

**Class : 3****Scheme Code : 40****Sessional : 300**

Subject Code	Type	Marks	Subject Name
0095	T	75	SOFTWARE ENGINEERING
0195	T	75	DIGITAL ELECTRONICS
0295	T	75	COMPUTER PROGRAMMING USING C
0395	T	75	OPERATING SYSTEMS
0595	T	75	MULTIMEDIA AND ANIMATION TECHNOLOGY
0695	T	75	INTERNET AND WEB TECHNOLOGIES
1195	P	25	DIGITAL ELCETRONICS
1295	P	25	COMPUTER PROGRAMMING USING C
1395	P	25	OPERATING SYSTEMS
1595	P	25	MULTIMEDIA AND ANIMATION TECHNOLOGY
1695	P	25	INTERNET AND WEB TECHNOLOGIES

**Class : 4****Scheme Code : 40****Sessional : 275**

Subject Code	Type	Marks	Subject Name
0495	T	75	COMPUTER ARCHITECTURE
2095	T	75	DATA STRUCTURES
2295	T	75	OBJECT ORIENTED PROGRAMMING USING JAVA
2395	T	75	DATABASE MANAGEMENT SYSTEM
2495	T	75	COMPUTER NETWORKS AND SECURITY
9585	T	75	GENERIC SKILLS AND ENTREPRENEURSHIP DEVELOPMENT
3095	P	25	DATA STRUCTURES
3295	P	25	OBJECT ORIENTED PROGRAMMING USING JAVA
3395	P	25	DATABASE MANAGEMENT SYSTEM
3495	P	25	COMPUTER NETWORKS AND SECURITY

**Class : 5****Scheme Code : 41****Sessional : 325**

Subject Code	Type	Marks	Subject Name
0995	T	75	INTERNET OF THINGS
2494	T	75	MICROPROCESSORS
2695	T	75	COMPUTER PERIPHERALS AND INTERFACING
2795	T	75	WEB DEVELOPMENT USING PHP
9520	T	75	BASICS OF MANAGEMENT
3494	P	25	MICROPROCESSORS
3695	P	25	COMPUTER PERIPHERALS AND INTERFACING
3795	P	25	WEB DEVELOPMENT USING PHP
4612	P	50	INDUSTRIAL TRAINING
9512	P	50	MINOR PROJECT WORK

**Class : 6****Scheme Code : 42****Sessional : 250**

Subject Code	Type	Marks	Subject Name
2895	T	75	APPLICATION DEVELOPMENT USING WEB FRAME WORK
4495	T	75	ANALYSIS AND DESIGN OF ALGORITHM
4595	T	75	CLOUD COMPUTING
6595	T	75	DEVELOPMENT OF ANDROID APPLICATIONS
3995	P	75	MAJOR PROJECT WORK
3895	P	25	APPLICATION DEVELOPMENT USING WEB FRAME WORK
5495	P	25	ANALYSIS AND DESIGN OF ALGORITHM
5595	P	25	CLOUD COMPUTING
8595	P	25	DEVELOPMENT OF ANDROID APPLICATIONS

**Class : 6****Scheme Code : 43****Sessional : 250**

Subject Code	Type	Marks	Subject Name
5095	T	75	DIGITAL MARKETING
6095	P	25	DIGITAL MARKETING

**Course Name: SE (0095) Dip. CSE-3<sup>rd</sup>****Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
0095.1:	Students should be able to identify the need for engineering approach to software development and various processes of requirements analysis for software engineering problems.
0095.2:	Analyze various software engineering models and apply methods for design and development of software projects.
0095.3:	Work with various techniques, metrics and strategies for Testing software projects.
0095.4:	Identify and apply the principles, processes and main knowledge areas for Software Project Management.
0095.5:	Proficiently apply standards, CASE tools and techniques for engineering software projects.

**Course Name: DE (1195) (dip. CSE-3<sup>rd</sup>)****Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
1195.1	Became familiar with the digital signal, positive and negative logic, Boolean algebra, logic gates, logical variables, the truth table, number systems, codes, and their conversion from to others.

