Syllabus For the Session 2020-21

Class - XII (Biology)

Month	Days	Periodic Test 1	Periodic Test 2	Half yearly	Final Exam	Period	Chapter's Name	Sub-Topic	Learning Objective	Experiment	Experiential Learning
MARCH	21	10	2	1	1	3	chapter-1 Reproduction in Organisms	Reproduction, modes of reproduction	• To define Reproduction and explain it as a vital process of life. • Explain the modes of asexual reproduction with examples	Study of their reproductive parts of unisexual and bisexual flowers. Study fruits and seeds of any common fruit (e.g. legume) at different stages of development.	* Students will use this information in horticulture, floriculture & gardening.They will know about which type of plants pollinated by which type of species like as it is self or cross.
		10	2	9	6	12	chapter-2 Sexual Reproduction in Flowering Plants	Development of male and female gametophytes	Describe the structure of flower & explain about the male and female gametes.	Study pollen germination on a slide. To study/Observe the Flowers adapted to pollination by different agencies (wind, insects, birds).	* Students will learns edible part of fruits & seeds. * Students will applied Parthenocarpy in Banana cropping.
								Pollination	Explain the adaptations of flowers for pollination		
								Pre& Post Fertilization Events	•Describe the pre & post-fertilization changes in a flower.		
		10	3	9	5	12	chapter-3 Human Reproduction 1/2	Male and female reproductive system	• Explain the main organs of male and female	Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice).	* They will also know about contraception * Students will learns about Reproductive * They will learn the use of Sanitary * They will educate to other people about it.
						12		Menstrual cycle	• To explain the cyclic changes that takes place in the		
									• Discuss the events takes place during fertilization and		
									•Explain the process of parturition and lactation in human females.		
APRIL	21						Human Reproduction 1/2	Fertilisation & embryo development Pregnancy & Parturition, Lactation	• To discuss sexually transmitted infections in adolescents, and to discuss the various contraceptive methods.	To study Mendelian inheritance using seeds of different colour/sizes of any plant.	* Students will learn about genetic peidegree diseases & chromosomal disorder. *They will examine in their family history.
		10	3	3	2	3	Ch-4, Reproductive Health	Sexually Transmitted Diseases Methods of Birth Control	Discuss various types of assisted reproductive technologies: IVF,AI,GIFT etc.		
		15	10	7	15		Chapter-5 Principles of Inheritance and Variation 1/2	Mendelian Inheritance	Explain laws given by Mendel and discuss his contribution in the field of genetics		
								Incomplete & Co-Dominance	Describe the concept of Dominance by the help of		
								Chromosome theory of inheritance	Explain the chromosomal theory of inheritance .		
								Linkage, Crossing Over	• Explain the mechanism of linkage and Recombination.		
								Sex determination	• Elaborate mechanism sex determination in Insects,		
									• Analyse the pedigree chart and answer the questions		
									• Discuss the mendelian disorders and their pattern of inheritance.		
MAY	23						Principles of Inheritance and Variation 1/2	Pedigree Analysis Mendelian disorder in humans DNA Structure	•The students will be able to explain structure of DNA	Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc. Prepare a temporary mount of onion root tip to study mitosis.	* Students will learn about DNA by which they will know about their genetic inheritance & mutations.
		15	10	7	15		Ch-6,Molecular basis of inheritance	DNA as genetic material	•Explain various experiments conducted to find the molecular		
								DNA Replication	•Describe the mechanism of DNA Replication		
								Transcripion	•Explain the process of transcription		
								Translation	•Describe the synthesis of proteins from RNA		
								Genetic Code	•To explain the relationship between the sequence of		
								Human Genome project	•Describe about Human Genome Project & DNA		
								DNA fingerprinting	•Explain the steps involved in DNA Fingerprinting & its		
JUNE	5						Ch-7,Evolution	Origin of life	•The students will be able to explain the historical views of origin of life.		* Students will observe about evolution. *They will observe their surroundings & evidence of evolution.
				6	4	10		Theories of evolution	•To explain the Bing Bang theory, theory of spontaneous generation, chemical evolution, theory of Natural		
								Evidences of evolution	•Discuss the various evidences of evolution: -Divergent evolution &		
								Mechanism of evolution	•Mechanism of Evolution (Single Step Mutation-Saltation).		
								Hardy - Weinberg's principle	•To explain the Hardy –Weinberg Principle and the five		
JULY	26						Evolution	Human evolution	•To give a brief account of evolution (evolution of plant forms through geological periods). •Discuss the Origin and evolution of human bygiving a comparison of the skulls of adult modern human being	Study Common disease causing organisms like Ascaris, Entamoeba, Plasmodium, Roundworm through	*Students will learn about different types of disease symptoms & precautions. * They will examine their old family members disease symptoms & suggest them.
							Chapter-8	Parasites causing human diseases	• Learn the pathogens involved in causing the common diseases		
								mode of transmission	• Explain the mode of transmission of various diseases.		
		10	5	10			Human Health and Diseases	Basic concepts of immunology	• Explain the concept of innate and acquired immunity		
AUGUST	20						Chapter-9 Stratergies for enhancement in Food Production	Improvement in food production	• The students will be able to define terms like animal		
								Plant breeding	Explain in brief the role of animal husbandry in human		
								Tissue culture	• Learn the Importance of tissue culture techniques in further enhancing food production.		
				2	4	10		Role of Plant Breeding	• Describe the role of Plant Breeding for disease resistance,resistance to insect Pests ,food Quality, Biofortification ,breeding crops with higher levels of vitamins and or, higher proteins and healthier fats.		*They will also use microbes in making human welfare like as in curd and dough making etc.
				10	5	10	Ch-10,microbes in human welfare	Role of Microbes	•To explain the Role of microbes in Household Products, Industrial Products and Sewage Treatment		

