Diploma (Computer Science & Engg.)

Semester Ist:

Sr.No.	Code	Name of Subject	L	P	U
1	DCSE 111	English & Communication Techniques-I	**4**	**0**	**4**
2	DCSE 121	Engineering Physics – I	**3**	**2**	**4**
3	DCSE 131	Engineering Chemistry – I	**3**	**2**	**4**
4	DCSE 141	Engineering Mathematics – I	**4**	**0**	**4**
5	DCSE 151	Computer Fundamentals	**3**	**2**	**4**
6	DCSE 161	Computer aided Engineering Drawing – I	**3**	**2**	**4**
7	DCSE 171	Workshop Practice – I	**3**	**2**	**4**

Semester IInd

Sr.No.	Code	Name of Subject	L	P	U
1	DCSE 112	English & Communication Techniques-II	**4**	**0**	**4**
2	DCSE 122	Engineering Physics – II	**3**	**2**	**4**
3	DCSE 132	Engineering Chemistry – II	**3**	**2**	**4**
4	DCSE 142	Engineering Mathematics – II	**4**	**0**	**4**
5	DCSE 152	Information Technology Fundamentals	**3**	**2**	**4**
6	DCSE 162	Engineering Mechanics – II	**3**	**2**	**4**
7	DCSE 172	Computer Aided Engineering Drawing – II	**3**	**2**	**4**
8	DCSE 182	Workshop Practice – II	**0**	**4**	**4**

Semester IIIrd

Sr.No.	Code	Name of Subject	L	P	U
1	DCSE 211	Programming in 'C'	**3**	**2**	**4**
2	DCSE 221	Computer Organization	**4**	**0**	**4**
3	DCSE 231	Operating System Principles	**4**	**0**	**4**
4	DCSE 241	Electronic Devices and Circuits	**3**	**2**	**4**
5	DCSE 251	Digital Electronics	**3**	**2**	**4**
6	DCSE 261	Basic Communication Engineering	**3**	**2**	**4**
7	DCSE 271	Numerical Analysis	**3**	**2**	**4**

Semester IVth

Sr.No.	Code	Name of Subject	L	P	U
1	DCSE 212	Data Structures Through 'C'	**3**	**2**	**4**
2	DCSE 222	System Programming	**3**	**2**	**4**
3	DCSE 232	Modern Operating System	**4**	**0**	**4**
4	DCSE 242	Database Management System	**4**	**0**	**4**
5	DCSE 252	Introduction to Microprocessor	**3**	**2**	**4**
6	DCSE 262	Data Communication	**4**	**0**	**4**
7	DCSE 272	PC Maintenance & Trouble Shooting	**3**	**2**	**4**

Semester Vth

Sr.No.	Code	Name of Subject	L	P	U
1	DCSE 311	Object Oriented Programming	**3**	**2**	**4**
2	DCSE 321	System Analysis and Design	**4**	**0**	**4**
3	DCSE 331	Computer Networks	**4**	**0**	**4**
4	DCSE 341	Advanced Database Management System	**3**	**2**	**4**
5	DCSE 351	Visual Programming	**3**	**2**	**4**
6	DCSE 361	Computer Graphics	**4**	**0**	**4**
7		Practical Training (24 Days)			

Semester VIth

Sr.No.	Code	Name of Subject	L	P	U
1	DCSE 312	Design and Analysis of Algorithms	**4**	**0**	**4**
2	DCSE 322	Software Engineering	**4**	**0**	**4**
3	DCSE 332	Advanced Computer Architecture	**4**	**0**	**4**
4	DCSE 342	System Administration	**3**	**2**	**4**
5	DCSE 352	Programming in Java	**3**	**2**	**4**
6	DCSE 362	Computer and Network Security	**4**	**0**	**4**
7		Practical Training (24 Days)			

Detailed Syllabus

Diploma 1st Sem.

