ST. COLUMBA'S SCHOOL CONTINUOUS LEARNING PLAN CLASS XII 2020-2021

SUBJECT: ENGLISH

GENERAL LEARNING OUTCOMES

The students will be able to

- 1. acquire a reasonable degree of language proficiency in English language
- 2. appreciate the various genres of texts presented in the syllabus
- 3. hone their language abilities for effective reading, writing, listening and speaking skills

MARCH

1.The Last Lesson

- Summarize the story' The Last Lesson' in a gap-filling exercise. (Understand)
- Recall the important points of the story through a short answer type quiz and multiple-choice answer quiz. (Remember)
- Write the character sketch of Mr. M. Hamel. (Create)
- Practice time management and overcome the habit of procrastination(Apply)
- Infer the meaning of metaphorical statements in the story (Analyze)
- Evaluate the linguistic chauvinism of German who forced their language upon the French(Evaluate)

2. Deep Water

- Identify the characteristics of an autobiographical account
- Recount the unpleasant experiences suffered by William that set the fear of drowning within him.
- Relate the experience of unexplained fear and ways to overcome it.
- Describe the intensive training undertaken by the narrator to become a swimmer
- Recall how he tested if he still had residual fears of drowning

3. My Mother at Sixty six

 paraphrase the poem 'My Mother at Sixty-six' by Kamla Das in a cloze

APRIL

1. Lost Spring

- Summarize the stories in a gap-filling exercise. (Understand)
- Recall the important points of the story through a short answer type quiz, multiple-choice answer quiz, reference to the context, and true and false. (Remember)
- Write the character sketch of Saheb and Mukesh (Create)
- Infer the meaning of metaphorical statements and other figures of speech in the story by writing a short note on them (Analyze)
- Discuss the perpetual state of poverty, hazards of engaging children in child labour, the culprits who keep them bound to a life of poverty (Evaluate)
- Reflect on the title of the story.

2. Classified Ads

- comprehend the purpose of drafting ads.
- apply the correct format in the ad
- recognise the kind of ads that appear for various products and services
- arrange and present relevant information based on inputs provided for the ad.
- compose ads with relevant content on a variety of topics

- exercise, MCQ and Fill in exercise. (Remember)
- identify the figures of speech used in the poem (Remember)
- justify the title of the poem by writing a note on it. (Evaluate)
- analyse the important phrases in the poem by attempting a reference to context exercise. (Analyse)

MAY

1. Aunt Jennifer's Tigers

- Describe the tigers created by Aunt Jennifer
- Contrast the personality of the tigers with her own
- Identify the figures of speech
- Co-relate the tigers with Aunt Jennifer's desire to escape the oppression of her marriage
- Discuss how Aunt Jennifer is a representative of women all over the world who could not break away from the chains of marriage.

2. Keeping Quiet

- Identify the benefits of keeping quiet mentioned by the poet
- Explain the poet's call for introspection for all human beings who have divided themselves on the basis of race, language and nationalities.
- Discuss the futility of self-destructive activities and war carried out by mankind
- Practice sitting in silence to introspect on one's actions and plans ahead.
- Identify the poetic devices and explain their use.

JULY

3. Article Writing

- understand the language of propaganda and persuasion
- use persuasive language in articulating and defending one's opinion
- indentify points for the introduction, body and conclusion
- choose words and phrases to make the content effective
- write articles on a variety of topics

2. Indigo

- Recall from their history lessons the anecdotes about India's freedom struggle
- Recognize instances of leadership shown by Gandhi
- Compare and contrast the changes brought about in Champaran after Gandhi's visit
- Empathise with the poor farmers always living in fear and under subjugation
- Evaluate the role of Gandhi and his method of work through the chapter
- compose well-structured answers based on their comprehension of the lesson

3. Evans tries an O-Level

- Appreciate the humour used in the story
- Recall the details elaborate plan laid out by Evans for his escape
- Identify the lapses on the part of the prison authorities
- Relate Evans' escape from the jail to other escapes from jails
- Discuss the provision of educational opportunities for prisoners.

 Explain the role of the correction slip and Evans' accomplices.

AUGUST

1. The Rattrap

- Recall the synopsis of the story.
- analyze the values and thought processes of the peddler throughout the story.
- identify the insecurity while tackling personal fears and horrors that lurk in the recesses of our mind.
- Explain the life-altering effect of Edla's act of kindness towards the peddler.
- Discuss whether the change in the peddler would be a lasting one.

2. A Thing of Beauty

- acquaint themselves with the life and works of John Keats
- Explain why the poet describes beauty as a constant source of joy.
- Enumerate the things of beauty listed by the poet I nature
- Justify how beauty can also be found in the grand tales of great lives.
- Discuss the effect of beauty in uplifting spirits and
- identify the poetic devise and their use in the poem

3. Revision - Job Application

- Discuss the significance of the drafting a good job application
- List the essential qualities and pieces of information that are necessary for the job application
- Frame statements appropriately for a job application
- Draft the bio-data with information in the correct sequence.
- Compose job applications for a on a variety of posts.

4. Revision- Invitations & replies

Comprehend the purpose of writing formal & informal invitations and

SEPTEMBER

1. An Elementary School Classroom in a Slum

- paraphrase the poem 'An Elementary School Classroom in a Slum' by Stephen Spender in a cloze exercise, MCQ and Fill in exercise. (Remember)
- explain the background and setting of the poem (Understand)
- identify the figure of speech used in the poem with the help of quiz (Remember)
- justify the title of the poem by writing a note on it. (Evaluate)
- be empathetic towards the plight of the slum children. (Affective)
- analyse the important phrases in the poem by attempting a reference to context exercise. (Analyse)

2. Term Exam

3. Revision-Report Writing

- understand the use of formal language and need for objectivity while writing reports.
- indentify points for the introduction, body and conclusion
- choose words and phrases to make the content effective
- write reports on a variety of topics for newspapers/ school magazines

- their replies.
- apply the correct format while writing an invitation
- recognise the kind of invitations given out to people depending on their relationship with the writer.
- arrange and present relevant information based on inputs provided for the invitation.
- compose invitations with relevant content for a variety of events

OCTOBER

1. On the Face of It

- Identify the deformities suffered by Derry and mr. lamb
- Contrast the personalities of both characters and their attitude towards life
- Explain how Mr. Lamb encourages
 Derry to look at the bright side of things and adapt to the reality of life bravely.
- Empathise with victims of various deformities who feel the sense of alienation and lack of acceptance
- Justify the title 'On the Face of It'

2. Should Wizard hit Mommy

- Recall the sequence of events in the correct order
- Identify the reasons why Jack was beginning to get upset with Jo while trying to tell her the story
- Discuss how children and adults view the world differently
- Examine if magic is real and can be used to solve problems
- Discuss why it is important to embrace one's identity even when they are shunned by others.
- Describe how parental authority and gender roles are challenged in the story.

NOVEMBER

1. The Third Level

- Summarize the story in a gap-filling exercise. (Understand)
- Recall the important points of the story through a questionnaire, fill-in, reference to the context and MCQ quiz. (Remember)
- Write the character sketch of Mr. Charley (Create)
- The role of Charley's Psychiatrist (Analyze)
- Debate if Charlie had visited third level by writing a short note on it. (Evaluate)

2. The Enemy

- Recall the Second World War as the background of the story that eventually culminates in dropping of atom bombs on Hiroshima and Nagasaki by America.
- List the reasons why Dr. Sadao was considered indispensible for Japan and the General in particular
- Discuss why he and his wife decide to bring an enemy soldier to their house
- Describe the attitude of the servants towards the enemy soldier, the doctor and his wife.
- Justify the actions of the doctor who rose above narrow prejudice and valued humanity
- Elaborate how Dr. Sadao managed to remain loyal to both his country and his profession.
- Justify "The Enemy" as a befitting title for the story

2. Revision of all Writing Skills

<u>DECEMBER</u>	<u>JANUARY</u>
EXAMS	EXAMS

ASSESSMENT PLANNER

Periodic Test - 1	SYLLABUS
40 Marks	Note Making, Classified Ad (Lost & Found), speech, My Mother at Sixty Six, Last Lesson, Deep Water, Journey to the end of the Earth, The Interview, Lost Spring
Half Yearly Exam 100 Marks	SYLLABUS Comprehension
100 Ivial K5	Writing: Classified Ads(situation vacant/wanted ad, sale & purchase ad),
Theory / Prac 80/20	Formal invitation and reply, Letter to the Editor, Job Application, Article Writing
	Literature: The Last Lesson, Deep Water, Lost Spring, My mother at 66, Aunt Jennifer's Tigers, Keeping Quiet, Indigo, Evans Tries an O-Level, The Rattrap
PRE BOARD – 1 & 2 100 Marks	SYLLABUS
200 17101113	ENTIRE SYLLABUS
Theory / Prac	
80/20	

- THE SYLLABUS IS SUBJECT TO CHANGE ACCORDING TO THE INSTRUCTIONS THAT COME LATER DURING THE ACADEMIC SESSION BY THE CBSE.
- ANY LESSON THAT IS NOT COMPLETED WITHIN THE STIPULATED TIME WILL BE CARRIED FORWARD TO THE NEXT MONTH.

SUBJECT: PHYSICS

LEARNING OUTCOMES

- 1. Emphasis on basic conceptual understanding of the content.
- 2.Emphasis on use of S.I.units, symbols, nomenclature of physical quantities and formulation as per international standards.
- 3.Expose the learners to different processes used in physics- related industrial and technological applications.
- 4.Develop process-skills and experimental, observational, manipulative, decision making and investigatory skills in the learners.
- 5.Develop conceptual competence in the learners and make them realise and appreciate the interface of physics with other disciplines.

MARCH

1. ELECTRIC CHARGES AND FIELDS

To make the learners to understand the theoretical and mathematical concepts of Electric Charges and its Properties and Electrostatics forces and fields of different charge distributions.

Students acquires the basic knowledge of Electric charges, concept of electrostatic force in vector form different distribution of charges, Electric field produced by different distribution of charges and its mathematical analysis. Student will be able to relate the phenomena of charging of a body with daily life

APRIL

- 1. ELECTRIC CHARGES AND FIELD CONTNUED
- 2. ELECTROSTATIC POTENTIAL AND CAPACITANCE
- 3. CURRENT ELECTRICITY

To make the learners to understand the concept of Electric potential due to different charge distributions and its relation between electric field. Also the students will learn about the capacitance, dielectrics and its polarization Student will be able to relate the Electrical potential with electric field. Student will be able to understand the working of charge storing device i.e, capacitor

Students are able to understand the concept of Potential difference and current and also the process of finding the unknown current in a loop using KVL and KCL. Students will be able to understand the practical application of resistors and cells and it different combination in real life. Students will be able to operate different electrical instruments like POT, Meter bridge, Galvanometer, Voltmeter, ammeter etc.

MAY

- 1. MOVING CHARGES AND MAGNETISM
- 2. MAGNETISM AND MATTER

 To make the learners to understand the concept of relation between electricity and magnetism and analysis of magnetic field for different kind of symmetrical structure. To

JULY

- 1. ELECTROMAGNETIC INDUCTION
- 2. ALTERNATING CURRENT
- 3. ELECTROMAGNETIC WAVES

To make the learners to understand the concept Electromagnetic Induction of single and double coil. To make the learners to understand the make the learners to understand the concept different measuring devices like galvanometer, voltmeter and ammeter. Student will learn about the relation between electricity and Magnetism and different methods to find the Magnetic field due to different types of conductor. • Student will learn about the force between two parallel conductors and its mathematical analysis depending upon the directions of current. • Student will learn about the conversion of galvanometer into ammeter and voltmeter of desired range and understand the different kinds of magnetic material and earth's magnetic field.

application based concept of Electromagnetic Induction (Generator, Transformer, choke coil) Students will learn about the different method to induce an emf in a given conductor which is useful to understand the concept of Mutual and self induction. Students acquires the basic knowledge about the Principle construction working and real life application of Transformer and Dynamo

To make the learners to understand the generation and real life application of electromagnetic wave depending upon the value of wavelength and frequency Student acquires knowledge about the Practical application of EMW in our Daily life

AUGUST

1. RAY OPTICS

2. WAVE OPTICS

To make the learners to understand the applications of different lenses, mirrors and optical instrument in our daily life. To make the learners to understand the difference between ray optics and wave optics and different optical phenomena such as interference, diffraction, polarization.