Month								Chapter	Topic	Objective	Activity	Learning Outcome
					5	15		Ch-11,Biotechnology - Principles and Processes	Recombinant DNA technology	• To help the students know and understand basic facts and concepts related to biotechnology.		
									Tools of Recombinant DNA technology	• To identify and describe the tools of DNA technology.		
									Steps of Recombinant DNA technology	• To explain the basic processes and techniques used in biotechnology		

Fist Term Exam

SEPTEMBER

Month							Chapter	Topic	Objective	Activity	Learning Outcome
OCTOBER	23				5	15	Ch-12,Biotechnology and its Application	Application of Biotechnology	• Explain the application of Biotechnology in the field of agriculture, medicine etc.	Study the plant population density by quadrat method.	*They will learn about Biotechnology application & use it in crop breeding improvement programmes.
								Human insulin and vaccine production		Study the plant population frequency by quadrat method.	
								Genetically modified organisms	• Define terms like GMOs ,Bt cotton, transgenic animals, biopiracy etc.		
								Bio safety issues	•Describe about the ethical issues related to the application of Biotechnology.		
					6	10	Ch-13,Organisms and Populations	Habitat and niche	• Describe and distinguish patterns of dispersion of individuals in a population.		
								Population and ecological adaptations	Describe changes in population growth in an ecosystem		
								Population interactions	explain the various abiotic and biotic factors and their effect		*Students will learn about Biodiversity and variations by which they will applied to save it's conservation by suitable ways.
								Population attributes	• Describe about the different aspects related to population like population density, population growth, population interactions etc		
NOVEMBER	20				5	10	Ch-14,Ecosystem	Compnents of Ecosystem	• Explain the structure and function of ecosystem		*They will visit in Biosphere reserve's, national parks and wildlife sanctuary.
								Decomposition	• Explain the different steps in the process of decomposition	Collect water from two different water bodies around you and study them for pH, clarity and presence of any living organism.	
								Energy flow	• Ilustrate the energy flow in Ecosystem.	Study the presence of suspended pariculate matter in air at two widely differents sites.	
								Ecological pyramids	• Describe the ecological pyramides of number and		
					1	5	Ch-15, Biodiversity & Conservation	nutrient cycles	• Describe about the various nutrient cycles like carbon cycle,phosphorus cycle etc.		*Students will know about the importance of populations and ecosystem.
								patterns of biodiversity	• The students will be able to explain the different types of diversity, patterns of biodiversity		
									• Describe about the causes of biodiversity losses		
								biodiversity conservation	• Discuss the ways to conserve the biodiversity		
								Hotspots	• Explain the Biodiversity hotspots and importance of species diversity to the ecosystem.		
November					2	5	Ch-16,Environmental Issues	Air pollution	• The students will be able to define terms like electrostatic precipitator, effluents, biochemical oxygen demand etc.		*Students will also know about pollution by which they will not pollute to their surroundings.
								water pollution	• Describe about the waste water treatment, agrochemicals		
								climate change	• Discuss the reasons behing the climate change and global warming.		

Curriculum For English-XII- 2020-21..

Month & Teaching days	Book	Chap.	Topic	Learning Outcome	Subject Enrichment Activity
March 20 Days	Flamingo	Lesson-1	The Last Lesson (Alphonse Daudet)	• Students will be able to develop optimistic attitude towards life amidst all struggles. • identify the genre to which the story belongs. • enhance vocabulary • enable to realize the importance of a teacher in the life of a student.	1. Your school is going to bring out its annual magazine "Vision -2019". As its regular columnist, write an article on "Value of Educatoin". 2.Write a notice to inform the students of classes XI & XII about the first parent- teacher meeting to be held next week regarding the curriculum and board exam system.
		Poem-1	My Mother at Sixty Six (Kamla Das)	• Students will be able to read the poem with proper tone and rhyme and develop interest in poetry • enhance analyzing skills • Grasp the theme and meaning of the poem	
		Writing	Notice & Article	• Students will be able to use appropriate style and format to write a notice effectively.	
		Reading	Note- Making Comprehension Passage	• identify important information in any given notice • develop an interest towards writing and enhance their planning and organizing techniques. • Strengthened their interpreting and evaluative skills.	
April 25 Days	Vistas	Lesson-1	The Tiger King (Kalki)	• The learners will be able to uncover motives, absorb didactics . • Students will be able to familiarize with specific Royal Indian background information of the author history of cruel, insensitive kings who found pleasure in hunting and killing innocent animals.	1. Prepare a speech on the topic "Live and Let Live" or "Sustainable Development" (Any one)
	Flamingo	Lesson-2	Lost Spring (Anees Jung)	• Students will be able to sensitize the learners to the problem of child labour. • identify the problems, consider the options, weigh the pros and cons of each option and reach a decision opinion solution. • Enhance their analytical skills and uncover the motives of the poor parents /policeman/ industrialist middlemen.	2. "Children are born to learn but not to earn" keeping this view in mind, write a letter to the editor of a national daily expressing your concern on the subject and demanding a strict action against the guilty.
	Flamingo	Poem 2	An Elementary School Classroom in a Slum (Stephen Spender)	• Students will be able to familiarize with specific background information of social inequalities. • build up empathy and sympathy with the prevalent inequalities of the society which rest on financial status and lost opportunities for children	

