

ARWACHIN BHARTI BHAWAN SR. SEC. SCHOOL

SYLLABUS - CLASS 12

SESSION 2020-21

SUBJECT - ENGLISH












MONTH	TOPIC	ACTIVITY	LEARNING OUTCOMES
March	The Last Lesson	Group Discussion on political enslavement is a curse on any Nation as it deprives it of its identity	They would develop their optimistic attitude towards life amidst many struggles.
	Tiger King (Vistas)	Presentation on treatment to wild life through PPT	They would understand the importance of becoming sincere and trustworthy in thought & action.
	My Mother at 66 (Flamingo)	The learners would discuss in their groups & draw a comparative analysis & present the synopsis of the discussion	The students would be able to grasp the theme and meaning of the poem. Their vocabulary would be strengthened.
	Notice Writing	Groups would be formed according to the range of Learners and distributed the role of 5ws and frame a notice on the subject given.	They will be able to frame notice about any event. They will be able to identify important information in any given notice.
April	Invitation writing/Reply	Framing & preparing invitation cards for different purposes	The learners would be able to express their ideas cohesively, completely, fluently and spontaneously with expressions, grammar usage.
	Notice Making	Group comprehension comprising all range of learners	They would be able to use the note taking suggestions to develop good notes based on classroom discussion.
	Lost Spring	Project on Child Labour : shape our Future Bright	Learners will be able to sensitize the learners to the problem of child labour. They would be able to uncover the motives of the porr.
May	Deep Water	Students would be divided into groups of six comprising all range of learners for presentation & discussion on water sports	The learners would unfold their logical thinking skills. Their vocabulary will be enriched.
	Keeping Quite	Role paly on establishing Peace & Unity	The learners would be able to understand the need of the hour to maintain peace and cut out the clamour and bloodshed, correlating it with personal experience.
	Article writing	Article writing based on bravery & will power	The students would develop an interest towards writing. Their planning and organizing technique would be enhanced. The interpreting and

			evaluating skills would be strengthened.
	Report writing	Write a Report on a recent disaster with Complimentary newspaper clip	They will be able to describe the kinds of information to include in specific reports and identify tips for writing a clear, concise & useful report.
July	Elementary School classroom in a SWM	A comparative study of poem Elementary school classroom in a SWM with lost spring and present it through a PPT	The Learners would familiarize themselves with specific background information of social inequalities.
	The Rattrap	The whole world is nothing but a great Rattrap. (Debate)	They would be able to appreciate the significance of developing personal fears yet rising above them to savour real liberty.
	Letter to editor	Writing a letter to the editor on a recent disaster/ metro with congruent newspaper clip.	The learners would be able to organise their thoughts & express freely.
	Poster Making	Poster making for all range of learners	Comprehend an effective Poster Making as a tool of Visual Communication.
August	Should Wizards Hit Mommy	Debate on :Should Parents always decide what is best for their children?	They will be able to appreciate the timeless significance of universal fears of loss and gain, of happy ending and parenting issues.
	On the face of it	Group discussion on “It’s got nothing to do with my face and what I look like”.	They would accept the physically challenged people positively in their life and expand their social interaction.
	Advertisement (Commercial classified)	Creating commercial advertisement in pairs	Students will learn pervasive techniques used in advertising, specifically pathos or emotions, logos, logic, ethos or character.
	Letter writing enquiry/reply Order/Complaint/Reminder/Cancellation Replies to Letters	An ordering activity for group work with cards : Each group will be given a set of cards to order and the teacher will constantly observe and move during the activity to provide any assistance required	They will be able to express request/complaint/reminder/cancellation Fluently and orderly without difficulty in
September	Poets and Pancakes	Group Activity : Practice writing in the humorous style	Understanding humour and satire. Will be aware of events and personalities in a film company in early days of Indian Cinema.
	The Interview	Group activity : Conduct interview and transfer information from one genre to another	They will be able to understand the interview as a communication genre.
	The Roadside Stand	Discuss in group the economic well being of a country depend of balanced development	They will be able understand need for balanced development of the village and the cities.
	The Third Level	Debate : Is fantasy a	Students will learn how to overcome

		medium of escape?	insecurity, fear, war, worry, stress.
October	Journey to the end of the earth	Discuss in group how can we save our planet.	They will learn how our small steps today can help us build the better future.
	Going Places	Group Discussion on : Hero worship is most favourite pastime of most Indians?	The learners will be able to familiarize themselves with specific background information of adolescents and adolescents fantasizing..
	The Enemy	The study on war stories and present it through a Power Point Presentation	They will be able to understand the significance of professional ethics and social obligation in sensitive times.
	Letter of job application	Select a Job advert from the times classified and write an appropriate letter of application	They will be able to examine a variety of letters to determine best layout, content and style. They will be able to develop and produce their own letter of application and prepare a cover letter and attached bio data.
November	Evans Tries O Level	Discuss in your group analyzing the story and justify the title 'Evans Tries an O Level'	They will be able to identify and make connections between similar situations in their own country where each of us witness the dereliction of duty of the law keepers.
	Memories of Childhood	Creating Posters for cultural equality	They would be able to recognize the universal global theme of inequality.
	Aunt Jennifer's Tigers	Critical appreciation of the poem	They will be able to empathize with Aunt Jennifer's problems and seek resolution.

SUBJECT - CHEMISTRY

Month	Topic	Activity	Learning Outcomes
March / May	Ch-1 Solid State	<ul style="list-style-type: none"> To identify cation & anion in a given salt NH_4Cl 	<ul style="list-style-type: none"> Learner would be able to understand various interactive forces present in solid crystal and classify it.
	Ch-2 Solution	<ul style="list-style-type: none"> Titration of M/50 Mohr's salt solution v/s KMnO_4 Preparation of 100ml of M/50 Mohr's salt solution. 	<ul style="list-style-type: none"> Students able to calculate molarity of any solution
	Ch-3 electro chemistry	<ul style="list-style-type: none"> Titration of M/40 oxalic acid solution v/s KMnO_4 	<ul style="list-style-type: none"> Student would be able to understand different cells & batteries & their reactions.
	Ch-4 Chemical Kinetics	<ul style="list-style-type: none"> Salt analysis of Pb^{2+} and CH_3COO^- ion 	<ul style="list-style-type: none"> Student would be able to determine rate of reaction.
	Ch-5 Surface Chemistry	<ul style="list-style-type: none"> Salt analysis of Pb^{2+} and NO_3^- ion Preparation of colloidal solution of starch 	<ul style="list-style-type: none"> Students would be able to determine rate of reaction Students are able to distinguish between adsorption & absorption .

