

Academic Planning 2024-25

Class: XI Subject: English

Month	Name of Unit/Chapter/Topic	Time Allotted Period/Hours	Learning Outcome	Suggested Activities/Internal Assessment	Art Integrated Project	Practical	50% Competency based Assessment	Time spent -Project, Homework & Copy Correction	Exam & Syllabus
June 24	<ul style="list-style-type: none"> • The Portrait of a Lady • A Photograph • Summer of the Beautiful White Horse • Poster 	– 8 Pd. / 6 Hrs. – 3 Pd. / 2.5 Hrs. – 8 Pd. / 6 Hrs. – 3 Pd. / 2.5 Hrs. Total = 16 Hrs.	<ul style="list-style-type: none"> • Students will be able to understand the main idea of the story. • Students will be able to identify and analyse the mood of the poem based on the imagery • Students will be able to develop and organize a short play based on justice, truth and loyalty 	<ul style="list-style-type: none"> • Write a comparative essay based on the theme of the story • Write down the relevant vocabulary from the lesson. • Make a poster based on the story. 		No	<ul style="list-style-type: none"> • Write on the need for holidays in the Modern Stressful Times • Write a short description of someone you liked/like a lot • “We have been famous for our honesty for something like eleven centuries” – The narrator describes his family in these words. Write a paragraph on the possibility to remain honest in these Modern Times. 	8 Hrs.	
July 24	<ul style="list-style-type: none"> • We are not afraid to die • The Laburnum Top • Classified Advertisement • Tenses • Note Making (Part 1) 	– 8 Pd. / 6 Hrs. – 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. Total = 14 Hrs.	<ul style="list-style-type: none"> • Students will be able to know that the collective power of unity and never-failing confidence of the people can make possible to survive and come out of the danger 	<ul style="list-style-type: none"> • Compose a short poem independently. • Speak fluently and spontaneously using various tenses correctly 	<ul style="list-style-type: none"> • Find new words every day and make a Dictionary • Make a diary entry of the Day’s activities on a weekly basis 	No	<ul style="list-style-type: none"> • “Adventures make life worth living” Comment. • Explain the Theme and Symbolism in the poem “The Laburnum Top” 	8 Hrs.	<u>Periodic Test I</u> <ul style="list-style-type: none"> • All topics covered from June to July
August 24	<ul style="list-style-type: none"> • Discovering Tut • The Voice of Rain • The Address • Clauses • Speech • Comprehension • Revision 	– 8 Pd. / 6 Hrs. – 3 Pd. / 2.5 Hrs. – 6 Pd. / 4.5 Hrs. – 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. – 4 Pd. / 3 Hrs. Total = 21 Hrs.	<ul style="list-style-type: none"> • Students will be able to understand and identify the culture, elements of science & earth, archaeology and myth. 	<ul style="list-style-type: none"> • Work in groups to analyse the events of Carter’s discovery 	<ul style="list-style-type: none"> • Prepare a speech on the topic “JUSTICE DELAYED IS JUSTICE DENIED” 	No	<ul style="list-style-type: none"> • Discuss the suitability of the title “Discovering Tut” • What does the poet do to turn Rain into a living entity? • Justify the title of the story “The Address” 	8 Hrs.	
September 24	<ul style="list-style-type: none"> • Silk Road • Childhood • Determiners • Clauses • Note Making (Part 2) • Debate • Speech 	– 8 Pd. / 6 Hrs. – 6 Pd. / 4.5 Hrs. – 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. Total = 20 Hrs.	<ul style="list-style-type: none"> • Students will be able to understand the transmitted cultural exchange including theatrical performance, dance and music arts. 	<ul style="list-style-type: none"> • Referring to the poem – Give reasons for liking/disliking of the poem 		No	<ul style="list-style-type: none"> • Discuss the accounts of exotic places in Legends and in reality • Why does the child refer to Heaven & Hell? 	8 Hrs.	<u>Term I</u> <ul style="list-style-type: none"> • All topics covered from June to September

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October 24	<ul style="list-style-type: none"> • Mother's Day • Father to Son • Debate • Poster • Comprehension • Classified Advertisement • 	– 8 Pd. / 6 Hrs. – 8 Pd. / 6 Hrs. – 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. Total = 20 Hrs.	<ul style="list-style-type: none"> • Students will be able to understand the real concept of Love, Respect & Obedience towards their parents. 	<ul style="list-style-type: none"> • Conduct a Role-play based on the theme of the play • Organise a debate on a current issue topic 		No	<ul style="list-style-type: none"> • What is the difference between Mrs. Pearson & Mrs. Fitzgerald? How do they complement each other? • Dwell on the theme of the poem "Father to Son" 	8 Hrs.	
November 24	<ul style="list-style-type: none"> • The Tale of Melon City • The Adventure • Birth • Subject Verb Agreement • Revision 	– 8 Pd. / 6 Hrs. – 8 Pd. / 6 Hrs. – 8 Pd. / 6 Hrs. – 3 Pd. / 2.5 Hrs. – 4 Pd. / 3 Hrs. Total = 23 Hrs.	<ul style="list-style-type: none"> • Students will be able to write descriptive passage on literature, appreciating linguistic and literary features 	<ul style="list-style-type: none"> • Compose own poem based on the theme – "Satire on people in power" 		No	<ul style="list-style-type: none"> • Narrate the "Tale of Melon City" on one's own words highlighting the message. • How did Rajendra Deshpande explain Gangadhar Pant's experience • What qualities enabled Andrew Manson to help the Morgan Family? 	8 Hrs.	
December 24	<ul style="list-style-type: none"> • Direct-Indirect Speech • Letter to the editor • Active/Passive Voice • Speech 	– 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. Total = 8 Hrs.	<ul style="list-style-type: none"> • Students will be able to understand the difference between Direct & Indirect Speech 	<ul style="list-style-type: none"> • Write a letter to the editor on a current issue/event 		No	<ul style="list-style-type: none"> • Write a speech on the topic "Growing Violence in Today's World" 	8 Hrs.	Periodic Test II <ul style="list-style-type: none"> • All topics covered from October to December
January 25	<ul style="list-style-type: none"> • Classified Advertisement • Debate • Speech • Reading Comprehension • Viva • Revision 	– 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. – 3 Pd. / 2.5 Hrs. – 6 Pd. / 4.5 Hrs. – 6 Pd. / 4.5 Hrs. – 6 Pd. / 4.5 Hrs. Total = 18 Hrs.	<ul style="list-style-type: none"> • Students will be able to analyse the different perspectives on current event/issue 	<ul style="list-style-type: none"> • Write a speech on a current issue / event 		No	<ul style="list-style-type: none"> • "Social media is a curse in a large population like ours". Write a debate - for/against the motion. 	8 Hrs.	

