explores the values of different inverse trigonometric functions
Aug 2021	Matrices Determinants	Concept, notation, order, equality, types of matrices, zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices. Operation on matrices: Addition and multiplication and multiplication with a scalar. Simple properties of addition, multiplication and scalar multiplication. Non- commutativity of multiplication of matrices, Invertible matrices; (Here all matrices will have real entries). Determinant of a square matrix (up to 3 x 3 matrices), minors, co-factors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Solving system of linear equations in two or three variables (having unique solution) using inverse of a matrix.	Add 2 matrices, Expressing matrix as sum of symmetric and skew symmetric matrices, inverse of a matrix by using elementary row transformations Area of triangle, To understand properties to simplify determinants, system of equations using matrices.	▪▪▪▪▪▪	Quiz MCQ First Periodical test	Evolves the idea of matrices as a way of representing and simplifying mathematical concepts. Evaluates determinants of different square matrices using their properties
Sept 2021	Calculus Applications of Derivatives	Applications of derivatives: increasing/decreasing functions, tangents and normals, 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).	increasing and decreasing functions, equation of tangent and normal at a point on the given curve, , maxima and minima points of a function	**Project** Make a chart of the formulae of applications of calculus. **Activity** To construct an open box of maximum volume from a given rectangular sheet by cutting equal squares from each corner.	Quiz MCQ MCQ MS TEAM	To identify increasing and decreasing functions, To find equation of tangent and normal at a point on the given curve, , To find maxima and minima points of a function

Oct 2021	Linear Program ming	Introduction, related terminology such as constraints, objective function, optimization, different types of linear programming (L.P.) problems. Graphical method of solution for problems in two variables, feasible and infeasible regions (bounded), feasible and infeasible solutions, optimal feasible solutions (up to three non-trivial constraints).	1. Formulate the LPP. 2. Conceptualize the feasible region. 3. Solve the LPP with two variables using graphical method. 4. Solve the LPP using Corner point method.	**Project** Collect data from dieticians, transporters, agents and formulate linear programming problems.	MCQ MS TEAM Second Periodica l test	Explain basic concepts of optimization, modelling and linear modelling (LP) Explain the operations research methodology and the problem solving approach. Define the LP's assumptions and contents. Explain the mathematical background of L P .Model the decision making problems by using LP techniques.
Nov 2021		**Revision**			MCQ MS TEAM	
Dec 2021		**TERM 1 Examination**	▪▪▪▪▪▪▪▪▪▪▪▪	▪▪▪▪▪▪▪	▪▪	▪▪▪▪▪▪▪▪▪▪

ACP CLASS-XII, MATHEMATICS (2021-22), TERM – 2

	Unit	Lessons/Topics covered	Learning Objectives Students will be able to :	Activity /Project	Asses ment	Expected learning outcomes Students are able to :
Dec 2021	Calculus	Integration as an inverse process of differentiation, Methods of Integration, Integration of special functions, Method of Partial fractions, By-Parts, Definite	Indefinite and definite integrals		Quiz MCQ MS TEAM Short answe r type Test	Develops the processes in Integral calculus based on the ideas of differential calculus learnt earlier.

		Integral, Definite integral using substitution and properties.			
Jan 2022	Calculus Applications of Integrals Differential Equations	Introduction, Area under simple curves, Area between 2 curves. Introduction, Degree and order, General and particular solution, Solution to first order, first degree differential equations	Area using integration Degree and order of a differential equation, differential equations using variable separable, homogeneous, Linear DE method	Project Form a differential equation for the growth of bacteria in different environments.	**Quiz MCQ** **Perio dical test**	Applies the concepts of Integral calculus to calculate the areas enclosed by curves. Develops the concepts of differential equations using the ideas of differential and integral calculus
Feb 2022	**Vectors** **Three - dimensio nal Geometry** **Probabilit y**	Vectors and scalars, magnitude and direction of a vector. Direction cosines and direction ratios of a vector. Types of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Definition, Geometrical Interpretation, properties and application of scalar (dot) product of vectors, vector (cross) product of vectors. Direction cosines and direction ratios of a line joining two points. Cartesian equation and vector equation of a line, coplanar and skew lines, shortest distance between two lines. Cartesian and vector equation of a plane. Distance of a point from a plane. Conditional probability, multiplication theorem on probability, independent	Dot product and cross product of 2 vectors, projection of one vector on another , To analyze vectors if dot product or cross product is zero Equation of line in space in Cartesian and vector form, equation of plane in Cartesian and vector form , To find angle between 2 lines using DCS, distance between 2 lines, angle between 2 planes using normal lines, distance between a point from a plane. Probability using conditional probability formula, solve	Activity demonstrate the equation of a plane in normal form. To measure the shortest distance between two skew lines and verify it Analytically To explain the computation of conditional probability of a given event A, when event B has already occurred, through an example of	**Quiz MCQ 3** **MS TEAM Short answe r type Test 2**	Constructs the idea of vectors and their properties and relates them to earlier learnt concepts in different areas of mathematics such as geometry, coordinate geometry etc. Evolves newer concepts in three dimensional geometry from that learnt earlier, in the light of vector algebra, such as, direction cosines, equations of lines and planes under different conditions etc. Calculates conditional probability of an event and uses it to evolve Baye's theorem and multiplication rule of probability.

		events, total probability, Bayes' theorem, Random variable and its probability distribution.	problem by Bayes' theorem, probability distribution of Different random variables.	Throwing a pair of dice.		▯ Determines mean and variance of a probability distribution using the concept of random variable.
March 2022		**REVISION** **TERM 2 EXAMINATION**				
April 2022						

<u>**VIDYA NIKETAN**</u>
<u>**BIRLA PUBLIC SCHOOL, PILANI**</u>
<u>**Annual Curriculum Plan (2021-22)**</u>
Subject: Accountancy, Class- XI
<u>**First Term syllabus**</u>

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
July	16	• Fundamental of accounting • Book Keeping • Basic Terms	• To get acquainted with basic knowledge of accounting. • Students able to describe basic accounting terms.	• Showing School accounts.	• Conduct Quiz based on fundamental of accounts. • Giving MCQ and objective type questions.	• Ability to Solve Problems • Self Awareness	• Boys should be able to describe difference between book keeping and accounting and also some basic terms.
July	07	• Principles, concepts and accounting Equation.	• To comprehend different accounting principles. • The Students get the basic knowledge to set accounting transactions in simple accounting equation format.	• Showing accounting standard and principles..	**CLASS TEST** • Giving MCQ and objective questions to go through • Practical accounting transaction given to prepare accounting equation .	• Aware about accounting standard and policies	• To be able to comprehend the different accounting principles and way to prepare accounting equation with help of different accounting transactions.
July/ August	23	• Journal • Ledger • Subsidiary books • Cash book.	• Boys able to get acquainted with the basic knowledge of preparing different journal entries, ledger ,subsidiary books and cash book.	Showing School journal, ledger. cash book in physical form to give them practical knowledge.	• PRE-MID TERM 9Aug to 18th August2021. • Revision for above exam	• Ability to solve problems	• Boys able to prepare different journal. ledger and types of subsidiary and cash book with complete knowledge. .

MONTHS	Period Req.	LESSONS/TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
August	16 08	• Trial Balance • Bank Reconciliation Statements • Cash book continue	• Boys acquainted with the basic knowledge of trial balance and BRS.. • Advantage of preparing trial balance and bank Reconciliation statement for the firm.	Visit to different companies and banks to see practical accounts..	• **Asking boys to prepare trial balance and bank reconciliation statements with the help of trans.**	• Comparision	• After visiting companies and going through topics boys able to get knowledge of true use of trial balance and BRS.. • Boys confidently can prepare trial balance and BRS.
September	19	• Financial Statements without adjustments.	• Boys can get the basic knowledge of preparing final accounts of the companies. • Use of preparing Trading account and profit and Balance Sheet .	• Visit different banks and insurance companies to see their trading and profit loss account and balance sheet.	**CLASS TEST** • Giving different types of assets, liabilities, income and Expenses to treat them in final accounts preparation..	• Solving Critical Situations	• Boys are able to calculate gross profit, net profit and financial position of the business. • Boys will be able to adjust different items of trial balance to prepare final accounts of the companies.
September/ October	15 15	• Financial Statements with adjustments. • Bills of Exchange.	• Boys able to prepare final account with the help of different adjustment given outside the trial balance. • Basic knowledge to prepare journal.	• Group of students visited to courts and Tehsils to see bills of exchange in physical form.	MID TERM 9th Oct to 20th October2021. Revision for above midterm examination Special worksheets to be given for mid term examination revision..	• Commitment • Promise	• Students able to calculate gross profit, net profit and to know the financial position of the business. • Students able to get the use of bills of exchange on credit purchase and sale of goods..

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
November/ December	26	• Depreciation	• Students will be able to prepare different assets account with their depreciation amount..	• Visit school and to know the way to calculate amount of depreciation on fixed assets of the school.. .	**I Term Exam (20ᵗʰNovember to 30ᵗʰNovember 2021)** • **Giving worksheet to solve questions on different methods of calculating depreciation with their assets account.**	• Knowing actual facts	• Students able to prepare assets account with different methods of depreciation. • Able to prepare provision for depreciation account and depreciation account with asset account..
January	18	• Reserves and Surplus.	• Students will be able to describe the difference between reserves and provision.	• To show the balance sheet of the school and convey the boys to place reserve in the balance sheet that is liability side or assets side .	• Revision of syllabus for • POST MID TERM 17ᵗʰ Jan to 28ᵗʰ Jan2021.	• Proper use of Saved money • Right Investments • Proper utilization of funds	• Students able to get the proper use of reserve and provision in different type of situations in the organization..
Second Term Syllabus							

MONTHS	Period Req.	LESSONS/TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
January	16	• Rectification of errors	Students will be able to rectify the error made while preparing journal entries and ledger accounts of the institution.	• Boys can go through different school accounts to locate errors and to rectify the same.	• Worksheet to be given of different journal entries and ledger accounts to rectify the located error..	• Finding own mistakes • Correcting Mistakes	• Students able to easily locate the error and same can be rectified by making journal entries and ledger accounts.
February	16	• Single entry system of accounting/ incomplete record of accounting.	• Boys able to calculate profit and loss without preparing trading and profit and loss account and not to prepare balance sheet but a statement of affairs.	• Boys are advised to visit the small enterprises who follow single entry system in their day today accounting system.	• Class test • Practice questions given in the form of worksheets to prepare statement of profit and loss account as well as statements of affairs.	• Knowledge Incomplete Accounting	• Students able to calculate Profit and loss amount and also can prepare statements of affairs without double entry system.
March		• **Revision for Annual Examination.**		• Practice papers to be given to boys to solve to revise.	• 2nd Tem Examination (12th March – 24th March 2022)		

VIDYA NIKETAN
BIRLA PUBLIC SCHOOL, PILANI
Annual Curriculum Plan (2021-22)
Subject: Accountancy, Class- XII

FIRST TERM SYLLABUS

MON THS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
April	16	• Partnership (Fundamental, change in PSR and goodwill treatment).	• To get acquainted with basic knowledge of running partnership business. • Students able to describe the different method of treatment of goodwill.	• Visit different partnership firms with the students. • Showing financial statement of partnership firm.	• Conduct Quiz based on some content of partnership business. • Giving some practical questions to solve.	• Mutual Trust • Commitment	• Boys should be able to describe different policies and procedures to run partnership business. • Boys able to calculate change in PSR among partners.
April	10	• Admission of a partner.	• To comprehend different ways of calculating NPSR at the time of admission and retirement of a partner.	• Show the practical accounts prepared	**CLASS TEST** • Giving latest MCQ and objective questions introduced by CBSE. • Giving selected questions to	• Helping family in difficult time. • Sense of Responsibility.	• To be able to comprehend to calculate deceased partner share of profit

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
					solve through work sheet.		
May	08 06	• Issue of shares • Accounting Ratios	• Basic entries at the time of issue of shares in the public. • Various tools of analyzing financial statements. • Find out profitability of enterprise	Visiting different stock exchanges to give basic knowledge of share market.	• Special work sheet given to solve to revise for above exam.	• Equality Trust	• Can prepare basic journal entries at the time of issue of shares in the public by the company. • Can calculate and use of various accounting ratios
May/ July	07 04	• Issue of shares • Accounting Ratios	• Basic entries at the time of issue of shares in the public. • Various tools of analyzing financial statements. • Find out profitability of enterprise	Visiting different stock exchanges to give basic knowledge of share market.	• Special work sheet given to solve to revise for above exam.	• Equality Trust	• Can prepare basic journal entries at the time of issue of shares in the public by the company. • Can calculate and use of various accounting ratios
			SECOND TERM SYLLABUS				
Aug	08	• Retirement and death of a partner • Dissolution of partnership firm.	• Basic accounting treatment in case of retirement and death of a partner. • Boys able to get acquainted with the basic knowledge of preparing accounts at the time of closing of partnership firms	Practical problem will be discussed. Practical accounts of a dissolved firm to be shown to students.	• Worksheets will be given to the students • Special work sheet given to solve to revise for above exam.	• Equality • Trust	• Students are able to solve the accounting settlement in case of retirement and death of a partner. • Boys able to prepare necessary accounts at the time of closing partnership firms.