Student will learn about the different types of mirror and lenses and respective ray diagrams for image formation along the mathematical tactics and Analysis. Student will learn the different optical phenomena of in our daily life like Colour of a sky and cloud, Advanced sunrise and delayed sunset etc

SEPTEMBER

1. DUAL NATURE OF MATTER AND RADIATION

To make the learners to understand the dual nature of radiation of light as practical and wave.

Learners will be able to understand the dual nature of light (Wave and Particle) along with experimental and mathematical verification.

REVISION

OCTOBER

1. ATOM AND NUCLEI

To make the learners to understand the basic structure of atoms and nucleus proposed by different scientists and its importance in our life.

Learners will be able to understand the Concept of atoms and nuclei with help of different models developed by different scientists (Rutherford's model, bohr's model etc.)

NOVEMBER

1 SEMICONDUCTOR ELECTRONICS

To make the learners to understand the importance and significance of semiconducting devices in our daily and how they are different from conductor and insulator by explaining different semiconducting devices

Learners will be able to understand the Concept of Conductors, Insulator and semiconductor with the help of Band Energy Theory. Learners will be able to understand the Classification of semiconductors along with Practical applications in PN diode, Rectifier.

DECEMBER	<u>JANUARY</u>
PRE BOARD	PRE BOARD

ASSESSMENT PLANNER

Periodic Test - 1	SYLLABUS
40 Marks	ELECTRIC CHARGES AND FIELDS UPTO MAGNETISM AND CURRENT ELECTRICITYT
	(CHAPTER 1 TO CHAPTER 3)
Half Yealy Exam	SYLLABUS
	THEORY CHAPTER 1 ONWARDS UPTO DUAL NATURE OF MATTER
Theory / Prac	AND RADIATION
70/30	
80/20	
60/40	
	(CHAPTER 1 TO CHAPTER 11)
Theory	
100 Marks	
	PRACTICALS—7 EXPERIMENTS ,ACTIVITY FILE, PROJECT
PRE BOARD – 1 & 2	SYLLABUS
Theory / Prac	COMPLETE SYLLABUS
70/30	COMPLETE STEEMSOO
80/20	
60/40	PRACTICALS-ALL EXPERIMENTS, ACTIVITY FILE ,PROJECT
Theory	
100 Marks	

SUBJECT- CHEMISTRY

LEARNING OUTCOMES

STUDENTS WILL BE ABLE TO-

- IDENTIFY BASIC CONCEPTS, TERMS AND IMPORTANT EVENTS IN DEVELOPMENT OF ORGANOMETALLIC CHEMISTRY
- UNDERSTAND FUNDAMENTALS OF REACTION MECHANISMS
- PREDICT STRUCTURE, PROPERTIES AND REACTIVITIES OF ELEMENTS.
- IDENTIFY AND SOLVE CHEMICAL PROBLEMS AND EXLORE NEW METHODS.
- RECOGNIZE IMPORTANCE OF INORGANIC MOLECULES IN SUPPORTING ORGANIC
- BIOLOGICAL SYSTEM

SDG s objectives

- 1)End poverty in all its forms everywhere
- 2) End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
- 3) Ensure healthy lives and promote wellbeing for all at all ages
- 4) Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- 5) Achieve gender equality and empower all women and girls
- 6) Ensure availability and sustainable management of water and sanitation for all
- 7) Ensure access to affordable, reliable, sustainable and modern energy for all
- 8) Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all
- 9) Build resilient infrastructure, promote inclusive and sustainable industrialisation, and foster innovation
- 10) Reduce inequality within and among countries
- 11) Make cities and human settlements inclusive, safe, resilient and sustainable
- 12) Ensure sustainable consumption and production patterns
- 13) Take urgent action to combat climate change and its impacts
- 14) Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- 15) Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss
- 16) Promote peaceful and inclusive societies, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

17) Strengthen the means of implementation and revitalise the global partnership for sustainable development

MARCH

Electrochemistry (SDG 9, 7,12 & 4)
Haloalkanes and Haloarenes (SDG 3, 9,12 & 16)

- to study the various IUPAC nomenclature rules to name Haloalkanes and haloarenes
- to study, describe and apply the reactions of haloalkanes and haloarenes and their uses
- to understand the stereochemistry involved in the reactions
- to understand the working of Galvanic cells and SHE
- to define resistivity, conductivity, cell constant, molar conductivity and study the relation between them
- to describe the method for the measurement of the above mentioned quantities
- to justify the variation of molar conductivity and conductivity with concentration
- to enunciate Kohlrausch's law and learn it's applications
- to differentiate between ionic and metallic conductance
- to study the various laws of electrolysis

APRIL

Alcohol, phenol and ethers (SDG 4,9,12 & 16) p- block elements (group 15 if the syllabus and group 16) (SDG 6,13,8 & 9) Polymers (SDG 9,12,13,14 & 15)(now deleted from the syllabus)

- To study the nomenclature rules for alcohols ,ethers and phenols
- To learn the preparation, properties and uses of alcohols, ethers and phenols
- To study, understand and apply the following for group 15,16,17 and 18 elements
 General occurrence, configuration, oxidation states, trends in physical and chemical properties and few important compounds of the elements in the group

MAY

Aldehydes, ketones and carboxylic acids (SDG 3,9,12 & 16)

P – block elements (group 17 and 18) (SDG 6,13, 8 & 9)

Solutions (upto Henry's law) (SDG 14)

- To study, understand and apply the following for group 17 and 18 elements
- General occurrence, configuration, oxidation states, trends in physical and chemical properties and few important compounds of the elements in the group
- To describe the formation of different solutions
- Express concentration of solution in different units
- State and explain Henry's law and Raoult's law

JULY

Solutions (SDG 13,14,15 & 6)
Solid state (if included in the syllabus)(SDG 5)

Chemical Kinetics (SDG 4 & 5)

- Distinguish between Ideal unknown ideal solutions
- to explain deviations from Raoult's law
- to describe colligative properties of solutions and correlate these with molar mass of solute
- to explain Abnormal colligative properties exhibited by solutes in solutions
- define the average and instantaneous rate of reaction
- to express the rate of reaction with respect to change in Concentration of reactants and products with time
- To distinguish between Elementary and complex reactions along with order and molecularity of a reaction
- Two define rate constant and its variation with temperature
- to derive integrated rate equations for the zero and first order reactions

to describe collision theory

- To classify solids based on Binding forces and crystalline -amorphous nature
- to study the unit sells in three dimensional lattices
- to study the packing efficiency of solids in simple face centered and body centered crystal lattice
- differentiate between tetrahedral and octahedral voids and find the rank of different crystals
- to study the various types of point defects

AUGUST

Organic compounds containing nitrogen (SDG 3,9,12 &16)

- to describe amines as derivatives of ammonia having pyramidal structures
- to classify amines as -primary, secondary and tertiary amines and name them according to IUPAC and common nomenclature
- to study the preparation, properties and uses of amines
- To distinguish between primary secondary and tertiary amines

SEPTEMBER

Biomolecules (SDG 1, 2, 3, 14 & 16)

- To define biomolecules like carbohydrates proteins and nucleic acids
- classify carbohydrates proteins and nucleic acids according to their structures
- to explain the difference between DNA and RNA

OCTOBER

d and f- block elements (SDG 8, 9,11,15 & 14) Coordination compounds (SDG 3 & 7)

- Understand the occurrence electronic configuration trends in physical and chemical properties of transition metals
- To study the general trends in properties of first row transition metals that is the metallic nature, ionization enthalpy, oxidation states ,color catalytic properties, magnetic properties, interstitial compounds an alloy formation
- Lanthanoids to study their configuration,
 Oxidation states, lanthanide contraction and its consequences
- Coordination compounds -define ligands and study various types of ligands
- To understand magnetic properties shapes and IUPAC nomenclature of coordinate compounds

NOVEMBER

Surface Chemistry (SDG 3, 6, 7, 11 & 13)

- to define adsorption and classify it into physical and chemical adsorption
- to explain the mechanism of adsorption and factors which control it
- To explain Adsorption results on the basis of Freundlich's adsorption isotherms
- appreciate the role of catalyst in industries
- to enumerate the nature of colloidal state
- to describe preparation, properties and purification of colloids

to understand bonding using Werner's theory valence bond theory and crystal field theory in coordinate compounds	
DECEMBER	JANUARY
	Pre board
Pre board	

ASSESSMENT PLANNER

Periodic Test - 1	SYLLABUS
	ELECTROCHEMISTRY
40 Marks	P-BLOCK ELEMENTS GROUP 15 &16
	BASICS OF ORGANIC CHEMISTRY
	HALOALKANES AND HALOARENES
Half Yealy Exam	SOLUTIONS
	ELECTROCHEMISTRY
Theory / Prac	P-BLOCK ELEMENTS
70/30	CHEMICAL KINETICS
80/20	SOLID STATE
60/40	
	HALOALKANES AND HALOARENES
Theory	ALCOHOLS, PHENOLS AND ETHER
100 Marks	ALDEHYDES,KETONES AND CARBOXYLIC ACIDS
	ORGANIC COMPOUNDS CONTAINING NITROGEN
	PRACTICALS
	TITRATION OF POTASSIUM PERMANGANATE AND MOHRS SALT
	TITRATION OF POTASIUM PERMANGANATE AND OXALIC ACID
	ANALYSIS OF FOOD COMPONENTS
	IDENTIFICATION OF FUNCTIONAL GROUP
	CHROMATOGRAPH
PRE BOARD – 1 & 2	SYLLABUS
	SOLUTIONS
Theory / Prac	ELECTROCHEMISTRY
70/30	P-BLOCK ELEMENTS
80/20	POLYMERS
60/40	HALOALKANES AND HALOARENES
	ALCOHOLS, PHENOLS AND ETHER
Theory	ALDEHYDES,KETONES AND CARBOXYLIC ACIDS
100 Marks	ORGANIC COMPOUNDS CONTAINING NITROGEN
	D AND F BLOCK ELEMENTS
	CHEMICAL KINETICS

CHEMISTRY IN EVERY DAY LIFE
CO-ORDINATION CHEMISTRY
BIOMOLECULES
SURFACE CHEMISTRY
GENERAL PRINCIPLES AND PROCESSES OF ISOLATION OF ELEMENTS
SOLID STATE(if included in the syllabus)

PRACTICAL

TITRATION OF POTASSIUM PERMANGANATE AND MOHRS SALT TITRATION OF POTASIUM PERMANGANATE AND OXALIC ACID ANALYSIS OF FOOD COMPONENTS IDENTIFICATION OF FUNCTIONAL GROUP CHROMATOGRAPHY INORGANIC SALT ANALYSIS

SUBJECT: MATHEMATICS

LEARNING OUTCOMES

On completion of the prescribed CBSE syllabus, the students shall be able to

- Understand and differentiate between various concepts taught & apply them to solve the problems.
- Develop investigative skills & improve their logical and analytical skills
- Stimulate the interest among students by going from LOTS to HOTS
- Enable them to comprehend, analyze, synthesize, evaluate, and make generalizations so as to solve mathematical problems.
- Co-relate mathematics into their lives outside the school i.e. at home and in community
- Generate new knowledge with the information imparted
- Develop a positive attitude towards learning Mathematics
- Help them recognize the importance of mathematics for future professional courses.
- Perform mathematical operations and manipulations with confidence, speed and accuracy
- Think and reason precisely, logically and critically in any given situation & communicate mathematical ideas
- · Identify, concretize, symbolize and use mathematical relationships in everyday life
- Collect, organize, represent, analyze, interpret data and make conclusions and predictions from its results.
- Apply mathematical knowledge and skills to familiar and unfamiliar situations
- Develop willingness to work collaboratively

<u>MARCH</u>	APRIL
INVERSE TRIGONOMETRIC FUNCTIONS	CONTINUITYDIFFERENTIATION
MAY	JULY
APPLICTION OF DERIVATIVES (A.O.D)	INDEFINITE INTEGRALS
AUGUST	<u>SEPTEMBER</u>
 DEFINITE INTEGRALS APPLICATIONS OF INTEGRATION (A.O.I) DIFFERENTIAL EQUATIONS (D.E.) MATRICES 	 MATRICES CONTD DETERMINANTS RELATION & FUNCTIONS

<u>OCTOBER</u>	<u>NOVEMBER</u>
PROBABILITYLINEAR PROGRAMMING	VECTORS3D GEOMETRY
<u>DECEMBER</u>	JANUARY
PREBOARD 1	PREBOARD 2

ASSESSMENT PLANNER

Douis die Teet 1	CVITABLIC
Periodic Test - 1	<u>SYLLABUS</u>
40 Marks	 INVERSE TRIGONOMETRIC FUNCTIONS CONTINUITY & DIFFERENTIATION AOD
Half Yearly Exam	SYLLABUS
Theory / Practicals	PA1 SYLLABUS AND
80/20	INDEFINITE INTEGRALS DEFINITE INTEGRALS
	APPLICATIONS OF INTEGRATION(A.O.I)
TOTAL	DIFFERENTIAL EQUATIONSMATICES
100 Marks	• DETERMINANTS
PRE BOARD – 1 & 2	<u>SYLLABUS</u>
Theory / Practicals	COMPLETE SYLLABUS
80/20	
TOTAL	
100 Marks	

SUBJECT - ENGINEERING GRAPHICS

LEARNING OUTCOMES

- 1. Develop clear concepts and perception of geometric shapes, forms & proportion of 2D and 3D objects and application / using these concepts to express pictorially.
- 2. Develop the skill of expressing three-dimensional and two-dimensional objects into professional (engineering) language and vice versa.
- 3. Acquire the ability to draw neat sketches, often needed in "On-job situations".
- 4. Develop a clear understanding of plane and solid Geometry and machine drawing so as to apply the same in relevant practical fields such as technology and industry.
- 5. Acquire speed and accuracy in use of drawing instruments.
- 6. Use technology (CAD) in developing isometric and orthographic projections of simple object

MARCH

- 1. Introduction to Isometric drawing.
- 2. Drawing Isometric Scale

Learning objectives: Develop an understanding of what it is all about and why it is so important.