1195.2	Learn the minimization techniques to simplify the hardware requirements of digital circuits, implement it, design and apply for real time digital systems.
1195.3	Understand the working mechanism and design guidelines of different combinational, sequential circuits and their role in the digital system design.
1195.4	Became able to know various types of components-ADC and DAC, memory elements and the timing circuits to generate different waveforms, and also the different logic families involved in the digital system.

**Course Name: Prog. In C (0295) (Dip CSE 3rd)**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
0295.1	To be able to identify different components of a computer System, disk, memory, processor, also how to formulate the algorithms, Pseudo code and flowcharts for simple programs, and to implement branching and various iterative statements.
0295.2	To apply programming to solve matrix addition and multiplication problems and searching and sorting problems that are recursive in nature and how they are used in programming.
0295.3	To decompose a problem into functions and synthesize a complete program using divide and conquer approach and to apply programming to solve simple numerical method problems.
0295.4	To use pointers and structures to formulate algorithms and programs.
0295.5	To apply File handling in the C programming language.

**Course Name: OS (0395) (Dip. CSE 3rd)**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
0395.1	Understand concepts of Operating system and processes.
0395.2	Understand CPU scheduling, memory management, virtual memory.
0395.3	Understand deadlocks, device management and file management.

**Course Name: MM(0595) (Dip. CSE 3rd)**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
0595.1	Understand basics of Multimedia and its elements, application areas of multimedia, about text files.
0595.2	Understand about sound and sound effects, audio file formats, sound devices.
0595.3	Understand about Image graphics, color models, image file formats and graphic tools.
0595.4	Understand about Basic of Video, video file formats, file compression and movie making tools.

0595.5	Understand about Concepts of animation and Authoring tools for Multimedia.
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**Course Name: I & WT (0695) Dip. CSE-3<sup>rd</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
0695.1	Define internet and its operation, Outline application of internet.
0695.2	Use application of video conferencing, Use application of E-communication.
0695.3	Describe the application of E-communication and benefit to society, Define and differentiate between various web browsers
0695.4	Develop static webpage/web portal, Validate input data.

**Course Name:: DE LAB (1195) Dip. CSE-3<sup>rd</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
1195.1	Distinguish between analog and digital systems.
1195.2	2. Identify the various digital ICs and understand their operation.
1195.3	Apply Boolean laws to simplify the digital circuits.
1195.4	Design simple logic circuits.

**Course Name: Prog. In C Lab(1295) (Dip. CSE 3rd)**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
1295.1	To be able to identify different components of a computer System, disk, memory, processor, also how to formulate the algorithms, Pseudo code and flowcharts for simple programs, and to implement branching and various iterative statements .
1295.2	To apply programming to solve matrix addition and multiplication problems and searching and sorting problems that are recursive in nature and how they are used in programming.
1295.3	To decompose a problem into functions and synthesize a complete program using divide and conquer approach and to apply programming to solve simple numerical method problems.
1295.4	To use pointers and structures to formulate algorithms and programs.
1295.5	To apply File handling in the C programming language.

**Course Name: OS Lab (1395) (Dip. CSE 3rd)**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
1395.1	Understand installation process of windows.
1395.2	Understand installation process of LINUX
1395.3	Understand and apply basic LINUX commands for files and directories.

**Course Name: MM Lab (1595) (Dip. CSE 3rd)**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
1595.1	Understand installation process of various multimedia software and multimedia devices.
1595.2	Understand to create audio CD and transporting audio and video files using various features of flash.
1595.3	Understand and explore Photoshop interface.

**Course Name: I & WT Lab (1695) Diploma CSE-3<sup>rd</sup>**

**Year of study 2020-2021**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
1695.1	Configure computer system to access internet.
1695.2	Develop static webpage/web portal using HTML & CSS.
1695.3	Develop web pages using Dream Weaver
1695.4	Use TELNET, FTP, IRC using internet.

