



THE LEXICON INTERNATIONAL SCHOOL, KALYANINAGAR



Curriculum 2025-26

Class XII

Subject: Informatics Practices

Subject Code: 086

Term	Month	Syllabus
Term1	April	Unit 1: 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; Head and Tail functions; Selection, Indexing and Slicing
	June	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	Text/CSV files; display; iteration - Importing/Exporting Data between CSV files and Data Frames Data Visualization Purpose of plotting; "Drawing and saving types of plots using Matplotlib - line plot, bar graph, histogram" Importing and exporting data between pandas and CSV file
	August	Unit 2: Database Query using SQL -Revision of database concepts and SQL commands covered in class XI - Math functions: POWER (), ROUND (), MOD (). Date Functions: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME (). Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*) Text functions: UCASE ()/ UPPER (), LCASE ()/ LOWER (), MID ()/ SUBSTRING () /SUBSTR (), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM ().
	September	"Querying and manipulating data using Group by, Having, Order by. Working with two tables using equip-join -"
Term II	October	Unit 3: Introduction to Computer Networks - Introduction to networks, Types of network: PAN, LAN, MAN, WAN. Network Devices: modem, hub, switch, repeater, router, gateway Network Topologies: Star, Bus, Tree, Mesh. Introduction to Internet, URL, W , 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	Digital footprint, net and communication etiquettes, data protection intellectual property rights (IPR), plagiarism

Term	Month	Syllabus
		plagiarism, licensing and copyright, free and open source software (FOSS) cybercrime and cyber laws, hacking, phishing, cyber bullying, overview of Indian IT Act. "Portion for Short Test Series : Unit 2: Database Query using SQL Revision of database concepts and SQL commands covered in class XI 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 (*) Unit 3: Introduction to Computer Networks Introduction to networks, Types of network: PAN, LAN, MAN, WAN. Network Devices: modem, hub, switch, repeater, router, gateway Network Topologies: Star, Bus, Tree, Mesh. Introduction to Internet, URL, W , 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." E-waste: hazards and management. Awareness about health concerns related to the usage of technology
	December	Sample Paper Solving, Discussion & Revision
	January	Sample Paper Solving, Discussion & Revision