APRIL

- Isometric Projection of solids such as triangular, square, pentagonal and hexagonal pyramids and prisms & cone.
- 2. Isometric Projection of frustums of solids such as triangular, square, pentagonal and hexagonal pyramids and prisms & cone.

Learning objectives: To develop clear concepts of how it is drawn. Enhance visualization power. Acquire speed and accuracy in use of drawing instruments.

MAY

- 1. Isometric Projection of combination of solids.
- 2. Threads-Square, Knuckle, BSW and Metric
- 3. Machine parts such as nuts and bolts.

Learning objectives: To develop clear understanding of the various machine parts and their types and specifications. Enhance visualization power. Acquire speed and accuracy in use of drawing instruments.

<u>JULY</u>

- 1. Free Hand sketches of rivets and studs
- 2. Assembly and Disassembly of
- (a) Open Bearing,
- (b) Bushed Bearing

Learning objectives: To develop clear concepts of drawing the non-sectional and sectional views of the Assemblies. Enhance visualization power. Acquire speed and accuracy in use of drawing instruments.

AUGUST

- 1. Assembly and Disassembly of
- (a) Sleeve and Cotter joint,
- (b) Gib and Cotter joint,

Learning objectives: To develop clear concepts of drawing the non-sectional and sectional views of the Assemblies. Acquire the ability to draw neat sketches, often needed in "On-job situations". Acquire speed and accuracy in use of drawing instruments.

SEPTEMBER

- 1. Assembly and Disassembly of
- (a) Turn Buckle joint
- (b) Flange Pipe joint

Learning objectives: To develop clear concepts of drawing the non-sectional and sectional views of the Assemblies.

Acquire the ability to draw neat sketches, often needed in "On-job situations". Acquire speed and accuracy in use of drawing instruments.

<u>OCTOBER</u>	<u>NOVEMBER</u>
Revision	Revision
Learning objectives: To develop speed and accuracy and solve even the most difficult of problems with ease. Acquire speed and accuracy in use of drawing instruments.	Learning objectives: To develop speed and accuracy and solve even the most difficult of problems with ease. Acquire speed and accuracy in use of drawing instruments.
DECEMBER	<u>JANUARY</u>
Revision	Revision
Learning objectives: To develop speed and accuracy and solve even the most difficult of problems with ease. Acquire speed and accuracy in use of drawing instruments.	Learning objectives: To develop speed and accuracy and solve even the most difficult of problems with ease. Acquire speed and accuracy in use of drawing instruments.

ASSESSMENT PLANNER

Periodic Test - 1	SYLLABUS
40 Marks	 Isometric Projection of solids such as triangular, square, pentagonal and hexagonal pyramids and prisms. Isometric Projection of cone. Isometric Projection of frustums of solids such as triangular, square, pentagonal and hexagonal pyramids, prisms & cone. Isometric Projection of combination of solids. Threads— Square, Knuckle, BSW and Metric (External and Internal). Machine parts such as nuts and bolts. Free Hand sketches of rivets, studs, Assembly and Disassembly of (a) Open Bearing, (b) Bushed Bearing,
Half Yearly Exam	SYLLABUS
Theory / Practical 70/30	 Isometric Projection of solids such as triangular, square, pentagonal and hexagonal pyramids and prisms & cone. Isometric Projection of frustums of solids such as triangular, square, pentagonal and hexagonal pyramids and prisms & cone. Isometric Projection of combination of solids. Threads- Square, Knuckle, BSW and Metric Machine parts such as nuts and bolts. Free Hand sketches of rivets, studs, Assembly and Disassembly of Open Bearing Bushed Bearing Sleeve and Cotter joint

	d. Gib and Cotter joint
	e. Turn Buckle joint
PRE BOARD – 1 & 2	SYLLABUS
_	
Theory / Practical	1. Drawing Isometric Scale
70/30	2. Isometric Projection of solids such as triangular, square, pentagonal
	and hexagonal pyramids and prisms & cone.
	3. Isometric Projection of frustums of solids such as triangular, square,
	pentagonal and hexagonal pyramids and prisms & cone.
	4. Isometric Projection of combination of solids.
	5. Threads-Square, Knuckle, BSW and Metric
	6. Machine parts such as nuts and bolts.
	7. Free Hand sketches of rivets, studs,
	8. Assembly and Disassembly of
	a. Open Bearing
	b. Bushed Bearing
	c. Sleeve and Cotter joint
	d. Gib and Cotter joint
	e. Turn Buckle joint
	f. Flange Pipe joint

SUBJECT - HISTORY

Learning Outcomes

APRIL

Bricks Beads and Bones

- 1. Students should understand about the chronological events of Indus Valley Civilization and its importance one of the oldest and early four Bronze Age Civilizations.
- 2. Students should know about participation of Indus Civilization in world trade.
- 3. It is important to know about the well planned architecture of the Indus Civilization .
- 4. Young learners should have a research bent of mind and should collect facts and reasons about the whereabouts of the end of Indus Valley Civilization.

Kings, Farmers and Towns

- 1. It is important to know the history of the early Mahajanapadas as they were the new sophisticated kingdoms with the end of the Harappan period.
- 2. Rise of Magadha and Mauryas and the importance of Pataliputra and its importance in ancient Indian History as a premier city in Indian Subcontinent or South Asia.

- 3. Deciphering Brahmi script to understand ancient Indian society.
- 4. Study of Numismatics (Coins) help know about kings and rulers at a given time period.

Kinship, Caste and Class

- 1. The chapter help us know the important of Epics to have a deep knowledge of Indian History.
- 2. Importance of Matriliny.
- 3. Also the chapter focuses on rules of marriage in Indian society.
- 4. The chapter debates and helps us know about the origins of Asoka.

Thinkers, Beliefs and Buildings

- 1. The chapter helps students understand the Buddhist history and its legacy.
- 2. It is important to know about Mahavir Jaina and his philosophy of Non Violence.
- 3. How Buddhism spread across the world and became a world religion.
- 4. It is important to understand the role played by Shahjehan Begum for the conservation of Stupas.

MAY

Bhakti Sufi Traditions

- 1. The chapter helps students understand the beginnings and history of present day diverse society and helps them understand our rich heritage.
- 2. It is important for students to know the contribution of Bhakti movement in opposition of Caste system.
- 3. To appreciate acknowledge the contribution of Sufism to build a inclusive society.
- 4. Kabir and his prime emphasis on secularism.

An Imperial Capital Vijaynagara

- 1. It is important to know about the Vijaynagara empire as one of the major south Indian states during middle ages and its role to promote Unity in Diversity in the Vijaynagar State and International trade.
- 2. To understand the the techniques behind the remarkable engineering in defensive and irrigation network.
- 3. To know the diverse and unique traditions of the Vijaynagar state.
- 4. To understand the role of Vijaynagar in International commerce and trade.

JULY

Kings and Chronicles

- 1. The chapter helps us know the state , society , economy and it's great achievement as worlds largest economy in early modern period during Mughal rule.
- 2. Students must know about Akbars contribution in making Mughal Empire a secular state and promotion of Din i Ilahi.
- 3. To understand Mughal Court and Administration so as to know how it cherished the equality and justice and freedom of opportunity.

4. To understand the foreign policy of the Mughal Empire with other world states and how it maintained a balance in the region.

AUGUST

Colonialism and The Countryside

- 1. It is a utmost necessity to know how British exploited the Indian countryside.
- 2. To understand the evil administration of English East India Company to promote Zamindari
- 3. To understand and appreciate the revolts and resistance by peasants.
- 4. The resistance by Santhals the earliest known resistance by the tribals of India.

SEPTEMBER

Rebels and The Raj

- 1. To admire, appreciate the First War of Indian Independence in 1857 and the unity of nation irrespective of Religion, Caste and Sex against foreign BritishImperialism.
- 2. To study the events in a detailed Chronological manner to understand the matter in a depth.
- 3. To know about the great Indian leaders and their sacrifices who hailed from every Religion and Region.
- 4. To notice how British fuelled externe nationalism in their Countrymen by wrong portrayal of the people living inColonies.

SEPTEMBER

Mahatma Gandhi and the Nationalist Movement

- 1. To teach students about the legendary role of the Bapu in freedom struggle entirely based on Non Violence.
- 2. To explain the great struggles led by Mahatma Gandhi in a periodic sequence.
- 3. To put a emphasis on how Mahatma Gandhi helped to make India a great democratic and secular nation
- 4. The lesser known but a big role played by Mahatma Gandhi to convince Adolf Hitler to end Second World War.

OCTOBER

Framing the Constitution

- 1. Students should know the value and importance of our great constitution that helps us make the largest democracy in the world
- 2. To highlight the role of DR BR Ambedkar and his visions as well as struggles.
- 3. What role Constitution plays in our everyday life.
- 4. How Constitution helps to maintain peace and stability in the nation.

NOVEMBER

Revision Class Tests Assignments

Revision Class Tests Assignments
JANUARY
Revision Class Tests Assignments
FEBRUARY Revision Class Tests Assignments

DECEMBER

Subject - BIOLOGY (044)

MARCH UNIT – VI

CHAPTER 1: REPRODUCTION IN ORGANISM (BLOCK TEACHING) {DELETD IN THE REVISED SYLLABUS}

APRIL

Chapter-2: Sexual Reproduction in Flowering Plants

Flower structure; development of male and female gametophytes; pollination - types, agencies and examples; outbreeding devices; pollen-pistil interaction; double fertilization; post fertilization events - development of endosperm and embryo, development of seed and formation of fruit; special modes-apomixis, parthenocarpy, polyembryony; Significance of seed dispersal and fruit formation.

LEARNING OUTCOMES:

Students will be able to:

- I) Draw & label the parts of a L. S section of flower.
- II) Elaborate on the structure of stamen & pollen grains.
- III) List the importance of Tapetum.
- IV) Analyse the mechanism of Microsporogenesis.
- V) Draw & Label parts of pistil.
- VI) Elaborate on types of ovules found in plants.
- VII) Analyse the structure of Megasporangium.
- VIII) Explain the formation of Embryo Sac with diagrams.
- IX) Define Pollination.
- X) Explain types of Pollination involved in plants.
- XI) Elaborate the adaptations of plants which are pollinated by different agents.
- XII) Define various outbreeding devices used by plants to prevent self-pollination.
- XIII) Elaborate about pollen pistil compatibility interactions.
- XIV) Explain double fertilization process in plants.
- XV) Analyse the new plant breeding technique for Artificial Hybridisation. officially.
- XVI) Draw & Explain the formation of Endosperm, Embryo & Seed.
- XVII) Understand & Elaborate the process of Apomixis & Polyembryony.

Chapter-3: Human Reproduction

Male and female reproductive systems; microscopic anatomy of testis and ovary; gametogenesis - spermatogenesis and oogenesis; menstrual cycle; fertilisation, embryo development up to blastocyst formation, implantation; pregnancy and placenta formation (elementary idea); parturition (elementary idea); lactation (elementary idea).

