



BISHOP SCOTT BOYS' SCHOOL

STUDENT CURRICULUM MANUAL

Subject: COMPUTER APPLICATIONS		Class: 12		Academic Plan: 2025 -26	
Month	Course Description	Learning Outcome	Activity	No. of Periods	Portion for PT & TERM Assessment
April	CHAPTER-1 DATA HANDLING USING PANDAS-I	At the end of the topic the students will be able to: <ul style="list-style-type: none">Understand the use and applications of Pandas libraryKnow about Series and Dataframe data structures in PythonsLearn to create SeriesPerform different mathematical operations on Series	Hands on experience: <ul style="list-style-type: none">To create series in different waysTo execute codes on slicing of seriesTo execute codes on different operations on series	20	UT-1 1. UT-1 a) CHAPTER-1 (DATA HANDLING USING PANDAS-I) 2. Mid-Term a) CHAPTER-1 (DATA HANDLING USING PANDAS-I)
May	CHAPTER-1 DATA HANDLING USING PANDAS-I (continued)	At the end of the topic the students will be able to: <ul style="list-style-type: none">Learn to create dataframePerform different mathematical operations on dataframe.Perform import and export of data between dataframe and CSV file	<ul style="list-style-type: none">To create dataframe in different waysTo add new columns and rows to existing dataframeTo execute code involving loc() and iloc() functions	10	b) CHAPTER-3 (DATA VISUALIZATION USING PYPLOT) c) CHAPTER-4 (DATABASE CONCEPTS) a) CHAPTER-5 (DATABASE QUERY USING SQL)

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June	CHAPTER-3 DATA VISUALIZATION USING PYPLOT	At the end of the topic the students will be able to: <ul style="list-style-type: none"> Know about the library used to draw graphs and charts. Understand the purpose and benefit of plotting draw and save line graph, bar graph and histogram Customize plots: add label, title, and legend in plots 	<ul style="list-style-type: none"> To write code to draw line graph To write code to draw bar graph To write code to draw histogram To create CSV file and import data from CSV file to dataframe To export data from dataframe to CSV file 	10	
July	CHAPTER-4 DATABASE CONCEPTS	At the end of the topic the students will be able to: <ul style="list-style-type: none"> Understand database concepts and SQL commands Know about the two broad categories of functions, namely, single row functions(Scalar Functions) and multiple row(Aggregate functions) functions. Perform queries using different Math functions, text functions and Date/Time functions 	<ul style="list-style-type: none"> To execute SQL queries using different numeric functions To execute SQL queries using different text functions To execute SQL queries using different date and time functions 	20	

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August	CHAPTER-5 DATABASE QUERY USING SQL	At the end of the topic the students will be able to: <ul style="list-style-type: none"> Understand Aggregate Functions and apply these functions for specific queries. Execute SQL Queries using different clauses (Group by, Having and Order by) Fetch data from two tables using equi-join Differentiate between 'Where' clause and 'Having' clause, Count(columnname) and Count(*) 	<ul style="list-style-type: none"> To execute SQL queries using different aggregate functions To execute SQL queries using order by clause To execute SQL queries using Group by clause To execute SQL queries on fetching data from two tables using equi-join 	20	
September	Revision				
October	CHAPTER-6 COMPUTER NETWORKS	At the end of the topic the students will be able to: <ul style="list-style-type: none"> Understand computer network and types of network: PAN, LAN, MAN, WAN Know about Network Devices: modem, hub, switch, repeater, router, gateway Understand Network Topologies: Star, Bus, Tree, Mesh Know about Internet, URL, WWW, and its applications- Web, email, Web browser, Chat, and VoIP 	<ul style="list-style-type: none"> To show the network in school campus Group Discussion on types of network Presentation on network devices and their uses+ To work on Project prepare Project Report 	12	

		<ul style="list-style-type: none"> Differentiate between a website and webpage, static vs dynamic web page, web server and hosting of a website 			
November	CHAPTER-7 SOCIETAL IMPACTS & REVISION	<p>At the end of the topic the students will be able to:</p> <ul style="list-style-type: none"> Know about 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. Understand E-waste: hazards and management. Become aware about health concerns related to the usage of technology 	<ul style="list-style-type: none"> To Google and analyze what information is available about them. To create a digital footprint map: List all the platforms students are on (social media, forums, blogs, etc.) and identify what personal information they've shared. To discuss the potential risks and how to manage their digital footprint to protect privacy. To create a quiz with multiple-choice questions or true/false questions about data protection, intellectual property, plagiarism, and copyright laws. 	20	<p>3. UT-2</p> <p>a) CHAPTER-6 (COMPUTER NETWORKS)</p> <p>b) CHAPTER-7 SOCIETAL IMPACTS</p> <p>4. Pre-Board I and Pre-Board II</p> <p>Complete Syllabus</p>
December	REVISION + PRE-BOARD				