

ARMY PUBLIC SCHOOL, KANDRORI
SPLIT-UP SYLLABUS (Subject – INFORMATICS PRACTICES)
SESSION: 2022-23
CLASS- XII

Month	Expected No. of Working Days	Chapter / UNIT	Detailed Split Up Syllabus	Periods for class room Teaching	Practical
April	23	<u>UNIT – 1</u> Data Handling using Pandas -I	<p><u>Introduction to Python libraries:</u> Pandas</p> <p><u>Data structures in Pandas:</u> Series and Data Frames.</p> <p><u>Series:</u> <u>Creation of Series from:</u> ndarray, dictionary, scalar value; List, mathematical operations on Series using operators and functions; Head and Tail functions; Selection, Indexing and Slicing , Series attributes.</p>	18	05
May	15	Data handling using Pandas – II	<p><u>Data Frames:</u> creation – from dictionary of Series, list of dictionaries, NESTED list , array.</p> <p><u>Operations on rows and columns:</u> Operations on rows and columns: add (insert /append) , select, delete (drop column and row), rename.</p>	11	04
June	10	Vacation	Head and Tail functions, indexing using labels, <u>Boolean Indexing:</u>	4	-

July	23	Data Visualization & Revision for <u>UT 1</u> <u>UT – 1 Exam</u>	Text/CSV files; display; iteration. 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 .	19	04
Aug	23	<u>Data Visualization</u> <u>UNIT 2:</u> Database Query using SQL	histogram Customizing plots: adding label, title, and legend in plots <u>Customizing plots:</u> color, style : Line style using (dashed, dotted), width, adding label, title, and legend in plots. <u>Math functions:</u> POWER (), ROUND (), MOD () , ABS() , SQRT(), FLOOR() , CEIL(). <u>Text functions:</u> UCASE ()/UPPER (), LCASE ()/LOWER (), MID ()/SUBSTRING ()/SUBSTR (). LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM (). <u>Date Functions:</u> NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME (). <u>Aggregate Functions:</u> MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*).	20	03
Sep	25	<u>UNIT 3:</u> Introduction to Computer Networks Revision for Half Yearly Exam	Querying and manipulating data using Group by, Having, Order Introduction to networks, Types of network: LAN, MAN, WAN. Network Devices: modem, hub, switch, repeater, router, gateway Network Topologies: Star,	20	05

		Half Yearly exam	Bus, Tree, Mesh. Introduction to Internet, URL, WWW and its applications- Web, email, Chat, VoIP. Web Browsers: Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies.		
Oct	15	UNIT 4: 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.	13	02
Nov	23	Practical File , Project Work and Revision for UT 2 UT 2 Exam	-	10	13
Dec	25	Finalizing Project and Practical File work. Preboard 1	-	13	12
Jan	13	Project work , Practical checking & Revision Preboard 2	-	15	03
Feb	22	Revision for Final Exam	-	22	-
Mar		Revision for Final Exam & Commencing of Final Practical as per CBSE Guidelines	-	25	-