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
					• PRE-MID TERM 9th Aug 18 Aug 2021.		
Sep	16 16	• Issue of Debentures • Redemption of Debentures	• Boys acquainted with the basic knowledge of preparing journal at the time of issuing and redemption of debentures by the company in the public. • Calculate maturity amount finally paid to holder.	Visit to different share issuing companies with the students to give them practical knowledge of share market	• **Asking boys to prepare journal at the time of receiving applications, allotment and making calls to holders.**	• Developing Trust. • Commitment to holders.	• After visiting companies and going through topics boys able to prepare different journal entries at the time of different stages of issuing shares and debentures in the public.
Oct	16 17	• Analysis of financial statement and company Balance sheet. • Tools of analyzing financial statements of company.	• Boys can get the basic knowledge of preparing companies balance sheet. • Able to solve different types of ratios used in maintaining companies accounts. • Comparative and common size statements will be discussed.	• Different books of companies to be shown to the students for easy understanding. • Preparing project work on Reliance, Infosys etc.	**CLASS TEST** • Giving important questions to solve through work sheets. • Give different balance sheet and statement of profit and loss to calculate. • Project work to prepare • MID TERM	• Problem Solving. • Critical Thinking	• Boys are able to prepare companies balance sheet with different types of capitals. • Boys will be able to calculate four types tools of analyzing financial statement of companies to prepare accounts and to analyses the situation..

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
					9th Oct -20rd Oct 2021 •		
Nov	12	• Cash flow statement and project work.	• Boys able to prepare Cash Flow statements of different companies with the help of three activities. • Able to prepare project work given by CBSE practical Exam.	• Showing cash flow statements of different companies to give them practical knowledge • Making project work on different companies.	• Revision for above midterm examination • Special worksheets to be given for midterm examination revision. • Project work to prepare. • First Term Exam 20th Nov- 30th Nov 2021	• Self Awareness • Innovative Ideas • Comparison	• Students able to prepare cash flow statement of companies by using three activities. • Students able to get the knowledge of inflows and outflows of companies at the time of preparing CFS. • To know actual cash generated and used by company in a particular accounting period.

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
Nov	18	• Not for profit organization. • Receipt and Payment account. • Income and Expenditure account.	• Students will be able to prepare accounts of Non Profit Organization. • Able to understand the purpose of preparing such accounts. • Treatment of different subscription.	• Visiting different clubs, societies, literacy education institutes to show them practical accounts prepared. .	**CLASS TEST** • **Giving Practical questions with Receipt and Payment Account to prepare income and expenditure account with balance sheet.**	• Charity • Social Welfare	• Students able to prepare Income and expenditure account and revised balance sheet with treatment of different subscriptions. • Able to calculate surplus and also to judge the financial position of the business..
Dec/ Jan		Revision continues for pre board examinations. Preparation for CBSE Practical Exam.		• Sample papers and practice papers given to solve..	• CBSE Practical's. • Pre board exam begins. •		• Students confidence can be boost up after solving sample papers and practice papers.
Feb		• Revision for second term examination		• Solving CBSE sample papers.	• Practice papers and sample paper continue to solve.		• Boys are able to have command on different topics after solving sample papers and practice papers.
Mar		• **Revision for second term examination continues..**		• Practice papers to be given to boys to solve to revise.	• Second Term Examination 12th Mar- 31st Mar 2022.		• Boys are able to score good marks in their board examination conducted by CBSE.

VIDYA NIKETAN
BIRLA PUBLIC SCHOOL, PILANI
ACURRICULUM PLAN (2021-22)
SUBJECT: BUSINESS STUDIES, CLASS- XI
First Term Syllabus

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
July	16	• Nature concepts. • Types of economics activities	• To get acquainted with human activities and economic and non economic activities. • Types of economic activities.	• Boys are asked to identify economic and non economic activities.	• A brief review of human activities. • Giving MCQ and objective type questions.	• Risk Prevention	• Boys should be able to describe economic activities and non economic activities by giving different examples.
July	10	• Introduction to forms of ownership	• To comprehend forms of ownership in private sector. • The oldest and most prevalent single ownership.	• To go through profile of prominent MNCs.	**CLASS TEST** • Giving small case studies on different topics through worksheet.	• Democracy • One Person and One Vote	• To be able to comprehend the forms of ownership in private sector and their

MONTHS	Peri od Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
							respective merits and demerits.
July/Aug ust	24	• Forms of ownership sole proprietorship, joint Hindu partnership companies.	• Producers of partnership, JHF and company form and co operations society.	• To go through amendment to Hindu succession act in 2005.	• PRE-MID TERM 9th Aug to – 18 August2021. • Revision for above exam	• Trust	• Boys comprehend the new experiment in ownership that is co operative society which give legal rights to service motive along with project.
September	24	• Private business sector and MNCs, Business services introduced.	• To comprehend the concept of public sector, three forms of govt. ownership to business. • Merits and Demerits of business services introduced.	• Role of aids in business and their impact.	• **Asking small case studies and MCQ/Objective type questions related to topic.**	• Mitigation of loss	• Students learn that although business private institutions but government has to actively participate in business. • Three forms of ownership also discussed.
October	23	• Business services. • Banking. • Insurance and other services.	• To understand the services like insurance and banking. • Comparative study of services and their respective merits and problems.	• Visit different banks and insurance companies to get the basic knowledge of different services.	**CLASS TEST** • Direct and objective questions with case studies given to solve through worksheet.	• Sincerity and Alertness • Trust	• Boys are able to concludes that along with physical goods, the services can also be provided as business.

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
							• These also help in smooth conduct of business.
October/ November	18	• Business services concluded. • Emerging modes of business.	• To conclude unity and introduction to emerging business.	• Introduction about ATM and call centers.	MID TERM 9th - 20th October2021 Revision for above midterm examination.	• Internationalism	• After going through students can learn about conventional form of business.
November/ December	30	• Social Responsibility (SR).	• To comprehend the concept of social responsibility. • Different stake holders of business.	• Class Room discussion. • Information about corporate Governance.	**CLASS TEST** • **Giving worksheet to solve on different topics based on case studies and MCQ/Objective.** • First Term 20th – 30th November2021	• Mutual Trust • Ethical Behavior	• Students may appreciate that business should give equal weight age to social concern of business.
				Second Term Syllabus			
December	11	• Sources of funds for large business.	• To understand significance of finance, sources of funds.	• Boys are advised to go through different articles. • Introduction to primary market.	• Revision of syllabus for	• Equality • Leaning levels of behavior	• Students learn that finance is the life blood of any business and it is need for all stages of the same.

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
January	16	• Small business.	• Measures of small business, Tiny, small and medium enterprises need and process of entrepreneurship development.	• Boys are briefed about role of KVIC.	• **Worksheet given to solve based on direct question, case studies and MCQ.** • **Post-Mid Term Examination 17th Jan to 28th Jan 2022**	• Passion for work • Persist with difficulties	• Although contribution of small business may be less but it qualitatively major difference.
February	15	• Internal Trade External Trade	• To get expose to direct market and indirect market. • Role of intermediaries. • To acquaint boys with external trade methods of entering international market.	• Boys are asked to right about neighbor hood market. • Multi level marketing and other trends are introduced. • Boys can learn about cost advantage etc. • Boys are told to monitor exchange rate.	• Class test conducted to revise for coming final term examination. • Special worksheets to be given to revise different topics.	• Idea of adventure • Idea of Internationalism • Cultivating Cooperation and trust	• Learn about internal distribution system and role of intermediaries in ensuring regular supply of goods. • Students appreciate the difference between international trade and domestic business and different ways of entering to business and documents pertaining to it.
March		• **Revision for Annual Examination.**		• Practice papers to be given to boys to solve to revise.	• Second Term Examination (12th March – 24th March 2022)		

VIDYA NIKETAN
BIRLA PUBLIC SCHOOL, PILANI
Annual Curriculum Plan (2021-22)
Subject: Business Studies, Class- XII
First Term Syallabus

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
April	5	• Managements Concepts. • Objectives of Management. • Nature of Management. • Coordination. • Levels of Management.	• To comprehended of different concepts, objectives and weather it is science or art.	• Relating the work to everyday activities. • Management practices of successful firms and companies.	• Giving small case studies on different topics. • Giving MCQ related to different topic.	• Sense of Responsibility • Team work	• Boys should be able to describe different approaches towards management.
May	7	• Principles of Management. • Fayal's Principles. • Taylors Principles. • Techniques of Taylor.	• To understand principles, their nature and major contribution in management.	• Highlighting the need for having flexibility in application of principles. • Application of techniques and principles in other walks of human activities	**CLASS TEST** • Objective and understanding questions asked related to topic.	• Team Spirit • Sense of belongings • Equality	• Students are able to observe the application of principles in real corporate life.
May	08	• Techniques Continue. • Business Environment. • Dimensions. • New Economic Policy.	• To continue principles and the business environment dimensions.	• Boys are advised to go through journals of trade and industries.	• CLASS TEST	• Compassion for others through external	• Students may able to describe the importance of components

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
						compone nts	of business environment .
July	16 10	• Planning. • Functions of Management organization. • Structure of organization. • Formal and Informal • Organization. • Marketing Mgt.	• To comprehend plans, significance and limitations. • Process of organizing, types of organization etc. Types of capital, primary and secondary market, money market and methods of raising capital. To comprehend mark concepts and marketing mix etc	• Organizing co-curricular and extracurricular activities. • 60 years of planned development a brief study. • Marketing of idea, Personality, places, events etc. Utility of different electoral politics to study.	• **Asking small case studies related to topic.**	• Focusing Systemati c working • Talk about human fertility	• Students can highlight the importance of planning when limited resources are to be used for multiple objectives. • Organization is needed for implementing plan.
			Second Term Syllabus				
August	16 11	• Staffing. • Recruitment. • Selection. • Training and Development. • Directing. • Motivation. • Supervision. • Leadership. • Communication.	• To acquaint boys with meaning, features and process of staffing. • Sources of recruitment. • Elements of directing. • Financial and non financial incentives.	• Incentives and other such motivation measures. • New trend in recruitment and websites placements agencies.	**CLASS TEST** • Direct and objective questions with case studies given to solve through worksheet. • PRE-MID TERM 9th Aug to 18th Aug.	• To be Organized • To have Specializa tion • Learning new things	• Boys may appreciate the role of main power in the successful launch. • Student's analysis elements like motivation, communicati on, leadership skills etc.

MON THS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
Septe mber	12	• Controlling. • Budgetary Control. • Process Controlling.	• To comprehend meaning, process and elements of control.	• Monitoring and control of academic activities. • Control techniques in other activities.	. Direct and objective questions with case studies given to solve through worksheet	• Measuring • Comparis on	• Control is needed for judging efficiency of plans.
Septem ber	07 03	• Financial Mgt and Market. • Financial Planning. • Capital Structure. • Marketing Mgt.	• To understand meaning, need finance and other details. • Types of capital, primary and secondary market, money market and methods of raising capital.	• Special status of finances in all activities.	**CLASS TEST** • **Giving worksheet to solve on different topics.**	• Learning financial prudence	• Students are able to appreciate the financial decision taken.
October /Novem ber	08 12	• Marketing Mgt continue • Consumer Protection. • Rights of Partner. • Responsibilities of Partner.	• To comprehend mark concepts and marketing mix etc.	• Marketing of idea, Personality, places, events etc. • Utility of different electoral politics to study.	• **Revision of syllabus for** • **MID TERM 9th Oct to 20th Oct** **Revision for above Mid-**	• Social Responsibi lity • Awareness Society • Develop Trust	• Dividend, financing etc. Also to find out why there is different needs for

MON THS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENT S	ROUND SQUARE DISCOVER IES	LEARNING OUTCOMES Students are able to
		• Redressal Agencies.			**Term examination**		different periods.
December/January		• Revision and Pre-board Examination.		• Practice paper to be solved on regular basis.	**First Term Examination 25th Nov 7th Dec 2021.**		
Feb		• Sorting out Problems and attempting Practice Tests. • Annual Examination Begins.		• Practice paper to be solved on regular basis	Preboard Examination 1st Feb – 15th Feb 2022		
March		• **Annual Examination Continues.** • **Practice Tests Continues.**		• Solving CBSE Sample papers for practice.	• Checking of solved sample papers. • **Second Term Examination** BEGINS	•	• Students are able to rectify their mistakes • Students can score good marks.

