

FISM
Yearly Teaching Course Plan 2083
Class 6to10
COMPUTER SCIENCE

Class :6

S. N.	First term (Teaching Days:)	Second Term (Teaching Days :)	Third Term (Teaching Days:)	Final term (Teaching Days:)
1	Introduction To Computer	Generations of Computer	Classification of Computer	Computer Virus and its Remedy
2	Computer System	Word Processing	Cyber Security and Computer Ethics	Program and Programming Techniques
3	Scratch	Windows Operating System	Presentation Package	Python Basics
4	Number System		Multimedia and its Elements	

Class :7

S. N.	First term (Teaching Days:)	Second Term (Teaching Days :)	Third Term (Teaching Days:)	Final term (Teaching Days:)
1	Introduction and Evolution of Computer	Computer Hardware	Computer Software	Emerging Technology
2	Types of Computer	Spreadsheet Package	Presentation Package	Programming Concept with Python
3	Learning with Scratch	Computer Network	Internet & Social Media	
4	Word Processing			
5	Number System			

Class: 8

S. N.	First term (Teaching Days:)	Second Term (Teaching Days :)	Third Term (Teaching Days:)	Final term (Teaching Days:)
1	Fundamental of Computer System	Types of Computer	Windows Operating System	ICT & Cyber Crime
2	History of Computer	Computer Hardware & Software	Presentation	Cyber Law& Computer Ethics
3	Generation of Computer	Spreadsheet	Computer Virus	Programming Concept
4	Number System	Introduction of Web Design	Introduction of Data Communication and Computer Network	Programming Concept with Python
5	Scratch		Working with Graphics	
6	Word Processor			

Class 9

S. N.	First term (Teaching Days:)	Second Term (Teaching Days :)	Third Term (Teaching Days:)	Final term (Teaching Days:)
1	Computer Fundamentals <ul style="list-style-type: none"> - Definition and features of computer system - Explore the application area of a computer system. - Functions of a computer system: Input, Process, Output, Storage (IPOS) with Basic Block Diagram. - Demonstrate the major input devices of a computer system. - Explain the function and components of CPU. 	Number System <ul style="list-style-type: none"> - Discuss the number system and its application. - Calculate the binary number system: Addition, Subtraction - Demonstrate the conversion of the number system between binary, octal, and hexadecimal. 	Internet & Social Media <ul style="list-style-type: none"> - Describe concept of WWW, web browser, search engine and URL - Explain concept of remote login - Explain concept of protocols (HTTP, HTTPS) - Describe email and its uses - Describe the use of social media in different purpose in safety way - Demonstrate video online meeting using online virtual tools - Explain a blog and its features 	Cyber Security & Digital Citizenship <ul style="list-style-type: none"> - Describe the concept of cyber security and cybercrime. - Explore the prevention methods for cybercrime. - Describe the safe browsing techniques. - Define the concept of a digital citizen. - List good netiquette and online behaviours. - Clarify the concept of digital footprints, privacy, and data security issues in online
2	Programming Concepts <ul style="list-style-type: none"> - Define the concept of programming language and its types. - Explain the compiler and interpreter. - Draw a basic flow chart and algorithm to understand the programming logic - Introduction to coding, testing, and debugging 	Computer Hardware <ul style="list-style-type: none"> - Describe the basic concept of the mother board and its bus structure. - Explain the concept of primary and secondary memory and its types and functions. - Explain the common storage devices used in computer systems and their comparison. - Demonstrate the major output devices: monitor, printer, 	Computer Software <ul style="list-style-type: none"> - Define computer software and explain its types. - Describe the open and proprietary software concepts. - Compare the features of system software and application software. - Define the mobile software and web applications. 	Advanced Python (Loops, List, Dictionary, Functions) <ul style="list-style-type: none"> - Demonstrate iteration on Python - Apply list and dictionary in programming. - Demonstrate string, numeric and mathematical functions in python.

		<p>and speaker.</p> <ul style="list-style-type: none"> - Explain the peripheral devices and demonstrate the different ports in a computer system. 		
3	<p>Block Programming</p> <ul style="list-style-type: none"> - Describe concept of block programming and its purpose. - Demonstrate online or offline-based block programming and tools, their features, interfaces, and blocks. - Construct simple applications using block-based programming languages and components of the MIT Scratch programming tools. - Describe the concept of a micro bit and its applications. - Define the concepts of Arduino and UNO. 	<p>Web Technology</p> <ul style="list-style-type: none"> - Describe the concept of web technology. - Define the WDLC. - Explain the concept of UI / UX, wireframe in web design. - Explain HTML and its tags. - Demonstrate text formatting, an anchor, a list, a table, and an image tag on a web page. - Apply the form and div tags to the web page. - Describe CSS and its application. - Embed CSS script in HTML - Apply inline, internal, and external basic CSS to the web page. 	<p>Python Programming</p> <ul style="list-style-type: none"> - Explain the basic structure of a Python programme, basic syntaxes, I/O statement and string formatting, with data types and variables. - Describe the type of casting concept. - Demonstrate the use of operators in Python, including arithmetic, relational, logical, and assignment operators. - Demonstrate the conditional statement in Python. 	

Class 10

S. N.	First term (Teaching Days:)	Second Term (Teaching Days :)	Third Term (Teaching Days:)
1	Computer Network and Communication <ul style="list-style-type: none"> - Define telecommunication and common terminology. - Describe wire and wireless communication media and channels. - Demonstrate CAT and optical fiber connectors. - Explain networking devices and their features. - Describe Network topologies (Bus, Star, Ring, Hybrid) - Describe types of networks. - Describe types of network architecture. - Concept of IP addressing (IPv4 and IPv6) - Differentiate between the internet, intranet, and extranet. 	Database Management System <ul style="list-style-type: none"> - Define concept of database. - Differentiate data, database and DBMS. - Describe different data types used in DBMS - Explain concept of fields, records and keys in DBMS - Illustrate the types of relationships - Operate MySQL or similar open sources DBMS software - Apply DDL and DML statement in SQL. 	AI and Contemporary Technologies <ul style="list-style-type: none"> - Describe the concept of AI and its application, learning techniques in machine. - Describe the concept of AI in robotics, simulation of simple robotics task. - Demonstrate generative AI tools and AI-integrated tools. - Define IoT and its application area. - Define XR - Define cloud computing and its application. - Explain e-commerce, e-government, and e-education
2	Programming in Python <ul style="list-style-type: none"> - Describe the revision python working environment and basic concept. - Design and demonstrate user define function in python program - Describe the concept of library and packages in python - Draw graphics using turtle functions - Describe the concept of error handling in python 	Multimedia <ul style="list-style-type: none"> - Define the concept of multimedia. - Explain the major components of multimedia. - Demonstrate the graphical file format and manipulate the image. - Demonstrate the audio file format and edit the audio file. - Demonstrate the video file format and edit the video file. - Animation concept: 2D & 3D. 	Programming in Python <ul style="list-style-type: none"> - Plot line, pie and bar using matplotlib data visualization tool in python.
3		Programming in Python <ul style="list-style-type: none"> - Describe the concept file handling using panda library in python 	

Computer Science