NAME OF THE SUBJECT TEACHER: Mr. Solomon Richards

SIGNATURE OF THE SUBJECT COORDINATOR:

CARMEL CONVENT SR SEC SCHOOL,RATANPUR
YEAR PLANNER 2024-2025

CLASS: XI

SUB: HINDI CORE [302]

MONTH	NAME OF THE UNIT / CHAPTER AND SUB TOPICS	TIME ALLOTTED FOR EACH UNIT	LEARNING OUTCOMES	SUGGESTED ACTIVITIES/ INTERNAL ASSESSMENT(SEA &MT)/ INCLUSIVE ACTIVITY(WEEKLY)	ART INTEGRATED ACTIVITY/ART INTEGRATED PROJECT	PRACTICALS	ASSESSMENT(INCLUDE 50% COMPETENCY BASED ASSESSMENT)	TIME SPENT FOR PROJECT AND HOMEWORK
April	गद्य: नमक का दरोगा	5	विद्यार्थी कहानी की घटनाओं को समाज की वर्तमान स्थिति से जोड़कर स्पष्ट कर सकेंगे।	कहानी में वर्णित नैतिक मूल्यों को उदाहरण देकर स्पष्ट कीजिए।	कहानी में घटित किसी प्रसंग विशेष को लघु नाटिका के रूप में प्रस्तुत कीजिए।		पाठधारित गद्यांश पर आधारित प्रश्न-उत्तर	5
	अभिव्यक्ति और माध्यम: *जनसंचार माध्यम *पत्रकारिता के विविध आयाम	10	विद्यार्थी संचार तथा पत्रकारिता के विविध प्रकारों को समझ कर दैनिक जीवन से संबंध कर सकेंगे	अपने प्रिय समाचार पत्र/ पत्रिका के बारे में लगभग 100 शब्दों में टिप्पणी लिखिए। क्या आपको लगता है कि आपका पसंदीदा समाचार पत्र/ पत्रिका आपको सूचना, शिक्षा और मनोरंजन प्रदान करते हैं?	इंटरनेट पत्रकारिता ने दुनिया को किस प्रकार समेट लिया है पीपीटी के माध्यम से समझाइए।		लघु प्रश्नावली	4

JUNE	गद्य: मियां नसीरुद्दीन	5	विद्यार्थी हिंदी के साथ-साथ अन्य भाषाओं को भी सीखने का प्रयास करते हुए उनकी प्रकृति और अंतर संबंधों के प्रति जागरूक बन सकेंगे।	पाठ में प्रयुक्त प्रादेशिक एवं विदेशी शब्दों का चयन कर उनका स्रोत बताइए।	किसी क्षेत्रीय कलाकार का साक्षात्कार लेते हुए कला विशेष के विषय में विस्तृत जानकारी दीजिए।	बूझो तो जानें	3
	पद्य : कबीर	6	कविता के गठन और संरचना में आवश्यक तत्व, छंद के प्रकार और नियमों को समझ सकेंगे।	भक्ति काल के प्रमुख कवियों के नाम एवं उनकी प्रमुख रचनाओं का उल्लेख कीजिए।	कबीर के पदों को लयबद्ध कर कक्षा में सुनाइए।	द्रुत वाचन	3
	अभिव्यक्ति माध्यम: *डायरी लेखन *कथा पटकथा	और 8	विद्यार्थी डायरी लेखन विधा के माध्यम से अपनी स्मृतियों को सहज सकेंगे।	पटकथा लिखने समय किन-किन बातों का ध्यान रखना जरूरी है?		डायरी लेखन	2

JULY	गद्य; विदाई संभाषण	5	व्यंग्यात्मक भाषा-शैली के प्रयोग को समझते हुए लघु कथा अथवा कविता को लेखन कर सकेंगे।	वर्तमान हालात को चित्रित करती हास्य-व्यंग्य शैली में एक कहानी लिखिए।	कविता 'घर की याद' में चित्रित शब्द-चित्र को रंगों की सहायता से पोस्टर पर चित्रित कीजिए।	प्रथम त्रैमासिक परीक्षा	1
	पद्य: * मीरा के पद	5	कविता पढ़कर उसके शब्द चित्रण में सक्षम हो सकेंगे।	मीरा के पदों का काव्य-सौंदर्य स्पष्ट कीजिए।		सार लेखन	3
	* घर की याद	6	स्वतंत्रता सेनानियों की मानसिक पीड़ा से अवगत हो सकेंगे।	क्या कभी ऐसा हुआ है कि आपको किसी कारणवश घर से दूर रहना पड़ा हो? अपने अनुभवों को कक्षा में मित्रों के साथ साझा कीजिए।		लघु प्रश्नोत्तरी एवं विस्तृत चर्चा	2.5
	अभिव्यक्ति और माध्यम: *कार्यालयी लेखन और प्रक्रिया *स्ववृत्त लेखन और रोजगार संबंधी आवेदन-पत्र	8	कार्यालय लेखन की कला सीख कर अपने व्यावहारिक जीवन में उसका उपयोग कर सकेंगे।		विद्यालय की किसी विशेष बैठक के अवसर पर कार्य-सूची एवं कार्यवृत्त तैयार कीजिए।		

AUGUST	पद्य: चंपा काले- काले अक्षर नहीं चीन्हती	5	शिक्षा के महत्व को समझते हुए समाज में शिक्षा के प्रसार में सहायक बन सकेंगे।	अपने किसी निकटवर्ती गांव में जाकर साक्षरता के आंकड़े एकत्र कीजिए और बताइए कि सरकार के द्वारा साक्षरता के प्रसार हेतु कौन-कौन-सी सुविधाएं प्रदान की गई हैं ?	समाज की किसी समस्या पर एकल अभिनय कीजिए।	विस्तृत चर्चा	3
	वितान : भारतीय गायिकाओं में बेजोड़ ;लता मंगेशकर	10	सुगम संगीत एवं शास्त्रीय संगीत के अंतर को समझ सकेंगे। सतत अभ्यास के महत्व को समझेंगे।	'स्वप्न में लता जी से मेरी मुलाकात' विषय पर एक अनुच्छेद लिखिए।	कक्षा में रुचि के अनुसार सुगम संगीत अथवा शास्त्रीय संगीत सभा का आयोजन कीजिए।	पाठधारित गद्यांश पर आधारित प्रश्नोत्तरी।	5
	अभिव्यक्ति और माध्यम : *शब्दकोश, संदर्भ ग्रंथों की उपयोगी विधि और परिचय *अनुच्छेद लेखन	4	विद्यार्थी शब्दकोश एवं संदर्भ ग्रंथ के माध्यम से अपने भाषा- ज्ञान को समृद्ध कर सकेंगे।		नवीन शब्दों के निर्माण पर आधारित वर्ग-पहेली बनाइए।	लघु प्रश्नोत्तरी	2