July	Ch-10 Haloalkanes and Haloarenes & its derivations	<ul style="list-style-type: none"> Detection of cation and anion from given salt Al_3 and SO 	 Students able to prepare haloalkanes, haloarenes & know about their properties.
	Ch-11 Alcohol, Phenols Ether	<ul style="list-style-type: none"> Detection of functional Group OH (alcohol) OH (Phenol) 	 Student would be able to distinguish alcohol & phenol & their properties.
August	Ch-12 Aldehydes, Ketones and Carboxylic Acid	<ul style="list-style-type: none"> Detection of functional group CHO (Aldehydes) C (Ketones) COOH (Carboxylic Acid) 	 Student would be able to understand the mechanism of reaction
	Ch-13 Amines and its derivatives	<ul style="list-style-type: none"> Detection of Functional group NH_2 (Amines) Unsaturation 	 Learner would be able to prepare ammonia derivatives & dyes.
September	Ch-14 Polymers	<ul style="list-style-type: none"> Salt analysis of Zn^{2+} and CO ions 	 Learner would know about different plastics fabrics & their properties
October	Ch-15 Chemistry in everyday life	<ul style="list-style-type: none"> Chromatography 	 Learner would easily recognize the science applied in day to day activities .
	Ch-16 Biomolecules	<ul style="list-style-type: none"> Detection of food stuff Carbohydrates (Glucose) Protein (milk) Starch Fat (Oil) 	 Learner would know about macromolecules, vitamins, proteins
	Ch-6 metallurgy		 Learner know about the extractions of metal
November	Ch-7 P-Block Elements	<ul style="list-style-type: none"> Salt analysis of Ba^{2+} and Ca 	 Learners would know the reactions & structures of compounds & their reactivity.
	Ch-8 d & f Block Elements	<ul style="list-style-type: none"> Salt analysis of Sr and Na 	 Learners know about transition elements & its properties.
	Ch-9 Coordination Compound		 Students able to understand the concept of coordinate bond.

SUBJECT - PHYSICS

Month	Topic	Activity	Learning Outcomes
March	Unit I Electrostatics Ch-1 Electric charge and field Ch-2 Electrostatic potential and capacitance Unit II Current Electricity Ch-3 Current Electricity	To estimate the charge induced on each one of the two identical pith balls suspended in a vertical plane by making use of coulomb's law <ul style="list-style-type: none"> To determine the resistance per cm of a given wire by plotting a graph of potential difference versus current To find resistance of a given wire using a meter bridge and hence determine the resistivity of its material. To verify the laws of combination (series/parallel) of resistances using a meter bridge. To compare the emf of two given primary cells using potentiometer. To determine the internal resistance of a given primary cell using potentiometer. 	Learner should be able to calculate charge on the pith ball. Learner would be able calculate resistance per cm by plotting a graph between V and I Unknown resistance of wire and specific resistance of the material of the wire. Able to verify law of combination of resistance. Able to compare emf of two given primary cell s. Learner able to calculate internal resistance of a given primary cell.
April-May	Magnetic effects of current and	<ul style="list-style-type: none"> To determine resistance of a 	Able to calculate resistance of galvanometer
	magnetism Ch-4 Moving charges and magnetism Ch-5 Magnetism and Matter	galvanometer by half deflection and to find its figure of merit <ul style="list-style-type: none"> To convert the given galvanometer into an ammeter of desired range and to verify the same. To convert the given galvanometer into voltmeter of desired range and to verify the same 	and figure of merit Able to current given galvanometer into given range of voltmeter and Ammeter.
July	Unit-IV Ch-6 Electromagnetic Induction Ch-7 alternating current	<ul style="list-style-type: none"> To study the factor on which the self inductance of a coil depends by observing the effect of this coil, when put in series with resistor (bulb) in a circuit fed up by an AC source of adjustable frequency. 	Learner would be able to understand the factors on which the self inductance of a coil depends.

August	Unit V Ch-8 Electromagnetic wave	<ul style="list-style-type: none"> Compare and contract the regions of the electromagnetic spectrum and conduct research to gather information on uses of the electromagnetic spectrum 	Learner would be able to understand the electromagnetic spectrum
September	Unit VI Ch-9 Ray Optics and optical instruments Ch-10 Wave optics	<ul style="list-style-type: none"> To observe polarization of light using two polaroids To observe diffraction of light due to this slit 	Early observe polarization of light and diffraction of light. Able to observe the effects observations and calculations
October	Unit VII Ch-11 Dual nature of radiations and matter Unit VIII Ch-12 Atoms Ch-13 Nuclei	<ul style="list-style-type: none"> Photo electric effect (label the diagram) Pictures and/or video clip of important scientist/events related to the study of atomic structure. 	Learner would be able to understand Atomic structure.
November	Unit IX Ch-14 Electronic Devices	<ul style="list-style-type: none"> To draw the I-V characteristics curve of a pn junction diode in forward and reverse bias. To draw the characteristic curve of Zener diode and to determine its reverse breakdown. Use of multimeter to : <ul style="list-style-type: none"> 1) See the unidirectional flow of current in case of diode and a LED 2) Check whether a given electronic component (e.g. diode, transistor or IC) is in working order 	Learner would be able to study forward and reverse bias & breakdown voltage in case of Zener diode Able to calculate current and voltage gain. Able to identify type of transistor and working order of electronic components.

