ENGLISH

LEARNING OBJECTIVES

The general objectives are:

1. To listen to and comprehend live as well as recorded oral presentations on a variety of topics.
2. To develop greater confidence and proficiency in the use of language skills necessary for social and academic purposes.
3. To participate in group discussions/interviews, making short oral presentations on given topics.
4. To perceive the overall meaning and organisation of the text (i.e., the relationships of the different "chunks" in the text to each other).
5. To identify the central/main point and supporting details, etc to build communicative competence in various registers of English.
6. To promote advanced language skills with an aim to develop the skills of reasoning, drawing inferences, etc. through meaningful activities.
7. To translate texts from mother tongue (s) into English and vice versa.
8. To develop ability and knowledge required in order to engage in independent ~ reflection and enquiry.
9. To develop the capacity to appreciate literary use of English and also use English creatively and imaginatively

TEXT BOOKS

Main Textbook : FLAMINGO
Supplementary Reader : VISTAS
Silas Marner by George Eliot (Unabridged Version)
Or
The Invisible Man by H.G.Wells(Unabridged Version)
Resource/ Reference books : BBC, Oxford, Together With…

SUGGESTED READINGS

Oxford Advanced Learner's Dictionary
English Pronunciation Dictionary by Daniel Jones et al
Penguin's/ Roget's Thesaurus
Longman Advanced Grammar
Collins Cobuild Grammar
Eats Shoots and Leaves by Lynne Truss (punctuation)
Accommodating Broccoli in the Cemetery by Vivian Cook (spellings)
Sniglets by Rich Hall
Books by the following authors: Ayn Rand, P.G. Wodehouse, Jeffrey Archer, R.K. Narayan, Ismat Chugtai, Mark Twain, APJ Abdul Kalam, Salman Rushdie, Vikram Seth, Jane Austen, Charlotte Bronte, Emily Bronte, George Elliot, Gerald Durrell, Amitav Ghosh, G.B. Shaw
Short stories by O' Henry, Saki, Guy de Maupassant, Anton Chekhov, Oscar Wilde
Other titles: To Kill a Mockingbird, Uncle Tom's Cabin, One Flew Over the Cuckoo's Nest, The Diary of a Young Girl, Father Brown, Three Men in a Boat

MONTH	No. of Working Days	COURSE CONTENT
April	18	**READING:** Unseen passage/ poem **WRITING:** Letter to the Editor, Letter of complaint, Notice, Poster **,** Speech, Job Application **GRAMMAR:** Integrated **LITERATURE:**

		FLAMINGO: Prose: The Last Lesson Poetry: Keeping Quiet, My Mother at Sixty-Six *VISTAS:* Memories of Childhood The Invisible Man by H.G.Wells (Unabridged Version) -chapter 1-5 **ACTIVITY:** Word Family (Etymology of words)
May	15	**READING:** Unseen passage **WRITING:** Article, Factual Description, Report Writing **GRAMMAR:** Integrated **LITERATURE:** *FLAMINGO:* Prose: The Rattrap, Lost Spring The Invisible Man by H.G.Wells (Unabridged Version) -chapter 6-10
July	20	**READING:** Unseen passage (Note Making) **WRITING:** Display and Classified Advertisement, Letter seeking information/ making an enquiry **GRAMMAR:** Integrated **LITERATURE:** *FLAMINGO:* Prose: Going Places, Indigo Poetry: An Elementary School Classroom in a Slum *VISTAS:* The Tiger King, The Enemy The Invisible Man by H.G.Wells (Unabridged Version) -chapter 11-15 **ACTIVITY:** Exploration: Freedom & Patriotism (Indian Independence Movement)
August	20	**READING:** Unseen passage **WRITING:** Letter for placing an order, Job Application, Pamphlet **GRAMMAR:** Integrated **LITERATURE:** *FLAMINGO:* Poetry: A Thing of Beauty The Invisible Man by H.G.Wells (Unabridged Version) -chapter 16-20
September	21	**READING:** Unseen passage **WRITING:** Report- magazine, newspaper, Speech/ debate **GRAMMAR:** Integrated **LITERATURE:** *FLAMINGO:* Prose: Deep Water Poetry: Aunt Jennifer's Tigers *VISTAS:* Should Wizard Hit Mommy, Evans Tries an O-Level The Invisible Man by H.G.Wells (Unabridged Version) -chapter 21-25
October	16	**READING:** Unseen passage (Note Making) **WRITING:** Invitations **GRAMMAR:** Integrated **LITERATURE:**

		VISTAS: On the Face of It The Invisible Man by H.G.Wells (Unabridged Version) -chapter 26-28
November	20	REVISION
December	21	REVISION
January	13	REVISION
February	19	REVISION
Syllabus	I Formative Assessment	The Last Lesson, My Mother at Sixty-Six, Notice, Unseen passage
	I Summative Assessment	All topics covered until the month of July
	I Pre Board	The entire syllabus as per C.B.S.E.
	II Pre Board	The entire syllabus as per C.B.S.E. .

SUGGESTIONS TO PARENTS:

1. Encourage your child to read magazines and books in English.
2. Engage your child in some writing task regularly (eg. writing emails/ letters/ creative writing).
3. Keep regular contact with the teacher to monitor your child's progress.

DESIGN OF THE QUESTION PAPER

Typology	Typology of Questions	MCQ I mark	Very Short Answer Question 1 mark	Short Answer Question 3 marks	Short Answer Question 4 marks	Long Answer -1 80 -100 words 5 marks	Long Answer -2 120-150 words 6 Marks	Very Long Answer 150 -200 words (HOTS) 10 marks	Total marks
Reading Skills	Conceptual, understanding, decoding, Analysing, inferring, interpreting, appreciating ,literary conventions and vocabulary, summarising and using appropriate format/s	6	16	1	-	1	-	-	30
Writing Skills and Grammar	Reasoning, appropriacy of style and tone, using appropriate format and fluency inference, analysis, evaluation and creativity, appreciation applying of languages conventions, comprehension using structures integratively,	-	-	-	1	-	1	2	30

	accuracy and fluency								
Literary Text books and long reading text /novel	**Recalling, reasoning, appreciating a literary conventions, inference, analysis, evaluation, creativity with fluency**		4	4	-	-	4	-	40
	TOTAL	**6x1=6**	**20x1=20**	**5x3=15**	**1x4=4**	**5x6=30**	**5x6=30**	**2x10=20**	100

PHYSICS

LEARNING OBJECTIVES

1. Strengthen the concepts developed at the secondary stage to provide firm foundation for further learning in the subject.
2. Expose the learners to different processes used in Physics-related industrial and technological applications.
3. Develop process-skills and experimental, observational, manipulative, decision making and investigatory skills in the learners.
4. Promote problem solving abilities and creative thinking in learners.
5. Develop conceptual competence in the learners and make them realize and appreciate the interface of Physics with other disciplines.