Code CS **101** **English and Communication Skills-I**

1. Transformation of sentences, Determiners, Preposition.
2. Tense, Common errors (Noun, Pronoun, Articles, Adverb, Punctuation, Preposition etc.)
3. Modals, in conversational usage, prefix suffix idioms & phrasal Verbs.
4. Composition –1. Unseen Passage, Précis Writing.
5. Letter Writing, Paragraph Writing, Report Writing.
6. Essay Writing

Code CS 102 Engg. Physics -I

Units and Dimensions, Elasticity, Properties of Liquids, Gravitation and Satellites
Sound Waves, Transfer of Heat, Electrostatics, D.C. Circuits, A.C. Circuits
Semi conductor Physics, Modern Physics, Nuclear Physics, Pollution and its control

Code CS 103 Engg. Chemistry-I

Atomic Structure, Development of periodic Table, Electro Chemistry, Kinetic theory of Gases, Carbon Chemistry, Metals and Alloys, Pollution, Water, Fuels, Corrosion, Polymers. Cement and Glass, Lubricants, Miscellaneous materials, New Engineering Materials

Code CS 104 Engg. Mathematics

Introduction of different type of expansion, Complex Number, Trigonometry
Matrices and determinants, Numerical integration, Two Dimensional Coordinate geometry
Conic, Function, Different Calculus, Application of different calculus, Integral Calculus.
Differential Equations, Vector Algebra.

Code CS 105 COMPUTER AND INFORMATION TECHNOLOGY FUNDAMENTALS

Introduction to computer, Operating System, Introduction to windows XP
Information concept and processing, Computer and Communication
Internet, Information Processing, Power Point

Code CS 107 ENGINEERING DRAWING

Introduction of Drawing Instruments, Lines, Lettering and Dimensioning, Geometrical Construction and Engineering Curves, Scales, Theory of Orthographic Projections, Projection of lines, Projection of Planes, Projection of solids, Conversion of Practical View into orthographic views, Section of solids and Development of Surfaces, Isometric Projection, Section and Conventions, Rivets and Riveted joints Screw Threads and Fasteners, Foundation Bolt and Locking Devices, Keys and Pulleys Shaft Coupling, Bearing, Building Drawing.

Code CS 108 WORKSHOP PRACTICE

Carpentry Shop, Welding and Sheet Metal Shop, Sheet Metal Shop, Fitting and Plumbing Shop

Code CS 109 ELECTRICAL & ELECTRONIC WORKSHOP

1. Identification of following resistors and finding their value
2. Identification of following capacitor and finding their value
3. Identification of following Switches and study of their working Mechanism
4. Identification and testing of Connectors
5. Study of different relays and their contacts
6. Measuring of voltage, current and resistance using analog & Digital multimeter
7. Testing of electronic component such as capacitor, inductor diode and transistor.
8. Measurement of amplitude & frequency of a signal using CRO.
9. Verification of Ohm's Law using resistive circuit and analog meter.
10. Soldering of different passive component combination on general purpose PCB.
11. Sketching of different electronic components symbol on drawing sheet.

ELECTRICAL WORKSHOP

1. Study of symbol, specification and approximate cost of common electrical accessories, tools and wires & cables required for domestic installation.
2. Study of
    a) Basic electricity rules for a domestic consumer
    b) Safety precaution & use of fire Fighting equipments.
3. Use of series of phase tester, series test lamp, tong tester and megger in testing of electrical installation.
4. a) Prepare of potential divider and measure resistance of a filament lamp using voltmeter and ammeter.
   b) Measurement of power and energy consumption by an electric heater using wattmeter and energy meter.
5. Preparation of wiring diagram, wiring testing, Fault finding & costing for
    a) Control of one lamp by one switch (using batten and tumbler switch)
    b) Control the stair case wiring (using batten and tumbler switch)
    c) Control of one bell buzzer indenter by one switch (using conduit and flush type switch)
6. Prepare one Switchboard as per institutional requirement (using flush type switches, Sockets, MCB, ELCB, etc.)