LEARNING OUTCOMES:

Students will be able to: -

- I) Draw & Explain parts of Male Reproductive System.
- II) List functions of Accessory ducts & glands in male reproductive system.

- III) Define testis, Epididymis, vas deferens, vasa efferentia, Rete testis.
- IV) Define Gametogenesis.
- V) Explain the process of Spermatogenesis.
- VI) Analyse & Interpret the Hormonal Control of Spermatogenesis.
- VII) Draw & label the structure of a sperm.
- VIII) Explain the process of Oogenesis.
- IX) Explain the structure of Ovum in detail.
- X) Understand & Analyse Menstrual Cycle and it's different phases.
- XI) Interpret & List the sequences of Hormonal Control of Menstrual Cycle.
- XII) Understand & Interpret various steps of FERTILIZATION.
- XIII) Analyse various cortical Reactions to the entry of the sperms.
- XIV) List the significance of Fertilization.
- XV) Understand the process of IMPLANTATION & Cleavage.
- XVI) Analyse the process of EMBRYONIC DEVELOPMENT in mothers.
- XVII) Define Parturition & Lactation.
- XVIII) Analyse & District the mechanism of Parturition.
- XIX) List the importance of Colostrum In mothers' milk.

Chapter-4: Reproductive Health

Need for reproductive health and prevention of Sexually Transmitted Diseases (STDs); birth control - need and methods, contraception and medical termination of pregnancy (MTP); amniocentesis; infertility and assisted reproductive technologies - IVF, ZIFT, GIFT (elementary idea for general awareness).

LEARNING OUTCOMES:

Students will be able to:-

- I) Define Reproductive Health & Contraception.
- II) Illustrated the problems & strategies to control Population Explosions.
- III) Analyze the various types of Contraceptives Used.
- IV) Differentiate between vasectomy & Tubectomy.
- V) List the conditions for Medical Termination of Pregnancies. (MTP)
- VI) Analyze mode of transmission, causal organism & symptoms of Sexually Transmitted diseases.
- VII) Define & Understand the mechanism of Infertility.
- VIII) Analyze the different Assisted Reproductive Techniques used for treating INFERTILITY.

MAY

CHAPTER 9: STARTEGIES FOR ENHANCEMENT IN FOOD PRODUCTION. { DELETED FROM THE SYLLABUS FOR 2020-2021}

Chapter-10: Microbes in Human Welfare

Microbes in food processing, industrial production, sewage treatment, energy generation and microbes as bio-control agents and bio-fertilizers. Antibiotics; production and judicious use.

LEARNING OUTCOMES:

Students will be able to:-

- 1. Understand the usage of microbes in food industry.
- 2. Interpret the importance of microbes in sewage treatment plant
- 3. Understand the role of microbes as: BIO-CONTROL AGENT
- 4. Analyse the role of microbes in ANTIBIOTICS production.

Chapter-8: Human Health and Diseases

Pathogens; parasites causing human diseases (malaria, dengue, chikungunya, filariasis, ascariasis, typhoid, pneumonia, common cold, amoebiasis, ring worm) and their control; Basic concepts of immunology - vaccines; cancer, HIV and AIDS; Adolescence - drug and alcohol abuse.

LEARNING OUTCOMES:

Students will be able to:

- 1. Define Health & Diseases.
- 2. Differentiate b/w Infectious & Non Infectious Diseases.
- 3. Analyse & Interpretation various Causal Organism of common Human diseases,
- a. It's Symptoms & Mode of Treatment.
- 4. Define Immunity
- 5. Classify Immunity.
- b. 6. Explain the mechanism of NATURAL & ACQUIRED Immunity.
- 6. Differentiate between ACTIVE & PASSIVE IMMUNITY.
- 7. Understand & Analyse the various response our immune system develops to any invasion of pathogen.
- 8. Draw & Label the Structure of ANTIBODY.
- 9. List various types of Antibodies formed in our body.
- 10. Define Allergy.
- 11. List the major Allergens.
- 12. Enumerate the Mechanism involved in our Immune system to cause Allergy.
- 13. State the Treatment given for Allergy.
- 14. Define Autoimmunity.
- 15. Analyse the various types of Autoimmune diseases caused in Human body.
- 16. Understand its basic cause, symptoms & treatment involved in it.
- 17. Understand how it is different from ALLERGY.
- 18. Understand & list the various organs that play a role in IMMUNE SYSTEM of our body.
- 19. Analyse the mechanism of how each work & what kind of responses are generated by our body
- 20. Elaborate on AIDS, it's causal organism, spread & cure.
- 21. Analyse the mechanism of how CANCER is caused, its cure & its treatment.
- 22. Understand & Analyse the various composition & structures of Drugs used by Adolescent.
- 23. Interprets the preventive methodology of abuse of DRUGS

JULY

Unit-VII Genetics and Evolution

Chapter-5: Principles of Inheritance and Variation Heredity and variation: Mendelian inheritance; deviations from Mendelism – incomplete dominance, co-dominance, multiple alleles and inheritance of blood groups, pleiotropy; elementary idea of polygenic inheritance; chromosome theory of inheritance; chromosomes and genes; Sex determination - in human being, birds and honey bee; linkage and crossing over; sex linked

inheritance - haemophilia, colour blindness; Mendelian disorders in humans -thalassemia; chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.

LEARNING OUTCOMES:

Students will be able to:

- I) Define various important terms used in GENETICS.
- II) Understand the mechanism used by Gregor Mendel.
- III) Analyse why he is called the "Father of Genetics"
- IV) Interpret his experiment, observation & inference given by him.
- V) State the laws of Inheritance.
- VI) Explain the law of Inheritance with examples in MONOHYBRID CROSS & DIHYBRID CROSSES.
- VII) Explain the Incomplete Dominance with the help of cross
- VIII) Explain the Co dominance state with the help of cross.
- IX) Analyze why these do not follow LAW OF DOMINANCE & LAW OF SEGGREGATION.
- X) Understand the Gene interactions as in Mono gene, Multiple gene in the Chromosomes.
- XI) Define & Explain the process of Epistasis.
- XII) Explain the Pleiotropic Effect of gene.
- XIII) Define & Explain Polygenic Inheritance in Plants & Damp; Animals .
- XIV) Interpret why Mendel's work was not recognized earlier in 18 th century.
- XV) Explain what was the contribution of Sutton & Boveri in understanding the pattern of Inheritance.
- XVI) Analyse the similarities in between Mendel's work & Dromosomal Theory of Inheritance.
- XVII) Describe Morgon's work in the field of Genetics.
- XVIII) Analyze through the crosses the sex-linked genes to an eye color of Drosophila.
- XIX) State the reason for Morgon to work only on Drosophila melanogaster.
- XX) Define linkage, crossing over & recombinants.
- XXI) Explain how the concept of Linkage was given by Morgon.
- XXII) Differentiate between Complete & Incomplete Linkages.
- XXIII) Define & Calculate the Gene map of a chromosomes.
- XXIV) Understand the relation between map units & recombinant frequencies.
- XXV) Define linkage, crossing over & recombinants.
- XXVI) Explain how the concept of Linkage was given by Morgon.
- XXVII) Differentiate between Complete & Incomplete Linkages.
- XXV) Define & Calculate the Gene map of a chromosomes.
- XXVI) Understand the relation between map units & recombinant frequencies.
- XXVI) Define Mutation.
- XXVII) Classify the types of Mutation based on change in Genotypes & Phenotypes.
- XXVIII) Interpret & Define Pedigree Analysis.
- XXIX) Elaborate on Mendelian Disease: Hemophilia (causes, symptoms & cure) in detail along with crosses.
- XXXI) Elaborate on Mendelian Disease: Sickle cell Anaemia & phenylketonuria (causes, symptoms & cure) in detail
- XXXII) Elaborate on Colour Blindness (causes, symptoms & cure) in detail along with crosses.
- XXXIII) Elaborate on DOWN SYNDROME, TURNER SYNDROME & KLINE FELTER'S SYNDROME (causes, symptoms &cure) in detail along with crosses.

Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central Dogma; transcription, genetic code, translation; gene expression and regulation - lac operon; Genome, Human and rice genome projects; DNA fingerprinting.

LEARNING OUTCOMES:

Students will be able to :-

- 1. Differentiate b/w DNA & RNA
- 2. Elaborate on Chargaff's rule.
- 3. Discuss & prove the Genetic material by series of experiments.
- 4. Understand how the DNA is packed inside the chromosomes.
- 5. Explain the transcription, translation & elongation mode of proteins in our body.
- 6. Explain the expression & gene regulation.
- 7. Understand & analyse Human Genome / Rice Genome projects.
- 8. Explain the procedure of DNA FINGERPRINTING

AUGUST

Unit-IX Biotechnology and its Applications

Chapter-11: Biotechnology - Principles and Processes Genetic Engineering (Recombinant DNA Technology).

LEARNING OUTCOMES:

Students will be able to:

- 1. Understand the mechanism of Recombinant DNA Technology.
- 2. Analyse the various tools used to for creating recombinant DNA.

Chapter-12: Biotechnology and its Application.

Application of biotechnology in health and agriculture: Human insulin and vaccine production, stem cell technology, gene therapy; genetically modified organisms - Bt crops; transgenic animals; biosafety issues, biopiracy and patents.

LEARNING OUTCOMES:

Students will be able to: -

- 1. Apply the knowledge of various biotech technology in HEALTH & AGRICULTURE market.
- 2. Understand the process of creating Artificial Human insulin chains.
- 3. Analyse how Biotechnology processes can be used in Vaccine production.
- 4. Interpret the various issues like GENE THERAPHY, GMO ORGANISMS, BISAFETY ISSUES, BIOPIRACY & PATENT related issues in GENERAL

SEPTEMBER / OCTOBER

Unit-X Ecology and Environment

Chapter-13: Organisms and Populations.

Organisms and environment: Habitat and niche, population and ecological adaptations; population interactions - mutualism, competition, predation, parasitism; population attributes - growth, birth rate and death rate, age distribution.

LEARNING OUTCOMES:

Students will be able to:-

- 1. Define Niche, Habitat, population, community, Biomes, Ecosystem.
- 2. Understand & explain the various population interactions observed on our planet.
- 3. Explain how populations attributes, like birth rate, death rate, age distribution affects the POPULATION in AN AREA.

OCTOBER/ NOVEMBER

Chapter-15: Biodiversity and its Conservation

Biodiversity - Concept, patterns, importance; loss of biodiversity; biodiversity conservation; hotspots, endangered organisms, extinction, Red Data Book, Sacred Groves, biosphere reserves, national parks, wildlife, sanctuaries and Ramsar sites.

LEARNING OUTCOMES:

Students will be able to:-

- 1. Define biodiversity.
- 2. Elaborate on the causes for the loss of biodiversity in a region .
- Explain what are Hotspots , Red Data book , Sacred Groves .
- 4. Differentiate between Biosphere Reserves, national park, wild life sanctuaries.
- 5. Explain the famous Ramsar sites used as an example for conservation for biodiversity

REVISION OF BOARD PAPERS AFTER ALL THIS.