SUBJECT - BIOLOGY

Month	Unit	Chapters	Activities	Learning Outcomes
March to April	X Ecology & Environment	13. Organism and populations 14. Ecosystem 15. Biodiversity & its conservation 16. Environmental issues	<ul style="list-style-type: none"> Study of suspended particulate matter in air. Collect and study soil from at least two diff. sites and study them for texture, 	<ul style="list-style-type: none"> Learners come to know about the quality of air in specific area with the presence of SPM. Learners understand how hummus content

			<p>moisture content, pH and water holding capacity. Correlate with the kinds of plants found in them.</p> <ul style="list-style-type: none"> • Collect water from two diff. water bodies around you and study them of pH, clarity and presence of any living organisms. • Study the plant population density by quadrant method. • Study the plant population frequency by quadrant method. • Study of plants & animals found in xerophytic & aquatic conditions (Virtual images) 	<p>and soil texture decides the pH and water holding capacity of soil available in their area.</p> <ul style="list-style-type: none"> • Enhance awareness about diversity in various plant species. • Promotes understanding of quality or salt content available in water collected from different water bodies.
April to May	VI Reproduction	<ol style="list-style-type: none"> 1. Reproduction in organisms 2. Sexual reproduction in flowering plants 3. Human reproduction 4. Reproductive health 	<ul style="list-style-type: none"> • To Study pollen germination on a slide. • Study of flowers adapted to pollination by different agencies (insect & wind) • Study of pollen germination on the stigma through permanent slide (SPOTTING) • Study of gamete development in T.S. of Testis and Ovary (SPOTTING) 	<ul style="list-style-type: none"> • Learners learn about different agencies (insect and wind (which help in pollination. • Learners easily differentiate b/w gamete development in testis and ovary
July	VII Genetics & Evolution	<ol style="list-style-type: none"> 5. Principles of inheritance and variation 5. Molecular basis of inheritance 5. Evolution 	<ul style="list-style-type: none"> • Study of the method of controlled pollination (Spotting) • Study of prepared pedigree charts of genetics traits, such as (tongue rolling, widow's peak, color blindness and blood groups) (Spotting) • Study of Medelian Inheritance using seeds of different colors and sizes (monohybrid and 	<ul style="list-style-type: none"> • Learners learn about the role of dominant and recessive genes which control the characteristics in human being and also in plants. • Promotes student to prepare slide which help them to identify different stages in mitosis

			<p>dihybrid cross) (Spotting)</p> <ul style="list-style-type: none"> • Study of mitosis in onion bud cells and grasshopper testis, through a permanent slide (Spotting) • To make a temporary acetocarmine stained mount of the onion root tip and study various stages of mitosis 	
August To September	VIII Biology and human Welfare	<p>8. Human health and diseases</p> <p>8. Strategies for enhancement in food production.</p> <p>8. Microbes in Human Welfare</p>	<ul style="list-style-type: none"> • Common disease causing organisms like Ascaris, Entamoeba, plasmodium and ringworm (through permanent slide) (spotting) • To study the effect of temperature and pH on the action of salivary amylase on starch. 	<p>🏠 Enhance awareness about disease, problems and their appropriate solutions.</p> <p>🏠 Learners come to know optimum temperature and pH is required for action of salivary amylase.</p>
October	IX Biotechnology and its application	<p>11. Biotechnology- principles and processes</p> <p>11. Biotechnology and its application</p>	<ul style="list-style-type: none"> • Investigatory project on applications of biotechnology (RNA interference) 	<p>🏠 Learners know about DNA & RNA replication.</p> <p>🏠 Role of DNA & RNA which helps to study DNA & RNA templates.</p>

SUBJECT ECONOMICS

MONTH/ TIME LINE	EXAMINATION	CHAPTERS/TOPIC	ACTIVITY	LEARNING OUTCOME
MARCH	FIRST UNIT TEST	<p>INDIAN ECONOMY</p> <p><u>Chapter 1</u> : Indian economy at the eve of independence</p> <p><u>Chapter 2</u>: Indian economy (1950-60) – Economic systems</p>	<p><u>GROUP DISCUSSION ACTIVITY-</u></p> <p>Students were divided in few groups and they have to speak in group discussion on – The advent of Britishers in India is favourable for</p>	<p>Students will be able to develop the speaking skills and knowledge about the contribution of Britishers both positive and negative</p>

APRIL		<p>Indian Economy (1950-60)</p> <ul style="list-style-type: none"> • Economic planning • Agriculture • Industry & trade. <p><u>Chapter – 3</u></p> <ul style="list-style-type: none"> • Economic reforms • Liberalisation • Globalisation • Privatisation 	<p>us or not.</p> <p>Prepare a <u>survey report</u> on the basis of privatisation of BSES from public to private.</p> <ul style="list-style-type: none"> • How it affects common people. • Does it is favourable for the nation or not. 	<p>Students will learn the method of preparing survey report.</p> <p>Helps students to learn the working structure of BSES</p>
MAY		<p>MACRO ECONOMICS</p> <p><u>Chapter 1</u> : National Income and its aggregate</p> <ul style="list-style-type: none"> • Circular flow of Y • Basic concepts of National Income • Aggregates of NY • Measurement of National Income <ul style="list-style-type: none"> ▪ Production ▪ Income ▪ Expenditure 	<p>Activity on the basis of calculation of National Income of the country in real life situations. Give them a raw information of the economy and calculate national income.</p> <p><u>Quiz competition</u> in class</p> <p>Activity based on the concept of who can be the Normal residents of a Country, Visa applications of different countries, Dual citizenship benefits</p>	<p>Students will learn actual method of calculating national income used by Ministry of Finance.</p> <p>Students can able to develop their knowledge regarding citizenship and residentship of an individual in any country.</p>
JULY		<u>MACRO ECONOMICS-</u>	<u>Role play</u>	Students

		<p>MONEY AND BANKING</p> <ul style="list-style-type: none"> • RBI • Credit Creation <p><u>INDIAN ECONOMY</u> <u>Chapter – 4</u> Poverty <u>Chapter – 7</u> Unemployment – Employment</p>	<p><u>activity</u> of a Banker and a customer in class that how bankers motivate customers to take loans or to invest money in their banks.</p>	<p>may develop their speaking skills and also become familiar with banking functions.</p>
AUGUST	FIRST TERM EXAMINATION	<p><u>INDIAN ECONOMY</u> Chapter 5: Rural development and their key issues Chapter 8 : Infrastructure</p>	<p><u>Visit to any</u> nearby village if some students have and observe the development in rural areas</p>	<p>Students came to know about development aspects of rural areas from independence to know.</p>
SEPTEMBER		<p><u>Chapter – 6</u> Human Capital formation <u>Chapter -9</u> Sustainable development</p> <p><u>MACRO ECONOMICS</u> Determination of Income and Employment</p>	<p><u>Multiplies activity</u> by giving imaginary money to one student a on investment and now he will explain how this money get increase in future</p>	<p>Students get learning experience of investment banking that how does money get multiply</p>
OCTOBER	SECOND UNIT TEST	<p><u>MACRO ECONOMICS</u></p> <ul style="list-style-type: none"> • Government Budgeting • Balance of payment and foreign exchange rate 	<p><u>Newspaper based activity</u>: Students were asked to bring Newspaper of the budget month in school and cut out the news and then make the analysis respect of current year budget.</p>	<p>Students will learn how to make reports and what are the main categories on the basis of which economy forms budgets</p>