SEPTEMBER	<p>पद्य : गज़ल</p> <p>अर्धवार्षिक परीक्षा</p>	4	<p>गज़ल की सामाजिक सार्थकता पर तर्क-वितर्क कर सकेंगे।</p> <p>अर्धवार्षिक परीक्षा</p>	<p>गज़ल और गीत में क्या अंतर है? उदाहरण देकर स्पष्ट कीजिए।</p> <p>अर्धवार्षिक परीक्षा</p>	<p>किसी प्रसिद्ध शायर की सुंदर गज़ल लिखिए।</p> <p>अर्धवार्षिक परीक्षा</p>	<p>सुस्पष्ट वाचन</p> <p>अर्धवार्षिक परीक्षा</p>	<p>1</p> <p>3</p>
OCTOBER	<p>गद्य: *गलता लोहा</p> <p>* रजनी</p> <p>पद्य: *हे भूख ! मत मचल</p> <p>*हे मेरेजूही के फूल जैसे ईश्वर</p>	<p>6</p> <p>6</p> <p>6</p>	<p>अन्याय के विरुद्ध खड़े होना सीखेंगे।</p> <p>विविध क्षेत्रों में विधिक व्यवसाय में प्रयुक्त होने वाली शब्दावली के विषय में जानेंगे और उसका उपयोग प्रयोग कर सकेंगे।</p> <p>अहंकार का त्याग एवं इंद्रिय नियंत्रण जैसे महत्वपूर्ण गुण को समझकर आत्मसात कर सकेंगे।</p>	<p>'जातिगत आधार पर व्यवसाय का चयन किस प्रकार देश के विकास में बाधक है' विषय पर विस्तृत चर्चा कीजिए।</p> <p>भक्ति काल के प्रमुख रचनाकारों के विषय में जानकारी एकत्र कर पीटी बनाइए।</p>	<p>'समाज में दिनों दिन बढ़ती ट्यूशन वृत्ति की समस्या' पर आधारित लघु फिल्म बनाइए।</p> <p>पद की संगीतमय प्रस्तुति कीजिए।</p>	<p>समस्या समाधान प्रश्नावली</p> <p>पटकथा लेखन</p>	<p>2</p> <p>5</p> <p>2</p>

NOVEMBER	गद्य : जामुन का पेड़	6	विद्यार्थी पाठ में आए विभिन्न विभागों के नाम तथा उनकी कार्यशैली से परिचित हो सकेंगे।	पाठ में प्रयुक्त सभी तकनीकी शब्दों को चुनकर लिखिए एवं उनके अर्थ जानिए।	विश्व भर में पाए जाने वाले कुछ अनोखे फलों के बारे में सचित्र जानकारी एकत्र कर कलात्मक संग्रह का निर्माण कीजिए।	तकनीकी शब्दावली का प्रयोग	6
	पद्य: सबसे खतरनाक	8	विद्यार्थी मानव जीवन के लिए सबसे खतरनाक परिस्थितियों को समझ सकेंगे।			परिचय देना	2
	वितान: राजस्थान की रजत बूंदें	10	विद्यार्थी राजस्थान जैसे सूखे क्षेत्र में जल की समस्या को समझेंगे तथा जल संरक्षण के लिए सबको प्रेरित कर सकेंगे।	जल संकट पर एक पोस्टर बनाकर जल संरक्षण का संदेशनारे के रूप में लिखिए।	तालों की नगरी भोपाल के प्रसिद्ध बड़े तालाब का आकर्षक छायाचित्र लेकर विद्यालय की कला दीर्घा में लगाइए।	तात्कालिक भाषण	4

DECEMBER	गद्य :भारत माता	4	विद्यार्थी भारत माता के सही अर्थों को समझ कर एकता के सूत्र में बँध सकेंगे।	भारत के मानचित्र पर सभी प्रदेशों को दर्शाते हुए वहाँ की जनसंख्या के आँकड़े भी लिखिए।	अपनी कलापुस्तिका में विशेष पर्व पर बनाए जाने वाले मांडने का रेखाचित्र तैयार कीजिए।	वाद विवाद	4
	पद्य : आओ मिलकर बचाएं	6	विद्यार्थी आधुनिकता की दौड़ में लुप्त होती संस्कृति के संरक्षण हेतु संकल्पबद्ध हो सकेंगे।	किसी आदिवासी समाज के पारंपरिक सामाजिक एवं सांस्कृतिक छवि को दिखलाता हुआ वृत्त चित्र बनाइए।		बूझो तो जाने	2
	वितान :आलो आँधारि	7.5	बेबी हालदार के जीवन से संघर्ष की प्रेरणा ले सकेंगे।	प्रमुख महिला रचनाकारों एवं उनके प्रमुख कृतियों के नाम लिखिए।	आपके घर में कार्य करने वाली घरेलू सहायिका से बातचीत कर उसके जीवन और परिवार के विषय में जानकारी एकत्र कीजिए।		3
	द्वितीय त्रैमासिक परीक्षा					द्वितीय त्रैमासिक परीक्षा	

JANUARY	पाठ्यक्रम की पुनरावृत्ति वार्षिक प्रायोगिक परीक्षा		पुनरावृत्ति	पाठ्यक्रम की पुनरावृत्ति			वार्षिक प्रायोगिक परीक्षा	
FEBRUAR Y	वार्षिक परीक्षा						वार्षिक परीक्षा	
MARCH								
	Total Teaching Time	140.5 hrs					Total Non Teaching Time	69.5 hrs

Total Teaching Hours : 140.5 + 69.5 = 210 Hrs

NAME OF INCHARGE TEACHERS: SUNITA BHATNAGAR

SIGNATURE OF SUBJECT CO-ORDINATOR:

SIGNATURE OF PRINCIPAL:

	<p>Complex Numbers and Quadratic Equations 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</p>		Extends the idea of real numbers to a larger system of complex numbers.				
AUGUST	<p>Linear Inequalities Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line</p> <p>Permutations and Combinations Fundamental principle of counting. Factorial n. ($n!$) Permutations and combinations, derivation of Formulae for ${}^n P_r$ and ${}^n C_r$ and their connections, simple applications.</p> <p>Binomial Theorem Historical perspective, statement and proof of the binomial theorem for positive integral indices. Pascal's triangle, simple applications.</p>	18	<p>Demonstrates strategies for solving systems of linear inequalities. Applies the ideas of permutations and combinations to daily life situations of arranging and grouping the objects. Develops the idea of Binomial theorem For a positive integral index from the earlier learnt concept of finding squares and cubes of binomials.</p>	<p>2. To verify the graph of the given inequality and representation on half plane</p> <p>3. To find the number of ways in which three cards can be selected from given five cards</p> <p>4. To construct a Pascal's triangle and to write binomial expansion for a given positive integral exponent</p>	CBQ SHEET PPT	WORK	8
Sept.	<p>Sequence and Series Sequence and Series. 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</p>	9	Extends the ideas related to Arithmetic progressions learnt	5. To demonstrate that the arithmetic mean of two	WORK SHEET TERM 1		12

	mean (G.M.), relation between A.M. and G.M.		earlier to new types of sequences and their series.	different positive numbers is always greater than Geometric mean.		
OCT.	<p>Straight Lines 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, Distance of a point from a line.</p> <p>Conic Sections Sections of a cone: circles, ellipse, parabola, hyperbola, a point, a straight line and a pair of intersecting lines as a degenerated case of a conic section. Standard equations and simple properties of parabola, ellipse and hyperbola. Standard equation of a circle</p>	24	Constructs different forms of a straight line using the earlier learnt concepts of coordinate geometry. Analyses different curves like circles, ellipses, parabolas and hyperbolas based on the ideas developed for straight lines using coordinates.		EXTRA QUESTIONS CBQ	10
NOV.	<p>Introduction to Three dimensional Geometry Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points.</p> <p>Limits and Derivatives Derivative introduced as rate of change both as that of distance function and geometrically. Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions. Definition of derivative relate it to slope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trigonometric functions.</p>	38	<p>Develops strategies of locating a point In three dimensions based on the concepts of two dimensional coordinate geometry.</p> <p>Evolves the concepts of limit and derivative of a function by analyzing the behaviour of</p>		MCQ CBQ WORK SHEET	6

