



A.S.M. MODERN ACADEMY

A Senior Secondary Co-Educational School Affiliated to C.B.S.E NEW DELHI

SYLLABUS FOR ACADEMIC YEAR (2024-25)
CLASS - XII (SCIENCE)

SUBJECTS	PA-1		HALF-YEARLY	PA-2	ANNUAL
	MAY - TEST	AUG - TEST			
PHYSICS	Ch-1 (Electric charge and field) Ch-2 (Electrostatic potential & capacitance)	Ch-3 (Current Electricity) Ch-4 (Moving charge & Magnetism) Ch-5 (Magnetism & Matter)	Ch-1 (Electric charge and field) Ch-2 (Electrostatic potential & capacitance) Ch-3 (Current Electricity) Ch-4 (Moving charge & Magnetism) Ch-5 (Magnetism & Matter) Ch-6 Electromagnetic Induction. Ch-7 A.C. Ch-8 E.M. Waves	Full Syllabus	Pre-Board
CHEMISTRY	Ch-1 (Solution) Ch-2 (Electrochemistry)	Ch-3 (Chemical Kinetics) Ch-6 (Halo alkane & haloarenes)	Ch-1 (Solution) Ch-2 (Electrochemistry) Ch-3 (Chemical Kinetics) Ch-4 (d & f-block Element) Ch-6 (Halo alkane & haloarenes)	Ch-1 (Solution) Ch-2 (Electrochemistry) Ch-3 (Chemical Kinetics) Ch-4 (d & f-block Element) Ch-5 (Coordination Compound) Ch-6 (Halo alkane & haloarenes) Ch-7 (Alcohol, Phenol & Ether) Ch-8 (Aldehyde, Ketone and Carboxylic Acid) Ch-9 (Amines) Ch-10 (Biomolecules)	Pre-Board
BIOLOGY	Ch-1 (Sexual Reproduction in Flowering plants.) Ch-2 (Human Reproduction)	Ch-3 (Reproduction Health) Ch-4 (Principles of inheritance & Variation) Ch-5 (Molecular Basis of Inheritance) Ch-6 (Evolution) (May Test)	Ch-7 (Human Reproduction) Ch-8 (Microbes in Human Welfare) Ch-9 (Biotechnology - Principles & Processes) Ch-10 (Biotechnology & Its Application) (+ PA-1)	Ch-11 Organism & Population. Ch-12 Ecosystem. Ch-13 Biodiversity & Conservation. (All syllabus Covered in previous assessments)	Pre-Board
MATHS	Ch-1 (Relations & Functions) Ch-2 (Inverse trigonometric functions) Ch-3 (Matrices) Ch-4 (Determinants)	Ch-1 (Relations & Functions) Ch-2 (Inverse trigonometric functions) Ch-5 (Continuity & Differentiability)	Ch-1 (Relations & Functions) Ch-2 (Inverse trigonometric functions) Ch-3 (Matrices) Ch-4 (Determinants) Ch-5 (Continuity & Differentiability) Ch-6 (Application of Derivatives) Ch-7 (Integral)	Ch-1 (Relations & Functions) Ch-2 (Inverse trigonometric functions) Ch-3 (Matrices) Ch-4 (Determinants) Ch-5 (Continuity & Differentiability) Ch-6 (Application of Derivatives) Ch-7 (Integral) Ch-8 (Application of Integrals) Ch-9 (Differential Equations) Ch-10 (Vectors) Ch-11 (Three Dimensional Geometry) Ch-12 (Linear Programming) Ch-13 (Probability)	Pre-Board