Annual Curriculum Plan for Class XI

Session: 2021-22

SYLLABUS TRANSACTION 2021-2022

SUBJECT-HINDUSTANI MUSIC (PERCUSSION INSTRUMENTAL)

CLASS-XI

S.N	UNIT	PERIOD	CHAPTER	EXPECTED MONTH OF COMPLETI ON	HOME ASSIGNMENT AND PROJECT	EXERCISE PREPARED TO SUPPLEMENT THESE GIVE IN TEXT BOOK OR ASSIGNMENT SOURCES LIBRARY NEWS PAPER,	LESSON'S AS PER SYLLABUS PRCTICAL AND THEORY

						MAGAZINE AND REFRENCE BOOK, INTERNET ETC.	
1.	01	08	Teen Taal, Jhaptaal	April and May	Project based on north Indian percussion instruments	Internet, text book.etc Taal Parichay-II	**PRACTICAL** Introduction of instrument. Fingure setting. Teen taalKayada no.-1 with all palta and Tihai. Knowledge of Playing Thekas of Teentala, Jhaptala, and Ektala with simple elaboration. **THEORY** Description of Graha, Jati, Kala
2.	02	06	Ektaal, Chautaal	July	Notation of kayada 1	Taal Parichay	**PRACTICAL** Introduction &theka of Ektaal and Chautaal. Playing Theka with simple elaborations. Ability to play Peshkaar or Uthaan, one Rela Two Chakkardar. One Farmaishi Chakkardar. **THEORY-** Brief knowledge of Natyashastra with special reference to Awanaddhya Vadya (Ankik, Urdhavak, Alingyak)
3.	03	07	Short Life Sketch	Aug	Practice of notation	Taal Parichay	**PRACTICAL-** Ability to Play one Adalaya Kayada or Rela with Paltas and Tihai in Teentaal. **THEORY-** Musical Contribution of Ustad Ahmed Jaan Thirkawa, Pt.Anokhe Lal Mishra
4.	04	48	Natyashastra	September	Origin of Tabla	TaalParichay	**PRACTICAL**- Playing taal on tabla with thah, dugun and chaugun, in Teentaal. Jhaptaal. Ektaal, Chautaal. **THEORY**- Brief knowledge on Banaras Gharana of Tabla
5.	05	08	Life Sketch			TaalParichay	PRACTICAL- Kayada no. 3 with all paltas and Tihai, Simple Tukda. Prescribed Talas- Teentala, Jhaptala. Solo Performance with Lehra in Teentala.

							THEORY- Ability to write in notation of the prescribed Talas and Composition in the Thah (Barabar), Dugun and Chaugun laya.
					Annual Curriculum Plan for Class XI Session: 2021-22 **TERM-II**		
6.	01	31	Definition	October November	Autobiography of Ustad Allah Rakha Khan	TaalParichay	**PRACTICAL**- Knowledge of Laya, Teen Taal Gat Kayada, Knowledge of playing Thekas of Keharwa, Dadra and Deepchandi with Theka Bharao. **THEORY-** Description of Sangeet, Naad and Swara
7.	02	06	Talanotation	December	Winter vacation project Based on autobiography of Pt. Anokhe Lal Mishra	TaalParichay	**PRACTICAL**- Ability to Play two Kayadas or Relas, two Chakkardar tukras or Paran one Stuti Paran, Four sadharan Tukras, in Jhaptala. **THEORY**- Classification of the Instrument.
8.	03	06	Life sketch	January		TaalParichay	**PRACTICAL**- Revision of Previous lesson is compulsory, Kayada No.4 with all Paltas and Tihai, **THEORY**- Musical Contribution of Kudau Singh Gharana of Pakhawaj.
9.	04	07	Revision	February Syllabus completed	Project based on Banaras Gharana	TaalParichay	**PRACTICAL**- Revision of all Practical Materials, and taal Practice. Accompaniment with Instrumental Music with Teentala in different Laya. **THEORY**- Ability to write Kayada or Rela, Tukra or Paran, Tukda in Teentala or Aditala, jhaptala or Sultala.
10.	05	07	Revision	March	Annual Examination		**PRACTICAL**- Prescribed Talas- Teental, Jhaptala. Solo Performance with lehra in Jhaptala. Knowledge of Playing Bedam Tihai in Prescribed Tala. **THEORY**- Ability to do Tala Notation of Compositions in Prescribed Talas.

Annual Curriculum Plan for Class XII
Session: 2021-22
SYLLABUS TRASANCTION 2021-22

SUBJECT- HINDUSTANI MUSIC (PERCUSSION INSTRUMENTAL) CODE NO-036

TERM-1

S.N.	UNIT	PERIOD	CHAPTER	EXPECTED MONTH OF COMPLETION	HOME ASSIGNMENTS AND PROJECT	TEXT BOOK OR ASSIGNMENT REFERENCE BOOK INTERNET ETC.	LESSON'S AS PER SYLLABUS PRACTICAL &THEORY
1.	01	09 (Practical) 05 (Theory)	Definition	April & May	Origin of Tabla	Taal Parichay, internet Personal Notes	**PRACTICAL-** Ability to play Theka of Rupak or Teevra, Dhamar or Adachartala on Tabla or Pakhawaj with simple elaborations. **THEORY-** Different definitions Uthan, Peshkar, Chakkardar
2.	02	09(Practical) 06 (Theory)	Laya and Layakari	July	Dugun, tigun and chaugun practice	Taal Personal Notes Parichay	**PRACTICAL-**Kayada- 2 with Palta & Tihai, Chakkardar Tukda**,** Uthan, Rela, Sadharan Tukda, Paran in Teentaal. **THEORY-** Layakari and its varieties.
3.	03	09(Practical) 07 (Theory)	History of Tabla or Pakhawaj	August	Taal notation practice	Taal Parichay Personal Notes	**PRACTICAL-** Ability to Play Teentaal Rela, with Palta and Tihai, & one simple Tukda, one sadharan Chakkardar Tukra or Paran, one Damdar Tihai and one Paran in Rupak or Teevra Tala. **THEORY-** History of Tabla or Pakhawaj
4.	04	05(Practical) 06 (Theory)		September	Practice of Taal writing notation of the prescribed Talas and Composition	Taal Parichay	**PRACTICAL-** Recitation of Prescribed talas withthah, Dugun and Chaugun laya keeping tala with Hand Beats. **THEORY-** Biographies of Pandit Kishan Maharaj and Ustad Zakir Hussain.

5.	05	09(Practical) 06(Theory)	Classification of Jatis, and LayaLayakari	October	Practice with lehra (Nagma)	Harmonium	**PRACTICAL-** A few Simple laggis in dadra, KaharwaTaal, Ability to play with Bhajan. Solo Performance of any one Tala of Choice. **THEORY** – Writing Notation of the prescribed Talas and Compositions.Taal Notation Practice.
				Annual Curriculum Plan for Class XII Session: 2021-22 **TERM-II**			
6.	01	08(Practical) 06(Theory	Comparative Study	December Pre Board	Project based on different topic for annual Practical	Taal Parichay, internet, etc	**PRACTICAL-** Ability to Play Theka Bharav in Jhaptala, Ektala, Addha, Sultala, and Chautala. One Farmaishi Chakkardar. **THEORY-** Comparative Study of the following (a)Chautala - Ektala (b)Jhaptala – Sultala (c)Teentala- Tilwada
8.	02	09(Practical) 06(Theory	Gharanas of Tabla	January winter Class	Project based on different Gharana's of Tabla	Work sheets	**PRACTICAL-** Uthaan or Peshkaar, Two advance Kayadas, one Rela, one Sadharan Tukra or Paran, one chakkardar Tukra or Paran in Teentala or Aditala **THEORY-** Brief description of Gharanas of Tabla or Pakhawaj.
9.	03	09(Practical) 06(Theory	History Of Music	February	Class test	Work sheets	**PRACTICAL-** Ability to play one advance Kayada or Rela with four paltas and Tihai, one simple Tukra, one sadharan Chakkardar Tukra or Paran one damdaar Tihai In Ektala or Chautala. **THEORY-** Brief History of Medieval and Modern Period of Hindustani Music specially in the field of percussion instruments

| 10. | 04 | 09(Practical) 06(Theory | Life Sketches Contribution towards Music | March | Board Exam | Work sheets | **PRACTICAL**- Recitationof the prescribed Talas and composition with Thah, Dugun and Chaugun keeping Tala with hand beats. **THEORY**- Silent feature of style and Biography of raja Chatrapati Singh, Pandit Pagal Das. |
| | 05 | 09(Practical) 06(Theory | Taal Notation | | | | **PRACTICAL**- Knowledge of tuning of Instrument. Solo Performance, Ability to Play Teentala, Ektala, Chautala. Prescribed Talas- Teentala or Aditala, Ektala or Chautala. **THEORY**- Recognition of Talas from given portion of the Thekas and Compositions. |

Annual Curriculum Planning (2021-22)
Subject: History
Class: XI

MONTH	TOPIC	LEARNING OBJECTIVE *Students will be able to*	SUGGESTED ACTIVITIES	ASSESSMENT	LEARNING OUTCOME *Students will be able to*	ROUND SQUARE DISCOVERY (RSD)
April	Introduction to World History					
April	**Section A: Early Societies** From the beginning of time					

April-May	Early cities – Writing and City Life	Familiarize the learner with the nature of early urban Centres. To discuss whether writing is significant as a maker of civilization.	Test of prior knowledge Make a list of all excavated sites of Mesopotamia; understand its architecture and scripts through illustrations. https://study.com/academy/lesson/mesopotamia-the-first civilization.html	Project on Making and unmaking of Mesopotamia. Make a list of all excavated sites of Mesopotamia, understand its architecture and discuss it in class. Quiz for MCQ type.	Compare and analyze the transformation from Neolithic to Bronze Age Civilization in order to understand the myriad spheres of human development. • Elucidate the interwoven social and cultural aspects of civilization in order to understand the connection between city life and culture of contemporary civilizations. • Analyze the outcomes of a sustained tradition of writing.	**Spirit of service & Environmentalism Core Skills** Critical thinking, Sense of inquiry, Self-Awareness **Interdisciplinary Linkages** Political Science, Archaeology
July	**Section B: Empires** An empire across three continents	Familiarize the learner with the history of a major world empire. • Discuss whether slavery was a significant element in the economy.	Test of prior knowledge Assume yourselves as emperors like Augustus Diocletian and Constantine and recall the works done by them.	Graphic representation of Paradigms of Greco-Roman civilization	Explain and relate the dynamics of the Roman Empire in order to understand their polity, economy, society and culture. • Analyze the implications of Roman's contacts with the subcontinent Empires • Examine the domains of cultural transformation in that Period.	**Internationalism & leadership Core Skills** Teamwork Decision Making **Interdisciplinary Link** Political Science, Science
July	Central Islamic lands	Familiarize the learner with the rise of Islamic empires in the Afro-Asian territories and its implications for economy and society. • Understand what the crusades meant in these regions and how they were experienced.	Test of prior knowledge In the given outline Map of the world, shade and mark Central Asia, Arabian Peninsula, and famous south-east Asian Islamic nations.	PPT on Relations and impacts of past crusades	Explain the relationship between livelihood patterns and the geographical condition of the area inhabited by the tribes and the nomadic pastoralists • Describe the arenas of Islam in reference to its emergence, rise of Caliphate and Empire building.	**Internationalism & leadership Core Skills** Compassion Problem Making **Interdisciplinary Linkages** Geography, Sociology and Political Science