TEXT BOOKS

Physics Part I and II : by NCERT

RECOMMENDED BOOKS

Physics Lab Manual by APC- XII
FUNDAMENTAL PHYSICS: S.L.ARORA
Fundamental Physics: Rasnick and Halliday

Month	No. of Working Days	Course Content
April	**18**	**Ch 1:** Electric Charges and Fields **Ch 2**: Electrostatic Potential and Capacitance **Practicals**: Section A Experiments 1. To determine resistance per cm of a given wire by plotting a graph of potential difference versus current. 2. To find resistance of a given wire using metre bridge and hence determine the specific resistance of its material. 3. To verify the laws of combination (series/parallel) of resistances using a metre bridge. 4. To determine the internal resistance of given primary cell using potentiometer. 5. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit. 6.To compare the EMFof two given primary cells using potentiometer. 7.To convert the given galvanometer(of known resistance and figure of

		Merit)into an ammeterand voltmeter of desired range and to verify The same.
May	**15**	**Ch 3:** Current Electricity **Ch 4**: Moving Charges and Magnetism **Practicals: Section B (contd.)**
July	**20**	**Ch 5:** Magnetism and Matter **Ch 6**: Electromagnetic Induction **Practicals: Section B (contd.)**
August	**20**	**Ch 7**: Alternating Current **Practicals**: : Section B Experiments 1. To find the focal length of a convex lens by plotting graphs between u and v or between l/u and l/v. 2. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation. 3. To find the focal length of a convex mirror, using a convex lens. 4. To find the focal length of a concave lens, using a convex lens. 5. To draw the characteristic curve of a zener diode and to determine its reverse break down voltage. 6.To determine the value of v for different values of u in case of concave mirror and to find the focal lengths. 7.To draw the I-V characteristic curve of a p-n junction in forward and reverse bias. 8.To study the characteristic of a common emitter-npn or pnp transistor And to find out the values of current and voltage gains. **Ch 8:** Electromagnetic Waves **Ch 9:** Ray Optics and Optical Instruments
September	**21**	**Ch 10:** Wave Optics **Practicals:** Section A (contd.)
October	**16**	**Ch 11:** Dual Nature Of Matter And Radiation **Ch 12:** Atoms **Ch 13**: Nuclei **Practicals:** Section A (contd.)
November	**20**	**Ch 14:** Semiconductor Electronics-Materials, Devices and Simple Circuits. **Ch 15:** Communication Systems
		Practicals:. Activities Section A and B **Section A:** 1. To measure resistance, voltage (AC/DC), current (AC) and check continuity of a given circuit using multimeter. 2. To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source. 3. To assemble the components of a given electrical circuit. 4. To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram. **Section B** 1. To identify a diode, an LED, a transistor, and IC, a resistor and a

		capacitor from mixed collection of such items. 2. Use of multimeter to (i) identify base of transistor. (ii) distinguish between npn and pnp type transistors. (iii) see the unidirectional flow of current in case of a diode and an LED. (iv) check whether a given electronic component (e.g. diode, transistor or I C) is in working order. 3. To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab. 4. To observe polarization of light using two Polaroids.
December	**21**	I Pre Board
January	**13**	II Pre Board
February	**19**	Preparatory leave
SYLLABUS	**I Formative Assessment**	Course Content covered in month of April & May
	I Summative Assessment	Course Content covered in the months of April-July
	I Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE
	II Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE

SUGGESTIONS TO PARENTS

1. To keep in regular touch with the child and the subject teacher to keep a close eye on the child's progress.
2. To encourage the child for regular revision and written practice.

UNITS		**Marks**	
Unit I	**Electrostatics**	15	**Time: 3 hrs.** **Max Marks. 70**
Unit II	**Current Electricity**		
Unit III	**Magnetic Effect of Current and Magnetism**	16	
Unit IV	**Electromagnetic Induction and Alternating Current**		
Unit V	**Electromagnetic Waves**	17	
Unit VI	**Optics**		
Unit VII	**Dual Nature of Matter**	10	
Unit VIII	**Atoms and Nuclei**		
Unit IX	**Electronic Devices**	12	
Unit X	**Communication Systems**		

DESIGN OF QUESTION PAPER

S.No.	**Typology of Questions**	VSA **1 mark**	SA-I **2marks**	**SA-II 3 marks**	**Value based question 4 marks**	**LA- I 5 marks**	**TotalMarks**	**% Weightage**
1	**Remembering- (Knowledge based Simple recall questions, to know specific facts, terms, concepts, principles, or theories, Identify, define, or recite, information)**	2	1	1	-	-	7	10%
2	**Understanding- (Comprehension - to be familiar with meaning and to**	-	2	4	-	1	21	30%

	understand conceptually, interpret, compare, contrast, explain, paraphrase information)							
3	**Application (Use abstract information in concrete situation, to apply knowledge to new situations, Use given content to interpret a situation, provide an example, or solve a problem)**	-	2	4	-	1	21	30%
4	**High Order Thinking Skills (Analysis & Synthesis- Classify, compare, contrast, or differentiate between different pieces of information, Organize and/or integrate unique pieces of information from a variety of sources)**	2	-	1	-	1	10	14%
5	**Evaluation and Multi-Disciplinary- (Appraise, judge, and/or justify the value or worth of a decision or outcome, or to predict outcomes based on values)**	1	-	2	**1**	-	11	16%
	TOTAL	5x1=5	**5x2=10**	**12x3=36**	**1x4 = 4**	**3x5=15**	70(26) +30 prac	100%

CHEMISTRY

LEARNING OBJECTIVES

The broad objectives of teaching Chemistry at Senior Secondary Stage are to help the learners:

1. To promote understanding of basic facts and concepts in chemistry while retaining the excitement of chemistry.
2. To make students capable of studying chemistry in academic and professional courses (such as medicine, engineering, technology) tertiary level.
3. To expose the students to various emerging new areas of chemistry and apprise them with their relevance in their future studies and their application in various spheres of chemical sciences and technology.
4. To equip students to face various changes related to health, nutrition, environment, population, weather, industries and agriculture.
5. To develop problem solving skills in students.
6. To expose the students to different processes used in industries and their technological applications.
7. To acquaint students with different aspects of chemistry used in daily life.
8. To develop an interest in students to study chemistry as a Discipline

TEXT BOOKS

Chemistry Part I and II by NCERT

RECOMMENDED BOOKS

Lab Manual for Chemistry: Pradeep Publications

Pradeep's Fundamental Chemistry: Organic chemistry by Bahl and Bahl, Morrison and Boyd, Physical Chemistry by K. L. Kapoor

