SUBJECT: ENGLISH

MONTH	MAIN COURSE BOOK (FLAMINGO)	SUPPLEMENTARY READER(VISTAS)	ADVANCED WRITING SKILLS
April	1. The Last Lesson (Prose) 2. Lost Spring (Prose)	1. The Third Level 2. The Tiger King	1.Notice Writing, 2. Advertisement Writing
May	1. My Mother at Sixty Six (Poem)	--------------------	--------------------
June	1.An Elementary School classroom in a slum (Poem)	--------------------	-----------------------
Syllabus for Periodic Test 1: **Main Course Book: 1.The Last Lesson 2. Lost Spring 3.My Mother at Sixty Six** **Supplementary Reader: 1. The Tiger King. 2. The Third Level** **Advanced Writing Skills: 1.Notice Writing2.Advertisements**			
July	1. Keeping Quiet (Poem) 2. Deep Waters (Prose) 3. A Thing of Beauty(Poem) 4. Poets and pancakes (Prose)	1. The Enemy 2. Should Wizard Hit Mommy?	1. Note-making 2. Drafting Posters
August	1. The Rattrap (Prose) 2. Indigo (Prose) 3. Aunt Jennifer's Tigers (Poem)	1.On the Face of it	1.Invitations and Replies 2. Debate 3. Newspaper & Magazine Report
Syllabus for Periodic Test 2: **Main Course Book: 1.Keeping Quiet 2. Deep Waters 3. Poets and pancakes 4. Aunt Jennifer's Tiger** **Supplementary. Reader: 1. Should Wizard Hit Mommy? 2. The Enemy.** **Advanced. Writing Skills: 1. Drafting Posters2. Invitations and Replies**			
September	1.The Interview Part I, Part II 2. Poets and Pancakes 3. A Roadside Sand	1. Evans tries an O Level 2. Memories of Childhood 3. The Cutting of My Long Hair 4. We too are Human Beings	1.Article Writing 2.Speech Writing 3.Formal Letters & Applications
October	1.Going Places (Prose)	1.Journey to the end of the Earth	Revision
November	Revision	Revision	Revision
Pre Board I & II : All Chapters			

SUBJECT: PHYSICS

MONTH	LESSONS	ACTIVITIES/PRACTICALS
April	**1:** Electric charges and fields. **2:** Electrostatic potential and capacitance	-------
May	**2:** Electrostatic potential and capacitance	-------

Month	Chapters	Activities / Experiments
June	**3:** Current electricity **4:** Moving charges and magnetism	**Act 1.** To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source. **A1.** To determine resistance per cm of a given wire by plotting a graph for potential difference versus current. **A2.** To find resistance of a given wire using metre bridge and hence determine the resistivity (specific resistance) of its Material.
Syllabus for Periodic Test 1 - L1, L2 and L3 (UPTO LIMITATIONS OF Ohm's law).	
July	**4:** Moving charges and magnetism(contd.) **5:** Magnetism and matter	**A3.** To verify the laws of combination (series) of resistances using a metrebridge. **A4.** To verify the laws of combination (parallel) of resistances using a metrebridge. **Act 2.** To study the variation in potential drop with length of a wire for a steady current. **A5.** To compare the EMF of two given primary cells using potentiometer.
Syllabus for Periodic Test 2 – L3,L4 & L5 (UPTO Earth's Magnetic Field)	
August	**6:** Electromagnetic Induction **7:** Alternating current **8:** Electromagnetic waves	**A6.** To determine resistance of a galvanometer by half- deflection method and to find its figure of merit. **A7.** To convert the given galvanometer (of known resistance and figure of merit) into a voltmeter of desired range and to verify the same. **A8.** To convert the given galvanometer (of known resistance and figure of merit) into an ammeter of desired range and to verify the same.
September	**9:** Ray optics and optical Instruments **10:** Wave optics	**Act 3.** To obtain a lens combination with the specified focal length by using two lenses from the given set of lenses. **B1.** To find the value of v for different values of u in case of a concave mirror and to find the focal length B**2**. To find the focal length of a convex lens by plotting graphs between u and v or between 1/u and 1/v. **B3.** To find the focal length of a convex mirror, using a convex lens. **B4.** To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation. **B5**. To find refractive index of a liquid by using convex lens and plane mirror. Revision.
October	**14:** Semiconductor electronics: materials, devices and simple circuits **11:** Dual nature of radiation and matter	**Act 4**. To identify a diode, an LED, a transistor, an IC, a resistor and a capacitor from a mixed collection of such items. **B6.** To draw the I-V characteristic curve for a p-n junction in forward bias and reverse bias. **B7.** To draw the characteristic curve of a Zener diode and to determine its reverse breakdown voltage.
November	**12:** Atoms **13**:Nuclei	**Act 5.** 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 IC) is in working
Syllabus for Pre Board I & II : All Chapters	