					• Analyze the causes, events and effects of Crusades. • Examine their economic life in order to understand their connectivity with various continents. • Comprehend their learning and cultural developments in varied fields like astronomy, medicine, architecture, sufism, etc.	
	Nomadic Empires					
Aug ust	**Section C: Changing Traditions** Three orders	Familiarize the learner with the nature of the economy and society of this period and the changes within them. • Show how the debate on the decline of feudalism helps in understanding processes of transition.	Test of prior knowledge Draw a comparative life sketch of a French serf and a roman slave.	Scoring points in Debate on the decline of feudalism.	Explain the myriad aspects of feudalism with special reference to first, second, third and fourth order of the society. • Relate ancient slavery with serfdom • Assess the 14th century crisis and rise of the nation states.	**Spirit of service & Internationalism** **Core Skills** Diversity, Self-Awareness, **Interdisciplinary Linkages** Sociology, Political Science
Sept emb er	Changing cultural traditions	Explore the intellectual trends in the period. • Familiarize students with the paintings and buildings of the period. • Introduce the debate around the idea of 'Renaissance'.	Test of prior knowledge Mark important centres of learning on the map of Italy	Project on Aspirations of women in Renaissance period.	Relate the different facets of Italian cities to understand the characteristics of Renaissance Humanism and Realism. • Compare and contrast the condition of women in the Renaissance period. • Recognize major influences on the architectural, artistic, and literary developments in	**Environmentalism & Internationalism** **Core Skills** Inquisitiveness diversity Decision Making **Interdisciplinary Linkages** Sociology, Geography

					order to understand the facades of Renaissance. • Analysis on the approach of Martin Luther and Erasmus towards the Roman Catholic Church and its impact on later reforms. • Evaluate the Catholic Church's response to the Protestant Reformation in the form of the Counter Reformations.	
Oct obe r	Confrontation of cultures					
Oct obe r	**Section D: Paths to Modernization** The Industrial Revolution	Understand the nature of growth in the period and its limits. • Initiate students to the debate on the idea of industrial revolution.	Test of prior knowledge Visit to cotton textile industry (Bhiwani)	Peer assessment through worksheet on industrial growth in iron-ore, cotton textile and steam power.	Comprehend the arenas of the Industrial Revolution in Great Britain and other countries. Elucidate the technological innovations that spurred industrialization in Britain. • Analyze the social, economic, and environmental impact of the Industrial Revolution in order to understand the revolutionary and ideological transformation. • Compare and contrast the positive and negative aspects of Industrial Revolution. • Empathize for the suffering of the workers during the Industrial Revolution.	**Internationalism & Leadership Core Skills** Logical thinking, Teamwork, Problem solving **Interdisciplinary Linkages** Geography, Sociology

| Nov emb er- | Displacing indigenous People | Sensitize students to the processes of displacements that accompanied the development of America and Australia. Understand the implications of such processes for the displaced populations. | Test of prior knowledge Imagine an encounter in California in about 1880 between African slave, Chinese labour, a German miner and a native of Hopi tribe during Gold Rush era. Narrate their conversation. | Project on History of aborigines – America /Australia Debate on Impact of Colonisation on USA and process of development | Recount some aspects of the history of the native people of America to understand their condition. • To analyze the realms of settlement of Europeans in Australia and America. • Compare and contrast the lives and roles of indigenous people in these continents | **Environmentalism & Spirit of service Core Skills** Courage , self-awareness, sustainability **Interdisciplinary Linkages** Sociology, Economics, English |
| Dec emb er- | Paths to modernization | Make students aware that transformation in the modern world takes many different forms. Show how notions like 'modernization' need to be critically assessed. | Test of prior knowledge Visit to Thermal power plant (Jadli) Discussion on the Japan and China model of development | Worksheet on Paths to Modernization of Japan /China | Deduce the histories of China and Japan from the phase of imperialism to modernization • Explore the Japanese political, cultural and economic system prior to and after the Meiji Restoration. • Analyze the domains of Japanese nationalism prior and after the Second World War. • Comprehend the history of China from colonization to era of socialism. • Summarize the nationalist upsurge in China from Dr Sun Yet Sen to Mao Ze Dong to understand the era of communism. • To analyze the Chinese path to modernization under Deng Xio Ping and Zhou en Lai in order to understand the transformation from rigid | **Spirit of adventure & Democracy Core Skills** Inventiveness communication **Interdisciplinary Linkages** Sociology, Economics, Political Science |

					communism to liberal socialism.	
	Map work (units 1-11)					
	Project Work					
	TOTAL					

🟦	Activities to be conducted before chapter.
🟩	Activities related to the chapter.
🟥	Innovative Activities to be conducted during chapter.
🟧	Deleted chapters by CBSE for the session 2020-21.

Annual Curriculum Plan (2021-22)Subject: Economics, Class- XI

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
April		Ch(3)Theory of Demand Ch(4)Elasticity of demand	• To comprehended of different concepts, objectives of demand and elasticity of demand	• Multiple choice questions, HOTS, Numerical questions, Practice of concepts with the help of diagrams	• Worksheets will be given topic wise and Assignment along with numerical questions.	• Sense of Responsibility • Team work	Multiple choice questions, HOTS, Numerical questions, Practice of concepts withthe help of diagrams

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES
May	7	Ch(1)Introduction to central problems of economy Ch(2)Consumers equilibrium	• To understand principles, their nature and major contribution in management.	• Highlighting the need for having flexibility in application of principles. • Application of techniques and principles in other walks of human demand	CLASS TEST • Objective and understanding questions asked related to topic.	Focusing Systematic working	• Students are able to observe the application of principles in finding consumer's equilibrium
May	08	Ch(2) Collection of data(ST) Ch(3) Census method and sample method of collection of data (ST) Ch(4) Organization of data(ST)	• To continue principles and the business environment dimensions.	• Boys are advised to go through journals NSSO	• CLASS TEST	To have Specialization	• Students may able to describe different ways of understanding data

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES **Students will be able to:**	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES **Students are able to**
July	16 10	Ch(6) Diagrammatic Presentation of data(ST) Ch(7) Frequency diagram : Histogram ,Polygon and Ogive curve(ST)	• To comprehend plans, significance and limitations of Histogram, ogive	Worksheets will be given topic wise and Assignment along with numerical question/ Graphs/Diagrams	• Asking small case studies related to topic.	• Focusing Systematic working	• Multiple choice questions, HOTS, Numerical questions, Practice of concepts with the help of diagrams

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
August	16	Ch(9) Measures of central tendency: Arithmetic mean (ST)	• To acquaint boys with meaning, features and process of Mean.	• Latest economics changes and development examples.	• Worksheets will be given topic wise and Assignment along with numerical question/ Graphs/Diagrams	• To be Organized • To have Specialization • Learning new things	Discussions on economic issues in Classand AV room
	11	Ch (10) Measures of central tendency : Median and Mode (ST)					
September	22	Ch (5) Presentation ofdata Textual and Tabular presentation	• To comprehend meaning, process and tabular presentation	• Monitoring and control of academic activities. • Control techniques in other activities.	. Direct and objective questions with case studies given to solve through worksheet	• Measuring • Comparison	• Control is needed for judging efficiency of data collection
October /November	08 12	Producer's Behvaiour and Supply Costs	Learning the concept of cost in economics producers and differentiating between fixed and variable cost, implicit and explicit cost. Relation between different kind of costs	• Pair Learning: This strategy is particularly effective when revision needs to be undertaken before an examination. For instance, in order to revise the different equilibria studied in microeconomics – consumer, producer and market	• Revision of syllabus for • MID TERM 9th Oct to 20th Oct Revision for above Mid-Term examination	• Social Responsibility • Awareness Society • Develop Trust	• Apply the concepts of Cost in Everyday Life. Application of Fixed Costs and Variable Costs in everyday life.

December/January		• Forms of Market	To enable the students to understand the– Understand the concept of different types of market structure To compare and contrast the different features of perfect and imperfect market forms Differentiate between product differentiation and price differentiation Know about the difference in the revenue curves of perfect competition	• Assignment: Application based questions on Market Forms • Discussion on real examples of Various Market Forms	First Term Examination 25th Nov 7th Dec 2021.		Students would understand the – Concept of market and its functionality
Feb		• Price Determination	To enable students to understand Dynamics of changes in the equilibrium price and quantity Concept of rationing and minimum support price.	Assignments - Price determination and application of Index numbers. Smart Class Module- Market Equilibrium, price control Policies and Index Numbers	Wall magazine: Another way of asking children to read and present content is through a wall magazine. Again this task allows students to display their creative skills in displaying the content. It builds team spirit and makes learning enjoyable.		Students would understand the – Changes in equilibrium price and quantity due to changes in factors affecting demand and supply. Chain reaction under different situations of dynamics of equilibrium Application of price ceiling and price flooring by the Government
March		• REVISION					

VIDYA NIKETAN
BIRLA PUBLIC SCHOOL, PILANI
Annual Curriculum Plan (2021-22)Subject: Economics, Class- XII

MON THS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVER IES	LEARNING OUTCOMES Students are able to
April	25	UNIT-2 money and banking	i. money ii. Banking: commercial banks and the central bank	• news paper, magazine	• pen paper test, class response, oral questions	Focusing Systematic working	students will know the functions of money, evolution of money and functions of commercial and RBI.
May	7	UNIT-4 government budget and deficient demand	• To understand principles and their nature • budget and deficient demand • iii. Excess demand and deficient demand	• Highlighting the need for having flexibility in application of principles of budget	CLASS TEST • Objective and understanding questions asked related to topic.		students will learn how problem of excess and deficient demand can be eradicated.
May	08	balance of payments. Current challenges facing Indian Economy	• i. foreign exchange rate ii. Balance of payments #Poverty #Human CapitalFormation #Employment Growth #Infrastructure #Environment and Sustainable Develpoment	Worksheets will be given topic wise and Assignment along with numerical question/ Graphs/Diagrams	• pen paper test, class response, oral question	To have Specializati on	students will lean about bretton woods system and gold standard which were fixed for exhange rates and challenges faced by the economy.

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
July	16 10	Develpoment Experience and Economic Reforms	Indian Economy New Economic Policy(NEP)	Worksheets will be given topic wise and Assignment along with numerical question/ Graphs/Diagrams	• Asking small case studies related to topic.	• Focusing Systematic working	Students will learn how our economy went through a changing phase from Liberalisation to Privatisation andthen to Globalisation
August/Sept	27/22	determination of income and employment	i. aggregate demand and realted concepts. Ii. Income determination and multiplier	Quiz will be based on conceptual learning hence it will help students acquire knowledge in a better way	Numerical based on Multiplier	• Measuring Comparison	By the end of thetopic students will know how income is determined and the multiplier effect onincome

October /November	08 12	Producer's Behvaiour and Supply Costs	Learning the concept of cost in economics producers and differentiating between fixed and variable cost, implicit and explicit cost. Relation between different kind of costs	• Pair Learning: This strategy is particularly effective when revision needs to be undertaken before an examination. For instance, in order to revise the different equilibria studied in microeconomics – consumer, producer and market	• Revision of syllabus for • MID TERM 9th Oct to 20th Oct Revision for above Mid-Term examination	• Social Responsibility • Awareness Society • Develop Trust	• Apply the concepts of Cost in Every day Life. Application of Fixed Costs and Variable Costs in everyday life.
December/January	26	• UNIT-1 national income and related aggregates	i. circular flow of income ii. Basic concepts of macroeconomics	• Students will identify what is correct answer when given a false fact	pen paper test, class response, oral questions	• To be Organized • To have Specialization Learning new things	this topic will unearth as how income is generated and who are the key player

MONTHS	Period Req.	LESSONS /TOPICS TOBE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are ableto
Feb	24	• UNIT-1 national income and related aggregates	iii. National income andrelated aggregates iv. Measurement ofnational income	students will learn howto calculate national income	Numerical basedon all three methods	• Measuring • Comparison	By the end of the topic students will be able to calculate national income through all three methods of calculating national income.
March		• REVISION					

SUBJECT: Chemistry   Class- XI   TERM-1

Month	Lessons/Topic Covered (No. of Periods Required)	Learning Objectives Students will be able to: -	Suggested Activities	Assessments	Expected Learning Outcomes Students will be able to: -	The Round Square Discovery Framework/Art integration/activity
April/May 2021	**1.(Unit1)- Some Basic Concepts of Chemistry (**10)	• Understand and appreciate the role of chemistry in different spheres of life • Explain the characteristics of three states of matter • Classify different substances into elements, compounds and mixtures • Define SI base units and list some commonly used prefixes	• Preparation of standard solution. • Study of the use of chemical balance Preparation of dilute solutions from concentrated solutions of reagents.		• Understand and appreciate the role of chemistry in different spheres of life • Explain the characteristics of three states of matter • Classify different substances into elements,	Video showing most exciting chemistry experiments by Mr.Chris Bishop, professor at MIT https://www.youtube.com/watch?v=ti_E2ZKZpC4

		• Use scientific notations and perform simple mathematical operations on numbers • Difference between precision and accuracy • Determine significant figures • Convert physical quantities from one system of units to another • Explain various laws of chemical combination • Appreciate significance of atomic mass, average atomic mass, molecular mass and formula mass • Describe the terms-mole and molar mass • Calculate the mass percent of different elements constituting a compound • Determine empirical formula and molecular formula for a compound from the given experimental data • Perform the stoichiometric calculations			compounds and mixtures • Define SI base units and list some commonly used prefixes • Use scientific notations and perform simple mathematical operations on numbers • Difference between precision and accuracy • Determine significant figures • Convert physical quantities from one system of units to another • Explain various laws of chemical combination • Appreciate significance of atomic mass, average atomic mass, molecular mass and formula mass	