Month	No. of Working Days	Course Content
April	**18**	**Unit** X: Haloalkanes and Haloarenes. **Unit** XI: Alcohols, Phenols and Ethers **Unit** I: Solid State **Practicals**: i) Preparation of double salt of ferrous ammonium sulphate or potash alum
May	**15**	**Unit** XII: Aldehydes, Ketones and Carboxylic Acids **Unit** II: Solutions **Practicals.2.** Tests for the functional groups present in organic compounds: Unsaturation, alcoholic,aldehydic, ketonic group.
July	**20**	**Unit** XIII: Organic compounds containing Nitrogen **Unit** III: Electrochemistry **Unit** IV: Chemical kinetics **Practicals: 3.** Tests for the functional groups present in organic compounds : Carboxylic and amino (primary) groups: 4. Characteristic tests of carbohydrates, fats and proteins in pure samples and their detection in given food stuffs.
August	**20**	**Unit** XIV: Biomolecules **Unit** XV: Polymers **Unit** VII: P-Block Elements **Practicals**:5. (a)To prepare colloidal solution starch,egg albumin,ferric hydroxide (b)Determination of concentration/molarity of $KMnO_4$ solution by titrating it against a standard solution of: i) Oxalic acid, ii) Ferrous ammonium sulphate
September	**21**	**Unit** VII: P-Block Elements(contd) **Unit** V: Surface Chemistry **Unit** XVI: Chemistry in every day life **Practicals**:6.(a)Chromatography: separate the coloured components present in the mixture of red and blue ink by ascending paper chromatography and find their R_f values (b)Qualitative analysis Determination of one cation and one anion in a given salt
October	**16**	**Unit VI:** General principles and processes of isolation of elements **Unit** VIII: d and f Block Elements **Practicals**:7. Qualitative analysis (Determination of one cation and one anion in a given salt)
November	**20**	**Unit IX:** Coordination Compounds **Practicals :**8. Qualitative analysis (Determination of one cation and one anion in a given salt) 9. (a) Effect of concentration and temperature on the rate of reaction between sodium thiosulphate and hydrochloric acid. (b) Study of reaction rates of any one of the following: (i) Reaction of iodide ion with hydrogen peroxide at room temperature using different concentration of iodide ions. (ii) Reaction between potassium iodate, (KIO_3) and sodium sulphite: (Na_2SO_3) using starch solution as indicator (clock reaction).
December	**21**	I Pre Board
January	**13**	II Pre Board

February	**19**	Preparatory leave
SYLLABUS	**I Formative Assessment**	All topics covered in month of April
	I Summative Assessment	All topics covered in the months of April-July
	I Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE
	II Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE

SUGGESTIONS TO PARENTS

1. To keep in regular touch with the child and the subject teacher to keep a close eye on the child's progress.
2. To encourage the child for regular revision and written practice.

UNITS		**Marks**	
Unit I	**Solid State**	23	**Time: 3 hrs.** **Max Marks. 70**
Unit II	**Solutions**		
Unit III	**Electrochemistry**		
Unit IV	**Chemical Kinetics**		
Unit V	**Surface Chemistry**		
Unit VI	**General Principles and processes of Isolation Of Elements**	19	
Unit VII	**P-Block Elements**		
Unit VIII	**D and F Block Elements**		
Unit IX	**Coordination Compounds**		
Unit X	**Haloalkanes and Haoarenes**	28	
Unit XI	**Alcohols,Phenol and Ethers**		
Unit XII	**Aldehydes ,Ketone and Carboxylic acid**		
Unit XIII	**Organic Compounds containing Nitrogen**		
Unit XIV	**Biomolecules**		
Unit XV	**Polymers**		
Unit XVI	**Chemistry in Every day Life**		
	Total	70	

DESIGN OF QUESTION PAPER

S.No.	**Typology of Questions**	VSA **1 mark**	SA-I **2marks**	**SA-II 3 marks**	**Value based question 4 marks**	**LA- I 5 marks**	**Total Marks**	**% Weightage**
1	**Remembering- (Knowledge based Simple recall questions, to know specific facts, terms, concepts, principles, or theories, Identify, define, or recite, information)**	2	1	1	-	-	7	10%

2	**Understanding- (Comprehension - to be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase information)**	-	2	4	-	1	21	30%
3	**Application (Use abstract information in concrete situation, to apply knowledge to new situations, Use given content to interpret a situation, provide an example, or solve a problem)**	-	2	4	-	1	21	30%
4	**High Order Thinking Skills (Analysis & Synthesis- Classify, compare, contrast, or differentiate between different pieces of information, Organize and/or integrate unique pieces of information from a variety of sources)**	2	-	1	-	1	10	14%
5	**Evaluation and Multi-Disciplinary- (Appraise, judge, and/or justify the value or worth of a decision or outcome, or to predict outcomes based on values)**	1	-	2	**1**	-	11	16%
	TOTAL	5x1=5	**5x2=10**	**12x3=36**	**1x4 = 4**	**3x5=15**	**70(26) + 30 prac**	**100%**

MATHEMATICS

LEARNING OBJECTIVES

1. To enable the students to reinforce mathematical skills and reasoning through clear arguments.
2. To strengthen the concepts developed at the secondary stage to provide firm foundation for further learning in the subject.
3. To enable students enhance their mental calculations.
4. To promote problem solving abilities and creative thinking in learners.

TEXT BOOK

MATHEMATICS Part I and II by NCERT

RECOMMENDED BOOKS:

Ncert Exempler
Mathematics : Gupta Bansal published by Sultan Chand and Sons

R.D. Sharma

Month	NO. OF WORKING DAYS	Course Content
April	**18**	**Chapter** 3: Matrices **Chapter** 4: Determinants **Chapter** 1: Relations and Functions
May	**15**	**Chapter** 1: Relations and Functions (CONTD.) **Chapter** 2: Inverse Trigonometric Functions **Chapter** 5: Continuity and Differentiability

July	**20**	**Chapter**6: Application of Derivatives **Chapter** 7: Integrals
August	**20**	**Chapter** 12: Linear Programming **Chapter** 8: Application of Integrals
September	**21**	**Chapter** 9: Differential Equations
October	**16**	**Chapter** 10: Vectors **Chapter** 13: Probability
November	**20**	**Chapter** 11: Three Dimensional Geometry
December	**21**	I Pre Board
January	**13**	II Pre Board
February	**19**	Preparatory leave
SYLLABUS	**I FORMATIVE ASSESSMENT**	Chapter 1, 2, 3, 4, 5
	I SUMMATIVE ASSESSMENT	All topics covered in the months of April- August
	I PRE-BOARD	Whole syllabus as per Blue print and Marking Scheme provided by CBSE
	II PRE-BOARD	Whole syllabus as per Blue print and Marking Scheme provided by CBSE

SUGGESTIONS TO PARENTS:

1) For perfection in the subject, one needs to be regular
2) Practice is the key to success. The more they practise; the better will be their command in the subject.
3) Encourage children to see math in everyday life like paying of mobile bills is a good example of ceiling function etc….