		Writing	Advertise-ment , Letter to the Editor & Job Letter	• Students will be able to learn persuasive techniques used in advertising specifically pathos or emotion, logos or logic and ethos or credibility character • Explore the concept of demographics and marketing for a specific audience. • develop and enhance interest towards writing skills. • understand the nature and purpose of a letter.	
May **25 Days**	Flamingo	Lesson-3	The Deep Water (William Douglas)	• The students will be able to enriched their vocabulary and unfold their logical thinking skill. • Strengthen their decision making skills.	1. **"**Where there is will there is a way" strong determination mixed with perseverence is a key to success. This value is deteriorating among youths. Prepare a speech to be delivered in the morning assembly of your school.
		Poem-3	Keeping Quit (Pablo-Neruda)	• Students will be able to understand the need of the hour to maintain peace and cut out the clamour and bloodshed. • Up threat and gentle heeding with the predictable loss of the world.(global domain)	
	Vistas	Lesson-2	The Enemy (Pearl S. Buck)	• Students will be able to familiarize themselves with specific background of political enmity. • Understand the significance of professional ethics and social obligation in sensitive times. • Identify and make connection between similar situations in own life experiences where our human compassion and empathy for a political enemy.	2. Your school has observed the on going week as 'Green Week' to aware all students about the conservation of natural vegetation. This included tree plantation, skit, slogan writing, rally and village meetings. Write a report about all the activities
		Writing	Report & Speech	• The students will be able to describe the kinds of information to include in specific reports and identify tips for writing a clear, concise and useful report • Recognize and address patterns and trends and explain how the tone of a report can effect worker morale and motivation.	
July **26 Days**	Flamingo	L-4	The Rat trap (Selma-Lagerlof)	• Students will be able to effectively provide a synopsis of the story. • Analyze the values and thought process of the story and enrich their vocabulary. • Identify the insecurity while tacking personal fears and horrors that lurk in the recesses of our mind	1. Yoga and meditation are the much needed practices for keeping one both mentally and physically fit. Keeping these views in focus, prepare a speech on the topic " Importance of Yoga and Mediation"
		P-4	A Thing of Beauty (John Keats)	• Students will be able understand structure of poem, poets love for nature, how nature gives a sense of belongingness • How nature projects us from vices and have never say dic attitude • To recognize poetic devices.	

	Vistas	L-3 Writing	Should Wizard hit Mommy (John –Updike) Invitation & Their Replies Debate	• Students will be able to familiarize with specific background while tacking personal choices on security, familiarly and happiness. • Appreciate the timeless significance of universal fears of loss and gain of happy ending and parenting issues. • The learners will be able to express their ideas cohesively, completely, fluently and spontaneously with expressions, grammar usage and relevant vocabulary for a hospitable of an event.	2. "International Yoga Day" was observed with greatest and utmost enthusiasm in your school. You were also the part of the whole day's activities. Write a report on this event.
August 22 Days	Flamingo Flamingo Vistas		Indigo (Louis-Fischer) Aunt Jennifer's Tiger (Adrienne Rich) On the face of It (Susan-Hill) Poster & Business Letter	• Students will be able to infer the meaning from the chapter • Understand the message the lesson conveys • Understand how Mahatma Gandhi worked selflessly for the rights of Indians and their upliftment • Infer the message that if we are united and determined , we can overcome any situation. • The learners will be able to facilitate making connections between similar situations in different storylines life expressions. • Think and produce spontaneous, fluid and expression is poetic texts to convey a social change. • The learners would be able to learn how to fight out from loneliness, depression and disappointment. • Accept the physically challenged people positively in their life and expand their social interaction. • Build up optimism and self confidence • Students will be able to express their ideas fluently and chronologically , concisely without difficulty in purpose, expressions, grammar usage, format usage and relevant vocabulary.	1. You have returned from a week long pilgrimage of Vaishno Devi Jammu and decided to arrange a Jagran and a religious feast (Langar) at your residence 29 Mayur Vihar Delhi. Write an invitation (Both in formal & informal styles to your best friend Reetesh. 2. Students will do research work on the condition of the women of Saudi Arabia and India. In their synopsis they will include the following points: • Social Background • Various Stake holders • Women right • Contemporary critics and their opinion. • Period wise analysis.