						Describe the terms-mole and molar mass	
						• Describe the terms-mole and molar mass	
						• Calculate the mass percent of different elements constituting a compound	
						• Determine empirical formula and molecular formula for a compound from the given experimental data	
						• Perform the stoichiometric calculations	
May 2021	**2.(Unit 2)-Structure of atom** (12)	• Know about discovery of electron, proton and neutron and their characteristics • Describe Thomson, Rutherford and Bohr atomic models • Understand the important features of the quantum mechanical model of atom • Understand the nature of electromagnetic	• Draw charts of the production of cathode rays and anode rays. • Power point presentation of orbits, subshells		• Know about discovery of electron, proton and neutron and their characteristics • Describe Thomson, Rutherford and Bohr atomic models • Understand the important features of the	**Art integration:** Make a model of p-orbital using balloons

		radiation Planck's quantum theory • Explain the photoelectric effect and describe features of atomic spectra • State the de Broglie relation and Heisenberg uncertainty principle • Define an atomic orbital in terms of quantum numbers • State Aufbau principle, Pauli exclusion principle and Hund's rule of maximum multiplicity • Write the electronic configurations of atoms	and orbitals.		quantum mechanical model of atom • Understand the nature of electromagnetic radiation Planck's quantum theory • Explain the photoelectric effect and describe features of atomic spectra • State the de Broglie relation and Heisenberg uncertainty principle • Define an atomic orbital in terms of quantum numbers • State Aufbau principle, Pauli exclusion principle and Hund's rule of maximum multiplicity • Write the electronic	

| July 2021 | 3.(Unit 3)- Classification of elements and Periodicity in Properties (06) | • Appreciate how the concept of grouping elements in accordance to their properties led to the development of Periodic Table
• Understand the Periodic Law
• Understand the significance of atomic number and electronic configuration as basis for periodic classification
• Name the elements with Z > 100 according to IUPAC nomenclature
• Classify elements into s, p, d, f block elements and learn their main characteristics
• Recognize the periodic trends in physical and chemical properties of elements
• Compare the reactivity of elements and correlate it with their occurrence in nature.
• Explain the relationship between ionization enthalpy and metallic character | Draw charts of Mendeleev's and modern periodic table. | | configurations of atoms

• Appreciate how the concept of grouping elements in accordance to their properties led to the development of Periodic Table
• Understand the Periodic Law
• Understand the significance of atomic number and electronic configuration as basis for periodic classification
• Name the elements with Z > 100 according to IUPAC nomenclature
• Classify elements into s, p, d, f block elements and learn their main characteristics
• Recognize the periodic trends in physical and chemical | **Art integration:**
Make a modern periodic table with the original pictures of the elements (craft work) |

		• Use scientific vocabulary appropriately to communicate ideas related to certain important properties of atoms e.g., atomic radii, ionic radii, ionization enthalpy, electron gain enthalpy. Electronegativity. Valence of elements			properties of elements • Compare the reactivity of elements and correlate it with their occurrence in nature. • Explain the relationship between ionization enthalpy and metallic character • Use scientific vocabulary appropriately to communicate ideas related to certain important properties of atoms e.g., atomic radii, ionic radii, ionization enthalpy, electron gain enthalpy. Electronegativity. Valence of elements	

| August 2021 | 4.(Unit 4)- Chemical bonding and Molecular Structure (14) | • Understand Kossel-Lewis approach to chemical bonding
• Explain the octet rule and its limitations, draw Lewis structures of simple molecules
• Explain the formation of different types of bonds
• Describe the VSEPR theory and predict the geometry of simple molecules
• Explain the valence bond approach for the formation of covalent bonds
• Predict the directional properties of covalent bonds
• Explain the different types of hybridization involving s, p and d orbitals and draw shapes of simple covalent molecules
• Describe the molecular orbital theory of homonuclear diatomic molecules
• Explain the concept hydrogen bond | • Draw chart of energy level diagram for molecular orbitals
• Power point presentation of chemical bonding and molecular orbitals . | | • Understand Kossel-Lewis approach to chemical bonding
• Explain the octet rule and its limitations, draw Lewis structures of simple molecules
• Explain the formation of different types of bonds
• Describe the VSEPR theory and predict the geometry of simple molecules
• Explain the valence bond approach for the formation of covalent bonds
• Predict the directional properties of covalent bonds
• Explain the different types of hybridization involving s, p | **Art integration**: Use of balls and sticks in making shapes of several molecules |

					and d orbitals and draw shapes of simple covalent molecules • Describe the molecular orbital theory of homonuclear diatomic molecules • Explain the concept hydrogen bond	
September-2021	5.(Unit 8) Redox reaction (04)	• Identify redox reactions as a class of reactions in which oxidation and reduction reactions occur simultaneously. • Define the terms oxidation, reduction, oxidant (Oxidizing agent) and reductant (reducing agent) • Explain mechanism of redox reactions by electron transfer process • Use the concept of oxidation number to identify oxidant and reductant in a reaction • Classify redox reaction into combination (synthesis), decomposition,	• Construction of electrochemical cells. • Construction of salt bridge. • Use of chemical balance. • Preparation of standard solution . Acid base titration.		• Identify redox reactions as a class of reactions in which oxidation and reduction reactions occur simultaneously. • Define the terms oxidation, reduction, oxidant (Oxidizing agent) and reductant (reducing agent) • Explain mechanism of redox reactions	**Art integration**: Making a electrolytic cell and showing how imitation jewellery is made

| | | displacement and disproportionation reactions
• Suggest a comparative order among various reductants and oxidants
• Balance chemical equations using (i) oxidation number (ii) half reaction method
• Learn the concept of redox reactions in terms of electrode processes. | | | by electron transfer process
• Use the concept of oxidation number to identify oxidant and reductant in a reaction
• Classify redox reaction into combination (synthesis), decomposition, displacement and disproportionation reactions
• Suggest a comparative order among various reductants and oxidants
• Balance chemical equations using (i) oxidation number (ii) half reaction method
• Learn the concept of redox reactions in terms of electrode processes. | |

| September 2021 | 6.(Unit 9) Hydrogen (04) | • Present informed opinions on the position of hydrogen in the Periodic table
• Identify the modes of occurrence and preparation of dihydrogen on a small and commercial scale; describe isotopes of hydrogen
• Explain how different elements combine with hydrogen to form ionic, molecular and non-stoichiometric compound
• Describe how an understanding of its properties of its can lead to the production of useful substances, and new technologies
• Understand the structure of water and the knowledge for explaining physical and chemical properties
• Explain how environmental water quality depends on a variety of dissolved substances; difference between hard and soft | • Set up of apparatus used in Lab. Preparation of H_2 gas

• Softening of Hard water.

• Bleaching action of H_2O_2 | | • Present informed opinions on the position of hydrogen in the Periodic table
• Identify the modes of occurrence and preparation of dihydrogen on a small and commercial scale; describe isotopes of hydrogen
• Explain how different elements combine with hydrogen to form ionic, molecular and non-stoichiometric compound
• Describe how an understanding of its properties of its can lead to the production of useful substances, and | **Art integration**: Making different patterns of Hydrogen balloons |

	water and learn about water softening • Acquire the knowledge about heavy water and its importance • Understand the structure of hydrogen peroxide, learn its preparatory methods and properties leading to the manufacture of useful chemicals and cleaning of environment • Understand and use certain terms e.g., electron-deficient, electron-precise, electron-rich, hydrogen economy, hydrogenation etc.			new technologies • Understand the structure of water and the knowledge for explaining physical and chemical properties • Explain how environmental water quality depends on a variety of dissolved substances; difference between hard and soft water and learn about water softening • Acquire the knowledge about heavy water and its importance • Understand the structure of hydrogen peroxide, learn its preparatory methods and properties leading to the manufacture of

				useful chemicals and cleaning of environment • Understand and use certain terms e.g., electron-deficient, electron-precise, electron-rich, hydrogen economy, hydrogenation etc.	

| October-November-2021 | 7.(Unit 12) Organic chemistry-some basic principles and techniques (10) | • Understand reasons for tetra valence of carbon and shapes of organic molecules
• Write structures of organic molecules in various ways
• Classify the organic compounds
• Name the compounds according to IUPAC system of nomenclature and also derive their structures from the given names
• Understand the concept of organic reaction mechanism
• Explain the influence of electronic displacements on structure and reactivity of organic compounds
• Recognize the types of organic reactions
• Learn the techniques of purification of organic compounds
• Write the chemical reactions involved in the qualitative analysis of organic compounds
• Understand the principles involved in qualitative analysis of organic compounds | • Determination of m.p. , b.p. of organic compounds
• Crystallization involving impure sample of benzoic acid.
• Separation of a mixture of blue and red ink by chromatographi
Detection of element (C, N,O, S and Halogens) in organic compounds. | | • Understand reasons for tetra valence of carbon and shapes of organic molecules
• Write structures of organic molecules in various ways
• Classify the organic compounds
• Name the compounds according to IUPAC system of nomenclature and also derive their structures from the given names
• Understand the concept of organic reaction mechanism
• Explain the influence of electronic displacements on structure and reactivity of | |

				organic compounds	
				• Recognize the types of organic reactions	
				• Learn the techniques of purification of organic compounds	
				• Write the chemical reactions involved in the qualitative analysis of organic compounds	
				• Understand the principles involved in qualitative analysis of organic compounds	

| January-2022 | 1.(Unit 5) States of matter: Gases and Liquids (09) | • Explain the existence of different states of matter in terms of balance between intermolecular forces and thermal energy of particles
• Explain the laws governing behavior of ideal gases
• Apply gas laws in various real life situations
• Explain the behavior of real gases
• Describe the conditions required for liquefaction of gases
• Realizethat there is continuity in gaseous and liquid state
• Differentiate between gaseous state and vapours
• Explain properties of liquids in terms of intermolecular attractions | • study of the determination of surface tension and viscosity .
• study of Boyle's experiment .
• Determination of m.p , b.p. and density of some substances .
• Determination of rate of evaporation of different liquids | | • Explain the existence of different states of matter in terms of balance between intermolecular forces and thermal energy of particles
• Explain the laws governing behavior of ideal gases
• Apply gas laws in various real life situations
• Explain the behavior of real gases
• Describe the conditions required for | Art integration: |

					liquefactio n of gases • Realize that there is continuity in gaseous and liquid state • Differentiat e between gaseous state and vapours • Explain properties of liquids in terms of intermolec ular attractions	
Jan uar y-202 2	2.(Unit 6) Chemical Thermodynam ics (16)	• Explain the terms: system and surroundings • Discriminate between close, open and isolated systems • Explain internal energy, work and heat • State first law of thermodynamics and express it mathematically • Calculate energy changes as work and	• Determinat ion of enthalpy of dissolution of $CuSO_4$ or KNO_3. • Determinat ion of enthalpy of neutralizati on of strong Acid and strong base,.		• Explain the terms: system and surroundin gs • Discriminat e between close, open and isolated systems • Explain internal energy,	

		heat contributions in chemical systems • Explain state functions; U, H • Correlate Δ U and Δ H • Measure experimentally Δ U and Δ H • Define standard states for Δ H • Calculate enthalpy changes for various types of reactions • State and apply Hess's law of constant heat summation • Differentiate between extensive and intensive properties • Define spontaneous and non-spontaneous processes • Explain entropy as a thermodynamic state function and apply it for spontaneity • Explain Gibbs energy change (Δ G) • Establish relationship between Δ G and spontaneity, Δ G and equilibrium constant	enthalpy change during interaction between Acetone and chloroform		work and heat • State first law of thermodynamics and express it mathematically • Calculate energy changes as work and heat contributions in chemical systems • Explain state functions; U, H • Correlate Δ U and Δ H • Measure experimentally Δ U and Δ H • Define standard states for Δ H • Calculate enthalpy changes for various	

				types of reactions • State and apply Hess's law of constant heat summation • Differentiate between extensive and intensive properties • Define spontaneous and non-spontaneous processes • Explain entropy as a thermodynamic state function and apply it for spontaneity • Explain Gibbs energy change (ΔG)	

					• Establish relationship between ΔG and spontaneity, ΔG and equilibrium constant	
February- 2022	3.(Unit 7) Equilibrium (14)	• Identify dynamic nature of equilibrium involved in physical and chemical processes • State the law of equilibrium • Explain characteristics of equilibria involved in physical and chemical processes • Write expressions for equilibrium constants • Establish a relationship between K_p and K_c • Explain various factors that affect the equilibrium state of a reaction • Classify substances as acids or bases according to Arrhenius, Bronsted-Lowry and Lewis concepts • Classify acids and bases as weak or strong in terms of their ionization constants	• Determination of pH of some solutions obtained from fruit juice, solutions of known and varied concentrations of acids, bases and salts using pH paper or universal indicator. • Comparing the pH of solutions of strong and weak acids of same concentration.		• Identify dynamic nature of equilibrium involved in physical and chemical processes • State the law of equilibrium • Explain characteristics of equilibria involved in physical and chemical processes • Write expressions for equilibrium constants • Establish a relationshi	