UNITS		**Marks**	
1	**Relations and Functions**	10	**Time: 3 hrs.** **Max Marks. 100**
2	**Algebra**	13	
3	**Calculus**	44	
4	**Vectors and Three - Dimensional Geometry**	17	
5	**Linear Programming**	06	
6	**Probability**	10	

DESIGN OF QUESTION PAPER

S.No.	**Typology of Questions**	**VSA 1 marks**	**LA- 1 4 marks**	**LA- II 6 marks**	**Marks**	**% Weightage**
1	**Remembering- (Knowledge based Simple recall questions, to know specific facts, terms, concepts, principles, or theories, Identify, define, or recite, information)**	2	3	1	20	20%

2	**Understanding- (Comprehension -to be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase information)**	2	2	2	22	22%
3	**Application (Use abstract information in concrete situation, to apply knowledge to new situations, Use given content to interpret a situation, provide an example, or solve a problem)**	1	4	2	29	29%
4	**High Order Thinking Skills (Analysis & Synthesis- Classify, compare, contrast, or differentiate between different pieces of information, Organize and/or integrate unique pieces of information from a variety of sources)**	1	2	1	15	15%
5	**Evaluation and Multi-Disciplinary- (Appraise, judge, and/or justify the value or worth of a decision or outcome, or to predict outcomes based on values)**	…	**1+1 (values based)**	1	14	14%
	TOTAL	**6x1=6**	**13x4 =52**	**7x6=42**	100	100%

ECONOMICS

LEARNING OBJECTIVES

1. Understanding of some basic economic concepts and development of economic reasoningwhich the learners can apply in their day-to-day life as citizens, workers and consumers.
2. Realisation of learners' role in nation building and sensitivity to the economic issues that the nation is facing today.
3. Equipment with basic tools of economics and statistics to analyse economic issues. This is pertinent for even those who may not pursue this course beyond senior secondary stage.
4. Development of understanding that there can be more than one views on any economic issue and necessary skills to argue logically with reasoning.

TEXT BOOKS

1. Introductory Micro Economics by NCERT
   Introductory Macro Economics by NCERT

RECOMMENDED BOOKS:

1. TR Jain and VK Ohri- Introductory Micro economics
   Introductory Macroeconomics
2. CB Sachdeva- Introductory Micro economics
   Introductory Macroeconomics

NOTE: The question paper will include a section on open case studies based questions on two case studies each from part A and Part B of eight marks i.e. a total of sixteen marks.

Month	No. of Working Days	Course Content

April	**18**	**Part A :** Introductory Microeconomics **Unit 1:** Introduction **Unit 2:** Consumer Equilibrium and Demand
May	**15**	**Unit 2:** Consumer Equilibrium and Demand **Unit 3:** Producer Behavior and Supply
July	**20**	**Unit 4:** Forms of Market and Price Determination and Simple applications of Tools of demand and supply **Unit 5:** National Income and related aggregates
August	**20**	**Unit 5:** National Income and related aggregates **(contd..)**
September	**21**	**Unit 6:** Money and Banking **Unit 7**: Determination of Income and Employment
October	**16**	**Unit 7**: Determination of Income and Employment .(contd..) **Unit 8:** Government Budget and the Economy.
November	**20**	**Unit 8:** Government Budget and the Economy.(contd..) **Unit 9:** Balance of Payments
December	**21**	I Pre Board
January	**13**	II Pre Board
February	**19**	Preparatory leave
Syllabus	**I Formative Assessment**	All topics covered in month of April and May
	I Summative Assessment	All topics covered in the months of April-July
	I Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE
	II Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE

SUGGESTIONS TO PARENTS:

1. Motivate your ward to regularly revise concepts taught.
2. Encourage your ward to be thorough with the topics covered.
3. Be in touch with the concerned teachers to regularly assess the performance.
4. Devote ample time to practice numericals so as to gain proficiency.

UNITS		**Marks**	
	Part A Introductory Microeconomics		
1.	**Introduction**	**6**	
2	**Consumer's Equilibrium and Demand**	**16**	
3	**Producer Behaviour and Supply**	**16**	
4	**Forms of Market and Price Determination under perfect competition with simple applications**	**12**	
	Part B Introductory Macroeconomics		**Time: 3 hrs.** **Max Marks. 100**
5	**National Income and Related Aggregates**	**15**	
6	**Money and Banking**	**8**	
7	**Determination of |Income and Employment**	**12**	
8	**Government Budget and Economy**	8	
9	**Balance of Payments**	7	

DESIGN OF QUESTION PAPER

S.No.	**Typology of Questions**	**VSA 1 marks**	**Short Answer 1**	**Short Answer - 2 4 marks**	**LA- II 6 marks**	**Marks**	**% Weightage**
1	**Remembering- (Knowledge based Simple recall questions, to know specific facts, terms, concepts, principles, or theories, Identify, define, or recite, information)**	2	1	2	2	25	25%
2	**Understanding- (Comprehension -to be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase information)**	3	2	1	2	25	25%
3	**Application (Use abstract information in concrete situation, to apply knowledge to new situations, Use given content to interpret a situation, provide an example, or solve a problem)**	3	1	2	1	20	20%
4	**High Order Thinking Skills (Analysis & Synthesis- Classify, compare, contrast, or differentiate between different pieces of information, Organize and/or integrate unique pieces of information from a variety of sources)**	1	1	1	2	20	20%
5	**Evaluation and Multi- Disciplinary- (Appraise, judge, and/or justify the value or worth of a decision or outcome, or to predict outcomes based on values)**	1`	**1**	-	1	10	10%
	TOTAL	**10x1=10**	**6x3=18**	**6x4= 24**	**8x6=48**	100 (30)	100%

5.

BUSINESS STUDIES

LEARNING OBJECTIVES :

1. To familiarize students with theoretical foundations of organizing, managing and handling operations of a business firm;
2. To help students appreciate the economic and social significance of business Activity and the social cost and benefits arising therefrom;
3. To acquaint students with the practice of managing the operations and resources of business;
4. To prepare students to function more effectively and responsibly as consumers, employers, employees and citizens;
5. To help students in making the transition from school to the world of work Including self-employment;
6. To develop in students a business attitude and skills to be precise and articulate.

TEXT BOOKS :

1. Business studies Part-I: Principles and Functions of Management by NCERT
2. Business Studies Part-II: Business Finance and Marketing by NCERT.

RECOMMENDED BOOKS:

Business Studies by Subhash Dey

Month	No. of Working Days	Course Content
April	**18**	**PART A Ch.** - Nature & significance of management **Ch** - Principles of Management
May	**15**	**Ch.** - Marketing
July	**20**	**Ch.** Planning **Ch.** - Organizing **Ch.** - Staffing
August	**20**	**Ch.** – Business Environment
September	**21**	**PART B –** **Ch.** - Directing **Ch.** -Controlling
October	**16**	**Ch.** Financial Management **Ch.** –Financial Market
November	**20**	Ch. Financial Market **(cont.)** Ch. Consumer Protection
December	**21**	I Pre Board
January	**13**	II Pre Board
February	**19**	Preparatory leave
Syllabus	**I Formative Assessment**	All topics covered in month of April and May
	I Summative Assessment	All topics covered in the months of April-July
	I Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE
	II Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE

SUGGESTIONS TO PARENTS:

1. Encourage your ward for the thorough Reading of the NCERT Book.
2. Advise the child to emphasise on content, quality as well as presentations of the answers.
3. Ensure to remain in regular touch with the concerned teacher so as to regulate the child's performance.