NOVEMBER	SECOND TERM EXAMINATION	<u>INDIAN ECONOMY</u> Development experiences of India, Pakistan and China	<u>Flow Chart activities</u> Students were asked to draw a flow chart on the basis of growth pattern of India-Pakistan and China from the time of independence to till date.	Students will be able to observe the developmental level of our neighboring countries
DECEMBER	PREBOARD	<u>REVISION</u>		

HPE SYLLABUS

INTERNAL ASSESSMENT MARKS	STRAND I (GAME) 50 MAX MARKS	STRAND II (HEALTH & FITNESS) 25 MAX MARKS	STRAND III (SEWA) 25 MAX MARKS	STRAND IV (HEALTH & FITNESS RECORD)
1	Volleyball	Mass PT	SWACHTHA	TESTS ARE :- 1. Flamingo Balance Test 2. Alternate Hand Wall Test 3. Illinois Agility Test 3. Flex Arm Hang 4. Sit & Reach 5. Yo-YO Test 6. Speed 50mtr Dash 7. Partial Curl up 8. Push Up/ Modified Push Up 9. 600 mtr Run & Walk 10. Vertical Jump Test 11. Grip Strength Test 12. Sit & Reach
2	Physical	Theory	Practical	100 Max Marks

	Education (048)	(70 Marks)	(30 Marks)	
		1.Planning in Sports 2.Sports & Nutrition 3.Yoga & Lifestyle 4.Physical Education & Sports for CWSN 5.Children & Women in Sports 6.Test & Measurement in Sports 7.Physiology & Injuries in Sports 8.Biomechanics & Sports 9.Psychology & Sports 10.Training in Sports	1.Physical Fitness Test 2.Proficiency in Games and Sports 3.Yogic Practices 4.Record File 5.Viva Voce	

SUBJECT - ACCOUNTANCY

SUBJECT - COMPUTER SCIENCE WITH PYTHON

MONTH	CHAPTER	TEACHING AIDS	FUN BASED ACTIVITY	LEARNING OUTCOME
MARCH	CH-1 PYTHON REVISION TOUR-I	BOOK (SUMITA ARORA), ORAL COMMUNICATION , SMART BOARD , BLACK BOARD	PPT , VIDEO , COMPUTER LAB , PRACTICAL ASSIGNMENT FOR HOME-TASK	REVISION
	CH-2 H-1 PYTHON REVISION TOUR-II			REVISION
	CH - 3 FUNCTION			SCOPE , PARAMETER PASSING , CALLING FUNCTION , PASS ARRAY , RETURN VALUE , FUNCTION USING LIBRARIES
APRIL	CH-4 USING PYTHON LIBRARIES	BOOK (SUMITA ARORA), ORAL COMMUNICATION , SMART BOARD , BLACK BOARD	PPT , VIDEO , COMPUTER LAB , PRACTICAL ASSIGNMENT FOR HOME-TASK	CREATE & IMPORT PYTHON LIBRARIES
	CH - 5 FILE HANDLING			OPEN & CLOSE A FILE , READ & WRITE , APPEND , STANDARD INPUT / OUTPUT , ABSOLUTE PATH
MAY	CH - 6 RECURSION	BOOK (SUMITA ARORA), ORAL COMMUNICATION , SMART BOARD , BLACK BOARD	PPT , VIDEO , COMPUTER LAB , PRACTICAL ASSIGNMENT FOR HOME-TASK	FACTORIAL , FIBONICCI , ARRAY , BINARY SEARCH
JUNE	PROJECT AS AN ASSIGNMENT (HOME -TASK FOR HOLIDAY HOME WORK)			
JULY	CH - 7 IDEA OF ALGO. EFFICIENCY	BOOK (SUMITA ARORA), ORAL COMMUNICATION , SMART BOARD , BLACK BOARD	PPT , VIDEO , COMPUTER LAB , PRACTICAL ASSIGNMENT FOR HOME-TASK	INVERSELY PROPORTIONAL- WALL CLOCK TIME , NO. OF OPERATIONS , TIME TAKEN BY PROGRAM
	CH - 8 DATA VISUALIZATION			CHARTS (LINE , BAR , PIE)
AUGUST	CH - 9 DATA STRUCTURE-I	BOOK (SUMITA ARORA), ORAL COMMUNICATION , SMART BOARD , BLACK BOARD	PPT , VIDEO , COMPUTER LAB , PRACTICAL ASSIGNMENT FOR HOME-TASK	STACK , QUEUE , LINKED LIST
	CH-10 DATA STRUCTURE - II			
SEPTEMBE	CH - 11	BOOK (SUMITA	PPT , VIDEO ,	Structure of a