• Explain the dependence of degree of ionization on concentration of the electrolyte and that of the common ion • Describe pH scale representing hydrogen ion concentration • Explain ionization of water and its dual role as acid and base • Describe ionic product (K_w) and pk_w for water • Appreciate use of buffer solutions • Calculate solubility product constant	• Study the pH change in the titration of a strong base using universal indicator. • Study of pH change by common ion effect in case of weak acids and weak bases. • Demonstration of pH meter. • Study the shift in equilibrium between ferric ions and thiocyanate ions by increasing / decreasing the concentration of		p between K_p and K_c • Explain various factors that affect the equilibrium state of a reaction • Classify substances as acids or bases according to Arrhenius, Bronsted-Lowry and Lewis concepts • Classify acids and bases as weak or strong in terms of their ionization constants • Explain the dependence of degree of ionization on concentrati	

			either of the ions.		on of the electrolyte and that of the common ion • Describe pH scale representing hydrogen ion concentration • Explain ionization of water and its dual role as acid and base • Describe ionic product (K_w) and pk_w for water • Appreciate use of buffer solutions • Calculate solubility product constant	
Feb rua ry-	**4.(Unit 10)- s-block elements**	• Describe the general characteristics of alkali	• Electrolysi s of aqueous		• Describe the general characteris	

| 2022 | (05) | metals and their compounds
• Explain the general characteristics of the alkaline earth metals and their compounds
• Describe the manufacture, properties of and uses of industrially important sodium and calcium compounds including Portland cement
• Appreciate the biological significance of sodium, magnesium and calcium | NaCl solution.
• Draw charts of down's cell for the extraction of Na, plant used for the manufacturing of washing soda, Castner-kellner cell for the manufacture of caustic soda.
• Study of composition of cement and plaster of paris .
Analysis of Ca^{2+} , Sr^{2+} Ba^{2+} , Mg^{2+} ions. | | tics of alkali metals and their compounds
• Explain the general characteristics of the alkaline earth metals and their compounds
• Describe the manufacture, properties of and uses of industrially important sodium and calcium compounds including Portland cement
• Appreciate the biological significance | |

					of sodium, magnesium and calcium	
February- March 2022	5.(Unit 11) p-block elements (09)	• Appreciate the general trends in the chemistry of p-block elements • Describe the trends in physical and chemical properties of group 13 and 14 elements • Explain anomalous behavior of boron and carbon • Describe allotropic forms of carbon • Know the chemistry of some important compounds of boron, carbon and silicon • List the important uses of group 13 and 14 elements and their compounds	• Analysis of anions and cations present in salts. • Study of heating effects on Borax • Preparation of CO_2 in Lab. Draw charts on structures of diamond , graphite and fullerenes.		• Appreciate the general trends in the chemistry of p-block elements • Describe the trends in physical and chemical properties of group 13 and 14 elements • Explain anomalous behavior of boron and carbon • Describe allotropic forms of carbon • Know the chemistry of some important compounds of boron,	

					• List the important uses of group 13 and 14 elements and their compounds	
March-2022	**6.(Unit 13) Hydrocarbons (10)**	• Name hydrocarbons according to IUPAC system of nomenclature • Recognize and write the structures of isomers of alkanes, alkenes, alkynes and aromatic hydrocarbons • Learn about various methods of preparation of hydrocarbons • Distinguish between alkanes, alkynes, alkynes and aromatic hydrocarbons on the basis of physical and chemical properties • Draw and differentiate between various conformations of ethane • Appreciate the role of hydrocarbons as sources of energy and for other industrial application	• Set up of apparatus used in preparation of CH4, C_2H_4 and C_2H_2 in Lab. Study of some carcinogenic agents.		• Name hydrocarbons according to IUPAC system of nomenclature • Recognize and write the structures of isomers of alkanes, alkenes, alkynes and aromatic hydrocarbons • Learn about various methods of preparatio	

		- Predict the formation of the addition products of unsymmetrical alkenes and alkynes on the basis of electronic mechanism - Comprehend the structure of benzene, explain aromaticity and understand mechanism of electrophilic substitution reactions of benzene - Predict the directive influence of substituen's in monosubstituted benzene ring - Learn about carcinogenicity and toxicity		n of hydrocarbons - Distinguish between alkanes, alkynes, alkynes and aromatic hydrocarbons on the basis of physical and chemical properties - Draw and differentiate between various conformations of ethane - Appreciate the role of hydrocarbons as sources of energy and for other industrial application - Predict the formation of the	

					addition products of unsymmetrical alkenes and alkynes on the basis of electronic mechanism • Comprehend the structure of benzene, explain aromaticity and understand mechanism of electrophilic substitution reactions of benzene • Predict the directive influence of substituents in monosubstituted benzene ring	

				Learn about carcinogenicity and toxicity	

Months	Lessons /Topics Covered	Learning Objectives	Suggested Activities	Assessments	Expected Learning Outcomes Students are able to:
		Students will be able to:			
July No of periods: 5 No of periods: 80	**Unit 1:Introduction of Computer System** ➢Basic computer organisation: describe a computer system and mobile system, CPU, memory, hard disk, I/O, battery, power, transition from a calculator to a computer ➢Trouble shooting with parts of computer and basic operations of operating system Basic concept of Data representation: Binary, ASCII, Unicode **Unit 2: Introduction Python Programming** ➢Features of Python, Python Character Set, Token & Identifiers, Keywords, Literals, Delimiters, operators.	➢Learn basic computer Like CPU, Memory hard disk, I/o Trouble Shooting With parts of computer ➢Core Skills ➢Problem Solving ➢Decision Making	•Demonstration of computer showing different parts of CPU. Drawing Flowcharts ➢find successor and predecessor of a given number ➢find sum of two numbers ➢find average of three numbers ➢ find whether a given number is positive or negative ➢find whether a given number is even or odd ➢ print first 10 natural/whole numbers to develop infinite loop	➢Assignment ➢Computer Fundamentals ➢Data Representation ➢Software ➢Draw the block diagram of computers ➢Core Skills ➢Problem Solving ➢Decision Making ➢Utilities ➢Representing Characters in Memory ➢ISCII	➢Ability to identify the functionality of various components of Computer System. ➢Ability to develop application using simple python.

Au g.	➢Comments: (Single line & Multiline/ Continuation statements), Clarity & Simplification of expression. ➢Introduce the notion of a variable, and methods to manipulate it (concept of Lvalue and R-value even if not taught explicitly).	➢Student will be able to understand basic programs and application	➢ To find average and grade for given marks, ➢ To find amount for given cost-qty-discount, ➢ To calculate cost perimeter-wise/ area-wise, ➢ To calculate interest (Simple and Compound) ➢ To calculate profit-loss for given Cost and Sell Price ➢ To calculate EMI for Amount, Period and Interest, ➢ To calculate tax (examples from GST/Income Tax) ➢ To find the largest and smallest numbers in a list. ➢ To find the third largest number in a list. ➢ To find the sum of squares of the first 100 natural numbers	CLASS TEST Assignment Computational and Thinking Python Programming Sample Question Papers	
Sep .	➢Knowledge of data types and operators: accepting input from the console, assignment statement, expressions, operators and their precedence. ➢Operators &types: Binary operators –Arithmetic, Relational operators, Logical Operators, Augmented Assignment operators ➢Conditional statements: if, if-else, if-elif-else; simple programs: e.g.: absolute value, sort 3 numbers, and divisibility. ➢Notion of iterative computation and controlflow: for(range(), len()), while, flowcharts, suggested	➢Student will be able to write code using conditional and looping Introduction to Python modules: importing math (sqrt, ceil, floor, pow, fabs), random (random, randint, randrange), statistics (	➢To find whether a string is a palindrome or not. ➢ To compute x_n, for given two integers x and n, ➢ To compute the greatest common divisor and the least common multiple of two integers. ➢ To test if a number is equal to the sum of the cubes of its digits. Find the smallest and largest such numbers in the range of 100 to 1000.	Assignment Python Programming Discussion score in points/ Marking Scheme/ Sample Questions Problem solving Critical Thinking Decision Making	➢Ability to develop application using Conditional Statements And Looping in python.

programs: interest calculation and factorials, etc. ➢Notion of iterative computation and controlflow: for(range(), len()), while, flowcharts, suggested programs: interest calculation and factorials, etc. ➢Text handling compare, concat, and substring operations (without using string module). ➢List and dictionary: finding the maximum, minimum, mean; linear search on a list of numbers, and counting the frequency of elements in a list using a dictionary.	➢Student will be able to how to use List ,Text handling and Dictionary		CLASS TEST PRE-MID TERM **29th July-10th August**	

TERM II

Oct • No of periods: 35	**Unit 3: Data Handling** Numpy 1D array, 2D array Arrays: slices, joins, and subsets. Arithmetic operations on 2D arrays.		➢ Import numpy as `np` and print the version number. ➢ To create an array of 1D containing numeric values 0 to 9 ➢To create a numPy array with all values as True ➢ To extract all odd numbers from numPy array ➢ To extract all even numbers from numPy array ➢ To copy the content of an array A to another array B, replacing all odd numbers of array A with -1 without altering the original array A	Assignment Python Programming Discussion score in points/ Marking Scheme/ Sample Questions Problem solving Critical Thinking Decision Making	➢To learn how to use lists, tuples, and dictionaries in Python programs.

			➢ To replace all odd numbers in numPyarr with -1 ➢To copy content of a 1D array into a 2D array with 2 rows ➢ To perform basic arithmetic operations on 1D and 2D array		
Nov. No of periods: 50	**Unit 4: Data Management** Relational databases: Concept of a database, relations, attributes and tuples, keys - candidate key, primary key, alternate key, foreign key; Degree and Cardinality of a table. Use SQL - DDL/DML commands to CREATE TABLE, INSERT INTO, UPDATE TABLE, DELETE FROM, ALTER TABLE, MODIFY TABLE, DROP TABLE, keys, and foreign keys;	Introduction to Python modules: importing math (sqrt, ceil, floor, pow, fabs), random (random, randint, randrange), statistics (mean, median) modules. Student will be able to how to create a database and related sql queries	➢ To create a database ➢ To create student table with the student id, class, section, gender, name, dob, and marks as attributes where the student id is the primary key. ➢To insert the details of at least 10 student in the above table. ➢ To delete the details of a particular student in the above table. ➢ To increase marks by 5% for those students, who have Rno more than 20 ➢ To display the entire content of table on screen ➢ To display Rno, Name and Marks of those students, who are scoring marks more than 50. ➢ To find the average of marks from the student table ➢ To find the number of students, who are from section 'A' ➢ To add a new column email of appropriate data type ➢To find the minimum and maximum marks obtained by students ➢To modify email for each student.	Assignment Discussion score in points/ Marking Scheme/ Sample Questions Problem solving Critical Thinking Decision Making	Ability to store and retrieve data using an RDBMS.
Dec.	to view content of a table: SELECT-FROM-WHERE-ORDER BY alongwith BETWEEN, IN,	Student will be able to learn basic SQL programming.	➢ To display the information all the students, whose name starts with 'AN' (Examples: ANAND, ANGAD,..)	. MID TERM	Assignment Python Programming

No of periods: 10	LIKE. (Queries only on single table) Aggregate Functions : MIN , MAX, AVG, COUNT, SUM **Unit 5: Society, Law and Ethics** Cyber safety: safely browsing the web, identity protection, confidentiality, social networks, netiquettes, digital footprint, cyber trolls and bullying.	.	➢ To display Rno, Name, DOB of those students, who are born between '2005-01-01' and '2005-12-31' ➢To display Rno, Name, DOB, Marks, Email of those male students in ascending order of their names. ➢To display Rno, Gender, Name, DOB, Marks, Email in descending order of their marks.	10th -23rd October	Discussion of Scoring Points/ MarkingScheme/ Sample Questions Core Skills Problem solving Critical thinking Creative thinking Decision making Ability to learn all about cyber safety
Jan.		Revision of Above Topics		Assignment Python Programming Discussionof Scoring Points/ MarkingScheme/ Sample Questions Core Skills Problem solving Critical thinking Creative thinking Decision making	
January	Appropriate usage of social networks: spread of rumours, and common social networking sites (Twitter, LinkedIn, and Facebook) and specific usage rules. Safely accessing web sites: adware, malware, viruses, Trojans.Safely communicating data: secure connections, eavesdropping, and phishing and identity verification			Assignment Cyber security Discussion of scoring points/marking scheme Video Cyber security Networking Malware and virus	Ability to understand societal, legal and ethical aspect of technology. Ability to ensure safety and security in cyber-space.