UNITS		**Marks**	**Maximum Marks (Theory 80 Practical 20)** **Duration- 3 hours**
1	Nature and significance of management Principles of management Business Environment	16	
2	Planning Organizing	14	

3	Staffing Directing Controlling	20	
4	Financial Management Financial Market	15	
5	Marketing Management Consumer Protection	15	
6	Project Work	20	

DESIGN OF QUESTION PAPER

S.No.	Typology of Questions	Learning Outcomes and Testing Competencies	VSA 1 marks	SA- 1 3 marks	SA -2 4 marks	LA-6 marks	Essay Type (Marks)	Total Marks	Percentage Weightage
1	**Remembering- (Knowledge based Simple recall questions, to know specific facts, terms, concepts, principles, or theories, Identify, define, or recite, information)**	**Reasoning, Analytical Skills, Critical skills**	2	1	1	1	-	14	17
2	**Understanding- (Comprehension -to be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase or interpret information)**		2	2	1	-	1	18	23
3	**Application (Use abstract information in concrete situation, to apply knowledge to new situations, Use given content to interpret a situation, provide an example, or solve a problem)**		2	1	1	1	1	20	25
4	**High Order Thinking Skills (Analysis & Synthesis- Classify, compare, contrast, or differentiate between different pieces of information, Organize and/or integrate unique pieces of information from a variety of sources)**		2	1	2	-	1	19	24
5	**Evaluation and Multi-Disciplinary- (Appraise, judge, and/or justify the value or worth of a decision or outcome, or to predict outcomes based on values)**		-	-	1 (Value based)	1	-	09	11

	TOTAL 2 projects (10 marks each) 20		**8x1=8**	**5x3=15**	**6x4=24**	**3x5=15**	**3x6=18**	**80(25) +20 projec t**	100

ACCOUNTANCY

LEARNING OBJECTIVES:

1. To enable the students with accounting for reconstitution of partnership firms.
2. To enable the students to understand and analyse the financial statements.
3. To help the learners in comprehending the changing role of accounting in the present scenario of increasing societal demands.

TEXT BOOKS: Accountancy Part I &II. By NCERT.

RECOMMENDED BOOKS:

1. Double entry book keeping- Accounting for Partnership firms and Companies by T.S.Grewal
2. Analysis of Financial Statements by T.S.Grewal

Month	No. of Working Days	Course Content
April	**18**	Unit -1 Accounting for Partnership firms -Fundamentals -Goodwill nature and valuation - Change in profit sharing ratio
May	**15**	Unit -1 Accounting for partnership firms Admission of a partner
July	**20**	Unit- **1** Accounting for partnership firms - Retirement / Death of a partner - Dissolution of a partnership firm
August	**20**	Unit-3 Analysis of financial statements Unit-4–Cash Flow Statement Project wok
September	**21**	Unit-2 Accounting for companies - Share capital
October	**16**	Unit-2 Accounting for companies -Issue of debentures - Redemption of debentures
November	**20**	Revision
December	**21**	I Pre Board
January	**13**	II Pre Board
February	**19**	Preparatory leave

SYLLABUS	**I Formative Assessment**	All course content covered in April and May
	I Summative Assessment	Content covered till August
	I Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE
	II Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE

SUGGESTIONS TO PARENTS:

1. Motivate your ward to regularly practice the numericals.
2. Encourage the child to work as per the time limit and in the defined formats.
3. Be in touch with the concerned teachers so as to regularly access the performance.

UNITS		**Marks**	
1	Accounting for partnership firms	35	**Maximum Marks (Theory 80 Practical 20)** **Duration- 3 hours**
2	Accounting for companies	25	
3	Analysis of financial statements	12	
4	Cash flow statement	8	
6	Project Work	20	

DESIGN OF QUESTION PAPER

S.No.	**Typology of Questions**	**VSA/MCQ 1 mark**	**SA- 1 3 marks**	**SA -2 4 marks**	**LA-1 6 marks**	**LA-2 8 marks**	**Total Marks**	**%**
1	**Remembering- (Knowledge based Simple recall questions, to know specific facts, terms, concepts, principles, or theories, Identify, define, or recite, information)**	3	1	1	1	-	16	20 %
2	**Understanding- (Comprehension -to be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase or interpret information)**	2	-	2	1	1	24	30 %
3	**Application (Use abstract information in concrete situation, to apply knowledge to new situations, Use given content to interpret a situation, provide an example, or solve a problem)**	-	2	2	1	-	20	25 %
4	**High Order Thinking Skills (Analysis & Synthesis-**	2	-	-	1	1	16	20 %

	Classify, compare, contrast, or differentiate between different pieces of information, Organize and/or integrate unique pieces of information from a variety of sources)							
5	**Evaluation and Multi-Disciplinary- (Appraise, judge, and/or justify the value or worth of a decision or outcome, or to predict outcomes based on values)**	1	1	-	-	-	04	05 %
	TOTAL	**8x1=8**	**4x3=12**	**5x4=20**	**4x6=24**	**2x8=16**	80(23) +20 project	100

BIOLOGY

LEARNING OBJECTIVES:

The prescribed syllabus is expected to

- Promote understanding of basic principles of biology
- Learning of emerging knowledge and its relevance to individual and society
- Encourage rational/scientific attitude to issues related to population, environment and development
- Enhance awareness about environmental issues and problems and offer appropriate solutions
- Create awareness amongst the learners about variations amongst the living organisms and developing respect for diversities and appreciate that the most complex biological phenomenon are also built on essentially simple processes.

TEXT BOOKS:

A Text book in Biology Vol. 2: Published by NCERT

RECOMMENDED BOOKS

Lab Manual for Biology: Pitambar Publications

Biology: by Trueman

Month	No. of Working Days	Course Content
April	**18**	**Unit-I (1. REPRODUCTION)**
		Chapter 1 Reproduction in organisms: Asexual and sexual reproduction. **Chapter 2 Sexual reproduction in flowering plants**: Structure of flower, pollination, fertilization, development of seeds and fruits, apomixis and polyembryony. **Practicals :** 1.Collect and study soil from at least two different sites and study them for texture, moisture content, pH and water holding capacity. Correlate with the kinds of plants found in them.

		2. Collect water from two different water bodies around you and study them for pH, clarity and presence of any living organisms. 3. Study the presence of suspended particulate matter in air at two widely different sites. 4. Study of plant population density by quadrat method. 5. Study of plant population frequency by quadrat method.
May	**15**	**Chapter 3 Human Reproduction:** Reproductive system in male and female, menstrual cycle, production of gametes, fertilization, implantation, embryo development, pregnancy, parturition and lactation. **Chapter 4 Reproductive Health:** Population and birth control, contraception and MTP; sexually transmitted diseases, infertility. **Practicals:** 6.Study the effect of different temperatures and three different pH on the activity of salivary amylase on starch.
July	**20**	**Unit-II (2. GENETICS AND EVOLUTION)**
		Chapter 5 Principles of inheritance and variations Mendelian inheritance.
		Chromosome theory of inheritance, deviations from Mendelian ratio (gene interaction-incomplete dominance, co-dominance, multiple alleles).
		Sex determination in human beings: XX,XY.
		Linkage and crossing over. **Practicals:** 7.Isolation of DNA from available plant material such as spinach, green pea seeds, papaya, etc. 8. study pollen germination on a slide. 9. prepare temporary mount of onion root tip to study mitosis.
August	**20**	Inheritance pattern: Mendelian disorders and chromosomal disorders in humans. **Chapter 6 Molecular basis of inheritance** DNA and RNA, search for genetic material, replication, transcription, genetic code, translation.