Sep. 20 Days	Flamingo	L-6	Going Places (AR Barton)	• The students will be able to familiarize themselves with specific background information of adolescents and adolescent fantasizing	• Prepare a poster showing your glory and proud of celebrating the 73rd Independence Day on 15th August 2019.
	Vistas	L-5	Evans Tries an O-Level (Colin Dexter)	• The students will be able to familiarize with specific background of the cat and mouse role of the police and the criminal	
	Flamingo	L-6	Memories of Childhood (Zitkala-sa & Bama)	• The students will be able to initiate the role of an ambassador in the world ridden with social and class differences. • Recognize the universal global theme of inequality.	• The rules & regulations made by Government regarding an eco-friendly system of arranging marriages are totally violated to show off their money power & social status by the rich people. showing your concern about the above subject write a letter to the editor of a national daily to give you a column in the newspaper.
Oct. 19 Days		Writing	Note-Making & Comprehension passage	• The learners will be able to receive and write text (Literacy, discursive and descriptive) for general orientation and understanding. • develop their reading and logical thinking	Parents always blame their offpsrings for not behaving as per their wish. This problem has become common in most of the families. Keeping this in your view prepare a debate on "Should all adolescents be given an autonomy to choose their own ways"

CLASS XII [I.T.] CURRICULUM 2020-21

Month	Days	Weightage	Topics	Learning Objectives	Activities
April	25	10 Marks	**Unit-I –** Database Concepts: Understanding of Database Basic terms related to Database Introduction to MySQL- General queries.	The students aware of the fundamental concepts of a Database Management System like ● Data ● Database and Database Management System ● Data types and its uses ● Advantages and Limitations of DBMS ● MySQL(RDBMS)	Identify the type of Data models, some places where they found the use of DBMS, Prepare a manual and electronic sheet for a data of grocery shopping
May	20	12 Marks	**Unit –II-** Operating Webs • Web based applications • Online Reservation System • Online Shopping system • E-governece . Online Courses	Students will be able to understand the concepts of e-learning, online reservation, e-shopping, online schemes of government accessing now a days. They will also work on projects related to these topics	Students will try to access the web applications related to e-learning, e-shopping and e-governance.
July	25	20 Marks **Unit –III(a) & III(b)**	**Unit –III(a)-** Java Programming Fundamentals • Introduction to Java • Programming Fundamentals • Data types, variable and Flow of control • Arrays	Student will learn how to use fundamental terms to prepare java program. Student will learn how to use methods of programmingconstruction(loops).	Students will prepare some Java programs using java fundamentals (in labs & at home).
August	20		**Unit –III(b)-** Java Programming: • User defined Method • Object oriented programming • Classes & Java Libraries • Database connectivity	Student will learn to use Java libraries and methods Students will be able to understand the concept of Object oriented programming concept They will be able to make connectivity of Java with the MySQL.	Students will prepare Project using Java and MySQL through connectivity.
Sep.		8 Marks + 10 Marks	**Unit –IV-** Work Integrated Learning IT – DMA **Unit – I (A)** Employability Skill	They will be able to work on case study on e-shopping etc. Student will learn regarding Information and communication skill, entrepreneurship, green skill and communication skill	They will work on such case studies of their real life situations Students will practice these skills in their upcoming life to manage the objects

Oct.			Revision syllabus and preparation for Pre-board		
Nov.			Revision syllabus and preparation for Pre-board		
Dec.					
Jan.					
Feb					

Month	Days	PT-1	PT-2	HALF/PR EBOARD YEARLY	Topic	Sub-Topic	Learning Objective	Experience Learning
FEB.	16	8		4	Unit II Algebra Matrices.	Concept, notation, order, equality	To understand the concept of notation, order, equality, and type of matrices, to perform the operation of matrix	**To understand the planning of gardning, N.C.C. parade or march past on Republic and INDEPENDENT DAY , seating arrangement for exam and for any programme, pattern in rectangular /square array,example of sudoko.**
						Type of matrices, zero matrix, transpose of a matrix	Understan the type of matrices, to perform the operation of matrix	
						Symmetric and skew symmetric matrices, addition, multiplication and scalar multiplication of matrices, non commutativity of multiplication of matrices and of multiplication of matrices	Find the value of unknown element of a matrix and perform elementry transformation	
						Existence of non zero matrices , concept of elementary row and column operations	Able to use elementry row or column operations to find inverse of an inverse matrix.	
		10		6	Determinants:	Determinant of a square matrix (up to 3x3 matrices)	Able to Evaluate determinants and expand it in second and third order	**pattern of calander / prepare of bill to purchase some items from market.To find the area of triangle using determinant and find the equation of a line which passing through two given points. Find total interest using determinant when money is invest in two /three bonds.**
						Properties of determinants, minors, cofactors	Apply determinant and its properties in different types of mathematical problems.	
						Applications of determinants in finding the area of triangle	to find rhe area of triangle by determinant	
						Adjoin and inverse of a square matrix, consistency, inconsistency and number of solutions of system of linear equations	Check the consistency of system of linear equation.	
						Solving system of linear equation in two or three variable	Solve system of linear equation using inverse of matrix	
MARCH	21	10	5	6	Unit III Calculus Continuity and differentiability:	Continuity and differentiability, derivative of composite functions, chain rule	Able to check the continuity of a function at a point and in an interval and then check the differentiability of a function	**Definition of limit , examples of real life related to limit .for example: speed limit, limit of food we in take ,limit of medicine we intake/ story telling.**
						Derivatives of inverse trigonometric functions	determind the deterives of trigonometric function	
						Derivative of implicit function	Apply the method of impligit function	
						Concept of exponential and logarithmic functions	Apply the method of exponential function	
						Derivatives of functions expressed in parametric	Apply the method of parametric function	
						Second order derivatives	Apply the method to find heigher order	
						lagrange's mean value theorem	Verify and check the applicability Rolle"s mean value theorem	
		12	5	7	Application of Derivatives	Rate of change	Able to find the small change in value of a	**tTypes of variable : dependent and independent , rate of change height of the tree with respect to time , give more examples related to mensuration / upstairs / down stairs /**
						Increasing/decreasing functions	Find out the intervals in which a function	
						Tangents and normal	derive the equation of tangent and normal to a curve at a given point.	
						Approximations	To find the approximate value of given	
						Maxima and minima	locate the turning point and use of derivative to distinguish between maxima	