ASSESSMENT PLANNER 2020-2021

PA 1 SYLLABUS

40 MARKS

- REPRODUCTION IN ORGANISM
- SEXUAL REPRODUCTION IN FLOWERING PLANTS
- HUMAN REPRODUCTION
- REPRODUCTIVE HEALTH

* PA 1 SYLLABUS (EXCEPT : REPRODUCTION IN ORGANISM)

+

YEARLY EXAMS

THEORY / PRACTICAL 70/30

- * MICROBES IN HUMAN WELFARE
- * HUMAN HEALTH & DISEASES
- * PRINCIPLES OF INHERITANCE & VARIATION
- * BASIS OF INHERITANCE
- BIOTECHNOLOGY : PRINCIPLES & PROCESSES

PRE BOARD 1 & 2 HALF YEARLY SYLLABUS

THEORY / PRAC 70/30

- * BIOTECHNOLOGY & ITS APPLICATION
- * ORGANISM & POPULATIONS
- * BIODIVERSITY & CONSERVATION

SUBJECT: PHYSICAL EDUCATION

<u>MARCH</u>

UNIT 1 PLANNING IN SPORTS

After going through this chapter students will understand:

- MEANING AND OBJECTIVES IN PLANNING
- VARIOUS COMMITTEES AND THEIR RESPONSIBILITIES
- TOURNAMENTS
- PROCEDURE TO DRAW FIXTURES

<u>April</u>

UNIT 2 SPORTS AND NUTRITION

After studying this chapter students will get a better understanding of :

- BALANCED DIET AND NUTRITION
- NUTRITIVE AND NON-NUTRITIVE COMPONENTS OF DIET
- EATING FOR WEIGHT CONTROL
- WHAT TO DO TO MAINTAIN A HEALTHY WEIGHT
- PITFALLS OF DIETING
- FOOD INTOLERENCE AND FOOD MYTHS

MAY

UNIT 4 PHYSICAL EDUCATION AND SPORTS FOR DIFFERENTLY -ABLED

After going through this chapter the students will understand:

- CONCEPT OF DISABILITY AND DISORDER
- TYPES OF DISABILITY, THEIR CAUSES AND NATURE
- TYPES OF DISORDER, THEIR CAUSES AND NATURE
- DISABILITY ETIQUETTES
- STRATERGIES TO MAKE PHYSICAL ACTIVITIES ACCESSIBLE FOR CHILDREN WITH SPECIAL NEEDS

JULY

UNIT 3 YOGA AND LIFESTYLE

After going through this unit students will learn

- ASANAS AND PREVENTIVE MEASURES
- OBESITY:PROCEDURES,BENEFITS AND CONTRADICTIONS
- DIABETES: PROCEDURES, BENEFITS AND CONTRADICTIONS
- ASTHAMA: PROCEDURES, BENEFITS AND CONTRADICTIONS
- HYPERTENSION

UNIT 5

CHILDREN AND WOMEN IN SPORTS

After going through this unit the students will learn:

•	MOTOR DEVELOPMENT AND FACTORS
	AFFECTING IT

 EXERCISE GUIDELINES AT DIFFERENT STAGES OF GROWTH DEVELOPMENT (Continued in August)

AUGUST

- COMMON POSTURAL DEFORMITIES
- CORRECTIVE MEASURES FOR POSTURAL DEFORMITIES
- SPORTS PARTICIPATION OF WOMEN IN INDIA

UNIT 6

TEST AND MEASUREMENT IN SPORTS

After going through this unit the students will learn:

- MOTOR FITNESS TEST
- MEASUREMENT OF CARDIOVASCULAR FITNESS
- COMPUTATION OF FITNESS INDEX
- RIKLI AND JONES SENIOR CITIZEN FITNESS TEST
- Chair stand test for lower body strength
- Arm curl test for upper body strength
- Chair Sit- and Reach test for lower body flexibility
- Back Scratch test for upper body flexibility
- Eight foot up and Go Test for Agility
- Six minute walk Test for Aerobic Endurance

SEPTEMBER UNIT 7 PHYSIOLOGY AND INJURIES IN SPORTS

After going through this unit the students will learn:

- PHYSIOLOGICIAL FACTOR DETERMINING COMPONENT OF PHYSICAL FITNESS
- EFFECT OF EXERCISE ON CARDIOVASCULAR SYSTEM
- EFFECT OF EXERCISE ON MUSCULAR SYSTEM
- SPORTS INJURIES
- FIRST AID

UNIT 8 BIOMECHANICS AND SPORTS

After going through this unit the students will learn:

- MEANING AND IMPORTANCE OF BIOMECHANICS IN SPORTS
- TYPES OF MOVEMENTS
- NEWTON'S LAWS OF MOTION AND THEIR APPLICATION IN SPORTS.

OCTOBER

UNIT 9

PSYCHOLOGY AND SPORTS

After going through this unit the students will learn:

- PERSONALITY ITS DEFINITION AND TYPES
- MOTIVATION, ITS TYPES AND TECHNIQUE
- MEANING, CONCEPTS AND TYPES OF AGGRESSION IN SPORTS

UNIT 10 TRAINING IN SPORTS

After going through this unit the students will learn:

- STRENGTH: ISOMETRIC, ISOTONIC AND ISOKINETIC
- ENDURANCE : CONTINUOUS TRAINING, INTERVAL TRAINING AND FARTLEK TRAINING
- SPEED : ACCELERATION RUN AND PACE RUN

(Continued in November)

NOVEMBER

- FLEXIBILTY : METHODS TO IMPROVE FLEXIBILITY
- COORDINATIVE ABILITIES : DEFINITION AND TYPES.

SUBJECT - WEB APPLICATIONS (803)

ITDC-412 Web Scripting - Java Script.

APRI 2020

Students will be able to:

- Understand and describe the features and applications of Javascript.
- Explain the advantages of using Javascript.
- Understand and demonstrate the different ways to write Javascript.
- Define variables and understand the need for variables.
- Differentiate between different types of Operators.
- Design and code scripts using Operators.

MAY 2020

Students will be able to:

- Recognize the importance of decision constructs or selection statements.
- Define and design code using different types of selection statements (if-else / switch-case).
- Recognize the importance of iterations / loops.
- Define and design code using different types of loop statements (while / do-while / for).

ITDC-410 Movie Editing Tools.

APRIL AND MAY 2020

Students will be able to:

- Understand the concept of Movie Editing Tools.
- Identify different types of Movie Editing Tools.
- Understand and Describe the interface of Windows Movie Maker(WMM).
- Describe the different Panes and Views in WMM.
- Identify the different file formats recognized by WMM.
- Create short Movies or Clips using WMM by :
 - o Importing Media into WMM.
 - Adding Transitions.
 - Combining Clips.
 - o Splitting Clips.
 - o Trimming Clips.
 - Adding Title and Credits.
 - Saving and Publishing Movies.

JULY 2020

Students will be able to:

- Design and Code scripts using popup boxes (alert / confirm / prompt).
- Define what is a function.
- Design and code scripts using User-Defined functions.
- Understand and define the scope of variables (Local / Global).

Students will prepare their Practical files.

AUGUST AND SEPTEMBER 2020

Students will be able to:

- Understand and Describe the DOM (Document Object Model) and the different Objects in the DOM.
- Understand and Define Objects and their properties and functions.
- Understand and Use the Math, String and Array Objects.

- Understand and Define events and event handling.
- Design and Code scripts using event handling.

Students will start work on their Projects.

ITDC-411 Customizing and Embedding Multimedia components in Web Pages.

OCTOBER 2020

Students will be able to:

- Understand and Define Multimedia.
- Explain the advantages and Disadvantages of Embedding Multimedia in Web pages.
- Identify and describe the various compatible Multimedia (Images, Movies, Sound) file formats for Web pages.
- Understand and demonstrate the use of the BGSOUND, EMBED, OBJECT and PARAM, AUDIO, VIDEO tags and their Attributes.
- Understand and Define Helper Applications, Plugins and MIDI.
- Design Web pages with Multimedia Content.
- Familiarize themselves with different tools for embedding different types of Multimedia.

ITDC-413 Work Integrated Learning - Advanced Features of Web Design - WA-II.

NOVEMBER 2020

Students will be able to:

- Understand and define the need for Microsoft Expression Web (MEW)
- Understand how to work in the CODE View of MEW to design Web Pages.
- Understand the need for and Define and Use Snippets, Add-Ins.
- Apply Page Transitions to Web pages.
- Understand and Define Dynamic Web Templates.
- Design Web pages using Dynamic Web Templates.
- Understand and Define Search Engine Optimization (SEO).
- Design Web pages using Forms.
- Understand and Define the Concepts of Publishing Web pages in MEW.
- Understand how to examine the Structure of a Web site.
- Understand how to Optimize a Web site.
- Understand and Define Web Hosting and Web Servers.
- Understand how to use CSS templates in MEW.
- Understand and Describe different Web Authoring Tools.

RECAP

SUBJECT- INFORMATION TECHNOLOGY (802)

UNIT 1 - Database Concepts.

APRIL 2020

Students will be able to:

- Understand and define the need for a database.
- Understand and define the properties of a database.
- Understand the shortcomings of Traditional File Processing.
- Understand and define the Database Management Systems.

- Understand and define the characteristics of a DBMS.
- Understand and define the Types of users of DBMS.
- Understand and define the Advantages and Disadvantages of using the DBMS approach.
- Understand and define the Relational Model.
- Understand and define the Relational Model Constraints.
- Understand what is SQL.
- Learn how to install MySQL and work with the Command Line Client.
- Understand and define the categories of SQL statements.
- Understand and create databases and tables.

MAY 2020

Students will be able to:

- Write basic SQL commands and Queries.
- Understand and write queries using Single Row and Aggregate Functions.
- Understand and write queries using the different operators.
- Understand and write queries using the where, order by , group by and having clauses.
- Understand and create tables with Primary and Foreign Keys
- Understand and write commands to alter tables, update tables, drop tables, delete data from tables.
- Understand and create joins between tables.
- Understand and write commands to retrieve data from multiple tables.

UNIT 2 - Operating Web Based Applications.

JULY 2020

Students will be able to:

- Understand and define what are Web based Applications.
- Understand and define the need for Web based Applications.
- Understand and describe the Concepts and working of Online Reservation Systems.
- Understand and define the Advantages of Online Reservation Systems.
- Understand and describe the precautions to be taken while Performing Online Transactions.
- Understand how to book a Railway Ticket as a Case Study.
- Understand and define e-Governance.
- Understand the timeline and work undertaken in India's e-Governance Initiative.
- List the various e-Governance sites of India.
- Understand and describe the Concepts and working of Online Shopping Systems.
- Understand and define the Advantages of Online Shopping Systems.
- Understand and list the various methods of Online Bill Payments.
- Understand how to shop online (Flipkart) as a Case Study.
- Understand and define Online Learning.
- Understand and define the benefits of Online Learning.
- Understand and define the different methods of Interaction with Online Learning sites.
- List various Online Educational Sites.
- Understand and define a Project and the characteristics of a Project.
- Understand and define Project management
- Understand and define the Major Phases of Project Development.
- Understand Project Development using various case studies
 - Case Study Online Game.
 - Case Study Online Quiz.
 - Case Study Online Bill Calculator.

Students will create their Practical file.

UNIT 3 - Fundamentals of Java Programming.

AUGUST 2020

Students will be able to:

- Understand and define the features of Java.
- Understand how to install and start working in the Netbeans IDE.
- Write and understand the different components of a simple Java program.
- Understand and define primitive data types in Java.
- Understand and define and create variables in Java.
- Understand and write code using different types of variables.
- Understand and define different operators in Java.
- Understand and write code using different operators in Java.
- Understand and write code using the Java Library.
- Understand and write code to accept input from the user.
- Understand and define Flow of Control statements.
 - -Selection statements
 - Switch statement
 - Repetition statements
- Design and write code using Selection structures, Switch statement and Repetition statements.
- Understand and describe the difference between while and do-while loops

SEPTEMBER 2020

Students will be able to:

- Understand and define Exceptions and Exception Handling.
- Design and code programs using Exception Handling.
- Understand how to connect the Netbeans IDE to a MySQL database.
- Understand how to add the MySQL Connector JAR to the NetBeans Libraries.
- Design and code programs to connect to and interact with a MySQL database.

Students will start their Project

OCTOBER 2020

Students will be able to:

- Understand and define Arrays.
- Understand and define the need for Arrays.
- Design and code programs to create and use Arrays.
- Understand and create User-defined Functions.
- Understand and define the characteristics and features of OOPs.
- Understand and define the basic components of a class.
- Understand and define Access Modifiers.
- Understand and code getter and setter methods.

NOVEMBER 2020

Students will be able to:

- Understand and Write code to Manipulate Arrays by using the Functions of the Array object.
- Understand and Write code to Manipulate Strings by using the Functions of the String object.
- Understand and define Assertions.
- Write code using Assertions.
- Understand and define Threads.
- Design and code programs using threads to implement multi-threading.
- Understand and define Wrapper Classes.
- Write code using Wrapper Classes.

UNIT 4 - Work Integrated Learning.

NOVEMBER 2020

Students will be able to:

- Identify Potential Work Areas.
- Identify Applications that can be developed for the identified work areas.
- Understand Project development using a Shopping Website as a Case Study.