		Gene expression and regulation. Genome and Human Genome Project. DNA fingerprinting. **Chapter 7 Evolution**: Origin of life, theories and evidences, adaptive radiation, mechanism of Evolution, origin and evolution of man. **Practicals (spotting):** 1.Flowers adapted to pollination by different agencies (wind, insect, bird). 2. Pollen germination on stigma through a permanent slide. 3. Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice). 4. Meiosis in onion bud cell or grasshopper testis through permanent slides. 5. T.S. of blastula through permanent slides. 6. Mendelian inheritance using seeds of different colour/sizes of any plant. 7. Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colour blindness.
September	**21**	**Unit-III (3. BIOLOGY AND HUMAN WELFARE)**
		Chapter 8 Human health and diseases Basic concepts of immunology, vaccines.
		Pathogens Parasites
		Cancer and AIDS
		Adolescence and drug / alcohol abuse.
		Chapter 9 Strategies for enhancement in food production Plant breeding, tissue culture, single cell protein, food production, animal husbandry.
		Chapter 10 Microbes in human welfare Microbes in household food processing, industrial production, sewage treatment, energy generation, biocontrol agents and biofertilizers. **Practicals(spotting):** 8. Controlled pollination - emasculation, tagging and bagging. 9. Common disease causing organisms like Ascaris, Entamoeba, Plasmodium, Roundworm through permanent slides or specimens. Comment on symptoms of disease that they cause. 10. Two plants and two animals (models/virtual images) found in xeric conditions. Comment upon their morphological adaptations. 11. Two plants and two animals (models/virtual images) found in aquatic conditions. Comment upon their morphological adaptations.

October	**16**	**Unit-IV (4. BIOTECHNOLOGY AND ITS APPLICATION)** **Chapter 11 Biotechnology: principles and processes** **Chapter 12 Biotechnology and its applications** Recombinant DNA technology; Application in Health and Agriculture; genetically modified organisms.
November	**20**	**Unit-V (5. ECOLOGY & ENVIRONMENT)** **Chapter 14 Ecosystems**: components, types, energy flow, nutrient cycling and ecosystem services. **Chapter 13 Organism and Population**: Organisms and its environment, population and ecological adaptations. **Chapter 15 Biodiversity and conservation** Centers of diversity and conservation for biodiverity, Biosphere reserves, National parks and sanctuaries. **Chapter 16 Environmental issues.**
December	**21**	I Pre Board
January	**13**	II Pre Board
February	**19**	Preparatory leave
SYLLABUS	**I Formative Assessment**	All topics covered in April UNIT I
	I Summative Assessment	All topics covered in April-August UNIT I & II
	I Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE
	II Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE

SUGGESTIONS TO PARENTS:

1. Parents are advised to ensure that their children attend the school regularly.
2. They should check that their children are not missing all assignment or **Practicals**.
3. They should keep in regular touch with the teacher to enquire about progress of their ward.
4. They should help their ward to develop time management skills and avoid undue stress due to delays.

UNITS		**Marks**	
1	**Reproduction**	14	**Time: 3 hrs.** **Max Marks.70**
2	**Genetics and Evolution**	18	

3	**Biology and Human Welfare**	14	
4	**Biotechnology and its Applications**	10	
5	**Ecology and Environment**	14	

DESIGN OF QUESTION PAPER

S.No.	**Typology of Questions**	**Very Short Answer (VSA) (1 mark)**	**Short Answer-I (SA-I) (2 marks**	**Short Answer –II (SA-II) (3 marks**	**Value based question (4 marks**	**Long Answer (LA) (5 marks**	**Total Marks**	**% Weightage**
1	**Remembering- (Knowledge based Simple recall questions, to know specific facts, terms, concepts, principles, or theories, Identify, define, or recite, information)**	**2**	**1**	**1**	-	-	**7**	**10%**
2	**Understanding- (Comprehension -To be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase information)**	-	**2**	**4**	-	1	21	30%
3	**Application (Use abstract information in concrete situation, to apply knowledge to new situations, Use given content to interpret a situation, provide an example, or solve a problem**	-	2	4	-	1	21	30%
4	**High Order ThinkingSkills (Analysis & Synthesis- Classify, compare, contrast, or differentiate between different pieces of information, Organize and/or integrate unique pieces of information from a variety of sources)**	2	-	1	-	1	10	14%
5	**Evaluation and Multi-Disciplinary- (Appraise, judge, and/or justify the value or worth of a decision or outcome, or to predict**	1	-	2	1	-	11	16%

	outcomes based on values)							
	TOTAL	**1*5 =5**	**5*2 = 10**	**12*3 = 36**	**1*4 = 4**	**3*5= 15**	**70 (26)**	**100%**

PSYCHOLOGY

LEARNING OBJECTIVES

1. To develop appreciation about human behavior and human mind in the context of learners' immediate society & environment.
2. To develop in learners an appreciation of multidisciplinary nature of psychological knowledge and its application in various aspects of life.
3. To enable learners to become perceptive, socially aware and self reflective.
4. To facilitate students' quest for personal growth and effectiveness, and to enable them to become responsive and responsible citizens.

TEXT BOOK

Psychology and Life, Class XII, -NCERT

RECOMMENDED BOOKS:

Introduction to Psychology: Morgan & King

Month	No. of Working Days	Course Content
April	**18**	UNIT I: Variation in Psychological Attributes UNIT II: Self & Personality Practical 1-Raven's Standard Progressive Matrices
May	**15**	UNIT IV Psychological Disorder Practical 2:HSPQ by R.Catell
July	**20**	UNIT III: Meeting Life Challenges Practical 3-David's Battery of Differential Aptitude UNIT VIII: Psychology and Life
August	**20**	UNIT IX Developing Psychological Skills Practical 4: Anxiety Testing ; Self Concept Questionnaire SCQ
September	**21**	UNIT V : Therapeutic Approaches Practical: Adjustment Inventory; Activity-case study
October	**16**	UNIT VI Attitude & Social Cognition UNIT VII Social Influence & Group Processes
November	**20**	Revision and case study
December	**21**	I Pre Board
January	**13**	II Pre Board
February	**19**	Preparatory leave
SYLLABUS	**I Formative Assessment**	All topics covered in month of April and May
	I Summative Assessment	All topics covered till August

	I Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE
	II Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE

SUGGESTIONS TO PARENTS:

1. For perfection in the subject, one needs to be regular.
2. Encourage your ward to read books and articles related to Psychology in order to have better understanding.