	<p>Statistics Measures of Dispersion: Range, Mean deviation, variance and standard deviation of ungrouped/grouped data.</p>		<p>functions when the corresponding variable approaches a certain value. Applies Measures of dispersion to get a better interpretation of data of different daily life situations.</p>			
DEC.	<p>Probability Events; occurrence of events, 'not', 'and' and 'or' events, exhaustive events, mutually exclusive events, Axiomatic (set theoretic) probability, connections with other theories of earlier classes. Probability of an event, probability of 'not', 'and' and 'or' events.</p>	12	<p>Builds up the axiomatic approach to Probability through the terms, random experiment, Sample space, events etc.</p>		<p>WORK SHEET CBQ PT2</p>	10
JAN.	FULL SYLLABUS				FINAL EXAM	8

NAME OF INCHARGE TEACHER: Mrs. Anamika Chugh
Mr. Nikhilesh Puraswani

SIGNATURE OF SUBJECT CORDINATOR

SIGNATURE OF PRINCIPAL

ACADEMIC PLAN: 2024-25
CARMEL CONVENT SR SEC SCHOOL, RATANPUR, BHOPAL. STD: XI -B
SUBJECT: BIOLOGY

Month	Name of the Unit / Chapter/Topic	Time for each unit	Learning Outcomes	Practicals	Assignment 50% competency based	Time spent on project & homework
APRIL	The Living World Biological Classification Plant Kingdom	30hrs	knowledge, understanding, application, skills Salient features and classification of plants into major groups	Study and describe locally available common flowering plants. Parts of a compound microscope Specimens/slides/models	Written test Lab activity Quiz Oral questioning	6 hrs
JUNE	Animal Kingdom Morphology of Flowering Plants	20 hrs	Understand problems associated with classification of organisms. describe different types of flowers.	Preparation and study of T.S. of dicot and monocot roots and stems	Interactive method Students will be asked to revise the work done in class	5 hrs
JULY	Anatomy of Flowering Plants Structural Organisation in Animals	20hrs	Understand and differentiate between meristematic and permanent tissues. Structure & function of frog	Virtual specimens/slides/models. by potato osmometer plasmolysis	Oral test Written test PT-1	7 hrs
AUGUST	Cell: The Unit of Life Biomolecules Cell Cycle and Cell Division	27 hrs	understand the structure of carbohydrates, proteins, nucleic acid enzymes and catalytic activity.	types of inflorescence. distribution of stomata	Random questioning of different types,	5 hrs
SEPTEMBER	REVISION Half yearly exams	3 hrs	critical thinking and problem solving, assertion – reasoning and case study solving ability		Discussion of question –answers Half yearly exams	3 hrs

ACADEMIC PLAN: 2024-25
CARMEL CONVENT SR SEC SCHOOL, RATANPUR, BHOPAL. STD: XI -B
SUBJECT: BIOLOGY

OCTOBER	Breathing and Exchange of Gases. Body Fluids and Circulation Photosynthesis in Higher Plants	20hrs	All the components of human circulatory system Differentiate between C3 and C4 cycle Mechanism of chemiosmosis for ATP synthesis	Mitosis in onion root tip cells	sharing of ideas and information to advance scientific understanding, processes, theories and discoveries	5 hrs
NOVEMBER	Excretory Products and their Elimination Locomotion and Movement Respiration in Plants	20hrs	All the types of movement Mechanism of muscle contraction Mechanism of glycolysis and Krebs's cycle	Test for the presence of sugar, starch, proteins and fats	Written test Lab activity Oral questioning	5 hrs
DECEMBER	Neural Control and Coordination. Chemical Coordination and Integration Plant Growth and Development	13hrs	Mechanism of generation and conduction of nerve impulse plant growth and physiological activity of plant hormones during its development		Random questioning of different types PT-2	5 hrs
JANUARY	FINAL PRACTICAL EXAM				FINAL PRACTICAL EXAM	6 hrs
FEBRUARY	REVISION FINAL EXAM					3 hrs

NAME OF THE SUBJECT TEACHER: Neeru and Shampa
SIGNATURE OF THE SUBJECT COORDINATOR: Dr. NEERU THAKUR

ACADEMIC YEAR PLAN : 2024-25

Name of the Subject : Physics (Code No. 042) Course Structure Part -1

Class: XI A & B

Month	Name of the Unit / Topics	Time Allotted for each unit	Learning Outcomes	Suggested Activities / Projects under internal assessment/ Inclusive activity (weekly)	Art Integrated Activity/ Project	Practicals	Assessment (Include 50% competency based assessment)	Time spent for project and Homework
JUNE (18)	Kinematics Frame of reference, Motion in a straight line: Position-time graph, speed and velocity. Elementary concepts of differentiation and integration for describing motion. Uniform and nonuniform Motion, average speed and instantaneous velocity. Uniformly accelerated motion, velocity Time and position-time graphs. Relations for uniformly accelerated motion (graphical treatment).	18(12h)	Students will be able to--- *understand Frame of reference *discuss motion in a straight line *Plot Position-time graph, speed and velocity.velocity -time and position-time graphs. *understand elementary concepts of differentiation and integration for describing motion. *differentiate Uniform and nonuniform Motion, average speed and instantaneous velocity. understand uniformly accelerated motion *derive relations for uniformly accelerated motion (graphical treatment).	*Worksheets *Short answer type questions *Numericals based on each topic *Competency based questions *Practical based questions	Activity : 1) Make a flow chart of types of motion.	EXP.: 1) To measure diameter of a small spherical/cylindrical body and to measure internal diameter and depth of a given beaker/calorimeter using Vernier Callipers and hence find its volume.	Class test * MCQs * Assertion-Reasoning *Question-Answers	7h
JULY (06)	Motion in a plane Scalar and vector quantities; Position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by a real number; addition and subtraction of Vectors. Relative velocity. Unit vector; Resolution of a vector in a plane - rectangular components. Scalar And Vector product of vectors. Motion in a plane. Cases of uniform velocity and uniform acceleration-projectile motion. Uniform circular motion.	6(4h)	Students will be able to--- * Understand scalar and vector quantities; Position and displacement vectors, general vectors and their notations, unit vector, zero vector equality of vectors *Do multiplication of vectors by a real number; addition and subtraction of Vectors. *understand relative velocity. * resolve a vector in a plane - rectangular components. * DoScalar and Vector product of vectors. *understand Motion in a plane. Cases of uniform velocity and uniform acceleration-projectile motion. *understand Uniform circular motion.	2) Make a concept map of Vector. *WorksheetsWorksheets *Short answer type questions *Numericals based on each topic *Competency based questions *Practical based questions.	Activity: 1) Check the Change in direction of total velocity of an object at different points on trajectory.	EXP.: 2) To measure diameter of a given wire and thickness of a given sheet using screw gauge	PT-1 * MCQs *Assertion-Reasoning *Question-Answers *Numericals	8h
AUGUST (14)	Laws of Motion Intuitive concept of force. Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion. Law of conservation of linear momentum and its applications. Equilibrium of concurrent forces .	14(9.3h)	Students will be able to---- *understand intuitive concept of force. Inertia, *explain Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion. *discuss law of conservation of linear momentum and its applications. * understand equilibrium of concurrent forces.	*Worksheets *Short answer type questions *Numericals based on each topic *Competency based questions *Practical based questions	Activities: 1) Activities based on Newton's laws of motion---1st law -wusing card,coin and glass,2nd law-heavier and lighter balls falling on sand, 3rd law-activity with two straw 2) Activity showing impulse momentum theorem(put a sand slowly and then through stone on sand- impressions are different.	EXP.: 3) To find the weight of a given body using parallelogram lawof vectors.	Class test Worksheet	8h