SUBJECT: CHEMISTRY

Month	Lessons/ Chapters	Activities/ Practical
April	**L:10** Alcohols, Phenols& Ethers **L:11** Aldehydes, Ketones &Carboxylic acids	-
May	**L:11** Aldehydes, Ketones & Carboxylic acids	-
June	**L:12** Organic Compounds containing Nitrogen	**01.** Preparation of 250 ml M/20 solution of Mohr's solution. Determination of molarity and strength of $KMnO_4$ solution using Mohr's salt. **02.** Preparation of 250 ml M/20 solution of Mohr's solution. Determine the percentage purity of $KMnO_4$ solution using Mohr's salt.
Syllabus for Periodic Test -1: (L: 10 Alcohols, Phenols & Ethers, L: 11 Aldehydes, Ketones & Carboxylic acid & L:12 Organic Compounds containing Nitrogen)		
July	**L:01** Solutions **L:02** Electrochemistry **L:03** Chemical Kinetics	**03.** Determination of water of crystallization in Mohr's salt by using 0.011M $KMnO_4$ solution. **04.** Preparation of 250 ml M/50 solution of Oxalic acid solution. Determination of molarity and strength of $KMnO_4$ solution using Oxalic acid solution. **05.** Find out the percentage purity of impure sample of oxalic acid. You are provided M/100 $KMnO_4$ solution. **06.** Calculate the Percentage of Fe^{+2} ion in the sample of $FeSO_4$ using M/100 $KMnO_4$ solution.
August	**L:04** Surface Chemistry **L:05** General Principles & Processes of Isolation of Elements **L:06** p-Block Elements	**07.** Inorganic salt analysis: $[Pb(NO_3)_2, NH_4Br]$ **08.** Inorganic salt analysis: $[ZnCl_2, Al(NO_3)_3, BaCl_2]$ **09.** Inorganic salt analysis: $[(CH_3COO)_2Pb, CoCl_2, Sr(NO_3)_2]$ **10.** Inorganic salt analysis: $[(NH_4)_2CO_3, CaCl_2, MgSO_4]$
Syllabus for Periodic Test -2: (L:01 Solutions&L:02 Electrochemistry)		
September	**L:07** d and f-Block Elements **L:08** Coordination Compounds **L:09** Haloalkanes & Haloarenes	**11.** Inorganic salt analysis: $[MnCl_2, ZnS, (NH_4)_3PO_4]$ **12.** Organic functional group analysis: [Aldehyde, Ketone] **13.** Organic functional group analysis: [Alcohol, Phenol] **14.** Organic functional group analysis: [Carboxylic acid, Aromatic amine]
October	**L:13** Biomolecules **L:14** Polymers	**15.** Effect of concentration on rate of reaction. **16.** Effect of temperature on rate of reaction. **17.** Preparation of colloid $Fe(OH)_3$ and Demonstration of Electrochemical cell.
November	**L:15** Chemistry in everyday life	Revision and Completion of Journal
Syllabus for Pre Board I & II : All Chapters		