I. WEIGHTAGE TO CONTENT/SUBJECT UNITS

S.NO.	UNITS	WEIGHTAGE/MARKS
1	**Variation in Psychological Attributes**	**09**
2	**Self and Personality**	**10**
3	**Meetings Life Challenges**	**07**
4	**Psychological Disorders**	**10**
5	**Therapeutic Approaches**	**07**
6	**Attitude and Social Cognition**	**08**
7	**Social Influence and Group Processes**	**07**
8	**Psychology and Life**	**06**
9	**Developing Psychological Skills**	**06**

DESIGN OF QUESTION PAPER

S.No.	**Typology of Questions**	**Learning Outcomes and Testing Competencies**	Learning checks (1mark)	Very Short Answer (2marks)	Short Answer-1 (SA-1) (3marks)	**Short Answer** –II (SA-II) (4 marks	**Long Answer (LA (6marks)**	**Total Marks**	**% Weightage**
1	**Remembering- (Knowledge based Simple recall questions, to know specific facts, terms, concepts, principles, or theories, Identify, define, or recite, information**	· **Reasoning** · **Analytical Skills** · **Critical thinking**	3	2	-	2	1	21	30%
2	**Understanding- (Comprehension - to be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase information)**		-	4	1	1	1	21	30%
3	**Application (Use abstract information in concrete situation, to apply knowledge to new situations, Use given content to interpret a**		3	-	1	2	-	14	20%

	situation, provide an example, or solve a problem)								
4	**High Order Thinking Skills (Analysis & Synthesis- Classify, compare, contrast, or differentiate between different pieces of information, Organize and/or integrate unique pieces of information from a variety of sources)(includes map interpretation)**		4	-	1	-	-	07	10%
5	**Evaluation - (Appraise, judge, and/or justify the value or worth of a decision or outcome, or to predict outcomes based on values)**		-	-	1	1	-	07	10%
	TOTAL		**10x1= 10**	**6x2= 12**	**4x3= 12**	6*4= 24	2x6= 12	70 (28)	100 %

PHYSICAL EDUCATION

RECOMMENDED BOOKS

Text book: Saraswati Health and Physical Education by- Dr. V.K. Sharma

MONTH	No. of Working Days	Course content
April	**18**	Unit-1 Planning in sports Unit-2 Adventure sports and leadership training
May	**15**	Unit-3 Sports and nutrition Unit-4 Postures
July	**20**	Unit-5 Children and sports Unit-6 Women and sports
August	**20**	Unit-7 Test and measurement in sports Unit-8 Physiology and sports
September	**21**	Unit-9 Sports Medicine Unit-10 Biomechanics and sports
October	**16**	Unit-11 Psychology and sports Unit-11 Training in sports
November	**20**	Revision
December	**21**	I Pre Board
January	**13**	II Pre Board
February	**19**	Preparatory leave

SYLLABUS	**I Formative Assessment**	Unit 1, 2, 3
	I Summative Assessment	Unit 1, 2, 3, 4, 5, 6
	I Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE
	II Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE

SUGGESTIONS TO PARENTS:

1.) Parents are advised to ensure that their children attend the school regularly
2.) They should check that their children are not missing all assignment and **Practicals.**

COMPUTER SCIENCE

LEARNING OBJECTIVES

1. To enable the students learn the Object Oriented Programming Concept.
2. To enable the students learn the concepts of classes, constructors and inheritance for creating programs.
3. To learn the concept of Stacks and Queues with the help of Linked list and arrays
4. To learn the DBMS concepts and SQL
5. To learn the concepts of Boolean algebra.
6. To enable the students to understand the need for networking and application of networking.

TEXT BOOK

Computer Science for Class XII by NCERT

RECOMMENDED BOOKS

Computer Science C++: by Sumita Arora

MONTH	No. of Working Days	COURSE CONTENT
April	**18**	Ch-2 OOP concepts Ch-3 Function Overloading Ch-4 Classes and Objects Ch-5 Constructors and destructors
May	**15**	Ch-6- Inheritance- Types and syntax Ch-7- Data File Handling (Binary files) Ch-14- Networking- Introduction, Need for networking, applications of network, evolution of networking, Switching Techniques, Transmission media- Guided and Unguided
July	**20**	Ch-7- Data File Handling (Text files) Ch-6- Inheritance (Implementation) Ch-8 Pointers Ch-10 Linked List, Stacks and Queues

August	**20**	Ch-11 DBMS Concepts Ch-12 SQL Ch-14 Networking – Data Communication Technologies, Types of Networks, Network Topologies
September	**21**	Ch-13 Boolean Algebra
October	**16**	Ch-9 Arrays Ch-14 Networking- Network devices, Communication Protocols, Wireless/Mobile Computing, OSS, Application of networking
November	**20**	Revision of entire syllabus
December	**21**	I Pre Board
January	**13**	II Pre Board
February	**19**	Preparatory leave
SYLLABUS	**I Formative Assessment**	Ch 4,5,7
	I Summative Assessment	Ch 1-8, Ch 10-12, Ch-14 Practical Exam Ch- 4,5,6,7
	I Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE
	II Pre Board	Whole syllabus as per Blue print and Marking Scheme provided by CBSE

SUGGESTIONS TO PARENTS:

1. Parents are advised to ensure that their children attend the school regularly.
2. They should check that their children are not missing all assignment or **Practicals**.
3. They should keep in regular touch with the teacher to enquire about progress of their ward.
4. They should help their ward to develop time management skills and avoid undue stress due to Delays.

UNITS		**Marks**	
1	**Object Oriented Programming in C++**	30	**Time: 3 hrs.** **Max Marks. 70**
2	**Data Structure**	14	
3	**Database and SQL**	08	
4	**Boolean Algebra**	08	
5	**Communication Technologies**	10	

DESIGN OF QUESTION PAPER

S.No.	UNIT	VSA (1 Mark)	SA I (2 Marks)	SA II (3 Marks)	LA (4 Marks)	TOTAL
1	**Review of C++ covered in Class XI**	1 (1)	8 (4)	3 (1)		12 (6)
2	**Object Oriented Programming in C++**					
	a) Introduction to OOP using C++		2 (1)		4 (1)	6 (2)
	b) Constructor & Destructor		2 (1)			2 (1)
	c) Inheritance				4 (1)	4 (1)
3	**Data Structure & Pointers**					
	a) Address Calculation			3 (1)		3 (1)
	b) Static Allocation of Objects		2 (1)	3 (1)		5 (2)
	c) Dynamic Allocation of Objects				4 (1)	4 (1)
	d) Infix & Postfix Expressions		2 (1)			2 (1)
4	**Data File Handling in C++**					
	a) Fundamentals of File Handling	1 (1)				1 (1)
	b) Text File		2 (1)			2 (1)
	c) Binary Files			3 (1)		3 (1)
5	**Databases and SQL**					
	a) Database Concepts		2 (1)			2 (1)
	b) Structured Query Language	2 (2)			4 (1)	6 (3)
6	**Boolean Algebra**					
	a) Introduction to Boolean Algebra & Laws		2 (1)			2 (1)
	b) SOP & POS	1 (1)				1 (1)
	c) Karnaugh Map			3 (1)		3 (1)
	d) Basic Logic Gates		2 (1)			2 (1)
7	**Communication & Open Source Concepts**					
	a) Introduction to Networking	1 (1)				1 (1)
	b) Media,Devices,Topologies & Protocols				4 (1)	4 (1)
	c) Security	1 (1)				1 (1)
	d) Webservers	1 (1)				1 (1)
	e) Open Source Terminologies	1 (1)				1 (1)
	f) Expansion of terminologies	1(1)				
	TOTAL	**9 (9)**	**26 (13)**	**15 (5)**	**20 (5)**	**70 (32)**