R	COMMUNICATION NETWORK - I CH-12 COMPUTER NETWORK - II	ARORA), ORAL COMMUNICATION , SMART BOARD , BLACK BOARD	COMPUTER LAB , PRACTICAL ASSIGNMENT FOR HOME-TASK	network , Network devices , Network stack , Basic network tools , Application layer
OCTOBER	CH-13 MYSQL SQL REVISION TOUR CH - 14 MORE IN SQL CH-15 CREATING DJANGO BASED WEB APP.	BOOK (SUMITA ARORA), ORAL COMMUNICATION , SMART BOARD , BLACK BOARD	PPT , VIDEO , COMPUTER LAB , PRACTICAL ASSIGNMENT FOR HOME-TASK	REVISION SQL commands: aggregation functions – having, group by, order by Django , SQL COMMANDS
NOVEMBER	CH-16 INTERFACE PYTHON WITH MYSQL CH - 17 SOCIETY , LAWS & ETHICS	BOOK (SUMITA ARORA), ORAL COMMUNICATION , SMART BOARD , BLACK BOARD	PPT , VIDEO , COMPUTER LAB , PRACTICAL ASSIGNMENT FOR HOME-TASK	Intellectual property rights, plagiarism, digital rights management, and licensing (CreativeCommons, GPL and Apache), open source, open data, privacy. Privacy laws, fraud; cyber-crime-phishing, illegal downloads, child pornography, scams; cyber forensics, IT Act, 2000. Technology and society: understanding of societal issues and cultural changes induced by technology. E-waste management: proper disposal of used electronic gadgets. Identity theft, unique ids, and biometrics. Gender and

				disability issues while teaching and using computers.
DECEMBER	DOUBTS , LAST YEAR QUESTION PAPERS (CBSE) , SAMPLE QUESTION PAPER (CBSE)			
JANUARY	DOUBTS , LAST YEAR QUESTION PAPERS (CBSE) , SAMPLE QUESTION PAPER (CBSE)			
FEBRUARY	DOUBTS , LAST YEAR QUESTION PAPERS (CBSE) , SAMPLE QUESTION PAPER (CBSE)			

SUBJECT - BUSINESS STUDIES

March 2020

Unit I: Nature and Significance of Management

Topics:

- Management - concept, objectives and importance
- Management as Science, Art and Profession
- Levels of management
- Management functions - planning, organising, staffing, directing and controlling
- Coordination - concept, characteristics and importance

Activity(functions of Management)

The teacher will divide the class into 5 groups. The purpose of dividing into various groups is to ask the students for planning an annual commerce event in the month of October. The students will list out the activities, physical and human resources required, guidance and motivation etc. With the help of this activity the teacher will introduce the concept of various functions that are required to be performed by the manager to manage the day-to-day activities of the organisation.

Teaching aids:

Papers, pencils, smart board etc.

Learning outcome:

The students will understand various functions of Management such as planning organising staffing directing and controlling.

April 2020

Unit 2: Principles of Management

- Principles of Management - concept, nature and significance
- Fayol's principles of management
- Taylor's Scientific Management - principles and technique

Activity:(Fayol's principles)

The teacher will divide the class into five groups. Is group is required to visit a particular outlet to study applicability of principles of management in that outlet. The students will prepare the questionnaire to be asked and filled up by the different people working there.on the basis of the questionnaire the students will prepare the report about which management principles are being followed.

Teaching Aid

Quetinare, permission letter, presentation criteria

Learning outcome:

The students will learn that the principle of management are being followed in all types of organisation.

May 2020

Unit 3: Management and Business Environment

- Business Environment - concept and importance
- Dimensions of Business Environment - Economic, Social, Technological, Political and Legal
- Impact of Government policy changes on business with special reference to liberalization, privatization and globalisation in India.

Activity (study of any dimension of business environment)

The class is divided into various groups and group is required to choose a particular dimension of business environment. For example one group can select social environment ,another political environment ,the third one technological environment and so on.

The students are required to observe and write the changes that have taken place in this dimension during the past five years and what is the impact of these changes on the other dimensions

Teaching Aid

List of various important dimensions and the components of these dimensions.

Learning outcome

the students will understand that how important it is for a business to understand the business environment and understand interrelatedness of various dimensions of business environment.

July 2020

Unit 4: Planning

- Concept, importance and limitations
- Planning process
- Single use and Standing Plans - Objectives, Strategy, Policy, Procedure, Method, Rule, Budget and Programme.

Unit 5: Organising

- Concept and importance.
- Organizing Process.
- Structure of organization - functional and divisional.
- Formal and informal organization.
- Delegation: concept, elements and importance.
- Decentralization: concept and importance.

Unit 6: Staffing

- Concept and importance of staffing
- Staffing as a part of Human Resource Management
- Staffing process: Recruitment - sources; Selection - process
- Training and Development - Concept and importance. Methods of training- on the job and off the job- Induction training, vestibule training, apprenticeship training and internship training.

Activity (Types of plans)

All the students of the class are asked to write examples of various plans they make for themselves or made by any organisation etc. Now these all examples are listed on the black Board and classified on the basis of thier nature and use.

Teaching aid : PPT on various types of plans

Learning outcome: The students will understand the various types of single use and repeated use plans made by the management.

August 2020

Unit 7: Directing

- Concept and importance
- Elements of Directing: - Supervision - concept, functions of a supervisor.; - Motivation - Concept, Maslow's hierarchy of needs; Financial and non-financial incentives.; - Leadership - concept, styles - authoritative, democratic and laissez faire.; - Communication - concept, formal and informal communication; barriers to effective; communication, how to overcome the barriers.

Unit 8: Controlling

- Concept, nature and importance
- Relationship between planning and controlling
- Steps in the process of control

Activity (communication barriers)

The teacher will divide the class into five groups. Each group is required to list down certain situations where the communication done to them is not clear or they were not able to act according to the communication. The teacher will now club all the situations and we'll discuss with the class the type of communication barrier and the various categories in which these barriers can be classified. Also what can be done to remove these communication barriers.

Teaching aids: case studies from real life situations

Learning outcome:

Understanding of various problems faced by the managers and the employees during communication and how the management deals with such communication barriers.

September 2020

Unit 9: Financial Management

- Concept and objectives of financial management.
- Financial decisions : investment, financing and dividend and factors affecting.
- Financial planning - concept and importance.
- Capital Structure - concept and factors affecting.
- Fixed and Working Capital - concept and factors affecting their requirements.

Unit 10: Financial Markets

- Financial Markets: concept and types.
- Money market and its instruments.
- Capital market and its types (primary and secondary).
- Stock Exchange - functions and trading procedure. Depository Services and Demat Account.
- Securities and Exchange Board of India (SEBI) - objectives and functions.

Activity (stock exchange)

The teacher will ask some of the students of the class to select any five companies and study the share prices of these companies for 15 continuous days. The students are asked to take some basic investments and assume that they have invested their money in either of these companies. They are required to calculate the profit or loss at the end of the 15th day by such investments.