SEPTEMBER	Static and kinetic friction, laws of friction, rolling friction, lubrication. Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a Level circular road, vehicle on banked road).	4(2.6h)	Students will be able to-- differentiate static and kinetic friction, *prove laws of friction, rolling friction, *understand dynamics of uniform circular motion *understand the concept of centripetal force and they will discuss examples of circular motion (vehicle on a Level circular road, vehicle on banked road).	*Worksheets *Short answer type questions *Numericals based on each topic *Competency based questions *Practical based questions	Activity.:1)Examples showing direction of centripetal and centrifugal force.	EXP: 4) To study the relationship between force of limiting friction and normal reaction and to find the coefficient of friction between a block and a horizontal surface.	TERM-1 * MCQs *Assertion-Reasoning *Question-Answers Numericals	5.5h
OCTOBER (14)	Work, Energy and Power Work done by a constant force and a variable force; kinetic energy, work-energy theorem, power. Notion of potential energy, potential energy of a spring, conservative forces, non-conservative forces: motion in a vertical circle; elastic and inelastic collisions in one and two dimensions.	14(9.33h)	Students will be able to-- *derive work done by a constant force and a variable force *define kinetic energy *derive work-energy theorem, power. *Notion of potential energy, potential energy of a spring, conservative forces: non-conservative forces: *understand motion in a vertical circle *understand elastic and inelastic collisions in one and two dimensions.	2) Demonstration to show collision in one dimension and its different cases. *Worksheets *Short answer type questions *Numericals based on each topic *Competency based questions *Practical based questions	Activities: 1) Activity to show total energy of a system remains constant throughout the motion.		Competency based questions	8h
NOVEMBER (18)	Motion of System of Particles and Rigid Body Centre of mass of a two-particle system, momentum conservation and centre of mass motion. Centre of mass of a rigid body; centre of mass of a uniform rod. Moment of a force, torque, angular momentum, laws of conservation of angular momentum and its applications. Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions. Moment of inertia, radius of gyration. Values of moments of inertia for simple geometrical objects (no derivation).	18(12h)	Students will be able to-- *understand centre of mass of a two-particle system, *understand momentum conservation and centre of mass motion. *discuss Centre of mass of a rigid body; centre of mass of a uniform rod. Moment of a force, torque, angular momentum *understand laws of conservation of angular momentum and its applications. *understand the concept of equilibrium of rigid bodies, rigid body rotation and equations of rotational motion *compare of linear and rotational motions. *understand the moment of inertia, radius of gyration. *derive values of moments of inertia, for simple geometrical objects (no derivation).	*Worksheets *Short answer type questions *Numericals based on each topic *Competency based questions *Practical based	Activities: 1) Virtual lab activity: Find out the values torque, moment of inertia and angular momentum for the following values of angular velocities= 1,2,2,3for positions 1,2,3,4 2) Balancing of scale to explain torque concept. 3) Balancing of scale on fingers to explain concept of centre of mass.	Act (1). To make a paper scale of given least count, e.g., 0.2,0.5cm Act (2). To measure the force of limiting friction for rolling of a roller on a horizontal plane. Act (3). To study the conservation of energy of a ball rolling down on an inclined plane (using a double inclined plane).	Numericals worksheet	8h
DECEMBER (12)	Gravitation Keplar's laws of planetary motionThe universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth. Gravitational potential energy and gravitational potential. Escape velocity. Orbital velocity of a Satellite.	12(8h)	Students will be able to ---- Discuss Keplar's laws of planetary motion *State Universal law of gravitation. *derive acceleration due to gravity and its variation with altitude and depth. *understand gravitational potential energy and gravitational potential. *define and derive expression of escape velocity and Orbital velocity of a Satellite.	*Worksheets *Short answer type questions *Numericals based on each topic *Competency based questions			PT-2 * MCQs *Assertion-Reasoning *Question-Answers Numericals	6h
JANUARY	Chapterwise		Revision				TERM-2	1.5h

FEBRUARY	<i>Full syllabus</i>							
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CARMEL CONVENT SR SEC SCHOOL,RATANPUR, YEAR PLANNER:2024-25

CLASS : XI

SUBJECT: PHYSICS PART 2

MONT H	NAME OF THE UNIT / CHAPTER AND SUB TOPICS	TIME ALLOT TED FOR EACH UNIT	LEARNING OUTCOMES	PRACTICALS	ASSESSME NT(INCLUD E 50% COMPETE NCY BASED ASSESSME NT)	TIME SPENT FOR PROJECT AND HOMEWOR K
JUNE	UNITS & MEASUREMENT : Units of measurement; systems of units; SI units, fundamental and derived units. significant figures. Dimensions of physical quantities, dimensional analysis and its applications.	8	Enumerates the International system of base and supplementary units. Estimates precise experimental results using significant figures and rounding off the final results. Identifies and applies the concept of dimensions, dimensional formulae and dimensional analysis techniques to write, validate and derive correct physical equations. Identifies and applies the concept of dimensions, dimensional formulae and dimensional analysis techniques to write, validate and derive correct physical equations.		MCQ NUMERICALS WORK SHEETS	4.6
JULY	ELASTICITY : Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity (qualitative idea only), Poisson's ratio; elastic energy.		Differentiates between rigid, elastic and plastic bodies. Explains elastic behaviour in solids. Describes and explains different types of stresses and corresponding strains produced in a body. Describes elastic moduli of various bodies with different materials, elastic behaviours and shape. Explains and derives elastic potential energy stored in a stretched wire	EXP)To find the force constant of a helical spring by plotting a graph between load and extension.	PROJECTS ART INTEGRATED MODELS. WORK SHEET. PT1	10
AUGU ST	MECHANICAL PROPERTIES OF MATTER:	20.4	Defines fluids and explains pressure experienced in fluids. Explains the effect of	EXP)To determine the coefficient of	CBQ WORK SHEET	5