7. Study Connecting testing and fault finding of
    a) Fluorescent tube and its necessaries
    b) Celling fan with resistance type and electronic regulator.
8. Study Functioning, fault finding and repairing of following domestic appliances-
    a) Automatic electric Iron.
    b) Air Cooler
    c) Electric water Pump
9. Design Draw and estimate the material required for installation for a small residential Building /Office/hall.

Diploma 3rd Sem.

Code CS 31 Programming in C

1. Introduction
2. Elements of C
3. Console Input-Output
4. Control Flow
5. Arrays
6. Functions
7. Pointers
8. Structure, Union and Enumerated Data Types.
9. File Handling

Code CS 32 Computer Organisation

1. Overview of Computer Organisation
2. Register and Micro-Operations
3. Basic computer organization
4. Control Logic
5. Central Processing Unit
6. Arithmetic Processor Organisation
7. Input/Output Organisation
8. Memory Organisation

Code CS 33 Operation system Principles

1. Introduction
2. CPU Scheduling
3. Deadlocks
4. Memory management and Virtual Memory
5. Operating System Services and File System
6. Disk Scheduling

Code CS 34 Electronic Devices and Circuits

1. Vacuum Tubes
2. Semiconductor and PN Junction
3. Bipolar Junction Transistor
4. Transistor Biasing and Bias Stability
5. Small Signals Transistor Amplifier
6. Field Effect Transistor
7. Rectifiers and Power Supplies

Code CS 35 Digital Electronics

1. Introduction
2. Number System
3. Logic Gates
4. Logic Families
5. Boolean Algebra
6. Minimization Techniques (K-Mapping)
7. Combinational Logic Design
8. Sequential System

Code CS 36 Basic Communication Engineering

1. Introduction
2. Noise and Cross Talk
3. Amplitude Modulation
4. Frequency Modulation
5. Radio Receivers

Code CS 37 NUMERIC ANALYSIS

1. Introduction
2. Interpolation
3. Numerical Calculus
4. Solution of Equation
5. Matrix

Diploma 4th Sem.

Code CS 41 Data Structures Through C

1. Introduction
2. Memory Allocation
3. Linked List
4. Stack
5. Queue
6. Tree
7. Graphs
8. Sorting and Searching

Code CS 42 System Programming

1. Introduction
2. Assemblers
3. Macro Assemblers
4. Linkers and Loaders
5. Compliers

Code CS 43 Modern Operating System

1. Distributed Operating System
2. Communication in Distributed System
3. Processes and Synchronization/Co-ordination.
4. Distributed File System
5. Protection and Security Issues
6. Real Time OS

Code CS 44 Data Base Management System

1. Introduction
2. Entity Relationship Model
3. Relational Model
4. Integrity Constraints
5. Relational Database design
6. Indexing and Hashing
7. Transaction
8. Protocols
9. Recovery System

Code CS 45 Introduction to Microprocessor

1. Introduction

2. 8086 Microprocessor
3. Addressing Modes
4. Instruction Set
5. Data Transfer Schemes
6. Memory Interfacing with 8086
7. Programmable Chips and Interfacing with 8086
8. Bus Standard
9. Brief Introduction of other Microprocessor

Code CS 46 Data Communication

1. Introduction
2. Data Transmission
3. Data Encoding
4. Data Communication Interface
5. Data Link Control
6. Multiplexing
7. Circuit Switching
8. Packet Switching
9. Frame Relay

Code CS 47 PC Maintenance and Trouble Shooting

1. Site Preparation
2. Safety and Security Measures
3. Study of Construction Operation and Interfacing of the following devices.
4. Hardware and Software Installation.
5. Motherboard and BIOS
6. Troubleshooting of Hardware and software Problems.
7. Servicing of Peripherals.

Diploma 5th Sem.

Code CS 51 Object oriented Programming

1. An overview of Object Oriented Programming
2. Object oriented programming using C++.
3. Objects and Classes
4. Inheritance, Polymorphism, Reusability Concepts.
5. Exception Handling.
6. Data Structures in C++
7. Files and Streams.