ENGLISH	Literature: Flamingo - Prose: <ol style="list-style-type: none"> The Last Lesson Lost Spring Poetry: <ol style="list-style-type: none"> My Mother at Sixty Six Vistas - <ol style="list-style-type: none"> The Third Level Writing Skills: <ol style="list-style-type: none"> Invitations(Formal & Informal) Replies to the inventions 	Reading Skills: <ol style="list-style-type: none"> Comprehension (factual/descriptive) Writing Skills: <ol style="list-style-type: none"> Notice Writing Job Application Literature: Flamingo - Prose: <ol style="list-style-type: none"> Deep Water The Rattrap Poetry: <ol style="list-style-type: none"> Keeping Quiet A Thing of Beauty Vistas - <ol style="list-style-type: none"> The Tiger King Journey to the end of the Earth 	Reading Skills: <ol style="list-style-type: none"> Comprehension (factual/descriptive) Case Study Writing Skills: <ol style="list-style-type: none"> Notice Writing Invitation & their replies Job Application Letter to the Editor Article Writing Literature: Flamingo - Prose: <ol style="list-style-type: none"> The Last Lesson Lost Spring Deep Water The Rattrap Indigo Poets and Pancakes Poetry: <ol style="list-style-type: none"> My Mother at Sixty-Six Keeping Quiet A Thing of Beauty Vistas - <ol style="list-style-type: none"> The Third Level The Tiger King Journey to the end of the Earth The Enemy On the Face of It 	Reading Skills: <ol style="list-style-type: none"> Comprehension (factual,descriptive & literary) Case Study Writing Skills: <ol style="list-style-type: none"> Notice Writing Invitation & their replies Job Application Letter to the Editor Article Writing Report Writing Literature: Flamingo - Prose: <ol style="list-style-type: none"> The Last Lesson Lost Spring Deep Water The Rattrap Indigo Poets and Pancakes The Interview Going Places Poetry: <ol style="list-style-type: none"> My Mother at Sixty-Six Keeping Quiet A Thing of Beauty A Roadside Stand Aunt Jennifer's Tigers Vistas: <ol style="list-style-type: none"> The Third Level The Tiger King Journey to the end of the Earth The Enemy On the Face of It Memories of Childhood 	Pre-Board
					Pre-Board
PHY. EDU.	Unit-1 -Management and sporting. Unit -2 Children & Women in Sports.	Unit-3 Yoga as Preventive Message For life style. Unit-4 Physical Education & Sports For CSWN. Unit-5 Sports & Nutrition	Unit-1 -Management and sporting. Unit -2 Children & Women in Sports. Unit-3 Yoga as Preventive Message For life style. Unit-4 Physical Education & Sports For CSWN. Unit-5 Sports & Nutrition Unit-6 Test & Measurement. Unit-7 Physiology & Injuries in sports.	All Syllabus	Pre-Board

Unit I: Computational Thinking and Programming – 2

- Revision of Python topics covered in Class XI.
- Functions: types of function (built-in functions, functions defined in module, user defined functions), creating user defined function, arguments and parameters, default parameters, positional parameters, function returning value(s), flow of execution, scope of a variable (global scope, local scope).



C.S

*** Topics Covered in PA- I 1st (30 % Weightage)**

- Exception Handling: Introduction, handling exceptions using try-except-finally blocks
- Introduction to files, types of files (Text file, Binary file, CSV file), relative and absolute paths
- Text file: opening a text file, text file open modes (r, r+, w, w+, a, a+), closing a text file, opening a file using with clause, writing/appending data to a text file using write() and writelines(), reading from a text file using read(), readline() and readlines(), seek and tell methods, manipulation of data in a text file
- Binary file: basic operations on a binary file: open using file open modes (rb, rb+, wb, wb+, ab, ab+), close a binary file, import pickle module, dump() and load() method, read, write/create, search, append and update operations in a binary file
- CSV file: import csv module, open / close csv file, write into a csv file using writer(),writerow(),writerows() and read from a csv file using reader()

Topics Covered in PA-1.

- Data Structure: Stack, operations on stack (push & pop), implementation of stack using list.
- Unit II: Computer Networks
- Evolution of networking: introduction to computer networks, evolution of networking (ARPANET, NSFNET, INTERNET)
 - Data communication terminologies: concept of communication, components of data communication (sender,receiver, message, communication media, protocols), measuring capacity of communication media (bandwidth, data transfer rate), IP address, switching techniques (Circuit switching, Packet switching)
 - Transmission media: Wired communication media (Twisted pair cable, Co-axial cable, Fiber-optic cable), Wireless media (Radio waves, Micro waves, Infrared waves)
 - Network devices (Modem, Ethernet card, RJ45, Repeater, Hub, Switch, Router, Gateway, WIFI card)
 - Network topologies and Network types: types of networks (PAN, LAN, MAN, WAN), networking topologies (Bus, Star, Tree)
 - Network protocol: HTTP, FTP, PPP, SMTP, TCP/IP, POP3, HTTPS, TELNET, VoIP
 - Introduction to web services: WWW, Hyper Text Markup Language (HTML), Extensible Markup Language (XML), domain names, URL, website, web browser, web servers, web hosting

Unit III: Database Management

- Database concepts: introduction to database concepts and its need
- Relational data model: relation, attribute, tuple, domain, degree, cardinality, keys (candidate key, primary key, alternate key, foreign key)
- Structured Query Language: introduction, Data Definition Language and Data Manipulation Language, data type (char(n), varchar(n), int, float, date), constraints (not null, unique, primary key), create database, use database, show databases, drop database, show tables, create table, describe table, alter table (add and remove an attribute, add and remove primary key), drop table, insert, delete, select, operators (mathematical, relational and logical), aliasing, distinct clause, where clause, in, between, order by, meaning of null, is null, is not null, like, update command, delete command, aggregate functions (max, min, avg, sum, count), group by, having clause, joins: cartesian product on two tables, equi-join and natural join
- Interface of python with an SQL database: connecting SQL with Python, performing insert, update, delete queries using cursor, display data by using connect(), cursor(), execute(), commit(), fetchone(), fetchall(), rowcount, creating database connectivity applications, use of %s format specifier or format() to perform queries

Pre-Board

NAME & SIGNATURE OF CLASS TEACHER :