GENERAL STUDIES

Learning Objectives

- To inculcate in children awareness on current topics and enhance their general knowledge and awareness
- To enhance in students the leadership skills and ability to work effectively in groups
- To instil moral values in children

Month	Number of working days	Course Content
April	18	• Adopting environmental friendly practice. • Reducing water and carbon footprint

May	**15**	• Inculcating in children gender sensitivity • Challenging gender stereotypes
July	**20**	• Panel Discussions and debates on current topics along with Quiz • Discussion on latest inventions and discoveries
August	**20**	• Discussion on conflict between North and South Korea • Discussion on conflict between Palestine and Israel • Know Thy World: Discussion on state of economies of various countries (Russia, Brazil, USA, China and also developing and emerging world economies
September	**21**	• Study Skills and Time Management
October	**16**	• Managing Exam Anxiety and test taking skills
November	**20**	• Communication Skills

ENTERPRISE CLUB

LEARNING OBJECTIVES

1. To develop financial analytical thinking.
2. To enable students to understand the concept of entrepreneurship effectively and to make informed decisions with their financial resource.
3. To understand the role of entrepreneur in developing the economy of the country.

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Month	**No. Of Working Days**	**Course Content**
April	**18**	**Meaning of Entrepreneurship and Qualities of an ideal entrepreneur** Group Discussion
May	**15**	**Organize a business plan** Report Writing
July	**20**	**Ways to raise capital by an Entrepreneur** Report Writing
August	**20**	**Top 5 women entrepreneurs in India** Collage Making
September	**21**	**"Corporate Social Responsibility is mandatory"** Debate
October	**16**	**Developing an advertisement programme for a new product**

		PowerPoint
November	**20**	**Top 10 Entrepreneurs in India** **Quiz :**Intersection quiz
SA 1 **(Assessment in August – September)**		Grading to be done on the basis of regularity, activity participation and work submitted during term-I
SA 2 **(Assessment in December – January)**		Grading to be done on the basis of regularity, activity participation and work submitted during term-II

NEWS & BROADCASTING

LEARNING OBJECTIVES

To enable children to familiarize with the nuances of news reading and to enhance their communication skills.

Month	No. Of Working Days	Course Content
April	**18**	**Reading Newspaper –** Reading different types of reports and articles from newspapers
May	**15**	**Group Discussion:-** News reading in the class Different topics will be allotted to students & students will read news in the class
July	**20**	**Writing News** **Theme:** School events & Day to Day news
August	**20**	**Writing news** **Theme:** Sports news, Weather news
September	**21**	**Panel Discussion:** Current topics
October	**16**	**News Recording:** Different news topics will be assigned to the students & they will present news on the given topic
November	**20**	**News recording** continue.. Debate topic: Freedom of press
SA 1 **(Assessment in August – September)**		Grading to be done on the basis of regularity, activity participation and work submitted during term-I
SA 2 **(Assessment in December – January)**		Grading to be done on the basis of regularity, activity participation and work submitted during term-II

INTERACT CLUB

LEARNING OBJECTIVES

1. To inculcate the virtue of philanthropy in learners,
2. To sensitize the learners towards the needs of the underprivileged and
3. To instill a sense of gratitude in the learners.

Month	No. Of Working Days	Course Content
April	**18**	**Donation Drive:** collection of old clothes, books and toys to be given to Nayjyoti Foundation' through Interact Club of the school.
May	**15**	**Buddy System:** Learners will be asked to mentor and guide students from junior classes.
July	**20**	**Gift making**
August	**20**	**Each one teach one:** Learners will be asked to prepare small lesson plans for class 4 employees of the school
September	**21**	**Visit to orphanage/ old age home:** Report writing
October	**16**	Display Board making on the theme 'Altruism'
November	**20**	**Walk for change**
SA 1 **(Assessment in August – September)**		Grading to be done on the basis of regularity, activity participation and work submitted during term-I
SA 2 **(Assessment in December – January)**		Grading to be done on the basis of regularity, activity participation and work submitted during term-II

E-SAGARIKA

LEARNING OBJECTIVES

6. To help students improve their communication skills.
7. To enable students think creatively and be able to present their thoughts appropriately
8. To develop the spirit of community service.

MONTH	NO. OF WORKING DAYS	COURSE CONTENT
April	**18**	**Theme : EARTH DAY** **Class Discussion and Report Presentation:** "Conserve Energy" and "Climate Change"
May	**15**	**Theme: LABOUR DAY**

		Group Discussion in class and Poster Making: "Respecting our helpers" Or "Child Labour"
July	**20**	**Theme: Importance of SPORTS** **PowerPoint Presentation:** Students will explore the effect of sports in maintaining good health.
August	**20**	**Theme: INDEPENDENCE DAY** **Article Writing:** Paying Homage to soldiers guarding our borders.
September	**21**	**Theme: TEACHER'S DAY** **Card Making:** Students will make e-cards for to express gratitude to teachers.
October	**16**	**Theme: FESTIVALS OF INDIA** **Collage Making :** Festivals help us to maintain unity. It adds vigour and zeal to life. A group Discussion
November	**20**	**Theme: THANKS GIVING** **Quote Writing or Slogan writing:** Students will write **s**logans and quotes for expressing their thankfulness.
SA 1 (Assessment in August – September)		Grading to be done on the basis of regularity, activity participation and work submitted during term-I
SA 2 (Assessment in December – January)		Grading to be done on the basis of regularity, activity participation and work submitted during term-II

MARKING SCHEME & EVALUATION (2016 - 2017)

CLASS : XII

XII	FA	SA	PB 1	PB 2
ENG	30	100	100	100
CHEMISTRY	30	70+30(Pr)	70+30(Pr)	70+30(Pr)
B. STUDIES	30	80+20(Proj)	80+20(Proj)	80+20(Proj)
MATHS	30	100	100	100
PHYSICS	30	70+30(Pr)	70+30(Pr)	70+30(Pr)
ACCOUNTS	30	80+20(Pr)	80+20(Pr)	80+20(Pr)
BIOLOGY	30	70+30(Pr)	70+30(Pr)	70+30(Pr)
ECONOMICS	30	100	100	100
PSYCHOLOGY	30	70+30(Pr)	70+30(Pr)	70+30(Pr)
COMP.SC.	30	70+30(Pr)	70+30(Pr)	70+30(Pr)
Phy Edn	30	70+30(Pr)	70+30(Pr)	70+30(Pr)
CUMULATIVE WT.	**10 marks**	**30 marks**	**30 marks**	**30 marks**
GK	25	25	----	-------

NOTE:

(I) FA : Pen & paper test of duration 60 mins

(II) SA : Pen & paper test of duration 3 hours

(III) PB 1: Pen & paper test of duration of 3 hours

(IV) PB 2 : Pen & paper test of duration 3 hours

Abbreviations used

Pr: Practical assessment

General Studies Assessment will be based on numerical ability, verbal ability, current affairs, general knowledge and mental ability.