Code CS 52 System Analysis and Design

1. Introduction
2. The System Development Life Cycle and System Analyst.
3. System Analysis
4. System Design
5. System Implementation
6. Security and Recovery in System Development

Code CS 53 Computer Networks

1. Computer Network and the Internet
2. Application Layer
3. Transport Layer
4. Network Layer and Routing
5. Link Layer and Local Area Networks

Code CS 54 Advance Database Management System

1. Introduction
2. Database System Architecture
3. Structured Query languages (SQL)
4. PL/SQL

Code CS 55 Visual Programming

1. Introduction with Visual Basic
2. Elements of the Visual Basic Languages
3. Working with Forms
4. Basic ActiveX Controls
5. Database Programming with Visual Basic
6. Object Programming with Visual Basic

Code CS 56 Computer graphics

1. Overview of Graphics System
2. Output primitives
3. Geometric Transformation
4. 2-D Viewing
5. 3-D Geometric Transformations and Viewing

Code CS 57 Unix and Shell Programming

1. Unix An Introduction
2. File System
3. Unix Commands
4. vi-Editor
5. Unix Shell
6. Filters
7. Shell Programming

Code CS 571 Human Computer Interaction

1. Importance of Interfaces
2. User Interface Design
3. Interaction Styles
4. Guidelines for Designing
5. Future Trends.

Code CS 572 Computer Business system

1. Business Data Processing
2. Business Files
3. Design Analysis and Development of
4. FoxPro

Diploma 6th Sem.

Code CS 61 Design and Analysis of Algorithms

1. Introduction
2. Design Techniques
3. Complexity Measures

Code CS 62 Software Engineering

1. Introduction
2. System Analysis
3. Requirement Analysis
4. Structured Design
5. Approaches to System Design

Code CS 63 Advanced Computer Architecture

1. CISC Architecture Concepts
2. RISC Architecture concepts
3. Pipelining
4. Memory Hierarchy and Organization
5. Parallel Organization and Architecture

Code CS 64 System Administration

1. Introduction to System Administration
2. Essential Administrative Tools
3. Startup and Shutdown
4. User Account
5. Security
6. Managing System Resources
7. Backup and Restore
8. Setting up E-Mail and Proxy server

Code CS 65 Programming in Java

1. An overview of Java
2. Introduction of OOP using Java
3. Packages
4. Interfaces and Inner Classes
5. Exception handling
6. Multithreaded Programming
7. Introduction to Java Library
8. Applet and event handling
9. Introduction to RMI, JBDC and Servlets.

Code CS 661 Data Base Administration

1. Database Administration
2. Backup and Recovery
3. Performance Tuning
4. Network Administration

Code CS 662 Computer and network Security

1. Introduction
2. User Authentication and Passwords
3. File Security
4. Protecting Against Threats
5. Network Security

Code CS 663 Computer and Network Security

1. AI Concept
2. Neural Networks
3. Fuzzy Logic
4. Evolutionary Computing

Code CS 671 Management

1. Principles of Management
2. Human resources Development
3. Wages and Incentives
4. Material Management
5. Financial Management
6. Marketing Management
7. Tax System and Insurance
8. Labour Legislation and Pollution Control Acts.
9. Entrepreneurship Development

Code CS 672 Entrepreneurship Development

1. Entrepreneurship
2. Industrial Policy
3. Entreprencurial Development
4. Entreprenurship Support System
5. Setting up SSI
6. Raw material Management
7. Marketing facilities

8. Financial Sources for SSI
9. Contracts and Tenders
10. Project Report
11. Iso : 9000 Series of Quality System

Code CS 673 Production System Management

1. Introduction
2. new Product Design
3. Demand Forecasting
4. production Planning and Control
5. Capacity Planning
6. Material requirement Planning
7. Process Planning
8. Production
9. Make or Buy Decision
10. Application of LPP in Production Management
11. Group technology
12. Just in time Manufacturing.