SUBJECT: BIOLOGY

Month	Lessons/ Chapters	Activities/ Practical
April	**1.** Reproduction in organisms **2.** Sexual reproduction in flowering plants. **3.**Human reproduction	

May	**3.**Human reproduction	
June	**4.**Reproductive health **5.**Principles of inheritance and Variation	**A1.** Study of pollen germination on a slide **B2.** Study of pollen germination on stigma through a permanent slide. **B3** Identification and study of stages of gamete development in T.S of testis and ovary through permanent slides. **B5.** Study of T.S. of Blastula through permanent slide (Mammalian).
Syllabus for Periodic Test 1- Chapter:1,2 and 3		
July	**5.**Principles of inheritance and Variation (Contd.) **6.** Molecular basis of inheritance	**B1.** Study of flowers adapted to pollination by different agencies (Wind, insects, and birds). **B6.** Study of Mendelian inheritance using seeds of different color and shape. **A9.** To extract DNA. **B4.** Study of stages of meiosis in onion flower buds. **A7**. To prepare a temporary mount of onion root tip to study mitosis. **Submission of project (rough)**
August	**7.**Evolution **8.**Human health and disease **9.**Strategies for enhancement in food production	**B7**. Study of prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and color blindness. **B9.** To identify common disease causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through permanent slides or specimens. **B8.** Exercise on controlled pollination - emasculation, tagging and bagging. **B10.** Study of two plants and two animals (models/virtual images) found in xeric conditions. **B11.** Study of two plants and two animals (models/virtual images) found in aquatic conditions. **A2.** Study of soil from at least two different sites for texture, moisture content, pH and water holding capacity. Correlate with the kinds of plants found in them.
Syllabus for Periodic Test 2- Chapter:4,5 and 6		
September	**10.**Microbes in human welfare **11.** Biotechnology: Principles and processes **12.**Biotechnology and its applications.	**A3.** To study water collected from water bodies for pH, clarity and presence of any living organism. **A4.** Study of presence of suspended particulate matter in air at two widely different sites. **A5.** Study of plant population density by quadrat method. **A6.** Study of plant population frequency by quadrat method.
October	**13.** Organisms and populations **14.**Ecosystem	**A8.** To study the effect of different temperatures and three different pH on the activity of salivary amylase on starch. **Submission of project (final copy)**
November	**15.**Biodiversity and conservation **16.** Environmental issues.	
Syllabus for Pre Board I & II : All Chapters		

SUBJECT: MATHEMATICS

Month	Lessons/Chapters	Activities
April	**3.** Matrices **4.** Determinants **1.** Relations and Functions	
May	**1.** Relations and Functions(Contd…)	
June	**1.** Relations and Functions(Contd…) **2.** Inverse Trigonometric Functions	1) To verify that the relation R in the set L of all lines in a plane, defined by $R = \{(l, m) : l \perp m\}$ is symmetric but neither reflexive nor transitive. (2) To demonstrate a function which is not one-one but is onto.
Syllabus for Periodic Test-1 : Chapters : 1, 3 and 4		
July	**2.** Inverse Trigonometric Functions (Contd…) **5.** Continuity and Differentiability **6.** Application of Derivatives	(3) To draw the graph of $\sin^{-1} x$, using the graph of $\sin x$ and demonstrate the concept of mirror reflection about $y = x$. (4) To find analytically the limit of a function at a point and also to check the continuity of the function at that point.
August	**6.** Application of Derivatives (Contd…) **7.** Integrals	(5) To verify Rolle's theorem. (6) To understand the concepts of absolute maximum and absolute minimum of a function in a given closed interval through its graph.
Syllabus for Periodic Test-2 : Chapters : 2, 5 and 6		
September	**7.** Integrals (Contd…) **8.** Application of Integrals **9.** Differential Equations	(7) To evaluate the definite integral $\int_a^b \sqrt{1 - x^2} dx$ as the limit of a sum and verify it by actual integration.
October	**9.** Differential Equations (Contd…) **10.** Vector Algebra **11.** Three dimensional geometry	(8) To verify geometrically that $$\vec{c} \times (\vec{a} + \vec{b}) = \vec{c} \times \vec{a} + \vec{c} \times \vec{b} \ .$$ (9) To locate the points to given co-ordinates in space, measure the distance between two points in space and then to verify the distance using distance formula.
November	**12.** Linear Programming **13.** Probability	(10) To explain the computation of conditional probability of a given event A, when event B has already occurred, through an example of throwing a pair of a dice.
Syllabus for Pre Board I & II : All Chapters		

