WEEKLY SPLIT UP SYLLABUS: 2021-22
CLASS: XII Comm   SUB: Informatics Practices (065)
Name of the Book: NCERT, Sumita Arora

MONTH	WEEK	ALLOTTED DAY	TOPIC	CONTENT
April	5-9	3	Data Handling using Pandas -I	Introduction to Python libraries- Pandas, Matplotlib. Data structures in Pandas - Series and data frames.
	12-16	3		Series: Creation of series from ndarray, dictionary, scalar value; mathematical operations
	19-23	3		Series attributes, head and tail functions; selection, indexing and slicing.
	23-30	3		Data Frames: creation of data frames from dictionary of series, list of dictionaries, text/CSV files, display, iteration. Operations on rows and columns: add add, select, delete, rename,
May	1	-	Data Handling using Pandas -I	-
	3-8	3		Head and Tail functions, indexing using labels, Boolean indexing; joining, merging and concatenation of data frames.
June	21-26	3		Importing/Exporting Data between CSV files and Data Frames.
	28-30	3		Revision
July	1-3	3	Data handling using Pandas – II	Descriptive Statistics: max, min, count, sum, mean, median, mode, quartile, Standard deviation, variance.
	5-10	3		Data Frame operations: Aggregation, group by, Sorting, Deleting and Renaming Index, Pivoting. Handling missing values – dropping and filling.
	12-17	3		Importing/Exporting Data between MySQL database and Pandas.
	19-24	3		Data Visualization : Purpose of plotting, drawing and saving of plots using Matplotlib (line plot, bar graph, histogram, pie chart, frequency polygon, box plot and scatter plot). Customizing plots: color, style (dashed, dotted), width; adding label, title, and legend in plots.
	26-31	3		Revision
Aug	2-7	3	Database Query using SQL	Math functions: POWER (), ROUND (), MOD (). Text functions: UCASE ()/UPPER (), LCASE ()/LOWER (), MID ()/SUBSTRING ()/SUBSTR (), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM ().
	9-14	3		Date Functions: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME (). Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*).
	16-21	3		Querying and manipulating data using Group by, Having, Order by. Operations on Relations - Union, Intersection, Minus, Cartesian Product, JOIN (Cartesian Join, Equi Join, Natural Join)
	23-28	3		Revision
	30-31	3		

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Sep	1-4	3	**Introduction to Computer Networks**	Introduction to networks, Types of network: LAN, MAN, WAN. Network Devices: modem, hub, switch, repeater, router, gateway
	6-11	3		Network Topologies: Star, Bus, Tree, Mesh. 7 Introduction to Internet, URL, WWW and its applications- Web, email, Chat, VoIP.
	13-18	3		Website: Introduction, difference between a website and webpage, static vs dynamic web page, web server and hosting of a website.
	20-25	3		Making Record File
	27-30	3		Starting Project
Oct	1-2	-	**Revision for HY**	More practice on practical based Qs
	4-9	2		
	25-30	2		
Nov	1-6	2	**Computer Networks**	Web Browsers: Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies.
	8-13	2		
	15-20	2	**Societal Impacts**	Digital footprint, net and communication etiquettes, data protection, intellectual property rights (IPR), plagiarism
	22-27	2		licensing and copyright, free and open source software (FOSS), cybercrime and cyber laws, hacking, phishing, cyber bullying, overview of Indian IT Act.
	29-30	6		E-waste: hazards and management. Awareness about health concerns related to the usage of technology.
Dec	1-4	2		Making project based on Python and MYSQL connectivity
	6-11	2		
	13-18	2	**Project**	
Jan 22	10-14	1	**Revision**	Solving CBSE Sample papers Preparing students for CBSE Practical & Theory with guidelines
	17-21	1		
	24-28	1		
Feb 22	1-4	2		
	7-11	2		
	14-18	2		
	21-25	2		

Sub Teacher : Mrs L Das