**Course Name: CA (0495) Dip. CSE-4<sup>th</sup>**

**Year of study 2020-2021**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
0495.1	Illustrate the use of number system and coding system
0495.2	Understand the use of registers in computer organization
0495.3	Apply various arithmetic operations
0495.4	Identify different I/O interfaces, Distinguish different types of interrupts and DMA
0495.5	Understand the purpose of memory hierarchy

**Course Name: DS (2095) (Dip. CSE 4<sup>th</sup>)**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
2095.1	For a given algorithm student will be able to analyze the algorithms to determine the computational complexity.
2095.2	Implement operations like searching, insertion, deletion and traversing on various data structures and determine computational complexity.
2095.3	Design various tree and graph applications using non-linear data structures.
2095.4	Implement different sorting and searching techniques on various data structures and compare their performance in term of Space and Time complexity.
2095.5	Choose appropriate data structure as applied to specific problem definition;

**Course Name: OOP'S WITH JAVA(2295) Dip CSE-4<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
2295.1	Explain the concepts of OOPS
2295.2	Explain and execute the language construct concepts.
2295.3	Debug and compile the program written in Java.
2295.4	Explain and implement class program, Polymorphism using Java program.
2295.5	Explain and execute member functions, inheritance concepts.

**Course Name: DBMS (2395) (Dip. CSE 4<sup>th</sup>)**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
2395.1	Define and describe the database, Contrast and compile the design of database architecture.
2395.2	Convert and compare the designs and differentiate between the keys, Convert database in the form of tables, Normalize the data.
2395.3	Provide the security to the database ,Respond various queries in the SQL

**Course Name: CNS (2495) Dip. CSE-4<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
2495.1	To Understand the concepts of data communication and networks TCP/IP and OSI Reference Model.
2495.2	To Understand the concept of Switching and Transmission media in Networks.
2495.3	To Understand basics of Cryptography and Network Security

2495.4	To be able to secure a message over insecure channel by various means.
2495.5	To learn about how to maintain the Confidentiality, Integrity and Authentication.

**Course Name: DS Lab (3095) (Dip. CSE 4<sup>th</sup>)**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
3095.1	For a given algorithm student will be able to analyze the algorithms to determine the computational complexity.
3095.2	Implement operations like searching, insertion, deletion and traversing on various data structures and determine computational complexity.
3095.3	Design various tree and graph applications using non-linear data structures.
3095.4	Implement different sorting and searching techniques on various data structures and compare their performance in term of Space and Time complexity.
3095.5	Choose appropriate data structure as applied to specific problem definition;

**Course Name: OOP'S WITH JAVA Lab(3295) Dip CSE-4<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
3295.1	Explain the concepts of OOPS, compile the program written in Java.
3295.2	Explain and implement class program, Java IDE, Compiler, Java virtual machines
3295.3	Explain and implement the abstract class and interface.
3295.4	Describe and implement inheritance concepts.
3295.5	Implement the exception handling in live projects

**Course Name: DBMS Lab (3395) Diploma CSE-4<sup>th</sup>**

**Year of study 2020-2021**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
3395.1	Create, update and implement database with the help of structured query language
3395.2	Insert and delete database with the help of on platforms like ORACLE and MYSQL.
3395.3	Understand functions provided by database package.
3395.4	Perform exercises on commands like Grant, Revoke, Commit and Rollback etc.

**Course Name: CNS Lab (3495) Dip. CSE-4<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
3495.1	Understand the practical approach to network communication protocols
3495.2	Understand different components of computer networks, various protocols, modern technologies and their applications.
3495.3	Understand challenges in building networks and solutions to those
3495.4	Install ,Configure and Troubleshoot Network Operating System (NOS)
3495.5	Create and Manage User accounts in Windows and Linux

**Course Name: IOT (0995) Diploma CSE-5<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
0995.1	Identify and design the new models for market strategic interaction
0995.2	Design business intelligence and information security
0995.3	Analyze various protocols for IoT
0995.4	Design a middleware for IoT
0995.5	Analyze and design different models for network dynamics

**Course Name: Microprocessors (2494) Dip CSE-5<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
2494.1	Understand the fundamentals of Microprocessors.
2494.2	Understand the internal design of 8085 microprocessor along with the features and their programming.
2494.3	Apply the programming using assembly level language in microprocessors for simple arithmetic, logical, string and real time applications
2494.4	Understand the basic idea about the data transfer schemes and its applications
2494.5	Apply and Analyze the interfacing concept of different programmable interfacing modules with microprocessors for real time applications.

