



Airport School – Ahmedabad

Syllabus (2023-24)

XII – SCIENCE

SUBJECT: ENGLISH

MONTH	MAIN COURSE BOOK (FLAMINGO)	SUPPLEMENTARY READER (VISTAS)	ADVANCED WRITING SKILLS/ACTIVITY
APRIL & MAY	L.1 The Last Lesson	L.1 The Third Level	Notice Writing
	P.1 My Mother at Sixty-Six		
	L.2 The Lost Spring	L.2 The Tiger King	
JUNE	L.3 Deep Water	L.3 Journey to the End of the Earth	
JULY	P.2 Keeping Quiet	L.3 Journey to the End of the Earth	Formal Invitation & Replies
AUGUST	L.4 The Rattrap		Article Writing
	L 7 The Interview		Formal Letter Report Writing Listening and speaking activity
SEPTEMBER	Revision		
	L 6 Poets and Pancakes	L.4 The Enemy	
OCTOBER	L 5 Indigo	L.4 The Enemy	
	P.3 The Thing of Beauty	L 6 On the Face of it	
NOVEMBER	P 4: Roadside Stand	L 8 Memories of Childhood	
	P 5 Aunt Jennifer's Tiger		
	L 8 Going places		

SUBJECT: PHYSICS

MONTH	CHAPTERS	PRACTICALS/ACTIVITIES
MARCH	Ch 1: Electric Charges and Fields	
APRIL	Ch 1: Electric Charges and Fields (Cont..)	Exp 1: To determine resistivity of two / three wires by plotting a graph for potential difference versus current.
	Ch 2 : Electrostatic potential and capacitance	Exp 2: To find resistance of a given wire / standard resistor using metre bridge.
MAY	Ch 2: Electrostatic potential and capacitance (Contd...)	Exp 3: To verify the laws of combination (series/parallel) of resistances using a metre bridge.
JUNE	Ch 2: Electrostatic potential and capacitance (Cont...)	Exp 4: To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.
	Ch 3: Current electricity Ch 4: Moving Charges and Magnetism	Exp 5: To convert the given galvanometer (of known resistance of figure of merit) into an ammeter and voltmeter of desired range and to verify the same.

JULY	Ch 4: Moving Charges and Magnetism (contd...)	Exp 6: To find the frequency of the ac mains with a sonometer.
	Ch 5: Magnetism and Matter	Exp 7: To find the value of v for different values of u in case of a concave mirror and to find the focal length.
AUGUST	Ch 6: Electromagnetic Induction	Exp 8: To find the focal length of a convex lens by plotting graphs between u and v or between $1/u$ and $1/v$.
	Ch 7: Alternating Current	
SEPTEMBER	Ch 8: Electromagnetic Waves	Exp 9: To find the focal length of a convex mirror, using a convex lens.
	Ch 9: Ray Optics and Optical Instruments	Exp 10: To find the focal length of a concave lens, using a convex lens.
OCTOBER	Ch 10: Wave optics	Exp 11: To determine angle of minimum deviation for a given prism by plotting a graph between the angle of incidence and the angle of deviation.
	Ch 11: Dual Nature of Radiation and Matter	Exp 12: To determine refractive index of a glass slab using a travelling microscope.
	Ch 12 Atoms	Exp 13: To find refractive index of a liquid by using concave mirror.
NOVEMBER	Ch 13: Nuclei	Exp 14: To find refractive index of a liquid by using convex lens and plane mirror.
	Ch 14: Semiconductors electronics: Materials, Devices and Simple Circuits	Exp 15: To draw the I-V characteristics curves of a p-n junction in forward bias and reverse bias.

SUBJECT: CHEMISTRY

MONTH	CHAPTERS	PRACTICALS
APRIL	Ch.10: Haloalkanes & Haloarenes Ch.11: Alcohols, Phenols and Ethers	Volumetric Analysis: Titration: 1. KMnO_4 Vs Mohr's Salt 2. KMnO_4 Vs Oxalic Acid
MAY	Ch.11: Alcohols, Phenols & Ethers(contd...)	
JUNE	Ch.11: Alcohols, Phenols & Ethers (Contd...)	
	Aldehyde & Ketone	Salt Analysis
JULY	Aldehyde & Ketone (Contd...)	Salt Analysis
	Amines	Salt Analysis
AUGUST	Solutions Electrochemistry	Salt Analysis
SEPTEMBER	Chemical Kinetics d & f - block elements Half-Yearly Exam	Salt Analysis
OCTOBER	Co-ordination Compound Bio-molecules	Organic Functional Group Identification
NOVEMBER	Bio-molecules (Contd...) Revision	Organic Functional Group Identification

SUBJECT: MATHEMATICS

MONTH	CHAPTERS	ACTIVITIES
MARCH - APRIL	Ch3 Matrices	
	Ch4 Determinants	
MAY	Ch4 Continued...	
JUNE	Ch1 Relations & Functions Ch2 Inverse Trigonometric Functions	(1) To verify that the relation in the set of all lines in a plane, defined by is symmetric but neither reflexive nor transitive. (2) To verify that the relation in the set of all lines in a plane, defined by is an equivalence relation.
JULY	Ch5 Continuity & Differentiability Ch6 Application of Derivatives	(3) To demonstrate a function which is not one-one but is onto.
		(4) To demonstrate a function which is one-one but not onto.
		(5) To find analytically the limit of a function at a point and also to check the continuity of the function at that point.
AUGUST	Ch6 Application of Derivatives (contd...)	(6) To understand the concepts of absolute maximum and absolute minimum of a function in a given closed interval through its graph.
	Ch7 Integrals	(7) To construct an open box of maximum volume from a given rectangular sheet by cutting equal squares from each corner
SEPTEMBER	Ch7 Integrals (Contd...)	
OCTOBER	Ch8 Application of Integrals	(8) To verify that angle in a semi-circle is a right angle, using vector method.
	Ch9 Differential Equations	
	Ch10 Vector Algebra	
NOVEMBER	Ch10. Vector Algebra (Contd...)	(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.
	Ch11. Three-dimensional geometry	(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.
	Ch13. Probability	
	Ch12. Linear Programming	

SUBJECT: COMPUTER SCIENCE

MONTH	CHAPTERS	PRACTICALS
APRIL -MAY	Python Mysql Connectivity.	Python - Mysql Connectivity,
	Revision of std 11 [python basics, loops, working with list, tuple, dictionary]	Logical programs of list, tuples and dictionaries with searching, sorting
JUNE	Functions, [Inbuilt-Predefined-UDF, Libraries, Packages, Modules]	Predefined functions, and its libraries. with package creating and use of used defined modules
JULY	Data File Handling [.txt., .bin, ,.csv, Absolute, Relative path], Exceptional Handling.	Working with characters, words, lines, dumping loading records, working with csv files, applying paths to python programs.
AUGUST	Linked list, Stacks, Queues, Stack Implementation	Pushing popping, add, remove search values from data structure stack and queues
SEPT	DBMS, Mysql DD, DML	SQL Queries making data base, adding values, searching filtering altering and removing records from database
OCTOBER	Mysql	Connecting tables, equi, non equi joins, aggregate functions
	Network and communication	CS project solutions
NOVEMBER	Network and communication, Revision	Python - Mysql practice and doubts solving