APRIL	22		5	4	Unit -I (Relation and functions) Relations and function	Type of relations, reflexive, symmetric, transitive and equivalence relations	Child will be able to understand the concept of reflexive, symmetry and	To understand the relation and function : we creat some examples related to blood relation, neighbourhood, relatives,birthday party , marriage party and festivals,
						One to one and onto functions.	Understand the concept of one-one	
						Composite functions	understand the concept of composite function	
						inverse of a function	Understand the concept of inverse of a	
						Binary operations	Understand the concept of binary	
			5	4	Inverse Trigonometric Functions.	Definition, range, domain,	concept of inverse trigonometric function.	To draw the graph of inverse sin x, using the graph of sin x and
						Graph of inverse trigonometric	To solve trigonometric function into	
						Elementary	How to use of elementary operation of	
MAY	24		12	8	Integrals:	Integration as inverse process of differentiation	Understand indefinite integration as reverse process of differentiation.	
						Integration of a variety of functions by substitution	Integrate the functions which can be	
						partial fractions	Integrate the rational functions using partial fraction	
						Integration by part	Integrate the product of functions using by part	
						Simple integrals of the type: $\int dx/(x^2 \pm a^2)$, $\int dx/(\sqrt{(x^2)} \pm a^2)$, $\int (px+q)/([ax]^2+bx+c)\,dx$ $\int \sqrt{(a^2 \pm x^2}\,dx,)$	Integrate the simple integrals bythis type	
						$\int (px+q)\,\sqrt{([ax]^2+bx+c}\,dx.)$		
						Fundamental theorem of calculus	understand the basic concept of calculus	
						basic properties of definite integrals	Evaluate definite integrals	
						evaluation of definite integrals	use properties of definite integral in evaluation of integrals	
JUNE	5		8	6	Applications of the Integrals	Application in finding the area under simple curves, especially lines, arcs of circles/parabola/ellipse,	Understand the use of concept of symmetry in finding areas and finding area when curve is lying below x-axis.	How to find the area of criticle curve and different fields using integration.
						Area between two above said curves.	Use integration to find the area of simple	

JULY	21				8	**Differential Equations:**	Order and degree	Describe the order and degree of a
							general and particular solutions of a differential equation	Form a differential equation from the given equation of a curve.
							formation of differential equation	
							solution of differential equations by the method of	Solve the differential equation of first
							homogeneous differential equation of first order and first degree	Solve the homogeneous differential equation of first order and first degree.
							solution of linear differential equation of type:- dy/dx+py=Q where P and Q	to find the solution of linear differential
							Are the functions of x or constant	Apply the concept of differential equation
						5	**UNIT V- Linear programming Linear programming**	Definition of the terminology as constraints, optimization.	learner should have conceptual understanding related to terminology used in linear programming, and able to convert different types of problem into a
							different types of linear programming (L.P)	Learner should be able to graphical
							feasible and infeasible regions, feasible and	Learner should be able to check the

To aware the Management skills in industries / institutes/ any buissness.

SEPTEMBER	**REVISION & EXAM**	

AUGUST	24				5	**UNIT IV: Vector and three dimensional geometry** **Vector**	Vector and scalars	Able to define the scalar and vector
							magnitude and direction of a vector	Calculate the magnitude of a vector and the scalar product of two vectors.
							direction cosines/ratios of vectors	find direction cosines and direction ratios
							Type of vectors	Define types of vector
							position vectors of a point	Find position vectorof a point using unite
							components, addition, multiplications of a vector	Carry out addition and subtration of

To giving real life examples related to direction and magnitude.

					9	**Three-dimensional Geometry:**	Ratio of a line joining two points	how to apply the section formula
							Cartesian and vector equation of a line	find vector and cartesian equation of the
							shortest distance between two lines	Find shortest distance and angle between two lines.
							Cartesian and vector equation of a plane	Find equation of a plane under different conditions
							Angle between:- two lines two planes and lines and	Find angle between two planes and lines.
							distance of point from a plane.	Find distance of a point from a plane.

TO aware the 3 D environment.

OCTOBER	20				8	**UNIT VI- Probability**	Multiplication theorem on probability and	Learner should be able to explain
							Conditional probability	find conditional probability involving
							Bayes' theorem	Understand Bayes theorem and its
							Random variable and its probability distribution,	Find probability distributionof a random
							Repeated independent trials and Binomial	Understand Bernouli trials, binomial

To giving real life examples: sports , number game , playing cards and industries.