CARMEL CONVENT SR SEC SCHOOL,RATANPUR, YEAR PLANNER:2024-25

CLASS : XI

SUBJECT: PHYSICS PART 2

	Pascal's law and its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure. Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, critical velocity, Bernoulli's theorem and its simple applications. Surface energy and surface tension, angle of contact, excess of pressure across a curved surface, application of surface tension ideas to drops, bubbles and capillary rise.		gravity on fluid pressure. Describes and explains hydraulic machines based on Pascal's law. Explains the properties, laws and mathematical equations followed during fluid flow. Explains the viscosity of fluids in terms of fluid friction. Explains surface tension as surface property of liquids only.	viscosity of a given viscous liquid by measuring terminal velocity of a given spherical body. ACT)To study the effect of detergent on surface tension of water by observing capillary rise..		
SEPTEMBER	THERMAL PROPERTIES OF MATTER: Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; Cp, Cv - calorimetry; change of state - latent heat capacity. Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law		Explains and differentiates between heat and temperature of a body. Explains thermal expansion in substances and identifies linear, superficial and cubical expansions. Defines heat capacity and specific heat capacity of a substance and states its importance in amount of heat exchanged by a body to change its temperature. Explains the process of change of state and describes the heat exchanges during the process. Explains the mechanisms of heat transfers from one body to another through conduction, convection and radiation .	. ACT)To note the change in level of liquid in a container on heating and interpret the observations	PROJECT WORK SHEET TERM 1	5
OCTOBER	Thermal equilibrium and definition of temperature zeroth law of thermodynamics, heat, work and internal energy. THERMODYNAMICS First law of thermodynamics, Second law of thermodynamics: gaseous state of matter, change of condition of gaseous state -	10	States and explains Zeroth law of thermodynamics. Describes and explains the three important thermodynamic variables as heat, internal energy and work done.States and explains first law of thermodynamics. Describes and explains specific heat capacity and molar specific heat of matter .States and explains second law of thermodynamics. s	ACT)To observe and explain the effect of heating on a bi-metallic strip.	WORK SHEET. CBQ	5

CARMEL CONVENT SR SEC SCHOOL,RATANPUR, YEAR PLANNER:2024-25

CLASS : XI

SUBJECT: PHYSICS PART 2

	<p>isothermal, adiabatic, reversible, irreversible, and cyclic processes Equation of state of a perfect gas, work done in compressing a gas.</p> <p>KINETIC THEORY OF GASES - assumptions, concept of pressure. Kinetic interpretation of temperature; rms speed of gas molecules; degrees of freedom, law of equipartition of energy (statement only) and application to specific heat capacities of gases; concept of mean free path, Avogadro's number. concept of mean free path , Avogadro's number.</p>	6	<p>postulates and describes the properties of different states of matter. postulates and describes the properties of different states of matter. States kinetic theory of gases and uses the theory to explain the pressure exerted by gas molecules and its temperature. States and explains the law of equipartition of energies for gas molecules with varying degrees of freedom. Defines mean free path of gas molecules based on kinetic theory of gases.</p>			
NOVEMBER	<p>SIMPLE HARMONIC MOTION:</p> <p>time period, frequency, displacement as a function of time, periodic functions and their application. Simple harmonic motion (S.H.M) and its equations of motion; phase; oscillations of a loaded spring- restoring</p>	22	<p>Describes periodic and oscillatory motion using common examples and states suitable equations of motion. States the equations governing the displacement, velocity and acceleration of a body in simple harmonic motion. Explains the energy and the force law of the body in SHM. identifies few examples of</p>		<p>WORK SHEET & CBQ WORK SHEET</p>	

CARMEL CONVENT SR SEC SCHOOL,RATANPUR, YEAR PLANNER:2024-25

CLASS : XI

SUBJECT: PHYSICS PART 2

	force and force constant; energy in S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for its time period.		bodies in SHM and derives their equations of motion and time period			
DECEMBER	WAVES: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats.		Describes the concept of wave motion with examples. Explains the characteristics of transverse and longitudinal wave motions with examples. 6.States the principle of superposition of mechanical waves and derives the equations of resultant wave. Describes the reflection of progressive waves from rigid and non rigid boundaries. Defines and explains standing waves produced due to reflection of waves by two boundaries. Demonstrates and explains the formation of beats due to superposition of sound waves of slightly different frequencies.	EXP)To study the relation between frequency and length of a given wire under constant tension using Sonometer. EXP)To find the speed of sound in air at room temperature using a resonance tube by two resonance positions	WORK SHEET CBQ PT2	5
JANUARY	FULL SYLLABUS				FINAL EXAM	

JUNE	<p>Some Basic Concepts of Chemistry(contd.) Chemical reactions, Stoichiometry and calculations based on stoichiometry</p> <p>CHAPTER-3 Classification of Elements and Periodicity in Properties Significance of classification, brief history of the development of periodic table, modern periodic law and the present form of periodic table,</p>	5hrs	Students will be able to do stoichiometric calculations of chemical equations to determine the quantities of reactants and products, limiting reagent problems, and enthalpies of reactions	Titration	NCERT based Worksheet	5hrs
July	periodic trends in properties of elements - atomic radii, ionic radii, inert gas radii, Ionization enthalpy, electron gain enthalpy, electronegativity, valency. Nomenclature of elements with atomic number greater than 100.	10hrs	<p>The students will be able to</p> <ol style="list-style-type: none"> 1. Understand about the periodic classification of elements 2. Cherish with the essentials of Mendeleev and Modern periodic table 3. Classify the elements into different blocks viz. s,p,d,f and get a detailed idea of their general characteristics 4. Know about the periodic properties viz. Ionisation enthalpy, electron gain enthalpy. 5. Electronegativity, ionic and atomic radii and their variations in the given form of the periodic table 6. Correlate various elements and their physical properties 	Titration	Worksheet PT- 1(Ch. 1, 2 & 3)	4hrs