RECAP

EMPLOYABILITY SKILLS

MAY 2020

UNIT 5 - Green Skills

Students will be able to:

- 1. Identify the role and importance of green jobs in different sectors with respect to:
- Role of green jobs in toxin-free homes
- Green organic gardening, public transport and energy conservation.
- Green jobs in water conservation
- Green jobs in solar and wind power, waste reduction, reuse and recycling of wastes
- Green jobs in green tourism
- Green jobs in building and construction
- Green jobs in appropriate technology
- Role of green jobs in Improving energy and raw materials use
- Role of green jobs in limiting greenhouse gas emissions
- Role of green jobs minimizing waste and pollution
- Role of green jobs in protecting and restoring ecosystems
- Role of green jobs in support adaptation to the effects of climate change

AUGUST 2020

UNIT 2 - Self-management

Students will be able to:

- Understand and describe the various factors influencing self-motivation.
- Find and list motives (needs and desires)
- Find sources of motivation and inspiration
 - o music, books, activities
 - expansive thoughts
 - o living fully in the present moment
 - dreaming big
- Understand and Describe the basic personality traits, types and disorders
- Understand and Describe the meaning of personality
- Understand and Describe how personality influences others
- Understand and Describe basic personality traits
- Understand and Describe common personality disorders:
 - o Paranoid
 - o Antisocial
 - Schizoid
 - Borderline
 - Narcissistic
 - Avoidant
 - o Dependent
 - Obsessive

AUGUST AND SEPTEMBER 2020

UNIT 3 - Information & Communication Technology

Students will be able to:

- 1. Perform tabulation using spreadsheet application with respect to:
- Introduction to spreadsheet application
- Spreadsheet applications
- Creating a new worksheet
- Opening workbook and entering text
- Resizing fonts and styles
- Copying and moving
- Filter and sorting
- Formulas and functions
- Password protection
- Printing a spreadsheet
- Saving a spreadsheet in various formats.

2. Prepare presentation using presentation application with respect to:

- Introduction to presentation
- Software packages for presentation
- Creating a new presentation
- Adding a slide
- Deleting a slide
- Entering and editing text
- Formatting text
- Inserting clipart and images
- Slide layout
- Saving a presentation
- Printing a presentation document.

OCTOBER 2020

UNIT 1 - Communication Skills

Students will be able to:

- Describe the steps to active listening skills.
- Understand the Importance of active listening at the workplace.
- Demonstrate basic writing skills with respect to:
 - Sentence
 - o Phrase
 - Kinds of Sentences
 - o Parts of Sentence
 - o Parts of Speech
 - Articles
 - Construction of a Paragraph

NOVEMBER 2020

UNIT 4 - Entrepreneurship Development

Students will be able to:

- 1. Identify the general and entrepreneurial behavioural competencies with respect to:
- Barriers to becoming entrepreneur
- Behavioural and entrepreneurial competencies:
 - Adaptability/decisiveness

- o Initiative/ perseverance
- Interpersonal skills
- Organizational skills
- o Stress management
- o Valuing service
- Diversity

2. Demonstrate the knowledge of self-assessment of behavioural competencies with respect to:

- Entrepreneurial competencies in particular :
 - o Self confidence
 - o Initiative
 - Seeing and acting on opportunities
 - Concern for quality,
 - Goal setting and risk taking
 - o Problem solving and creativity
 - Systematic planning and efficiency
 - Information seeking
 - o Persistence
 - o Influencing and negotiating
 - o Team building

RECAP

SUBJECT - ENTREPRENEURSHIP

<u>MARCH</u>	<u>APRIL</u>
UNIT – 1 ENTREPRENEURIAL OPPORTUNITIES The learner would be able to: • Understand the concept and elements of business opportunity • Understand the factors involved in sensing opportunities • Understand the concept of environment scanning (CONTINUED IN APRIL)	Enlist the various factors affecting business environment Understand the meaning of idea fields Enlist the various sources of idea fields Understand the technique of transformation of ideas into opportunities Understand what is trend spotting Elaborate on the creative and innovative processes UNIT - 2 BUSINESS PLANNING Learning Objectives The learner would be able to: Enlist the type of economic activities Understand the forms of business organization Understand the meaning of business plan Understand the format of business plan Understand the organizational plan Understand the production plan Understand the human resources plan Understand the operational plan CONTINUED IN MAY)
MAY	<u>JULY</u>
 Understand the financial plan Understand the marketing plan Project work during summer break (Market Surey) UNIT – 3 ENTERPRISE MARKETING 	 Enlist the various selling strategies used in a firm Understand the various concepts like brand, logo and tagline Understand the importance of customer Understand the importance of quality in customer satisfaction Enumerate the various reasons for business failure.
Learning Objectives The learner will be able to: • Enlist the various marketing strategies used in a firm • Understand in detail the 4P's of marketing (CONTINUED IN JULY)	
<u>AUGUST</u>	<u>SEPTEMBER</u>
Unit 4 Enterprise Growth Stratergies Learning Objectives: The learner would be able to:	Unit 5 Business Arithmetic Learning objectives: The learner will be able to:

 Explain in detail about franchising Understand the types of franchising Understand how growth of a firm is possible through mergers and acquisitions Enlist the types of mergers Elaborate on the meaning and types of acquisitions Understand the reasons for mergers and acquisitions Explain the concept of value addition Understand the meaning of value chain Understand the requirements for value chain management 	 Understand the concept of unit price Calculate Break even point for Multiple products Understand the meaning of inventory control and Economic Order Quantity Enumerate the meaning of cash flow projection Explain the concept of working capital Understand the terminologies- financial management and budgets Calculate Return on Investment Explain the concept of Return on Equity Project work (Business Plan)
<u>OCTOBER</u> <u>UNIT – 6</u>	<u>NOVEMBER</u>
RESOURCE MOBILISATION Learning objectives: The learner would be able to: • Understand the various sources of funds required for a firm • Raising funds through financial markets • Understand the method of floatation for new issue • Understand the relevance of stock exchange as a medium through which funds can be raised (CONTINUED IN NOVEMBER)	• Explain the concept of angel investors • Explain the concept of venture capital
<u>DECEMBER</u>	<u>JANUARY</u>

**

SUBJECT - Informatics Practices (065)

<u>MARCH</u>	LEARNING OUTCOMES
Unit 2: Database Query using SQL	 MySql Revision – Class 11 Design SQL queries using single row functions and aggregate functions. Querying and manipulating data using Group by, Having, Order by.
<u>APRIL</u>	LEARNING OUTCOMES
Unit 4: Societal Impacts	 Understand the impact of technology on society, including gender and disability issues. Understand what is cybercrime and the need of Cyber Security Overview of Indian IT Act. Awareness about health concerns related to the usage of technology.
MAY Unit 1: Data Handling using Pandas –I (Data Visualization)	 LEARNING OUTCOMES Visualize data using relevant graphs.(line plot, bar graph, histogram)
JULY Unit 3: Introduction to Computer Networks	LEARNING OUTCOMES • Learn terminology related to networking and internet. • Purpose of Network Devices to be used • Concept of different types of networks and topologies.
<u>AUGUST</u>	LEARNING OUTCOMES
Unit 3: Introduction to Computer Networks (Contd.) (Internet)	 Introduction to the Internet. Concept of Website, Webpage Introduction to Web Browsers
<u>SEPTEMBER</u>	LEARNING OUTCOMES
Unit 1: Data Handling using Pandas –I (Contd) (Series & Data Frames)	 Create Series, Data frames and apply various operations.

OCTOBER Unit 1:Data Handling using Pandas –I (Contd.) (Data Frames)	 LEARNING OUTCOMES Perform aggregation operations, calculate descriptive statistics.
NOVEMBER Unit 1:Data handling using Pandas – I (Contd.) (CSV & Data Frames)	LEARNING OUTCOMES • Concept of Importing /Exporting data between CSV files and Data Frames
<u>DECEMBER</u> Submission of Project Perboard I	
JANUARY Preboard II	

SUBJECT: ACCOUNTANCY

AND ASSESSMENT PLANNER (MONTH WISE)

MARCH TOPICS WITH LEARNING OUTCOMES

Analysis of Financial Statements:

Financial Statements of a Company: The student will be able to understand financial statements of a company: balance sheet, profit and loss account or statement of profit and loss, notes to accounts. Format of balance sheet heads and contents of

APRIL TOPICS WITH LEARNING OUTCOMES

Analysis

Tools of Financial Statements (Comparative & Common Size Statements): The study of this chapter would enable the student to understand tools for analysis of financial statement, comparative statement, common size statement, meaning of

balance sheet statement of profit and loss format of statement of profit and loss heads and contents of statement of profit and loss

Financial Statement Analysis: The student will be able to understand the meaning of financial statement analysis, tools or techniques of financial statement analysis, types of financial statement analysis, distinction between horizontal analysis and vertical analysis, process of financial statement analysis, purposes and significance of financial statement analysis, parties interested in financial statement analysis, limitations of financial statement analysis.

comparative financial statements, objectives or purposes of comparative financial statements, comparative balance sheet, comparative statement of profit and loss, common size statement of profit and loss, common size balance sheet

Accounting Ratios: The study of this chapter would enable the student to understand: the meaning of ratio and accounting ratio, meaning of ratio analysis, objectives and advantages of ratio analysis, limitations of ratio analysis, classification or types of accounting ratios: liquidity ratios, solvency ratios, activity ratios, profitability ratios.

MAY TOPICS WITH LEARNING OUTCOMES

Cash Flow Statements: The study of this chapter will enable the student to understand: the meaning of cash flow and cash flow statement, objectives of cash flow statement, importance or uses of cash flow statement, limitations of cash flow statement, computation of cash flow from different activities: cash flow from operating activities cash flow from investing activities cash flow from financing activities, preparation of cash flow statement.

Project Work

JULY TOPICS WITH LEARNING OUTCOMES

Partnership Accounting: Fundamentals: The study of the chapter would enable the student to understand: meaning and definition of partnership, essential features and characteristics of partnership, rights of partners, partnership deed, provisions affecting accounting treatment in the absence of partnership deed, interest on loan by the partner to the firm and by the firm to the partner, distribution of profit among partners - Profit and Loss appropriation account, special aspects of partnership accounts: partner's capital accounts - under fixed and fluctuating methods, salary or commission to partners, interest on partners capital, interest on partners drawings, adjustments for incorrect appropriations of profits in the past, guarantee of profit.

Goodwill (Nature & Valuation): The study of this chapter would enable students to understand: meaning of goodwill, characteristics or features and nature of goodwill, need for valuing Goodwill, factors affecting the value of goodwill, classification of goodwill, methods of valuation of goodwill: average profit method, simple average profit method ,weighted average

profit method, super profit method, capitalisation method - capitalisation of average profit, capitalisation of super profit, difference between average profit and super profit.

AUGUST TOPICS WITH LEARNING OUTCOMES

Change in profit sharing ratio: The study of this chapter would enable the students to understand: the concept of reconstitution of partnership, meaning of change in profit sharing ratio among the existing partners, determination of sacrificing ratio and gaining ratio, accounting of goodwill, accounting of reserves, accumulated profits and losses, revaluation of Assets and reassessment of liabilities, preparation of balance sheet of the reconstituted firm.

Admission of a partner: The study of this chapter would enable students to understand: admission of a partner, effects of admission of a partner, meaning and calculation of new profit sharing ratio, meaning and calculation of sacrificing ratio, valuation and adjustment of goodwill as per accounting Standard 26, revaluation of Assets and reassessment of liabilities, preparation of revaluation account, adjustment of deferred revenue expenditure, accounting of reserves, accumulated profits and losses.

Retirement of a Partner: The students would be able to understand: meaning of retirement of a partner, new profit sharing ratio of the remaining or continuing partner's after retirement of a partner, gaining ratio of the remaining or continuing partners, difference between sacrificing ratio and gaining ratio, valuation and adjustment of goodwill on retirement of a partner, revaluation of Assets and reassessment of liabilities on retirement of a partner, adjustment of reserves accumulated losses and profits on retirement of a partner, computation of amount due to the retiring partner, methods of payments of the amount due to the retiring partner.

SEPTEMBER TOPICS WITH LEARNING OUTCOMES

Death of a partner: The study of the chapter would enable students to understand: concept of death of a partner, change in profit sharing ratio: new profit sharing ratio and gaining ratio of the remaining for continuing partners after death of a partner, adjustment of goodwill on death of a partner, revaluation of Assets and reassessment of liabilities, adjustment of reserves accumulated profits and losses, share of profit or loss of deceased partner in the year of death, computation of the amount due to deceased partner, payment of amount due to legal hairs or executors of the deceased partner.

OCTOBER TOPICS WITH LEARNING OUTCOMES

Dissolution of the Firm: The study of the chapter would enable the student to understand: meaning of dissolution of partnership firm, modes of dissolution of a firm, difference between dissolution of firm and dissolution of partnership, settlement of accounts, difference between firm's debt and private debt's, accounting on dissolution of partnership firm, difference between revaluation account and realisation account.