SUBJECT: COMPUTER SCIENCE

Month	Lessons/Chapters	Practical
April	**1:** C++ Revision Tour **3:** Function Overloading **4 :** Classes and Objects	Programs implementing function overloading and default arguments. Creating classes, Class method definition outside and inside the class. Private and public modifiers. Practical File Program No.1, 2, 3.
May	**4:** Classes and Objects …….Continued	Arrays within a class, use of objects. Practical File Program No.4
June	**5 :** Constructors and Destructors	Copy constructors, constructor overloading. Practical File Program No. 6,7
Syllabus for Periodic Test-1 – L-1,3,4 and 5		
July	**6:** Inheritance : Extending classes **7:** Data File Handling	Programs implementing single inheritance, multiple inheritances, multilevel inheritance. Programs implementing reading and writing in files, get(), getline(), put() , read() and write() functions. Insert, search, append and modify data in files. Practical File Program No. 5 to12
August	**8 :** Pointers **9 :** Arrays	Arrays of pointers, Invoking functions by passing references, dynamic structures, use of *this* pointer. Programs implementing searching, sorting, inserting in arrays using various algorithms. Matrix operations. Practical File Program No. 13 to 24.
September	**10 :** Linked Lists, Stacks and Queues **13 :** Boolean Algebra	Implementation of stack and queues in form of arrays and linked lists, various operations on stacks and queues. Practical File Program No 25 to 29.
Syllabus for Periodic Test-2 – L-6, 7,8 and 9		
October	**13 :** Boolean Algebra….continue **11 :** Database Concepts **12 :** Structured Query Language	Project Work SQL commands for creation and manipulation of database. Practical file SQL Q.1 and Q.2
November	**14 :** Communication and Network Concepts **2:** Object Oriented Programming	Project Work (submission by 15th November)

SUBJECT: PHYSICAL EDUCATION

Month	Lessons/ Chapters	Activities/ Practical
April	**1.** Planning In Sports **2.** Sports Nutrition	Physical Fitness Test Practice & Any one team game skill practice. (Basketball, Football, Volleyball) Practical Book Ch- 1
May	**2.** Sports Nutrition (Continue)	Yoga Practice & Any one team game skill practice. (Basketball, Football, Volleyball)
June	**3.** Yoga and Life style **4.** Physical Education and Sports for differently able	Physical Fitness Test Practice & Any one team game skill practice. (Basketball, Football, Volleyball) Practical Book Ch- 2
Syllabus for Periodic Test-1 : - chp.1, 2 and 3	
July	**4.** Physical Education and Sports for differently able. (continue) **5.** Children and Women in Sports	Yoga practice and any one team game skill practice (Athletics, Basketball, Football, Volleyball) Practical Book Ch- 3
August	**6.** Test and Measurement in Sports. **7.** Physiology and Injuries in Sports	Physical Fitness Test Practice and any one team game skill practice (Athletics, Basketball, Football, Volleyball) Practical Book Ch- 4
September	**8.** Biomechanics and Sports	Yoga Practice & Any one team game skill practice. (Basketball, Football, Volleyball)
Syllabus for Periodic Test-2 : - Chp.4,5,6 and 7	
October	**9.** Psychology And Sports **10.** Training in Sports	Physical Fitness Test Practice & Any one team game skill practice. (Basketball, Football, Volleyball)
November	Revision of Syllabus	Yoga Practice Any one team game skill practice. (Basketball, Football, Volleyball) Practical Book Submission and Viva