**Course Name: CPI(2695) Dip CSE-5<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
2695.1	Identify various types of display devices/technologies. Describe different types



	and various parts of motherboard.
2695.2	Define and describe various types of processors. Use and describe various storage devices.
2695.3	Identify various input-output devices and explain their working.
2695.4	Change various BIOS features. Assemble/maintain and troubleshoot a system.

**Course Name: WD Using PHP (2795) Dip CSE-5<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
2795-1	Compare and contrast the use of various markup languages.
2795-2	Create a simple XML document.
2795-3	Perform various logical operations in PHP.
2795-4	Create simple programmes to validate forms in PHP.
2795-5	Perform database connectivity using PHP.

**Course Name: BOM (9520) Dip CSE-5<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
<b>9520.1</b>	Understand the principles of management including its functions in an organisation, types of organizations and their structures, Inculcate leadership qualities to motivate self and others.
<b>9520.2</b>	Manage human resources at the shop-floor, Maintain and be a part of healthy work culture in an organisation.
<b>9520.3</b>	Use marketing skills for the benefit of organization, Maintain books of accounts and take financial decisions, Undertake store management, Use modern concepts like TQM, TPM and CRM.
<b>9520.4</b>	Distinguish and classify the forms of cybercriminal activity and the technological and 'social engineering' methods used to undertake such crimes
<b>9520.5</b>	Analyse and assess the impact of cybercrime on government, businesses, individuals and society.

**Course Name: MP LAB (3494) Dip CSE-5<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
<b>3494.1</b>	Solve basic binary math operations using the instructions of microprocessor 8085.

<b>3494.2</b>	Apply programming knowledge using the capabilities of the stack
<b>3494.3</b>	Design, code and debugs Assembly Language programs to implement simple programs
<b>3494.4</b>	Execute a machine code program on the training boards

**Course Name: CPI LAB (3495) Dip CSE-5<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
<b>3495.1</b>	Understand the construction and working of CRT, LCD, LED (coloured and black and white monitor) and its troubleshooting, Components and internal parts, working of hard disk and CDROM, DVD, Flash Drives
<b>3495.2</b>	Understand the operations and components and internal parts of Key Board, mouse and their troubleshooting, working of DMP, Inkjet printer and Laser printer and various installations of printers.
<b>3495.3</b>	Understand the SMPS circuit and measure its various voltages. Connecting SMPS to mother- board and other devices, the operation and maintenance of UPS.
<b>3495.4</b>	Assembling a PC with peripherals and testing the same, Setup and configuration of ROM BIOS

**Course Name: WD using PHP LAB(2795) Dip CSE-5<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
2795-1	Analyze a web page and identify its elements.
2795-2	Create a web page using XHTML and PHP LANGUAGE.
2795-3	Build Dynamic Web Page USING PHP.
2795-4	Create a Web Page

**Course Name: AD (2895) Diploma CSE-6<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
<b>2895.1</b>	Identify basic aspects of web-frameworks, Apply the basic concepts, principles and practices of Web-site development using server-side technologies (PHP & MySql)
<b>2895.2</b>	Install Word Press, Create and manage Blogs, Websites using WordPress, Use

	PHP & MySQL with WordPress.
<b>2895.3</b>	Install Moodle framework, Create Web Application using Moodle
<b>2895.4</b>	Manage features of Moodle sites : Accounts, Enrollment, Roles & Permission, Take backup of site content.

**Course Name: DAA (4495) Diploma CSE-6<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
4495.1	Identify the problems and formulate an algorithm for it.
4495.2	Identify the various designing techniques
4495.3	Apply various data structure techniques in an array
4495.4	Implement trees and various travelling techniques
4495.5	Implement various sorting algorithms and comparing them for checking efficiency.