February	Revision of above topics			**CLASS TEST**	.
March	Revision and Exam			ANNUAL EXAM 12tth – 24th March	

Subject: Computer Science
Class XI TERM 1

Months	Lessons /Topics Covered	Learning Objectives Students will be able to:	Suggested Activities	Assessments	Expected Learning Outcomes Students are able to:
July No of periods: 5 No of periods: 80	**Unit 1:Introduction of Computer System** ➢Basic computer organisation: describe a computer system and mobile system, CPU, memory, hard disk, I/O, battery, power, transition from a calculator to a computer ➢Trouble shooting with parts of computer and basic operations of operating	➢Learn basic computer Like CPU, Memory hard disk, I/o Trouble Shooting With parts of computer ➢Core Skills ➢Problem Solving ➢Decision Making	•Demonstration of computer showing different parts of CPU. Drawing Flowcharts ➢find successor and predecessor of a given number ➢find sum of two numbers ➢find average of three numbers ➢ find whether a given number is positive or negative ➢find whether a given number is even or odd ➢ print first 10 natural/whole numbers to develop infinite loop	➢Assignment ➢Computer Fundamentals ➢Data Representation ➢Software ➢Draw the block diagram of computers ➢Core Skills ➢Problem Solving ➢Decision Making ➢Utilities ➢Representing Characters in Memory ➢ISCII	➢Ability to identify the functionality of various components of Computer System. ➢Ability to develop application using simple python.

system Basic concept of Data representation: Binary, ASCII, Unicode **Unit 2: Introduction Python Programming** ➢Features of Python, Python Character Set, Token & Identifiers, Keywords, Literals, Delimiters, operators.				

Aug.	➢Comments: (Single line & Multiline/ Continuation statements), Clarity & Simplification of expression. ➢Introduce the notion of a variable, and methods to manipulate it (concept of Lvalue and R-value even if not taught explicitly).	➢Student will be able to understand basic programs and application	➢ To find average and grade for given marks, ➢ To find amount for given cost-qty-discount, ➢ To calculate cost perimeter-wise/ area-wise, ➢ To calculate interest (Simple and Compound) ➢ To calculate profit-loss for given Cost and Sell Price ➢ To calculate EMI for Amount, Period and Interest, ➢ To calculate tax (examples from GST/Income Tax) ➢ To find the largest and smallest numbers in a list. ➢ To find the third largest number in a list. ➢ To find the sum of squares of the first 100 natural numbers	CLASS TEST Assignment Computational and Thinking Python Programming Sample Question Papers	
Sep.	➢Knowledge of data types and operators: accepting input from the console, assignment statement, expressions, operators and	➢Student will be able to write code using conditional and looping Introduction to Python modules: importing math (sqrt, ceil, floor,	➢To find whether a string is a palindrome or not. ➢ To compute x_n, for given two integers x and n, ➢ To compute the greatest common divisor and the least common multiple of two integers. ➢ To test if a number is equal to the sum of the cubes of its digits. Find the smallest and largest such numbers in the range of 100 to 1000.	Assignment Python Programming Discussion score in points/ Marking Scheme/ Sample Questions Problem solving Critical Thinking Decision Making	➢Ability to develop application using Conditional Statements And Looping in python.

their precedence. ➢Operators &types: Binary operators – Arithmetic, Relational operators, Logical Operators, Augmented Assignment operators ➢Conditional statements: if, if-else, if-elif-else; simple programs: e.g.: absolute value, sort 3 numbers, and divisibility. ➢Notion of iterative computation and controlflow: for(range(), len()), while, flowcharts, suggested programs: interest calculation and factorials, etc.	pow, fabs), random (random, randint, randrange), statistics (➢Student will be able to how to use List ,Text handling and Dictionary		CLASS TEST PRE-MID TERM 29th July-10th August	

➢Notion of iterative computation and controlflow: for(range(), len()), while, flowcharts, suggested programs: interest calculation and factorials, etc. ➢Text handling compare, concat, and substring operations (without using string module). ➢List and dictionary: finding the maximum, minimum, mean; linear search on a list of numbers, and counting the frequency of elements in a list using a dictionary.				

TERM II

| Oct. No of periods: 35 | **Unit 3: Data Handling** Numpy 1D array, 2D array Arrays: slices, joins, and subsets. Arithmetic operations on 2D arrays. | | ➢ Import numpy as `np` and print the version number. ➢ To create an array of 1D containing numeric values 0 to 9 ➢ To create a numPy array with all values as True ➢ To extract all odd numbers from numPy array ➢ To extract all even numbers from numPy array ➢ To copy the content of an array A to another array B, replacing all odd numbers of array A with -1 without altering the original array A ➢ To replace all odd numbers in numPyarr with -1 ➢To copy content of a 1D array into a 2D array with 2 rows ➢ To perform basic arithmetic operations on 1D and 2D array | Assignment Python Programming Discussion score in points/ Marking Scheme/ Sample Questions Problem solving Critical Thinking Decision Making | ➢To learn how to use lists, tuples, and dictionaries in Python programs. |
| Nov. No of periods: 50 | **Unit 4: Data Management** Relational databases: Concept of a database, relations, attributes and tuples, keys - candidate key, | Introduction to Python modules: importing math (sqrt, ceil, floor, pow, fabs), random (random, randint, randrange), statistics (mean, median) modules. | ➢ To create a database ➢ To create student table with the student id, class, section, gender, name, dob, and marks as attributes where the student id is the primary key. ➢To insert the details of at least 10 student in the above table. ➢ To delete the details of a particular student in the above table. ➢ To increase marks by 5% for those students, who have Rno more than 20 ➢ To display the entire content of table on screen | Assignment Discussion score in points/ Marking Scheme/ Sample Questions Problem solving Critical Thinking Decision Making | Ability to store and retrieve data using an RDBMS. |

	primary key, alternate key, foreign key; Degree and Cardinality of a table. Use SQL - DDL/DML commands to CREATE TABLE, INSERT INTO, UPDATE TABLE, DELETE FROM, ALTER TABLE, MODIFY TABLE, DROP TABLE, keys, and foreign keys;	Student will be able to how to create a database and related sql queries	➢ To display Rno, Name and Marks of those students, who are scoring marks more than 50. ➢ To find the average of marks from the student table ➢ To find the number of students, who are from section 'A' ➢ To add a new column email of appropriate data type ➢To find the minimum and maximum marks obtained by students ➢To modify email for each student.	
Dec. No of periods: 10	to view content of a table: SELECT-FROM-WHERE-ORDER BY alongwith BETWEEN, IN, LIKE. (Queries only on single table) Aggregate Functions : MIN , MAX, AVG, COUNT, SUM **Unit 5: Society, Law and Ethics**	Student will be able to learn basic SQL programming. .	➢ To display the information all the students, whose name starts with 'AN' (Examples: ANAND, ANGAD,..) ➢ To display Rno, Name, DOB of those students, who are born between '2005-01-01' and '2005-12-31' ➢To display Rno, Name, DOB, Marks, Email of those male students in ascending order of their names. ➢ To display Rno, Gender, Name, DOB, Marks, Email in descending order of their marks.	. MID TERM 10th -23rd October	Assignment Python Programming Discussion of Scoring Points/ MarkingScheme/ Sample Questions Core Skills Problem solving Critical thinking Creative thinking Decision making Ability to learn all about cyber safety

	Cyber safety: safely browsing the web, identity protection, confidentiality, social networks, netiquettes, digital footprint, cyber trolls and bullying.				
Jan.	Revision of Above Topics			Assignment Python Programming Discussionof Scoring Points/ MarkingScheme/ Sample Questions Core Skills Problem solving Critical thinking Creative thinking Decision making	
January	Appropriate usage of social networks: spread of rumours, and common social networking sites (Twitter, LinkedIn, and Facebook) and specific usage rules. Safely accessing web sites: adware, malware, viruses, Trojans.Safely communicating data: secure			Assignment Cyber security Discussion of scoring points/marking scheme Video Cyber security Networking Malware and virus	Ability to understand societal, legal and ethical aspect of technology. Ability to ensure safety and security in cyber-space.

	connections, eavesdropping, and phishing and identity verification					
February	Revision of above topics			**CLASS TEST**	.	
March	Revision and Exam			ANNUAL EXAM 12th – 24th March		

Subject: Computer Science, Class- XII
First Term Syllabus

MON THS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVER IES	LEARNING OUTCOMES Students are able to
April To May	5	• **Revision of Class XI Python** • Flow of Control • List. • Tuple. • Sets • Dictionaries in Python .	• To comprehended of different concepts, objectives and weather it is Programming.	• Relating the work to everyday activities. • Output practices of Programms.	• Giving MCQ related to different topic.	• Sense of Responsi bility • Logical / Critical Thinking	• Boys should be able to describe different approaches towards Programming.

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
July *To* *August*	16 10	• User defined Funtions • Concepts of Lamda • Actual Parameters • Formal Parameters • Global Variable • Local Variable .	• To comprehend plans, significance and limitations of library and own created functions. • Programming using UDF	• Organizing co-curricular and extracurricular activities. • 10 yrs questions papers on the topic .	• **Asking small case studies related to topic.** • PRE-MID TERM 9th Aug to 18th Aug.	• Developments of projects	• Students can highlight the importance of Programming when limited resources are to be used for multiple objectives. • .
Sept. *To* *Oct*	16 11	• Text Files • Binary files • CSV Files.	• To acquaint boys with meaning, features and process of storing the data permanently in ASCII format, Binary Format and Comma Seprated Value Format.	• Creating Text File/ Binary Files on students data. Processing of Data. and getting the reports	**CLASS TEST** • Direct and objective questions with case studies given to solve through worksheet. • **Revision of syllabus for** • **MID TERM 9th Oct to 20th Oct** • **Revision for above Mid-Term examination**	• To be Organized • To have Specialization • Learning new things	• Boys may appreciate the role of main power in the successful launch of data files. • Student's analysis elements like Logic Development with communication, leadership skills etc.

Second Term Syllabus

MON THS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVER IES	LEARNING OUTCOMES Students are able to
October/No vember	08 12	Unit 3: Data Management ➢Write a minimal Django based web application that parses a GET and POST request, and writes thefields to a file –flat file and CSV file. ➢Interface Python with an SQL database ➢SQL commands:aggregation functions, having,groupby, order by ●	Introduction to DBMS	My SQL Revision Tour ➢ To create a database ➢ To create student table with the student id, class, section, gender, name, dob, and marks as attributes where the student id is the primary key. ➢To insert the details of at least 10 student in the above table. ➢ To delete the details of a particular student in the above table. ➢ To increase marks by 5% for those students, who have Rno more than 20 ➢ To display the entire content of table on screen ➢ To display Rno, Name and Marks of those students, who are scoring marks more than 50. ➢ To find the average of marks from the student table ➢ To find the number of students, who are from section 'A' ➢ To add a new column email of appropriate data type ➢To find the minimum and maximum marks obtained by students ➢To modify email for each student. ➢ To display the information all the students, whose name starts with 'AN' (Examples: ANAND, ANGAD,..) ➢ To display Rno, Name, DOB of those students, who are born between '2005-01-01' and '2005-12-31' ➢To display Rno, Name, DOB, Marks, Email of those male students in ascending order of their names. ➢To display Rno, Gender, Name, DOB, Marks, Email in descending order of their marks.	Assignment Discussion score in points/ Marking Scheme/ Sample Questions Problem solving Critical Thinking Decision Making **CLASS TEST** **First Term Examination 25th Nov 7th Dec 2021.**	Connect a Python program with a SQL database, and learn aggregation functions in SQL. Ability to store and retrieve data using an RDBMS.	Introduction to DBMS

MONTHS	Period Req.	LESSONS /TOPICS TO BE COVERED	LEARNING OBJECTIVES Students will be able to:	SUGGESTED ACTIVITIES	ASSESSMENTS	ROUND SQUARE DISCOVERIES	LEARNING OUTCOMES Students are able to
December/ January		• Revision and Pre-board Examination.		• Practice paper to be solved on regular basis.			
Feb		• Sorting out Problems and attempting Practice Tests. • Annual Examination Begins.		• Practice paper to be solved on regular basis	Preboard Examination 1st Feb – 15th Feb 2022		
March		• **Annual Examination Continues.** • **Practice Tests Continues.**		• Solving CBSE Sample papers for practice.	• Checking of solved sample papers. • **Second Term Examination**BEGINS	•	• Students are able to rectify their mistakes • Students can score good marks.