Class XII-B Theory Painting Curriculum – (2020-21)

M0NTH	BOOKS	CHAP.	TOPIC	ACTIVITY	THEMES	LIFE SKILL
APRIL	PANOROMIC INDIAN PAINTING (R.C.LUTHARA K.C. LUTHRA)	2nd	Rajasthan school of miniature painting	Class discuss will be held on the topic	Sustainable	Nationalism
MAY	PANOROMIC INDIAN PAINTING (R.C.LUTHARA K.C. LUTHRA)	3rd	Pahari school of miniature painting	Class discussion well be held on the topic artistic value respect for and culture	Health and wellness	Nature
JULY	PANOROMIC INDIAN PAINTING (R.C.LUTHARA K.C. LUTHRA)	4th	Mughal school of miniature painting	Class discussion will be held on the topic	Globalization	Co-operatione
	PANOROMIC INDIAN PAINTING (R.C.LUTHARA K.C. LUTHRA)	5th	Deccan school of miniature painting	Demo and discussion to the previous chapters		Nature
AUGUST	PANOROMIC INDIAN PAINTING (R.C.LUTHARA K.C. LUTHRA)	6th	National flag	Artistic value respect for and culture	Accountability	Responsible
	PANOROMIC INDIAN PAINTING (R.C.LUTHARA K.C. LUTHRA)	7th	Bengal school of art and artist	Class discussion will be held on the topic		Truth
SEPTEMBER	PANOROMIC INDIAN PAINTING (R.C.LUTHARA K.C. LUTHRA)	8th	Contemporary artist painting and graphic	Artistic value respect for and culture	Nurture the nature	Self awareness
	PANOROMIC INDIAN PAINTING (R.C.LUTHARA K.C. LUTHRA)	9th	Sculpture	To create awareness among the students about contemporary art.	Creating awareness	Self awareness

PRAGYAN PUBLIC SCHOOL- JEWAR
Curriculum of Session – 2020-21
Class –XII (Physical Education)

Months	Day	PT-1	PT-2	H.Y. Exams	Pre-Boar Exams	Topic	Sub- Topic	Learning Objective	Learning Experience
April	21	20	-	10	10	1. planning in sports	• Meaning & objectives of planning, • various committees • All type of tournaments and their fixtures, • Intramurals extramural, • Specific sports program.	To explain the maximum benefits of planning in games & sports, explain the role of different committees, methods to organized the tournaments and draw the fixtures. Explain about uncompetitive games.(specific Sports)	Students will get practical knowledge of planning role of committees, draw fixtures to organize the sports meet. And also aware about the purpose of specific sports program.
		20	-	10	12	2. sports & Nutation	• Balance diet, nutrition macro & micro elements healthy weight, • Pitfalls of dieting • Food intolerance • Food myths.	Explain about balanced diet & nutrition for the development of human body. And also discuss about all the food elements present in our food.	Students will aware about a healthy diet and eating habits also get knowledge to remain healthy and development through diet.
May	23	-	10	5	10	3. yoga and life style	• Importance of yoga • Asanas as a preventive measure for some common life style disease.	Explain the history & importance of yoga & asanas are preventive measure for many common life style disease.	Students will aware about Five thousand years old yogic tradition & now it is helpful to live a Fruitful & healthy life.

Month						Topic	Content	Teaching Objective	Learning Outcome
May	23	-	15	10	12	4. physical education & sports for CWSN	• Disability & Disorder their type's causes and nature. • Disability etiquettes advantage of physical • Activities for CWSN • Strategies to make a physical Activities plain for CWSN.	Explain briefly the concept of disability and disorder. The causes types, nature of disorder & disabilities. Explain the etiquettes for disabled persons & physical activates for disabled persons.	Students will clear the concept of disability & disorders & know the types causes & nature. And also learn the etiquettes for such peoples. And come to know about the physical activities to develop such disabled peoples.
July	26	-	15	10	10	5. Children's and women's in sports	• Motor development in children. • Exercise guideline at different stage, • Postural deformities, • Women's participation in sports, • Female athlete traid.	Briefly explain about growth & development of children's and suggest exercises for proper growth explain common posture deformities their types, causes and remedies. Explain the situation of women's in sports and their problems.	Learn about the concept of proper growth & development and aware about causes of common posture deformities & helpful to avoid them. Also aware about the participation of women's and their struggles for the sports.
		-	-	10	8	6. test and measurement		Teach the different test tools to evaluate the fitness level of an individual person at different stages of life.	Students will learn and observe the different test methods to calculate the parameters of fitness level of human body & performance of any individual or any group.

August	20				15	10	7. Physiology and injuries in Sports.	• Physiological factors determining components of fitness. • Effect of exercise on different body functions. • Different sports injuries & first aid.	Explain about the scientific knowledge of functioning of different body organs and different injuries occurs in sports & first aid for these injuries	Learn about the physiology of body organs, effects of exercise on them & how to avoid the injuries & how to provide first aid to any injured person.
						5	8. Bio-mechanics and Sports	• Types of movement's • Newton's law • Friction in sports.	Explain about the use of physics rules application of forces, law of motion in games.	Students will learn that how physics, law of motion force are helpful to enhance the sports performance.
SEP						10	9. Psychology & sports.	• Personality • Motivation • Exercise adherence • aggressions	Discuss about the aspect of personality, motivation aggressions and their effect in the field of games & sports.	Student will learn about the dimensions of personality and its types & how to improve it. And effect of aggressions and how to control it.
Oct	20					5	10. Training & sports.	• All components of training –strength endurance, speed flexibility, coordinative ability circuit training.	Briefly explain about all the components of fitness & training their type and methods to improve these components explain about different training types.	Students will learn about different training methods and also learn about different health components and methods to improve physical fitness and standard of their sports performance.