Learning outcome:

Understanding of the trends of the share market and decide how wise investments can be done.

October 2020

Unit 11: Marketing Management

- Marketing - concept and functions.
- Marketing management philosophies.
- Marketing Mix - concept
- Product - concept, branding, labeling and packaging. Price - factors determining price.
- Physical distribution- concept, channels of distribution: types, choice of channels.
- Promotion -concept and elements; advertising- concept, role, objections against advertising, personal selling - concept and qualities of a good salesman, sales promotion - concept and techniques, public relations - concept and role

Unit 12: Consumer Protection

- Concept and importance of consumer protection.
- Consumer Protection Act 1986
 - Meaning of consumer and consumer protection.
 - Rights and responsibilities of consumers
 - Who can file a complaint and against whom?
 - Redressal machinery.
 - Remedies available.
- Consumer awareness - Role of consumer organizations and Non-Governmental Organizations (NGOs).

Activity (marketing management)

The teacher asks each student to select any product.study five existing brands of the product selected by them. On the basis of the study they will decide about four P's of their product.

Now student will decide their own brand, package of the product, label, promotion schemes, distribution decisions and product pricing etc.

Teaching Aid: various products with their packages, websites of various companies, information s from the newspaper etc.

Learning outcome:

The students will understand various important decisions taken by the marketeers to capture the markets.

November 2020

Sample papers

December 2020- revision for pre boards

January 2021 -Pre boards + revision for annual exams

March 2021 - Annual cbse exams

SUBJECT -MATHEMATICS

Sr. No.	Month	Chapter/Topic	Activity	Learning Outcome
1	March	Relation & function	Paper sheets used to explain and demonstrate types of function by doing interactive exercise with students -cutting & pasting of sheets	Students were able to grasp the concept of types of function, composition of function in detail etc.

2	March	Inverse Trigonometric Function	Educational video clip of The Leaning tower of Pisa shared to explain Inverse Trigonometric Function used in correction of base of structure	Students were able to grasp the concept. They were able to connect with real life engineering solutions available with help of inverse trigonometric functions
3	March/April	Matrices and determinants	Educational video clip shared to give live example on Matrix from football game, number of passes represented by Matrix	Students learnt the use of matrices in daily life by using products of matrices
4			Students were asked to prepare flowchart to represent solution of system of liner equations	Students learnt concept to form and solve the system of linear equations by converting real life situations into same
5	May	Continuity & differentiability	Concept of velocity discussed to explain derivatives	Students learnt to find the change in one variable due to change in another variable
6	July	Application of Derivatives	Educational video clip of cyclist on hill who is subjected to ever-changing slope of hill (positive as well as negative). Concept of slope of tangent explained in detail with the same	Students were able to grasp the concept of application of derivatives and applications of same in daily life- architectural & business problems
			Preparation of various size of boxes from same size sheets of cardboard and then determining the maximum volume out of these open boxes. Further analyzing same with help of derivatives.	
7	July/August	Integrals	Students given problem of travel budget of a family to be planned using Integration	Students learnt the concept of finding the function with given derivatives such as to find the distance with given velocity and velocity with given acceleration
			Students were asked to prepare flow chart of method of partial fraction to solve the integrals	Students also learnt to derive the profit/cost function with given marginal profit/cost etc.
8	September	Applications of integrals	Students were made to find area of circle and then do same with help of area under cover using the concept of application of integration	Students learnt to find area under simple curves (parabolic shape, circles, ellipse etc.) and area between two curves
9	September/ October	Differential equation	Students to be explained concept of differential equation in details (order & degree of differential equation). Solution of differential equation, formation of differential equation. Different methods to solve differential equation by taking daily life examples	Students will be able to know that differential equation geometrically represents a family of curves or some individual curves. To find the functional relationship between two variables from given differential equation
10	October	Vectors	Students to be explained use of vectors to show that angle in a	Students will learn the use of addition of vectors relating to side

			semi-circle is a right angle. Products of vector to be explained and its applications to find work done by force and projection of a vector along another vector	of triangles. Use of products of vectors in finding area of parallelogram and triangle etc.
11	November	Three Dimensional Geometry	All the concepts of chapter to be explained. To show video clip on smart board. Verify angle between two planes is same as angle between their normals using cardboard	Students will be able to find equation of a straight line in space with given point and direction /two points, equation of a plane and different forms. They will be able to find distance between two planes, angle between two planes, angle between line and a plane
12	November	Probability	To demonstrate the computation of conditional probability of a given event A When another event B has already occurred through an example of throwing a pair of dice	Students will be able to learn use of conditional probability, probability distribution in daily life.
13	December	Linear programming	Educational video clip shown for linear programming related to business problem	Students will be able to learn mathematical formulation of linear programming problem to maximize the profits and minimize the costs

SUBJECT - HISTORY

MONTH	UNIT	TOPICS	ACTIVITIES	LEARNING OUTCOMES
MARCH		PART- 1 CH-1 Bricks, beads and bones (The Harappan civilisation)	Do a case study on the basis of an archaeological report of the major sites of Harappan civilization.	It will give more knowledge regarding the site that they have chosen.
		Ch- 2 Kings, farmers and towns (Early states and economies, c.600BCE - 600 CE)	Students will have to mark and locate the important sites of Mauryan period on the map.	Students will be familiar with the major trends in the political history of Mauryas.
APRIL		Ch- 3 Kinship, caste and class (Early societies, c.600BCE - 600CE)	Students will tell oral narratives in the form of stories related to Mahabharata	Students will be able to know about the society, culture and norms of that period.
		Ch- 4 Thinkers, beliefs and buildings (Cultural developments, c.600BCE- 600CE)	Group discussion on way in which Sanchi stupa has been interpreted by the historians according to its architectural structure.	Student's awareness regarding the heritage structure of stupa will be focused.
MAY	UT - I	PART - II Ch- 5 Through the eyes	Class will be divided in groups and each group has	They will learn about the multiple point of views of