Not for Profit making Organisations: The study of the chapter would enable the student to understand: the meaning and concept of not for profit organisation, characteristics of features of not for profit organisation, difference between not for profit organisation and profit earning organisation, meaning and feature of receipts and payment account, meaning and features of income and expenditure account, difference between receipts and payment account and income and expenditure account, preparation of balance sheet, fund based accounting, preparation of income and expenditure account and balance sheet from receipts and payment account with additional information.

NOVEMBER TOPICS WITH LEARNING OUTCOMES

Accounting for Companies:

Issue of Shares: The study of this chapter would enable the student to understand: meaning and characteristics of a company, difference between partnership and company, kinds of companies, meaning of share Capital, kinds of classes of shares, accounting treatment of issue of shares for cash at par and at premium, oversubscription of shares, undersubscription of shares, accounting treatment of calls in arrears and calls in advance, accounting treatment of shares issued for consideration other than cash, procedure and accounting treatment of forfeiture and reissue of shares, concept of preferential allotment, concept of private placement of shares, concept of employees stock option plan.

Issue of Debentures: The study of this chapter would enable the student to understand: meaning and characteristics of features of debenture, meaning of bond, difference between debenture and share, difference between debenture holder and shareholder, types of debentures, issue of debentures for cash at par, at premium and discount, issue of debentures for consideration other than cash, issue of debentures as collateral security, accounting treatment of interest on debentures, writing off discount or loss on issue of debentures.

DECEMBERTOPICS WITH LEARNING OUTCOMES

Issue of Debentures continued: The study of this chapter would enable the student to understand: meaning and characteristics of features of debenture, meaning of bond, difference between debenture and share, difference between debenture holder and shareholder, types of debentures, issue of debentures for cash at par, at premium and discount, issue of debentures for consideration other than cash, issue of debentures

JANUARY

Pre -Board 2

as collateral security, accounting treatment of interest on debentures, writing off discount or loss on issue of debentures.	
Pre -Board 1	

Subject - BUSINESS STUDIES

LEARNING OUTCOMES

MARCH- CHAPTER 1

NATURE AND SIGNIFICANCE
OF MANAGEMENT

Understand the concept of management, explain the meaning of effectiveness and efficiency, Discuss the objectives of management, Describe the importance of management, Examine the nature of management as a science, art and profession, Understand the role of top, middle and lower levels of management, Explain the functions of management, Discuss the concept and characteristics of coordination and Explain the importance of coordination.

APRIL- CHAPTER-2 PRINCIPLES OF MANAGEMENT CHAPTER-3 BUSINESS ENVIRONMENT

LEARNING OUTCOMES

Understand the concept of principles of management, Explain the significance of management principles, Discuss the principles of management developed by Fayol, Explain the principles and techniques of scientific management, Compare the contributions of Fayol and Taylor.

Understand the concept of Business Environment, Describe the importance of business environment, Describe the various dimensions of Business Environment and Discuss the managerial response to changes in business environment.

MAY- CHAPTER- 11

MARKETING MANAGEMENT

LEARNING OUTCOMES

Understand the concept of marketing, Explain the features of marketing, Discuss the functions of marketing and Explain the marketing philosophies. Understand the concept of marketing mix and Describe the elements of marketing mix, Understand the concept of product, branding, labelling and packaging, Describe

the factors determining price of a product, Understand the concept of physical distribution and promotion as an element of marketing mix, Understand the concept of advertising and sales promotion and Discuss the role of public relations.

JULY- CHAPTER 12
CONSUMER PROTECTION
CHAPTER-9
FINANCIAL MANAGEMENT

LEARNING OUTCOMES

Understand the concept of consumer protection, Describe the importance of consumer protection, Discuss the scope of Consumer Protection Act, 1986, Explain the consumer rights,

Understand the responsibilities of consumers and Discuss the legal redressal machinery under the Consumer Protection Act 1986, Examine the remedies available to the consumer under Consumer Protection Act 1986.

Understand the concept of financial management, Explain the role of financial management in an organisation, Discuss the objectives of financial management and the three financial decisions and factors affecting them, Describe the concept of financial planning and Explain the importance of financial planning and Understand the concept of capital structure, Describe the factors determining the choice of capital structure of a company, Understand the concept of fixed and working capital and Describe the factors affecting fixed and working capital.

AUGUST- CHAPTER 10 FINANCIAL MARKET

LEARNING OUTCOMES

Understand the concept of Financial Market, Explain the functions of financial market, Understand capital market and money market, Describe various money market instruments, Explain primary and secondary market and differentiate between them, Discuss the methods of floating new issues in the primary market, Distinguish between primary and secondary markets, Give the meaning of stock exchange, Explain the functions of stock exchange, Discuss the trading procedure in a stock exchange, Give the meaning of Depository services and Demat account, State the objectives of SEBI and Explain the functions of SEBI.

SEPTEMBER- CHAPTER- 4
PLANNING

LEARNING OUTCOMES

Understand the concept of planning, Describe the importance of planning, Describe the steps in the process of planning, Develop an understanding of single use and standing plans.

OCTOBER- CHAPTER-5 ORGANISING CHAPTER- 6 STAFFING

LEARNING OUTCOMES

Understand the concept of organising as a structure and as a process, Explain the importance of organising, Describe the steps in the process of organising, Describe functional and divisional structure of organisation, Understand the concept of delegation, Describe the elements of delegation, Appreciate the importance of delegation, Explain the importance of decentralization and Differentiate between delegation and decentralization.

Understand the concept of staffing, explain the importance of staffing, Understand the specialised duties and activities performed by human resource management, Describe the steps in the process of staffing, Understand the meaning of recruitment, Explain the merits and demerits of internal and external sources of recruitment, Understand the meaning of selection, Describe the steps involved in the process of selection, Appreciate the importance of training to the organisation and to the employees, Differentiate between training and development.

NOVEMBER- CHAPTER- 7
DIRECTING
CHAPTER-8
CONTROLLING

LEARNING OUTCOMES

Describe the concept of directing, Describe the various elements of directing, Understand the concept of motivation, Develop an understanding of Maslow's Need Hierarchy of Needs, Discuss various financial and non financial incentives, Understand the concept of leadership and various styles of leadership, Discuss the concept formal and informal communication.

Understand the concept of controlling, Explain the importance of controlling, Describe the relationship between planning and controlling, Discuss the steps in the process of controlling.

SUBJECT - ECONOMICS

GENERAL LEARNING OUTCOMES (Introductory Macroeconomics and Indian Economic Development)

The prescribed CBSE syllabus aims to help students to

- 1. understand basic economic concepts
- 2. develop economic reasoning which can be applied in day-to-day life
- 3. acquire analytical skills to observe and understand economic realities
- 4. equip students with basic tools of Statistics to understand and analyse economic situations
- 5. develop an understanding that there can be more than one view on any economic issue & to argue logically with reasoning.

MARCH

1. INDIAN ECONOMY ON THE EVE OF INDEPENDENCE

On completion of the chapter, the students will be able to

- appreciate the state of Indian economy on the eve of independence
- describe the state of agriculture, industry, foreign trade, demographic condition, occupational structure and infrastructural development in India during the Colonial rule

2. INDIAN ECONOMY 1950-1990

On completion of the chapter, the students will be able to

- Describe the Indian economic system
- State the common goals of Five Year Plans
- State the major policy initiatives in Agricultural sector
- List the main features and problems of agriculture (institutional aspects and new agricultural strategy)

APRIL

1. INDIAN ECONOMY 1950-1990 CONT'D

On completion of the chapter, the students will be able to

- Describe the state of industry (IPR 1956; SSI role & importance)
- Elucidate the state of foreign trade in India

2. ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

On completion of the chapter, the students will be able to

- State the functions and role of the environment
- Describe the state of India's environment
- Define the meaning of Sustainable development
- List the effects of Economic Development on Resources and Environment, including global warming
- Appreciate the importance and need for sustainable development

3. POVERTY

On completion of the chapter, the students will be able to

- Differentiate between absolute and relative poverty
- Understand the factors that cause poverty

Assess the programmes for poverty alleviation

MAY

1. NATIONAL INCOME ACCOUNTING AND RELATED AGGREGATES

On completion of the chapter, the students will be able to

- Define Macroeconomics
- Discuss the basic concepts in macroeconomics: consumption goods, capital goods, final goods, intermediate goods
- Differentiate between stocks and flows
- Compare gross and net investment
- Define depreciation
- elucidate the circular flow of income (two sector model)

<u>JULY</u>

1. NATIONAL INCOME ACCOUNTING AND RELATED AGGREGATES CONT'D

On completion of the chapter, the students will be able to

- understand and use the method of calculating National Income Value Added or Product method
- understand and use the Expenditure method
- understand and use the Income method
- understand the aggregates related to National Income: Gross National Product (GNP), Net National Product (NNP),
 Gross Domestic Product (GDP) and Net Domestic Product (NDP)
- differentiate the estimates at market price and at factor cost
- compare Real and Nominal GDP
- understand the connection between GDP and Welfare

2. MONEY AND BANKING

On completion of the chapter, the students will be able to

 Money - meaning and supply of money - Currency held by the public and net demand deposits held by commercial banks. 7 Money creation by the commercial banking system. Central bank and its functions (example of the Reserve Bank of India): Bank of issue, Govt. Bank, Banker's Bank, Control of Credit

3. SUBMISSION OF ECO. PROJECT

On completion of the project, the students will be able to

- acquire knowledge and facts about their chosen topic
- Use appropriate presentation techniques to showcase their study
- analyse, evaluate and examine the material and break information into parts by identifying motives or causes
- Make inferences and find evidence to support generalizations
- and defend opinions by making judgments about information, validity of ideas, etc
- compile information together to propose alternative solutions.

AUGUST

1. GOVERNMENT BUDGET AND THE ECONOMY

On completion of the chapter, the students will be able to

- Understand the Government budget its meaning, objectives and components.
- Classify receipts into revenue receipts and capital receipts
- classify expenditure into revenue expenditure and capital expenditure
- discuss the government deficits revenue deficit, fiscal deficit, primary deficit
- comprehend their meaning

2. DETERMINATION OF INCOME AND EMPLOYMENT

On completion of the chapter, the students will be able to

- Define Aggregate demand and its components
- Understand the Propensity to consume and propensity to save (average and marginal)
- Explain the Short-run equilibrium output
- Discuss the investment multiplier and its mechanism
- Define the meaning of full employment and involuntary unemployment
- Debate the problems of excess demand and deficient demand
- Discuss the measures to correct them changes in government spending, taxes and money supply through Bank Rate, CRR, SLR, Repo Rate and Reverse Repo Rate, Open Market Operations, Margin requirement

3.LIBERALIZATION, PRIVATIZATION, GLOBALIZATION

On completion of the chapter, the students will be able to

- Comprehend the Features and appraisals of liberalization
- Comprehend the Features and appraisals of globalisation and
- Comprehend the Features and appraisals of privatisation (LPG policy)
- Critically assess the need and success /failure of demonetization and GST

SEPTEMBER

1. HUMAN CAPITAL FORMATION IN INDIA

On completion of the chapter, the students will be able to

- Understand how people become a resource
- Identify the Role of human capital in economic development
- Discuss the state of human capital formation in India

2. TERM EXAMS

OCTOBER

1. FOREIGN EXCHANGE RATE & BALANCE OF PAYMENTS

On completion of the chapter, the students will be able to

- Comprehend the Balance of payments account
- Define the meaning and components of the BOP account
- Discuss the Foreign exchange rate
- Comprehend the meaning of fixed and flexible rates and managed floating.

2. RURAL DEVELOPMENT

On completion of the chapter, the students will be able to

- Understand rural development versus agricultural growth
- Discuss the main issues of rural credit and marketing
- Comprehend the role of cooperatives
- Appreciate the need for agricultural diversification

3. EMPLOYMENT

On completion of the chapter, the students will be able to

- Comprehend the changing structure of unemployment in India
- Appreciate the growth and changes in work force participation rate in formal and informal sectors
- Identify the problem of general unemployment and growth of informal unemployment
- List the policies adopted to improve the employment situation in the economy

5. INFRASTRUCTURE

On completion of the chapter, the students will be able to

• Identify the meaning and relevance of different types of infrastructure

- Comprehend the case study on Health
- Critically assess the problems and policies introduced by the government

NOVEMBER

6. COMPARATIVE DEVELOPMENT EXPERIENCE OF INDIA AND ITS NEIGHBOURS

On completion of the chapter, the students will be able to

- Compare the economic growth, population, sectoral development and other Human Development Indicators of India, China, Pakistan
- Assess and appraise economic development strategies adopted in all three countries

DECEMBER

PREBOARD EXAM 1

JANUARY

PREBOARD EXAM 2

SUBJECT – COMPUTER SCIENCE

LEARNING OUTCOMES -

March

Chapter: Networking

After the classes conducted during march, students will be able to

- Define networking with respect to its implementation in form of computer network
- b. Categorize the different types of networks on basis of the area covered by each type of network.
- c. Draw and explain the various ways of arranging computers in a network.
- d. Compare the various types of arrangement before deciding the best suitable layout.
- e. List the various types transmission media use for networking.
- f. Understand the need of different types of devices.
- g. Differentiate between the installation of devices for connecting networks.

