

DELHI POLICE PUBLIC SCHOOL

Annual Syllabus: 2024-25

Subject: INFORMATICS PRACTICE

Class: XII

MONTH	UNIT/CHAPTER/TOPIC
MARCH	REVISION OF MYSQL Unit 3: Introduction to Computer Networks Network Topologies: Star, Bus, Tree, Mesh.
APRIL	Unit 1: Data Handling using Pandas and Data Visualization Data Handling using Pandas -I Introduction to Python libraries- Pandas, Matplotlib. Data structures in Pandas - Series and Data Frames. Series: Creation of Series from – ndarray, dictionary, scalar value; mathematical operations; Unit 4: Societal Impacts E-waste: hazards and management. Awareness about health concerns related to the usage of technology.
MAY	Unit 1: Data Handling using Pandas and Data Visualization (Contd..) Head and Tail functions; Selection, Indexing and Slicing. Data Frames: creation - from dictionary of Series, list of dictionaries, Text/CSV files; display; iteration; Operations on rows and columns: add, select, delete, rename; Head and Tail functions; Indexing using Labels, Boolean Indexing;
JULY	Unit 1: Data Handling using Pandas and Data Visualization (Contd..) Importing/Exporting Data between CSV files and Data Frames. Data Visualization Purpose of plotting; drawing and saving following types of plots using Matplotlib – line plot, bar graph, histogram Customizing plots: adding label, title, and legend in plots. Unit 2: Database Query using SQL Revision of database concepts and SQL commands covered in class XI
AUGUST	Math functions: POWER (), ROUND (), MOD ().

	<p>Text functions: UCASE ()/UPPER (), LCASE ()/LOWER (), MID ()/SUBSTRING ()/SUBSTR (), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM ().</p> <p>Date Functions: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME ().Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*).</p>
SEPTEMBER	REVISION, HALF YEARLY EXAM comences, Evaluation
OCTOBER	<p>Querying and manipulating data using Group by, Having, Order by. Working with two tables using equi-join</p> <p>Unit 3: Introduction to Computer Networks</p> <p>Introduction to networks, Types of network: PAN, LAN, MAN, WAN. Network Devices: modem, hub, switch, repeater, router, gateway Introduction to Internet, URL, WWW, and its applications- Web, email, Chat, VoIP. Website: Introduction, difference between a website and webpage, static vs dynamic web page</p>
NOVEMBER	<p>web server and hosting of a website. Web Browsers: Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies.</p> <p>Unit 4: Societal Impacts</p> <p>Digital footprint, net and communication etiquettes, data protection, intellectual property rights (IPR), plagiarism, licensing and copyright, free and open source software (FOSS), cybercrime and cyber laws, hacking, phishing, cyber bullying, overview of Indian IT Act.</p>
DECEMBER	REVISION, PRE BOARD EXAM -1
JANUARY	PREBOARD EXAM -2, BOARD PRACTICAL EXAM COMMENCES
FEBRUARY	BOARD PRACTICAL EXAMS CONTINUES, BOARD THEORY EXAM COMMENCES