		of travellers (perceptions of society, c.10 th to 17 th centuries)	to discuss about the account of different travellers. Students will be taken for an excursion trip to National Museum.	different travellers. Speaking skills will be enhanced.
		Ch- 6 Bhakti-sufi traditions (Changes in religious beliefs and devotional texts, c.8 th to 18 th centuries)	Students will prepare a skit or songs on Bhakti sufi saints.	Full-fledged knowledge regarding the bhakti-sufi tradition will be enhanced
JULY		Ch- 7 An Imperial capital: Vijaynagara (c.14 th to 16 th centuries)	Beautifully illustrate the visuals of buildings and temples at Hampi through the use of multimedia.	Learners will be familiarised with the architectural structures of this period.
		Ch- 8 Peasants, zamindars and the state (Agrarian society and the Mughal Empire, c.16 th - 17 th centuries)	Students will be asked to do a role play on the village community.	They will learn through performing art about the society of Medieval period
	UT- II	Ch- 9 Kings and chronicles (The Mughal courts, c.16 th to 17 th centuries)	Students have to prepare bookmarks of Mughal paintings and explain about it.	They will be able to come across designs and art of Mughal period.
AUGUST		PART – III Ch- 10 Colonialism and the countryside (Exploring official archives)	Prepare an article on revenue settlements in various regions of India and survey by East India company in late 18 th century.	Students will get to know about the effects of revenue system.
		Ch- 11 Rebels and the Raj (1857 Revolt and its representations)	Pictorial representation of revolt of 1857 and how the pictures of the revolt shaped British opinion of what had happened.	It will give an exact interpretation of revolt of 1857 to the students.
SEPTEMBER	I- TERM	Ch- 12 Colonial cities (Urbanisation, planning and architecture)	Discussion briefly on the growth of Bombay, Calcutta and Madras during 18 th and 19 th century.	It will familiarise the learner with the history of modern urban centres
OCTOBER		Ch- 13 Mahatma Gandhi and the Nationalist movement (Civil disobedience and beyond)	Students will prepare a skit on the life and struggle of Gandhi ji.	Students will understand the role of Gandhiji in the freedom struggle in an elaborative manner.
		Ch- 14 Understanding partition (Politics, memories, experiences)	Interview will be taken by the students, of those people who have experienced partition.	They will have best understanding of the event through the experience of those who lived through

				these years of communal violence.
NOVEMBER	UT - III	Ch- 15 Framing the Constitution (The beginning of a new era)	The constitutional assembly debate between the students will be held.	Student's knowledge regarding Indian constitution will be enhanced.
DECEMBER	First Pre-Board	Revision through Sample papers		
JANUARY FEBRUARY	Re-PreBoard and Board practicals			
FEB-MAR	Board CBSE Exams			

SUBJECT - HOME SCIENCE

Month	Chapter	Activity	Learning Outcomes
March	Adolescence	Preparation of report on adolescent changes with self, family and teachers	<ul style="list-style-type: none"> Identify the domain and principles of development Differentiate b/w early and late matures Recognize and help meeting the various need of adolescence Define growth and development.
March	Influence on identity formation of adolescents		<ul style="list-style-type: none"> Recognize the role of heredity and environment on the identity of adolescent Trace the cognitive changes that have a strong influence on the identity formation of adolescents Discover the influence of biological and physical changes on the identity formation of adolescents.
April	Specific issues and concerns of adolescents		<ul style="list-style-type: none"> Understand the issues related to se Clarify the myths and misconceptions associated with substances abuse Evolve ways which can help adolescents handle stress and peer pressure Empathise with adolescents suffering from depression.
April	Adulthood, old age and anger management		<ul style="list-style-type: none"> Understand the responsibilities of young and middle adulthood concerning career, marriage and family Identify and meet the physical, social, emotional, financial and recreational needs of old age

			<ul style="list-style-type: none"> Adopt ways to care for elderly at home
May	Meal planning	Observe how meals are planned at home .identify the principles of nutrition which have been applied in the meal preparation .give suggestions for improvising	<ul style="list-style-type: none"> Identify the factors affecting meal planning and selection of food Plan a common meal for family keeping principles of meal planning in mind Use of basic food groups(ICMR) and serving size in meal planning.
May	Modification of meals	Modify your diet so that deficiencies are made up. Note down whatever you eat every day for a week along with their amount in measures.	<ul style="list-style-type: none"> List nutritional needs of varied age groups such as infants, children , adolescents, adults elderly pregnant and lactating women Modify the common meals to suit the nutritional needs of children, adolescents and adults Recognise the physiological changes and clinical symptoms of common ailments Explain the different ways therapeutic meal can be modified with respect to consistency.
July	Food safety and quality	Observe the hygiene of your school, canteen and suggest ways to improve it	<ul style="list-style-type: none"> Understand the causes and consequences of food contamination Adopt hygiene practices while handling food Indicate the common adulterant found in cereals, pulses, milk and milk products Identify standardized marks given on specific food.
July	Family income	Make a list of activities that could be undertaken to supplement income. Prepare a record of expenditure for your family.	<ul style="list-style-type: none"> Recognize the need of supplementing income Suggest a procedure for keeping daily, weekly and monthly in record of household accounts Suggest ways of supplementing income
August	Savings and investments	Visit various financial institutions and collect the latest information on their various schemes.	<ul style="list-style-type: none"> Emphasize the importance of saving List the various financial institutions available to an investor Describe the salient features of various investment schemes such as banks, post offices, LIC, PPF, med claim and PF.
August	Consumer protection and education	Organize a consumer awareness week in the school Collect labels of different certification	<ul style="list-style-type: none"> Use consumer aids to their advantages Exercise their sight and