April

After the classes conducted during April, students will be able to

Chapter: Networking Continued

- a. Understand the term protocol and need of commonly used protocol.
- b. Define the three types of switching techniques
- c. Differentiate between 1g,2g,3g,4g,5g more technically.

Chapter: SQL

- a. Implement each of DDL and DML command done in class 11 practically.
- b. Comprehend the need of constraints in a table.
- c. Detail implementation of various types of constraints.

May

After the classes conducted during May, students will be able to

Chapter: SQL Continued

- a. The need of creating a join in a table.
- b. Extracting data from more than one tables in sql by providing a join
- c. Application based question on writing command involving joins.

Chapter: Python-Function

- a. Define a function and understand the advantages of creating a function
- b. Create a function which can receive argument and return a value
- c. Differentiate between user defined and built in functions
- d. Understand the difference in output when mutable and immutable arguments are passed

July

After the classes conducted during July, students will be able to

Chapter: Python Function Continued

- a. To understand the different scope a variable which exists
- b. The order followed by python- LEGB
- c. Accessing a global variable in presence of local variable with same name
- d. Able to write complex program involving functions with mutable and immutable arguments.

Chapter: Python Library Functions

- a. Conceptualize the presence of module.
- b. Define a module practically
- c. Label each part of module
- d. Import String, Random and Math module.
- e. To evaluate the output of function associated with modules.

August

After the classes conducted during August, students will be able to Chapter :File Handling

- a. To understand the concept of file in connection to python.
- Relevance of file for saving data entered while executing a program
- c. Difference between text and binary files
- d. Concept of accessing text file using an object
- e. Implementation of the following operations in a text file
 - i. Opening
 - ii. Closing
 - iii. Reading
 - iv. Writing
 - v. Modifying
 - vi. Removing
- f. Different type of file modes available while handling file
 - Different types error steams implementations.
- h. Implementation of the following operations in a Binary file
 - i. Opening

- ii. Closing
- iii. Reading
- iv. Writing
- v. Modifying

<u>September</u>

After the classes conducted during September, students will be able to

Chapter: File Handling Continued

- a. Implementation of the following operations in a Binary file
 - i. Opening
 - ii. Closing
 - iii. Reading
 - iv. Writing
 - v. Modifying
- b. Implementing the concept of file pointers in binary files

Chapter: Connectivity with SQL database

- a. Steps required for Connecting SQL with Python
- b. Creating Database connectivity Applications

October

After the classes conducted during October, students will be able to

Chapter: Connectivity with SQL database Continued

- a. Performing following operations
 - i. Insert
 - ii. Update
 - iii. Delete queries
- b. Code to display data from database by using
 - i. fetchone()
 - ii. fetchall()
 - iii. rowcount()

Chapter: Data structures: Stacks and queues

- a. Label the different data structures in a programming language
- b. Differentiate between datatype and data structure
- c. Categorization of data structure as simple and compound
- d. Understanding of following terminology
 - a. Stacks
 - b. Queues
 - c. Linked lists

November

After the classes conducted during November, students will be able to

Chapter: Data structures: Stacks and queues continued

- a. Implement programs for following operations in Stacks
 - a. Pop
 - b. Push
- b. Understanding of Postfix and infix expressions
- c. Conversion of infix to postfix expression
- d. Evaluation of postfix mathematical and Logical expression
- e. Implement programs for following operations in queues
 - a. Add
 - b. Remove

Please Note: the rest of the November students will be revising all the topics using board questions. Learning Outcome will be to familiarize with each part of question paper.

SUBJECT - POLITICAL SCIENCE

SNo	ACTION VERB	ОВЈЕСТ	CONDITION
	The student will b	pe able to:	
1	Understand	The meaning, causes and consequences of the Cold War.	By explaining them to enable them to understand the factors that shaped the contemporary world.
2	Identify	The factors that gave rise to NAM and its role	By enabling them to understand the idea of interdependence in the world and the compulsions that shape foreign policy.
3	Distinguish	Between Russia under communist rule and after it ended	By applying the information acquired in history and economics classes.
4	Describe	The reasons and consequences of the end of bipolarity.	By getting clarity about the different types of changes that took place in the world as a consequence.
•	3 AND 4 CENTRES OF POWER	/SOUTH ASIA AND THE CONTEMPORARY WORLI	D APRIL
1	Distinguish	Between the world dominated by the USA and a new emerging world with many centres of power,	By using examples of some new emerging powers and comparing them with the USA on the basis of criteria to show a power shift.

2	Evaluate	Countries in South Asia and explore their relationships with each other, and their capacity to dominate the world.	By using information from current affairs to help students to discuss changing trends and developments.
3	Discuss	The importance of the West Asian region and issues of conflict that affect world peace.	By encouraging debate on this topic in class.
UNI	Γ 5 AND 6		
	Assess	The role played by international	By identifying the merits and demerits
	1		By identifying the merits and demerits of these institutions. By reading information from magazines and newspapers, discussing the functioning of UN in the light of information gained and proposing changes.

JUL) UNI	T 7 AND 8 ENVIRONM	ENT/GLOBALIZATION	
1	Define	Globalization and evaluate its impact on the political, economic and cultural sphere.	By identifying features of globalization, they will be able to highlight the factors that gave rise to it.
2	Recognize	The impact it has on lives of people	By enabling them to introspect, and borrow from other disciplines examples of global interconnectedness in the world.
3	Analyze	The positive and negative features of the process.	By getting a critical understanding of the concept, helping them to compare between the India and the west to draw out examples of influences both have imbibed due to globalization.
4	Comprehend	The importance of environment to human survival and different dimensions of environmental issues.	By watching documentaries on this issue to understand the magnitude of the problem.
	Group Activity	Film/power-point presentation on any topic	
1 2	Evaluate Identify	The problems the nation faced at the time of Independence and how it sought to resolve them. The economic challenges the country faced when	By helping students to go the archives to reconstruct history from the time of independence. By enabling them to comprehend the
		it became free and how it found a solution to its economic problems.	facts. An interdisciplinary approach will be encouraged.
3	Discover	The new reforms introduced in the country.	By updating the information, so that they are able to compare between the past and the present.
	T 11 AND 12 IA'S FOREIGN POLICY/	PARTY AND THE PARTY SYSTEMS IN INDIA SEPTEMBER	
1	Assemble	Prior learnt information to identify features of India's foreign policy.	By recalling information learnt earlier they will be able to reconstruct features of the Indian foreign policy.
2	Analyze	The changing relations of India with other countries of the world and its neighbours	By helping students to identify issues of conflict and cooperation from magazines and newspapers, and discussing them.
3	Comprehend	The changing nature of party systems in India	By reconstructing through a table, elections that have taken place in the country, and identifying who came to political power.

JNIT 13 AND 14		
DEMOCRATIC RES	JRGENCE/SOCIAL AND NEW SOCIAL MOVEMENTS IN INDIA OCTO	OBER
Recall	Previous information on social and new social movements	By dividing students into groups to give presentations on the various movements.
Discover	The role played by some leaders in democratic resurgence and the National Emergency.	By explaining the backdrop of the national emergency, events that took place, the role of leaders will be highlighted.
_	15 REGIONAL ASPIRATIONS	
NOVEMBER		
Discuss	The idea of federalism and issues of conflicts that may emerge as a consequence.	By undertaking research, the students should be able to identify issues of conflict that will become the basis of discussion
Classify	The types of conflicts that affect India and their impact on its politics.	By allowing students to analyze these issues and propose measures to solve them.
INIT 16 NDIAN POLITICS -	TRENDS AND DEVELOPMENTS DECEMBER	
Analyze	Features common to governments after 1989	By enabling them to discover the idea by comparing with the past elections.
Combine	The information from previous chapters on elections.	By providing them the link to reconstruct elections in India by preparing a table.
Co-relate	The ideas from all chapters on elections to get a comprehensive idea.	By giving a power-point presentation.

SUBJECT - PSYCHOLOGY

MONTH	ТОРІС	LEARNING OUTCOMES	Teaching Methods and Aids to be used	ASSIGNMENTS (Class/Home) Assessment
Mar-20	Unit I : Variations in Psychological Attributes	1) students will be able to understand psychological attributes on which people differ from each other. 2) The students will be able to learn about different methods that are used to assess psychological attributes	Explanation of concepts by providing notes from text book, research articles & through web links and videos .	Asignment Questions will be given for homework .
01-Apr	Unit I Variations in Psychological Attributes	The students will be able to explain theories of intelligence. The students will be able to learn how psychologists assess intelligence to identify mentally challenged. The students will be able to assess gifted individuals. The students will be able to understand how intelligence has different meaning in different cultures. The students will be able to understand the difference between intelligence and aptitude.	Explanation of concepts by providing notes from text book, research articles & through web links and videos .	Asignment Questions will be given for homework .
May-20	Unit III Meeting Life Challenges	The students will be able to understand the nature, types and sources of stress as life challenges. The students will be able to examine the effects of stress on psychological functioning. 3. The students will be able to learn ways to cope with stress. The students will be able to understand the factors that promote positive health and well-being. the nature.	Explanation of concepts by providing notes from text book, research articles & through web links and videos .	Asignment Questions will be given for homework .

Jul-20	Chapter - 2 : Self and Personality Chapter – 4 : Psychological Disorders	1)The students will be able to describe the concept of self and learn some ways for self-regulation of behavior. 2) The students will be able to explain the concept of personality. 3) The students will be able to differentiate between various approaches to the study of personality 4)develop insight into the development of a healthy personality 5) The students will be able to describe some techniques for personality assessment. Chapter – 4: Psychological Disorders 1) The students will be able to understand the basic issues in abnormal behaviour 2) The students will be able to understand the criteria used to identify such behaviours. 3) The students will be able to appreciate the factors which cause abnormal behavior.	The topics will be explained with the help of ppt trough Google classroom. The study material will also be uploaded for the students.	Asignment Questions will be given for homework.
Aug-20	Chapter – 4 : Psychological Disorders Chapter – 5: Therapeutic Approaches	The students will be able to explain the different models of abnormal behaviour The students will be able to describe the major psychological disorders. Chapter – 5: Therapeutic Approaches - 1)The students will be able to familiarise yourself with the basic nature and process of psychotherapy 2) The students will be able to appreciate that there are different types of therapies for helping people. 3)The students will be able to understand the use of psychological forms of	The topics will be explained THROUGH Google classroomand study material will also be uploaded for the students.	Asignment Questions will be given for homework .

		intervention. 4) The students will be able to know how people with mental disorders can be rehabilitated.		
Sep-20	Mid Term Examination			
Oct-20	CHAPTER: 6 - ATTITUDE AND SOCIAL COGNITION	1) The students will be able to understand what are attitudes, how they are formed and changed. 2) The students will be able to analyse how people interpret and explain the behaviour of others 3) The students will be able to comprehend how the presence of others influences our behavior. 4) The students will be able to explain why people help or do not help others in distress. 5) The students will be able to understand the concept of prosocial behaviour and factor affecting it.	The topics will be explained and study material will be uploaded for the students.	Asignment Questions will be given for homework.
Nov-20	CHAPTER:7 - SOCIAL INFLUENCE AND GROUP PROCESSES	 The students will be able to understand the nature and types of groups and know how they are formed. The students will be able to examine the influence of group on individual behavior. The students will be able to describe the process of cooperation and competition. 	The topics will be explained and study material will be uploaded for the students.	Asignment Questions will be given for homework.

		4) The students will be able to understand the nature of intergroup conflict and examine conflict resolution strategies	
01-Dec	First Pre Board		
	Exams		
	Second Pre		
Jan-21	Board Exams		
Feb-21	Practical Exams		