	<p>CHAPTER-8 Redox reactions Concept of oxidation and reduction, redox reactions, oxidation number, balancing redox reactions, in terms of loss and gain of electrons and change in oxidation number, applications of redox reactions.</p>	<p>10hrs</p>	<p>in the periodic table Students will gain an understanding of: a. the fundamental properties of atoms, molecules, and the various states of matter with an emphasis on the particulate nature of matter b. fundamental atomic structure and the periodicity of elements in the periodic table</p> <p>The students will be able to 1. Electronic concept of oxidation and reduction 2. Basic principles involved in redox reactions 3. Mechanism of electron transfer involved in redox reactions 4. Calculation of oxidation numbers in terms of electron transfer 5. Various kinds of reactions in terms of redox reaction 6. Balancing of redox reactions using i) oxidation number method ii) half reaction method</p>			
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	<p>CHAPTER-4 Chemical Bonding and Molecular Structure Valence electrons, ionic bond, covalent bond, bond parameters, Lewis structure, polar character of covalent bond, covalent character of ionic bond, valence bond theory, resonance, geometry of covalent molecules, VSEPR theory</p>	<p>10hrs</p>	<p>The students will be able to</p> <ol style="list-style-type: none"> 1. Understand the different approaches to types of chemical bonding 2. Explain the rules to write the Lewis structures of simple molecules and the limitations involved 3. Calculate the formal charge of atoms present in the Lewis structures which will give an idea of actual shapes of molecules 4. Explain the Bond parameters viz., Bond angle, Bond length, Bond enthalpy and Bond order which would give a complete knowledge of electronic concept of structures of the molecules 5. Describe the VSEPR theory and its significance in predicting the anomalous change in geometry of molecules due to different kinds of electronic interaction. 			
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August	<p><u>CHAPTER-2</u> Structure of Atom (contd.) Discovery of Electron, Proton and Neutron, atomic number, isotopes and isobars. Thomson's model and its limitations. Rutherford's model and its limitations, Bohr's model and its limitations, concept of shells and subshells, dual nature of matter and light, de Broglie's relationship, Heisenberg uncertainty principle</p> <p>Chemical Bonding and Molecular Structure(contd.) Concept of hybridization, involving s, p and d orbitals and shapes of some simple molecules, molecular orbital theory of homonuclear diatomic molecules(qualitative idea only), Hydrogen bond.</p> <p><u>CHAPTER-12</u> Organic Chemistry - Some Basic Principles and Techniques Classification and IUPAC nomenclature of organic compounds. Electronic displacements in a covalent bond: inductive effect, electromeric effect, resonance and hyper conjugation.</p>	8hrs		Salt Analysis	Competency based Worksheet	10hrs
		10hrs	<p>6. Give an account of VB theory that predicts the geometry of molecules in terms of the concept of hybridization</p> <p>7. Explain the concept of resonance</p> <p>Describe the concept of hydrogen bonding</p>			
		8hrs	<p>The students will be able to</p> <p>1. Interpret the structure of molecules in different ways</p> <p>2. Classify and give the nomenclature of organic compounds in trivial and IUPAC system.</p> <p>3. Explain about different types of isomerism exhibited by organic compounds</p>			

			4. Bring out the effect of electronic displacements on structure and reactivity of organic compounds			
September	homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions	2hrs			TERM-1	4hrs
October	<p>CHAPTER-12 Organic Chemistry - Some Basic Principles and Techniques(contd.) General introduction, methods of purification, qualitative and quantitative analysis</p> <p>Thermodynamics Concepts of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions. First law of thermodynamics - internal energy and enthalpy, heat capacity and specific heat, measurement of U and H, Hess's law of constant</p>	10 hrs	Students will be able to 5. Understand the methods of purification of organic compounds 6. Explain in detail the qualitative and quantitative aspects of organic compounds.	Salt analysis	Worksheet Make flowchart for conversion of organic compounds	8hrs
		10 hrs	The students will be able to understand 1. The concept of System and surroundings in thermodynamics and their types 2. First law of thermodynamics in terms of internal energy, work and heat.			

	<p>heat summation, enthalpy of bond dissociation, combustion, formation, atomization, sublimation, phase transition, ionization, solution and dilution. Second law of Thermodynamics (brief introduction)</p>		<p>3.Relationship between internal energy and enthalpy changes and the formulation of Hess's law 4.Intensive and Extensive properties of a system 5.Different types of enthalpy changes involved in terms of Hess's law Students will be able to 5.Understand the methods of purification of organic compounds 6.Explain in detail the qualitative and quantitative aspects of organic compounds.</p>			
November	<p>Thermodynamics(contd.) Introduction of entropy as a state function, Gibb's energy change for spontaneous and non- spontaneous processes, criteria for equilibrium. Third law of thermodynamics (brief introduction).</p> <p>CHAPTER-13 Hydrocarbons Classification of</p>	<p>10 hrs</p> <p>10hrs</p>	<p>Students will be able to – understand Gibbs free energy, entropy and the concept of spontaneity</p> <p>The students will be able to 1.Name the</p>	<p>Element Detection</p>	<p>Numerical based worksheet</p> <p>Competency based Worksheet</p>	<p>9hrs</p>

	<p>Hydrocarbons Aliphatic Hydrocarbons: Alkanes - Nomenclature, isomerism, conformation (ethane only), physical properties, chemical reactions including free radical mechanism of halogenation, combustion and pyrolysis. Alkenes - Nomenclature, structure of double bond (ethene), geometrical isomerism, physical properties, methods of preparation, chemical reactions: addition of hydrogen, halogen, water, hydrogen halides (Markovnikov's addition and peroxide effect), ozonolysis, oxidation, mechanism of electrophilic addition.</p>		<p>different kinds of hydrocarbons according to common and IUPAC nomenclature 2. Identify and write the structures of isomers of aliphatic and aromatic hydrocarbons 3. Know different forms arise due to free rotation of C-C bond in alkanes (conformers) 4. Discuss on Preparations and Properties of alkanes, alkenes, alkynes and arenes 5. Define Geometrical isomers (cis-trans) arising due to the restricted rotation about C=C</p>			
December	<p>CHAPTER-7 Equilibrium Equilibrium in physical and chemical processes, dynamic nature of equilibrium, law of mass action, equilibrium constant, factors affecting equilibrium - Le Chatelier's principle ionic equilibrium ionization of acids and bases, strong and weak</p>	14hrs	<p>The students will be able to 1. Understand the equilibria existing between different states of matter 2. Explain the characteristics of chemical equilibrium and equilibrium constant 3. Bring out the relationship</p>	Salt analysis	<p>FIND PH OF DIFFERENT LIQUIDS Project work</p>	4hrs

	<p>electrolytes, degree of ionization, ionization of poly basic acids, acid strength, concept of pH</p> <p>Hydrocarbons(contd.) Alkynes - Nomenclature, structure of triple bond (ethyne), physical properties, methods of preparation, chemical reactions: acidic character of alkynes, addition reaction of - hydrogen, halogens, hydrogen halides and water. Aromatic Hydrocarbons: Introduction, IUPAC nomenclature, benzene: resonance, aromaticity</p>	8hrs	<p>between equilibrium constants at different conditions</p> <p>4. Classify substances as acids and bases on the basis of different theories</p> <p>Students will be able to-</p> <p>*Discuss on Preparations and Properties of alkynes and arenes</p> <p>*Reason out the acidic nature of alkynes.</p> <p>6. Explain resonance and extra stability of benzene</p>			
January	<p>Equilibrium(contd.) Hydrolysis of salts (elementary idea), buffer solution, Henderson Equation, solubility product, common ion effect (with illustrative examples).</p> <p>Hydrocarbons(contd.) Chemical properties: mechanism of electrophilic substitution. Nitration, sulphonation, halogenation, Friedel Craft's alkylation and acylation, directive influence of functional group in</p>	<p>6hrs</p> <p>2hrs</p>	<p>Students will be able to</p> <p>5. Explain different important concepts of equilibrium viz., pH scale, ionic product of water, common ion effect, buffer solution</p> <p>6. Understand and calculate solubility product</p> <p>7. Solve problems pertaining to this chapter</p> <p>Students will be able to-</p> <p>7. Describe directive influence of functional groups</p>		Worksheet	7hrs

	monosubstituted benzene. Carcinogenicity and toxicity		on the aromatic ring system. 8.Explain Carcinogenicity and Toxicity in aromatic hydrocarbons		Final Exam (Full Syllabus)	
February					Final Exam (Full Syllabus)	

Subject Teachers:

Mrs Bindu Dalal

Dr. Pragati Vijay.