Subject:INFORMATICS PRACTICES
Term-1 Syllabus
Class XI

Months	*Lessons /Topics Covered*	*Learning Objectives Students will be able to:*	*Suggested Activities*	*Assessments*	*Expected Learning Outcomes Students are able to:*

July	Unit 1:Introduction of Computer System ➢Introduction to computers and computing: evolution of computing devices, components of a computer system and their interconnections, Input/Output devices ➢Computer Memory: Units of memory, types of memory – primary and secondary, data deletion, its recovery and related security concerns. ➢Software: purpose and types – system and application software, generic and specific purpose software.	➢Learn basic computer Like CPU,Memory harddisk,I/o Trouble Shooting With parts of computer ➢Core Skills ➢Problem Solving ➢Decision Making	•Demonstration of computer showing different parts of CPU. Drawing Flowcharts ➢find successor and predecessor of a given number ➢find sum of two numbers ➢find average of three numbers ➢ find whether a given number is positive or negative ➢find whether a given number is even or odd ➢ print first 10 natural/whole numbersoto develop infinite loop	➢Assignment ➢Computer Fundamentals ➢Data Representation ➢Software ➢Draw the block diagram of computers ➢Core Skills ➢Problem Solving ➢Decision Making ➢Utilities ➢Representing Characters in Memory ➢ISCII	➢Ability to identify the functionality of various components of Computer System. ➢Ability to develop application using simple python.

August	Unit 2: Introduction Python Programming ➢Features of Python, Python Character Set, Token & Identifiers, Keywords, Literals, Delimiters, operators. ➢Comments: (Single line & Multiline/ Continuation statements), Clarity & Simplification of expression. ➢Introduce the notion of a variable, and methods to manipulate it (concept of Lvalue and R-value even if not taught explicitly).	➢Student will be able to understand basic programs and application	➢ To find average and grade for given marks, ➢ To find amount for given cost-qty-discount, ➢ To calculate cost perimeter-wise/ area-wise, ➢ To calculate interest (Simple and Compound) ➢ To calculate profit-loss for given Cost and Sell Price ➢ To calculate EMI for Amount, Period and Interest, ➢ To calculate tax (examples from GST/Income Tax) ➢ To find the largest and smallest numbers in a list. ➢ To find the third largest number in a list. ➢ To find the sum of squares of the first 100 natural numbers	CLASS TEST Assignment Computational and Thinking Python Programming Sample Question Papers	
August and September	➢Knowledge of data types and operators: accepting input from the console, assignment statement, expressions, operators and their precedence. ➢Operators &types: Binary operators –Arithmetic, Relational operators, Logical Operators, Augmented Assignment operators ➢Conditional statements: if, if-else, if-elif-else; simple programs: e.g.: absolute value, sort 3 numbers, and divisibility.	➢Student will be able to write code using conditional and looping Introduction to Python modules: importing math (sqrt, ceil, floor, pow, fabs), random (random, randint, randrange), statistics (	➢To find whether a string is a palindrome or not. ➢ To compute x_n, for given two integers x and n, ➢ To compute the greatest common divisor and the least common multiple of two integers. ➢ To test if a number is equal to the sum of the cubes of its digits. Find the smallest and largest such numbers in the range of 100 to 1000.	Assignment Python Programming Discussion score in points/ Marking Scheme/ Sample Questions Problem solving Critical Thinking Decision Making	➢Ability to develop application using Conditional Statements And Looping in python.

Month	Topic	Learning Outcome		Assessment	Objective
October	➢Notion of iterative computation and controlflow: for(range(), len()), while, flowcharts, suggested programs: interest calculation and factorials, etc. ➢Notion of iterative computation and controlflow: for(range(), len()), while, flowcharts, suggested programs: interest calculation and factorials, etc. ➢Text handling compare, concat, and substring operations (without using string module). ➢List and dictionary: finding the maximum, minimum, mean; linear search on a list of numbers, and counting the frequency of elements in a list using a dictionary.	➢Student will be able to how to use List ,Text handling and Dictionary		CLASS TEST	➢To learn how to use lists, tuples, and dictionaries in Python programs.
November-December	Python program (pen and paper or Collab or any online idle or pyroid screen for mobile)			Exams	

			Term-2 Syllabus		
January	**Unit 3: Data Management** Relational databases: Concept of a database, relations, attributes and tuples, keys - candidate key, primary key, alternate key, foreign key; Degree and Cardinality of a table. Use SQL - DDL/DML commands to CREATE TABLE, INSERT INTO, UPDATE TABLE, DELETE FROM, ALTER TABLE, MODIFY TABLE, DROP TABLE, keys, and foreign keys; to view content of a table: SELECT-FROM-WHERE-ORDER BY alongwith BETWEEN, IN, LIKE. (Queries only on single table) Aggregate Functions : MIN , MAX, AVG, COUNT, SUM	Introduction to Python modules: importing math (sqrt, ceil, floor, pow, fabs), random (random, randint, randrange), statistics (mean, median) modules. Student will be able to how to create a database and related sql queries Student will be able to learn basic SQL programming.	➢ To create a database ➢ To create student table with the student id, class, section, gender, name, dob, and marks as attributes where the student id is the primary key. ➢To insert the details of at least 10 student in the above table. ➢ To delete the details of a particular student in the above table. ➢ To increase marks by 5% for those students, who have Rno more than 20 ➢ To display the entire content of table on screen ➢ To display Rno, Name and Marks of those students, who are scoring marks more than 50. ➢ To find the average of marks from the student table ➢ To find the number of students, who are from section 'A' ➢ To add a new column email of appropriate data type ➢To find the minimum and maximum marks obtained by students ➢To modify email for each student.	Assignment Discussion score in points/ Marking Scheme/ Sample Questions Problem solving Critical Thinking Decision Making	Ability to store and retrieve data using an RDBMS. Explain database concepts and Relational Database Management Systems.

February	Unit 4: Introduction to the Emerging Trends ➢ Artificial Intelligence, Machine Learning, Natural Language Processing, ➢ Immersive experience (AR, VR), Robotics ➢ Big data and its characteristics, Internet of Things (IoT), Sensors, Smart cities, ➢Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); ➢ Grid Computing, Block chain technology.			Assignment Cyber security Discussion of scoring points/marking scheme Video Cyber security Networking	. Identify the Emerging trends in the fields of Information Technology.
March	Revision and Exam			ANNUAL EXAM	

SUBJECT -I.P

Months	Lessons /Topics Covered	Learning Objectives Students will be able to:	Suggested Activities	Assessments	Expected Learning Outcomes Students are able to:
July	**Unit 1: Data Handling** **Python Pandas** ➢Introduction to Python libraries- Pandas, Matplotlib. ➢Data structures in Pandas - Series and data frames.Series ➢Creation of series from dictionary, ➢Creation of series from scalar value; ➢Creation of series from mathematical operations ➢series attributes, head and tail functions; ➢selection, indexing and slicing	Student will be able to understand basic python pandas	➢Create a panda's series from a dictionary of values and a ndarray ➢Given a Series, print all the elements that are above the 75th percentile. ➢. Create a Data Frame quarterly sales where each row contains the item category, item name,and expenditure. Group the rows by the category and print the total expenditure per category. ➢Create a data frame for examination result and display row labels, column labels data types of each column and the dimensions ➢Filter out rows based on different criteria such as duplicate rows. ➢. Importing and exporting data between pandas and CSV file ➢Use map functions to convert all negative numbers in a Data Frametothemean of all the numbers	➢Assignment ➢Computer Fundamentals ➢Data Representation ➢Software ➢Draw the block diagram of computers ➢Core Skills ➢Problem Solving ➢Decision Making ➢Utilities ➢Representing Characters in Memory	➢Ability to Understand Create a panda's series and DataFrame ➢Ability to Understand aggregation operations, descriptive statistics, and re-indexing columns in a Data Frame.. ➢Ability to Apply functions row-wise and element-wise on a Data Frame.

| August | **Python Pandas**

➢Data Frames: creation of data frames from dictionary of series

➢creation of data frames from list of dictionaries

➢creation of data frames from text/CSV, files, display, iteration

➢Operations on rows and columns add (insert /append)

➢delete (drop column and row)

➢Rename, Head and Tail functions

➢indexing using labels,

➢Boolean indexing.

Data Visualization

➢Data Visualization : Purpose of plotting, drawing and saving of plots using Matplotlib (line plot, bar graph, histogram). | Student will be able to understand basic programs and application

Student will be able to understand basic pyplot | ➢Consider a Data Frame, where each row contains the item category, item name, and expenditure.oGroup the rows by the category, and print the total expenditure per category.

➢Given a Series, print all the elements that are above the 75thpercentile.

➢Given a day'sworthof stock market data, aggregate it. Print the highest, lowest, and closingpricesof each stock

➢Given the school result data, analyses the performance of the students on different parameters,
e.g subject wise or class wise.

➢. For the Data frames created above, analyze, and plot appropriate charts with title and legend.

➢Take data of your interest from an open source (e.g. data.gov.in), aggregate and summarize it.
Then plot it using different plotting functions of the Matplotlib library. | CLASS TEST

Assignment

Computational and Thinking

Python Programming

Sample Question Papers | ➢Ability to Understand create charts such as line,bar,histogram,pie etc |

	➢Customizing plots:; adding label, title, and legend in plots				
September	**Unit 4: Societal Impacts1D** ➢Digital footprint, net and communication etiquettes, ➢Data protection, intellectual property rights (IPR), plagiarism, licensing and copyright, ➢Free and open source software (FOSS), ➢Cybercrime and cyber laws, hacking, phishing, cyber bullying, overview of Indian IT Act. ➢E-waste: hazards and management. Awareness about health concerns related to the usage of technology.	Student will be able to understand basic numpy	➢Understand the impact of technology on society including gender and disability issues.. ➢earn terminology related to networking and the internet ➢Identify internet security issues and configure browser settings	Assignment Python Programming Discussion score in points/ Marking Scheme/ Sample Questions Problem solving Critical Thinking Decision Making CLASS TEST	➢Ability to Apply Understand the impact of technology on society including gender and disability issues..

October *And* *November*	Revision of above topics And solution of sample papers Pandas Programs Practical File 15 pandas programs	Development of project in python	➢Given sample data, plot a linear regression line ➢Take data from government web sites, aggregate and summarize it. Then plot it using differentplotting functions of the PyPlot library ➢ Business use-case diagrams for an airline ticket booking system, train reservation system, stockexchange	Assignment Python Programming Discussion score in points/ Marking Scheme/ Sample Questions Problem solving Critical Thinking Decision Making	➢Ability to develop the projects in python

	Project Synopsis				
			➢ Collaboratively write a program and manage the code with a version control system (GIT)	Assignment Python Programming Discussion score in points/ Marking Scheme/ Sample Questions Problem solving Critical Thinking Decision Making	

Second Term Syallbus

January	Unit 3: Data Management Database Query using SQL ➢Math functions: POWER (), ROUND (), MOD ().	Introduction to DBMS	My SQL Revision Tour ➢ To create a database ➢ To create student table with the student id, class, section, gender, name, dob, and marks as attributes where the student id is the primary key.	Database Query using SQL ➢Math functions: POWER (), ROUND (), MOD (). ➢Text functions: UCASE ()/UPPER (), LCASE ()/LOWER (), MID	Connect a Python program with a SQL database, and learn aggregation functions in SQL. Ability to store and retrieve data using an RDBMS.

➢Text functions: UCASE ()/UPPER (), LCASE ()/LOWER (), MID ()/SUBSTRING ()/SUBSTR (), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM (). ➢ Date Functions: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME (). Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*). ➢Querying and manipulating data using Group by, Having, Order by.	➢To insert the details of at least 10 student in the above table. ➢ To delete the details of a particular student in the above table. ➢ To increase marks by 5% for those students, who have Rno more than 20 ➢ To display the entire content of table on screen ➢ To display Rno, Name and Marks of those students, who are scoring marks more than 50. ➢ To find the average of marks from the student table ➢ To find the number of students, who are from section 'A' ➢ To add a new column email of appropriate data type ➢To find the minimum and maximum marks obtained by students ➢To modify email for each student. ➢ To display the information all the students, whose name starts with 'AN' (Examples: ANAND, ANGAD,..) ➢ To display Rno, Name, DOB of those students, who are born between '2005-01-01' and '2005-12-31' ➢To display Rno, Name, DOB, Marks, Email of those male students in ascending order of their names. ➢To display Rno, Gender, Name, DOB, Marks, Email in descending order of their marks.	()/SUBSTRING ()/SUBSTR (), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM (). ➢ Date Functions: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME (). Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*). ➢Querying and manipulating data using Group by, Having, Order by. **CLASS TEST**

February	**Introduction to Computer Networks** ➢ Introduction to networks, Types of network: LAN, MAN, WAN. ➢ Network Devices: modem, hub, switch, repeater, router, gateway. ➢ Network Topologies: Star, Bus, Tree, Mesh. ➢ Introduction to Internet, URL, WWW and its applications-Web, email, Chat, VoIP. ➢ Website: Introduction, difference between a website and webpage, static vs dynamic web page, web server and hosting of a website. ➢ Web Browsers: Introduction, commonly used browsers, browser		➢Learn terminology related to networking and the internet. ➢ Identify internet security issues and configure browser settings	**CLASS TEST**	. Ability to store and retrieve data using a RDBMS.

	settings, add-ons and plug-ins, cookies				
March	Revision and Exam	Projects		ANNUAL EXAM	