

**MODERN SCHOOL**

**Class: XII** **Subject: Informatics Practices (065) Session: 2025-2026**

**Book prescribed:** A Textbook for CBSE Class XII:

Informatics Practices with Python (Author: Preeti Arora)

**Publication:** Sultan Chand and Sons

| **Month** | **Ch. No.** | **Chapter Tittle** |
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| **March/ April** | 1 | **Data HANDLING USING PANDAS –I**  Introduction to Python libraries- Pandas, Matplotlib  Data structures in Pandas - Series and Data Frames.  Creation of series from dictionary, scalar value; mathematical operations; series attributes, head andtail functions, selection, indexing and slicing  **Data Frames:** creation of data frames from dictionary of series, list of dictionaries, add ( insert /append) , select, delete (drop column and row), rename, Head and Tail functions, indexing using labels, Boolean indexing |
| **May** | 1  2 | Working with Null values, sorting, value\_counts, Iterations . CSV Files , Data Importing / Exporting data b/w CSV files and Data frames.  Data Visualisation using Matplotlib Project Distribution |
| **July** | 6 | **Societal Impacts**  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.  E-waste: Hazards and management.  Awareness about health concerns related to the usage of technology |
| **August** | 3  4 | **Review of Database Concepts & SQL: SQL commands Revision**  **Database Queries Using SQL:**  **Math Functions**: POWER (), ROUND (), MOD ().  **Text Functions:** UCASE ()/UPPER (), LCASE ()/LOWER (), MID () /SUBSTRING ()/ SUBSTR (), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM ().  **Date Functions**: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME ().  **Aggregate Functions**: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (\*). |
| **September** | **Half yearly examination** | |
| **October** | 4  5 | Querying and manipulating data using Group by, Having, Order by.  Working with two tables using equi-join.  **Computer Networks**  Introduction to networks, Types of network: LAN, MAN, WAN.  **Network Devices**: modem, hub, switch, repeater, router, gateway  **Network Topologies:** Star, Bus, Tree, Mesh.  **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, web server and hosting of a website.  **Web Browsers:** Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies |
| **November** | **Pre-Board I FULL SYLLABUS** | |
| **December** | **Pre-Board II FULL SYLLABUS** | |
| **January** | **CBSE – Practical Examination** | |

| EXAM | MONTH | SYLLABUS |
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| Term I | May | Ch-1: Data Handling Using Pandas  Using DataSeries, DataFrames (Upto Boolean Indexing) |
| Term II | July | Ch-1: Iteration in DF, CSV Files  Ch-2 : Data Visualisation using Matplotlib |
| Term III | August | Ch-6 Societal Impacts  Ch-3 Review of Database Concepts & SQL:SQL commands Revision |
| Half Yearly | September | Ch-1 Data Handling Using Pandas  Ch-2 Data Visualisation using Matplotlib  Ch-3 Review of Database Concepts & SQL:  SQL commands Revision  Ch- 4 Sql Functions (Except-Group By, Having, Joins)  Ch-6 Societal Impacts |
| Pre-Board I | November | Full Syllabus |
| Pre-Board II | December | Full Syllabus |
| January | CBSE Board Practicals | |

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**Co-ordinator:**