➢**A class test of 20 mark will take after complete every unit.**

Month	Days	PT-1	PT-2	HALF YEARLY	PRE-BOARD-	PRE-BOARD-	Topic	Sub-Topic	Learning Objective	Experiment	Experiential Learning
MARCH	22	26		12	10	10	Electrostatics	Electric charge & Force	Have you ever wondered what electricity is and where it comes from? Have you ever been zapped by static electricity and wondered how it got there? We'll answer all of these questions in this lesson on electric charge and force!		
								Electric Force Fields	Did you know that force fields don't just exist in science fiction movies? In this lesson, student's will be able to explore the electric force fields that surround charged particles and how we can draw diagrams that represent them.	(1) To find resistance of a given wire using metre bridge and hence determine the specific resistance of its material.	
								Coulomb's Law	In the 18th century, Charles Coulomb uncovered the secrets of electrostatic force between charged particles. The results of his experiments led to what is now known as Coulomb's Law, which tells us how force, charge, and distance are all related.		
								Strength of an E & F	Student's will be able to explain what an electric field is, distinguish between scalar and vector fields and use two electric field equations to solve problems.		
								Electric Potential	Student's will be able to find out that electric charges can be rather lazy until something motivates them to get work done. Find out what gives electric charges the potential to do work and how we measure that potential with something called voltage.	(2) To determine resistance per cm of a given wire by plotting a graph of potential difference versus current.	
								Capacitance	Student's will be able to explain what a capacitor is, define capacitance, and solve simple problems using capacitance equations.		
APRIL	20	14		14	6	6	Current Electricity	Electric current	Students will be able to Derive and define drift velocity, mobility, electric current, electrical energy and power.		
								Ohm's law & its limits	Students will be able to State and derive Ohm's law and write its limitat-ions		
								Resistivity-Temperature graphs	Students will be able to Draw V-I graphs for ohmic and non ohmic materials and Resistivity-Temperature graphs for different materials.		
								colour code for carbon resistors	Students will be able to Understand the colour code for carbon resistors	(10)To compare the EMF of two given primary cells using potentiometer.	
								series and parallel combination	Students will be able to Derive the equivalent resistance in series and parallel combination, define and write the relation between internal resistance and emf, equivalent emf and internal resistance in series and parallel combination		
								Kirchhoff's rules	Students will be able to Write and apply Kirchhoff's rules.		
								Wheatstone bridge	Students will be able to Describe the construction and the principle of Wheatstone bridge, its applications and draw respective circuit diagrams & solve the numericals based on this.		
								Meter bridge	Students will be able to Describe the construction and the principle Meter bridge its applications and draw respective circuit diagrams.Solve numerical problems based on this.		
								potentiometer	Students will be able to Describe the construction and the principle Potentiometer its applications and draw respective circuit diagrams Solve numerical problems based on this.		

Month							Topic	Subtopic	Learning Objective	Practical	
MAY	20		25	14	6	6	MAGNETIC EFFECT OF ELECTRIC CURRENT	Magnets	Students will be able to identify magnets and explain their properties	(7)To convert the given galvanometer (of known resistance and figure of merit) into an ammeter and voltmeter of desired range and to verify the same.	
								Magnetic field	Students will be able to explain the concept of magnetic field and state the properties of lines of magnetic force		
								Conductor	Students will be able to infer that when electricity flows through a conductor, magnetic field is produced around it.		
								Electro-magnets	Students will be able to describe electro-magnets and explain the working of electric bells		
								Current carrying conductor	Students will be able to explain the force experienced by a current carrying conductor placed in a magnetic field.		
								Biot - Savart law	Students will be familiar with the Biot-Savart law and be able to calculate the magnetic field and magnetic forces in flowing currents.		
								Ampere's law	Students will be understand how Ampere's law arises as a consequence of the Biot-savart law. Students should know about the divergence and the curl of the magnetic field.		
								Torque	Students will be able to derive torque and will be able to solve the numericals based on it.	(12)To determine the internal resistance of given primary cell using potentiometer.	
								Moving coil galvanometer	Students will be able to draw the diagram and derive the equation.		
								Ammeter	Students will be able to understand the concept of ammeter & will be able to convert it.		
								Voltmeter	Students will be able to understand the concept of a voltmeter & will be able to convert it.		
JUNE	5		15	7	6	6	Electromagnetic Induction	Electromagnetic induction	Students will know a changing magnetic field induces electromotive force (EMF) in a circuit.		
								Faraday's laws	Students should state Faraday's law and write the equation for self induction.		
								Induced emf and current	They will be able to calculate EMF and determine the direction of induced current using the right-hand rule in certain cases.		
								Lenz's Law	Students will understand Lenz's law.		
								Eddy currents	Students will be able to explain eddy current.		
								Self and mutual induction	Students will be able to define self and mutual induction & will be able to differentiate between them.		

Month								Unit/Subject	Topic	Learning Objective	Practical
JULY	19				10	8	8	Alternating Current & EMW	Peak and rms value of alternating current/voltage	Students will be able to derive the rms value.	
									Reactance and impedance	Students will be able to define reactance & impedance.	
									LC oscillations	Students will be able to define LC oscillation.	(6)To find the frequency of the a.c. mains with a sonometer.
									LCR series circuit	Students will be able to draw the circuit diagram & derive the equation for impedence.	
									power in AC circuits	Students will be able to define power in ac circuits.	
									wattless current	Students will be able to explain wattless current.	
									AC generator and transformer	3	
									Displacement current	Students will be able to u the concept and importance of displacement current.	
									Electromagnetic waves	Students will be able to write the properties, mathematical equation and draw waveform of linearly polarised electromagnetic wave.	(3) To find the focal length of a concave lens, using a convex lens.
									Electromagnetic spectrum	Students will be able to understand e.m spectrum, origin and uses of different parts of it.	
AUGUST	25				12	15	15	OPTICS	Reflection of light by spherical mirrors	Students will be able to Define reflection,refraction of light, various terms related tomirrors and lenses, magnification, refractive index, power of a lens,dispersion of white light	
									Refraction	Students will be able to State the laws of reflection, laws of refraction. Draw the ray diagrams for spherical mirrors and lenses. Derive the relation between radius of curvature and focal length for a spherical mirror, mirror formula, lens maker formula. Derive the mirror formula for concave & convex mirror using the ray diagrams.	(5)To find the value of v for different values of u in case of a concave mirror and to find the focal length.
									Total internal reflection	Students will be able to explain the total internal reflection and give applications and examples	
									Refraction through a prism	Students will be able to explain refraction through a glass prism and derive the expressions.	
									Dispersion by a prism		
									Defects of vsison	Students will be able to explain the various defects of eye and its correction with the diagrams	
									Optical instruments	Students will be able to Explain the principle, construction & working of a simple microscope, compound microscope and astronomical telescope with the diagrams and derive the expressions	
									Huygens principle	Students will be able to state Huygens principle and deduce the laws of reflection and laws of refraction on the basis of Huygens wave theory.	
									Refraction and reflection of plane waves using Huygens principle	Students will be able to State the principle of superposition of waves, define interference of light,	
									Coherent and incoherent addition of waves	Students will be able to define polarized and unpolarised waves	(13) To find the focal length of a convex lens by plotting graphs between u and v or between 1/u and 1/v.
									Interference of light and Young's experiment	Students will be able to describe Young's double slit experiment and define and derive an expression for fringe width.	
									Diffraction	Students will be able to explain the diffraction at a single slit.	
									Polarisation	Students will be able to state Malus' law, explain polarization by reflection and scattering and state the uses of polaroid.	

SEPTEMBER	8					5	5	Dual nature of radiation and matter	Electron emission	Students will be able to Explain different processes of electron emission		
									photoelectric effect	Students will be able to Explain experimental study of photoelectric effect	(14)To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.	
									wave theory	Compare photoelectric effect with wave theory		
									Einstein's photoelectric equation	Students will be able to Explain Einstein's photoelectric equation, particle nature oflight and photocell		
									Davisson and Germer experiment	Students will be able to Explain wave nature of matter and Davisson and Germer experiment		
OCTOBER	15					7	7	Atoms and Nuclei	Rutherford's nuclear model	Students will be able to describe alpha particle scattering and Rutherford's nuclear model of atom	(4)To study the characteristic of a common - emitter npn or pnp transistor and to find out the values of current and voltage gains. (9)To draw the characteristic curve of a zener diode and to determine its reverse break down voltage. (11) To draw the I-V characteristic curve of a p-n junction in forward bias and reverse bias.	
									Bohr's model	Students will be able to explain Bohr's model of hydrogen atom		
									Atomic spectra, line spectra	Students will be able to explain atomic spectra, line spectra of hydrogen atom, spectral series and draw energy level diagram for hydrogen atom		
									Bohr's postulate	Students will be able to explain De Broglie's explanation of Bohr's postulate of quantisation		
									Nucleus	Students will be able to explain composition of a nucleus, explain the terms isotope,isobar, isotones and estimate size of the nucleus		
									Nuclear binding energy	Students will be able to explain mass – energy and nuclear binding energy, draw binding energy curve and explain nuclear force		
									Radioactivity	Students will be able to explain Radioactivity		
									Decay	Students will be able to explain alpha, beta and gamma decay		
									Nuclear energy	Students will be able to explain Nuclear energy &describe nuclear reactor		
									Nuclear fission	Students will be able to explain nuclear fission and fusion		
NOVEMBER	12					7	7	ELECTRONIC DEVICES	SEMI CONDUCTOR ELECTRONIC	Energy bands in conductors, semico9nductors ands insultors		
									ENERGY BANDS	Semiconductor diode-I-V characteristics in forward and reverse bia		
									SEMI CONDUCTOR DIODE	diode as a rectifier:		
									SPECIAL PURPOSE PN JUNCTION DIODE	LED, photodiode, solar cell		
									ZENER DIODE	Zener diode and their characterisrtics		
									VOLTAGE REGULATOR	Zener diode as a voltage regulator.		