**Course Name: CC (4595) (Dip. CSE 6th)**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
4595.1	Explain core concepts of cloud computing paradigm, various service models and deployment models.
4595.2	Understand SLA management in cloud computing, apply the concept of virtualization.
4595.3	Understand task scheduling in cloud, fundamentals of cloud storage.
4595.4	Understanding various security issues in cloud and application areas of cloud computing.

**Course Name: Android (6595) Dip. CSE 6<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b> <b>After the course completion, students will be able to:</b>	
<b>6595.1</b>	Understand Layered Block diagram of Android Architecture and Installation of Android modules on PC.
<b>6595.2</b>	Design UI layout, Views, Indents and Click in Android.
<b>6595.3</b>	Understand the concept of Menus, Localization, Dialogs, Orientation, SMS and Media player working in Android.
<b>6595.4</b>	Develop applications related to GPS, Google Maps, Animations, Sensors and Camera.

<b>6595.5</b>	Classify Content providers, Query providers, Network Communication - Web Services, HTTP Client, XML and JSON, Using e-mails in Android applications.
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**Course Name: AD Lab (3895) Diploma CSE-6<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
<b>3895.1</b>	Understand HTML, CSS, Java Script, Ajax.PHP & MySql, Install WordPress & Create Blogs, Manage blogs features e.g. Images, Text Around Images, Comments, Post Formats, Linking, Pages, Categories, Smilies, Feeds, Gravatars, Password Protectio
<b>3895.2</b>	Practice various designing features, Integrate PHP & MySql with WordPress, Install Moodle & various plugins, Create a Moodle site and Database Schema
<b>3895.3</b>	Design Site appearance, Manage Moodle site, Managing authentication, Manual accounts, No login, Emailbased self-registration, Account.
<b>3895.4</b>	Create Roles and permissions, Assign roles,Implement Password salting. Perform Site backup, Course backup, Course restore, Automated course backup.

**Course Name: DAA Lab(5495) Diploma CSE-6<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
5495.1	Improve practical skills in designing and implementing complex problems with different techniques;
5495.2	Understand comparative performance of strategies and hence choose appropriate, to apply to specific problem definition;
5495.3	Implement Various tree and graph based algorithms and become familiar with their design methods;

**Course Name: CC Lab(5595) (Dip. CSE 6th)**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
4595.1	Understand Amazon cloud service provider.
4595.2	Understand and install CloudSim package.
4595.3	Understand configuration of Cloud Broker, Data center, VMs etc.
4595.4	Install VMWARE workstation and creating a virtual machine.
4595.5	Implement Scheduling algorithm.

**Course Name: Android Lab (8595) Dip CSE 6<sup>th</sup>**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
<b>8595.1</b>	Write simple application to print "Hello World" in Android Studio.
<b>8595.2</b>	Design simple application that uses UI layout, Control, Styles and Themes.
<b>8595.3</b>	Write simple application for event handling, alarm, notification and location.
<b>8595.4</b>	Develop applications related to animations, image effects and image switcher and database.

**Course Name: DM (5095) (Dip. CSE 6th)**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
5095.1	Identify core concepts of digital marketing and the role of digital marketing in business.
5095.2	Ability to develop marketing strategies based on product, price, place and promotion objectives.
5095.3	Ability to analyze marketing problems and provide solutions based on a critical examination of marketing information.
5095.4	Understanding of the opportunities for deploying emerging digital marketing media and techniques.
5095.5	Successfully implement online campaigns for your business and marketing problems within the organization by learning AdWords Campaign Management.

**Course Name: DM Lab(6095) (Dip. CSE 6th)**

**Year of study 2021-2022**

<b>Course Outcomes</b>	
<b>After the course completion, students will be able to:</b>	
6095.1	Digital content – website, blogs, email, webinars, videos, podcasts, e-zines, PPC advertising Social Media and Social Bookmarking – Facebook, Twitter, Pinterest, Instagram
6095.2	YouTube and YouTube channels and emerging social medias, Search Engine Marketing – What it is, how it works and how to make it work!
6095.3	Search Engine Optimisation -What it is, how it works and how to make it work! Implementing the digital marketing plan
6095.4	Mastering Google - AdWords Advertising, Analytics & Applications