		marks and compare with a ideal label	<p>responsibilities as a consumer</p> <ul style="list-style-type: none"> File a complaint in the appropriate forum if the need arises.
September	Application of elements of arts and principles of design	Evaluate your school dress for elements and principles of design and suggest improvement	<ul style="list-style-type: none"> Illustrate the use of elements of art in designing apparels illustrate the use of principles in of design in designing apparels
September	Selection of fabrics and apparel	Observe your school dress and evaluate its workmanship Collect pictures of cine stars of different decades and observe the changes in fashion.	<ul style="list-style-type: none"> Develop criteria for purchasing fabrics like purpose cost season, quality Select apparel according to age size climate occupation figure occasions fashion drape and cost Formulate criteria for checking quality and workmanship in clothes
October	Care and maintenance of clothes	Survey the market for various soaps and detergents Make a stain removal kit Wash two of your school shorts with soap and detergent each. Compare the results and draw conclusion	<ul style="list-style-type: none"> Know about the basic difference between soap and detergents Explain the need for careful storage of clothes Elaborate the procedure for storing various types of fabrics Remove stains of tea, coffee, lipstick, ball pen, grease, curry and blood Trace the preliminary steps in laundering fabric and justify the need for each step
October	Water safety	Educate the ppl for adopting hygienic handing of water Conduct a market survey on types of water filter available and their relative cost	<ul style="list-style-type: none"> Describe common house hold methods of making water safe for drinking State the qualities of safe water Indicate the suitability of boiling, using alum chlorine to make water potable
November	Income generating schemes	Collect newspaper articles on income generating schemes	<ul style="list-style-type: none"> Know about salient features of two income generating schemes/launched by the government
November	Career options after home science education	Preparing a slide show on future options of home science Collect information from home science alumni about their profession	<ul style="list-style-type: none"> Explain that vocational opportunities can lead to wage and self - employment State a plan for a vocation in home science Improve their abilities to handle resources more efficiently

MONTH	UNIT	TOPICS	ACTIVITIES	TEACHING AIDS	LEARNING OUTCOMES
Book-I					
Indian constitution at Work					
MAY	1	Constitution	Cartoon based questions Passage boxes and stamp-based questions, the Constitutional Assembly Debate between students.	E-Modules, textual illustrations such cartoons, plus boxes and newspaper clippings	<ul style="list-style-type: none"> Students would be able to understand the need for a constitution. Students would be able to explain the authority of a Constitution.
July	2	Election and Representation	Class and home assignments, picture-based questions, passage boxes and stamp-based questions, Students will conduct elections at class level.	E-Modules, textual illustrations such cartoons, plus boxes and newspaper clippings.	<ul style="list-style-type: none"> Students would be able to understand the link between Elections and Democracy. Students would be able to examine the efficacy of Reservation of Constituencies. Students would be able to critically evaluate Free and Fair Elections. Students would be able to assess the efficacy of Electoral Reforms.
UT-I					

Aug	3	Legislature	<p>Class and Home Assignments</p> <p>Picture based questions</p> <p>Create a ballot Paper by your own way, Mock Parliament will be conducted at class level.</p>	E-Modules, textual illustrations such cartoons, plus boxes and newspaper clippings.	<ul style="list-style-type: none"> • Students would be able to assess the need for a strong Parliament. • Students would be able to explain the composition of the two houses of parliament. • Students would be able to explain functions and powers of the parliament: legislative functions, control over executive etc
	4	Executive	Students will conduct Mock Elections of the President at school level.	E-Modules, textual illustrations such cartoons, plus boxes and newspaper clippings.	<ul style="list-style-type: none"> • Students would be able to examine the types of Executive. • Students would be aware about the role and functions of Prime Minister and Council Of Ministers.
	5	Judiciary	Picture-based questions, passage boxes and stamp-based questions, Debate will be held on Legal issues.	Textual illustrations such as cartoons, e-modules, newspaper clippings.	<ul style="list-style-type: none"> • Students would be able to explain the need for an independent judiciary. • Students would be able to analyze

					Judicial Activism from the late 1980s.
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UT-II

SEPT	6	Local Governments	Case studies, visit a village. Survey on village community.	E-modules, newspaper clippings, plus boxes.	<ul style="list-style-type: none"> Students would be able to understand decentralization via 73rd and 74th Amendments Students would be able to assess problems related to implementation of 73rd and 74th Amendments
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**Book-II
Political Theory**

	7	Political Theory - An Introduction	Right short notes on Kautilya Aristotle and Dr. B.R.Ambedkar and share them with your friends through email. Prepare a glossary of terms Collect the messages of important political thinkers and share them with your parents.	E-content, newspapers and magazines.	<ul style="list-style-type: none"> Students would be able to understand politics and political theory. Students would be able to identify important political thinkers in India and in the world.
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TERM I

Oct	8	Liberty	Students may be asked to read biographies of our freedom fighters as well as of some eminent global personalities like	E-materials, E-pathshala, newspaper clippings, etc.	<ul style="list-style-type: none"> Students would be able to explain the importance of freedom for self and society.
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			Nelson Mandela who struggled against the Apartheid Regime.		<ul style="list-style-type: none"> Students would be able to explain the difference between positive and negative freedom.
	9	Equality	<p>Prepare a glossary of terms.</p> <p>Prepare a chart on schemes and programs that address inequalities related to access, enrolment, retention and achievement of learners at the secondary level of education.</p> <p>Prepare a comic strip on inequalities existing in your neighbourhood.</p>	E-content, E-pathshala, newspaper/magazine/radio/T.V/Other audio-video materials.	<ul style="list-style-type: none"> Students would be able to explain the concept of equality. Students would be able to understand the pursuit of Equality involves treating everybody the same way. Recognizes different dimensions of Equality - Political, Economic and Social.
NOV	UT-III				
	10	Justice	Prepare a note on gender equality as a stepping stone for development, Debate on Rule of Law.	Picture-based questions, passage boxes, stamp-based questions, e-content.	<ul style="list-style-type: none"> Students would be able to explain Equality, Justice and Democracy. Students would be able to evaluate Dr. Ambedkar on social justice.
DEC	11	Rights	Class and home assignment, picture-based questions, debate	Textual-illustrations, e-content, ppts, audio-video materials.	<ul style="list-style-type: none"> Students would be able to understand the need for

			on rights and duties.		<p>the rights and the states.</p> <ul style="list-style-type: none"> Students will be able to explain the scope of different dimensions of rights.
	12	Development	Class and home assignment, picture-based questions, passage boxes and stamp-based questions.	Textual-illustrations, e-content, ppts, audio-video materials.	<ul style="list-style-type: none"> Students would be able to assess the various models of development. Students would be able to critically evaluate economic model of Development.
JAN	Revision		Class Test		<ul style="list-style-type: none"> Students would be able to understand and explain the different topics covered. Students would be able to analyze the different approaches to the study of concepts.
FEB					
Annual Exams					
MARCH					
Result Declaration					