Subject coordinator:

Mrs Bindu Dalal

MONT H	NAME OF THE UNIT / CHAPTER AND SUB TOPICS	TIM E ALL OTT ED FOR EAC H UNIT	LEARNING OUTCOMES	PRACTICALS	ASSESSMENT(IN CLUDE 50% COMPETENCY BASED ASSESSMENT)	TIME SPENT FOR PROJECT AND HOMEWORK
JUNE	Unit 1: COMPUTER SYSTEM OVERVIEW - Data Representation Programming and Computational Thinking :Familiarization with the basics of programming i.e. process of writing a program, running it and print statements. <ul style="list-style-type: none"> The notion of a variable and methods to manipulate it. Knowledge of data-types and operators: accepting input from the console, assignments, expressions and their procedures Conditional statements : if, if-else, if-elif-else Idea of debbuging: errors and exceptions: break points Data representation Conversions from among the four number systems 	10	Intellectual Skills: learners must be able to understand the concept in depth to acquire the highest learning outcomes.Gaining knowledge is the basic learning outcome expected from a student. Students will be able to. Write and test conditional expressions using comparison ...	Interest calculation, sort 3 numbers, divisibility factorials	When would you prefer nested if/else statements over elif?	15
JULY	List manipulation: <ul style="list-style-type: none"> creating and accessing List operations working with lists List functions and Methods Tuples <ul style="list-style-type: none"> Creating and accessing tuples 	10	Both List and Tuple is sequential arrangement of data. Student understands how to use less variables and process more data.	Find the output of the code based on list and tuples.....which is given?	Why are tuples and lists called immutable and mutable data types in Python?	20

	<ul style="list-style-type: none"> • Tuple operations • Tuple function and methods 		Learning outcome is to assign multiple values to a single variable and to keep it safe as tuple is immutable			
August	<p>Dictionaries</p> <ul style="list-style-type: none"> • Dictionary:-key:value pair • Working with dictionaries • Dictionary functions and methods <p>Boolean Logic:</p> <ul style="list-style-type: none"> • Binary valued quantities • basic logic gates • basic postualtes • Principle of duality • Basic theorems of Boolean Algebra • DeMorgan's theorem • Simplifying a Boolean expression • More about Logic gates 	30	<p>Learning outcome is...without using index numbers how to access values using a key....thus handling data which is randomly arranged.</p> <p>Learning outcome is the processing of data in the form of 0 and 1. Working of electronic circuit boards.</p>	How to create a dictionary and how does it get differentiated with lists and tuples	How dictionary is relevant to the real world? How do you add key:value pair to an existing dictionary?	10
September	<p>String Manipulation:</p> <ul style="list-style-type: none"> • Traversing a string • String operators • string slices • string functions and methods <p>Data Management</p> <ul style="list-style-type: none"> • Relational Databases • Simple queries in SQL • MYSQL functions • Table creation and data manipulation commands • Table Joins and Indexes in SQL • Basics of NOSQL Database 	20	<p>think & act “out of the box”</p> <p>* Project work : problems related to String, Number manipulation * Memory Game: A number guessing game with application containing randomly generated numbers in pairs hidden inside boxes. (similar type of games for project in a group of 2-4 students) *</p>	Programming Problem in Python to be developed and tested in computer during lab activity period: * Testing on the basis of : Logic,Documentation/ Identification and Output presentation Creating multiple databases	How are string internally stored? Can a string value be edited? How and what are different terminologies used in MySQL?	20

October	<ul style="list-style-type: none"> • Databases in MySQL • Creating tables <p>Understanding sorting:</p> <ul style="list-style-type: none"> • What is sorting • Bubble sort • Insertion Sort <p>Cyber Safty :</p> <ul style="list-style-type: none"> • What is Cyber Safty? • Safely browsing the web • Identity Protection while using internet • Confidentiality of Information • Cybercrime • Common Social networking sites • Appropriate usage of Social networks 	20	<p>Student learn how to make presentation based on research : It will be a group presentation based on a detailed study of at least two technology inventions in the field of information technology, which may include Inventor's name with country, out of box contributions year of invention, characteristics, social impact and uses.</p>	<p>Using List and implementing different Sorting techniques</p> <p>What makes your online identity?</p> <p>What is private browsing/</p>	<p>How is SELECT different from print of Python?</p>	15
November	<p>Online Access and Computer Security</p> <ul style="list-style-type: none"> • threats to Computer Security <ul style="list-style-type: none"> ○ Computer viruses ○ Spyware ○ adware ○ spamming ○ PC Intrusion ○ Eavesdropping ○ Phishing and Pharming ○ Cookies 	5	<p>Students learning outcome will be motor skill development which deals with improving a student's ability to plan & take appropriate action in terms of their physicality. They must work towards their mental health & social presence.</p>	<p>What is Digital Foot print?</p> <p>Explain : Cyber Bullying Cyber Stalking What you should do – the Usage Rules of Internet</p>	<p>Project: ART Integrated Workbook with minimum 20 programs</p>	10
December	<ul style="list-style-type: none"> • Solutins to Computer Security Threats <ul style="list-style-type: none"> ○ Solutions to Spyware, Adware and Viruses ○ Solutins to spam, Eavesdropping ○ Solution to PC intrusion 	5	<p>Students must be able to gather and pass on valuable information to others. So, in this learning outcome, students are supposed to create a value system of</p>	<p>What should your response be if you receive an email stating that you have won a lottery or</p>	<p>Presentation on :</p> <ul style="list-style-type: none"> • firewall • Cookies • Strong Password • Phishing 	10

	<ul style="list-style-type: none"> • Firewall – An important Solution for Computer Security 		knowledge by first gaining it & then sharing it with the world.	received some inheritance from an unknown person?	<ul style="list-style-type: none"> • Spyware 	
January	FULL SYLLABUS				FINAL EXAM	10

NAME OF INCHARGE TEACHERS: Lata Iyer

SIGNATURE OF SUBJECT CORDINATOR:

SIGNATURE OF PRINCIPAL: