

VIKRAM UNIVERSITY, UJJAIN
INSTITUTE OF COMPUTER SCIENCE

PROGRAMME TITLE: Diploma in Information Technology Management

PROGRAMME OBJECTIVES:

The objective of the Diploma in IT Management programme is to prepare students for productive careers in the software industry and academia by providing an outstanding environment for teaching and Government Job. Basic qualification is 12th in any subjects.

This Diploma in IT Management programme has been designed with a 6 month programme approach in mind. In 6 month diploma courses are aimed at skills development in computers using various technologies and IT management skills. To learn, experiment, and explore Information Technology in education and How to use and manage the computer as a business and personal tool through the use of good IT management skill.

The main objectives of the Diploma in IT Management programme includes:

- Learn Fundamental of Information Technology and basics of computer technology.
- To develop in depth understanding of the key concepts of information Technology and management and to impart knowledge of problem solving techniques, Management Information System and PC package.
- Develop problem solving skills in interdisciplinary domains.
- Focus on development of knowledge and specific skills required in IT management work or Good IT manager.
- To make sustained efforts for holistic development of the students and empower them to analyze, develop, configure IT solutions keeping in view the challenges posed by changing industrial requirements.
- To develop competent computer professionals with strong ethical values.

PROGRAMME OUTCOMES (POs)

At the end of this programme, Diploma in IT Management student will be able to:

- Prepare presentation and report on computer system.
- Identify the components of a computer system and demonstrate basic proficiency in commonly used applications.
- Create, design, and produce professional documents using word processing software (i.e., MS Word).
- Process, manipulate, and represent numeric data using the basic functions of spreadsheet software (i.e., MS Excel).
- Demonstrate strategies for merging and integrating source data from multiple applications.
- Gain understanding of the key management skills.
- Understanding the key concepts of Information Technology to improvise organizational performance.

After Completion of the programme students are able to work as-

- IT Manager.
- IT Analyzer.
- Strategy Designer in IT Company and organization.
- Language Programmer

PROGRAMME TITLE: Diploma in Information Technology Management

SCHEME OF EXAMINATION

Paper code	Title of Paper	Theory External Marks	Min.Pass Marks	Internal Mark	Min.Pass Marks	Total
	Paper-I	75	27	25	9	100
	Paper-II	75	27	25	9	100
	Internship/ Industrial Training/ Project Work	150 ----- 300 -----	54 ----- ----- -----	50 ----- 100 -----	28 ----- ----- -----	200 ----- 400 -----

COURSE NAME:	Diploma in Information Technology Management
LEVEL OF COURSE:	DIPLOMA COURSE
DURATION:	6 MONTH
ELIGIBILITY:	10+2
FEES:	6000/-

Code	Topic
Paper- I	COMPUTER FUNDAMENTALS
Paper-II	PC PACKAGES

Paper- I: COMPUTER FUNDAMENTALS

UNIT-1

Computer Fundamental: Characteristics of Computers, History of Computer, Evolution of Computers, Computer Generations and Types of Computer. Components of a Computer: Registers, instruction Set, Bus Architecture. Computer Hardware: Input Devices, Output Devices. Storage Devices.

UNIT-2

Introduction of Programming: Procedure Oriented Programming, Object oriented programming, Concepts used in OOP, Benefits of OOP, Main advantages and disadvantage of OOP, Applications of OOP, OOP vs. POP.

UNIT-3

Operating System Overview: Computer System Startup, Computer System Structure, computer system components, operating System classifications, operating System Services, Major Functions of operating system, Process Management, CPU Scheduling, Scheduling Criteria. .

UNIT-4

Introduction to DBMS: File System, Traditional File Oriented Approach, DBMS Advantages and Disadvantage, Role of DBMS, Three views of data, DBMS Architecture. Data Models.

UNIT-5

Introduction to computer Networks: computer Network Definition, Importance of Networking, Types of Networks, Network Topology, Advantages and Disadvantage of computer Networks. Internet basics.

Reference Books:

1. Operating Systems Concepts, A. Silberschaz, P.Galvin, G.Gagne, John Wiley & Sons
2. Object Oriented Programming in C++, Robert Lafore, Galgotia Publication.
3. Data base management systems vol. 1., Date C.J.
4. Fundamental of Computer Science & IT, Singh Umesh Kumar, Jain S., Maheshwari A., SSDN publications New Delhi,
5. Data Communications and Networks, Godbole A, Tata Mccraw-Hill Publications.

Paper-II: PC-PACKAGES

UNIT-1

MS windows: Introduction to MS windows; Features of windows; working with windows; My computer & Recycle bin; Desktop, Icons and windows Explorer; Screen description & working styles of windows; Dialog Boxes & Toolbar; working with files & Folders, Simple operations like copy, delete, moving of files and folders from one drive to another.

UNIT-2

MS word Basics - Introduction to MS office; introduction to MS- word; Features & area of use, working with MS- word; Menus & commands; Toolbars & Buttons; shortcut Menus, wizards & Templates, creating a New Document; Different page views and Layouts.

UNIT-3

Advanced Features of MS- word- Spell check, Thesaurus, Find & Replace; Headers & Footers: Inserting- Page Number, Pictures, Files, Auto texts, Symbols etc.; working with columns, Creation and working with Tables including conversion to and from text.

UNIT- 4

MS Excel: Introduction and area of use; working with MS Excel: concept of workbook and worksheet; Using Wizards; Various Data Types; Using different features with Data, Cell and Texts; Inserting, Removing & Resizing of Columns & Rows; Working with Data & Ranges .

UNIT-5

MS PowerPoint: Introduction and area of use; Working with MS PowerPoint; Creating a New Presentation; Working with Presentation; Using Wizards; Slides & its Different Views; Inserting, Deleting and Copying of Slides; Working with Notes, Handouts; Columns and Lists.

Reference Books:

1. Windows XP Complete Reference. BPB publications
2. MS Office XP complete BPB Publication.

Internship/ Industrial Training/Project Work

1. Working with windows operating system along with file management commands like create, copy, move, delete and rename files and folders, control panel, recycle bin.
2. Design your CV with a covering letter using MS word.
3. Create a Student database of your class.
4. Create Your E-Mail id with sending and receiving of email having attachments.
5. Identify the internal and external hardware/peripheral components.
6. Load any new operating system into your computer.
7. Calculate student grades using his internal and external marks details.
8. Create a pay slip with details of employee salary.
9. Create Water Marking.
10. Create a presentation with animation and sound effects.

DIT101: DATABASE MANAGEMENT SYSTEM

UNIT-1:

DBMS Concepts and architecture Introduction, Database approach v/s Traditional file accessing approach, Advantages, of database systems, Data models, Schemas and instances, Data independence, Data Base Language and interfaces.

UNIT-2:

ER data model : Entities and attributes, Entity types, Defining the E-R diagram ,Concept of Generalization, Aggregation and Specialization. Various other data models object oriented data Model, Network data model, and Relational data model.

UNIT-3:

Relational Data models: Domains, Tuples, Attributes, Relations, Characteristics of relations, Keys, Key attributes of relation, Relational database, Schemas, Integrity constraints. Referential integrity, Intension and Extension.

UNIT-4:

Relational Query languages: SQL-DDL, DML, integrity constraints, Complex queries, various joins, indexing, Relational algebra and relational calculus.

UNIT-5:

Data Base Design: Introduction to normalization, Normal forms, Functional dependency, Decomposition, Dependency preservation and lossless join.

References:

1. Date C J, "An Introduction To Database System", Pearson Educations
2. Korth, Silbertz,Sudarshan, "Fundamental of Database System", McGraw Hill
3. Rob, " Data Base System:Design Implementation & Management", Cengage Learning
4. Elmasri, Navathe, "Fundamentals Of Database Systems", Pearson Educations
- 5 . Atul Kahate , " Introduction to Database Management System", Pearson Educations

UNIT-1:

Fundamental IT - Computer Basics: Introduction, Evolution of Computers, Computer Generations, Classification of Computers, Computer Applications, Computer Organization, Memory and Storage, Basic Computer Organization Input Devices, Output Devices, Central Processing Unit .

UNIT-2:

Information Technology Basics: Introduction, Need for Information Storage and Processing, Information Technology Components, Role of Information Technology, Information Technology and the Internet.

UNIT-3:

Emerging Trends in IT: Introduction, Electronic Commerce (E-Commerce), Electronic Data Interchange (EDI), Smart Cards, Mobile Communication, Internet Protocol.

UNIT-4:

Computer Programming and Languages: Introduction, Planning a Computer Program, Steps for Program Development, Problem Solving Tools, Generations of Computer Languages, Program Methodology, Programming Models .

UNIT-5:

Computer Software: Introduction, System Software, Application Software, Booting , Software Development Steps.

UNIT-1:

System Analysis and Design- Overview of system analysis and design: system development life cycle, project selection.

UNIT-2:

Feasibility study: Technical and economical feasibility, cost and benefit analysis.

UNIT-3:

System requirement specification and analysis: Fact finding techniques, Data flow diagrams, Data dictionaries, process organization and interactions, decision analysis, decision trees and tables.

UNIT-4:

Detailed design: Modularization, module specification, file design, system development involving data bases.

UNIT-5:

Software design and documentation tools: top-down ,bottom-up and variants. Units and integration testing, testing practices and plans. System controls , Audit trails.

UNIT-1:

Introduction: Information, Types of Information, Quality

UNIT-2:

of Information, Dimensions of Information, Sub-System of Information.

UNIT-3:

System, Types of Systems, Concepts Related to Systems.

UNIT-4:

Elements of a System, Human as an Information Processing System.

UNIT-5:

Decision-Making.

UNIT-1:

Structured Query Language : Writing Basic SQL Select Statements, Restricting and Sorting Data, Single-Row Functions, Joins (Displaying Data from Multiple Tables.)

UNIT-2:

Creating and Managing Tables, Including Constraints, Creating Views, Creating other Database Objects (Sequences, Indexes and Synonyms)

UNIT-3:

Advanced SQL : Controlling user Access, using SET operators, Data Time Functions, Enhancements to Group by clause (cube, Rollup and Grouping).

UNIT-4:

Advanced Sub-queries (Multiple column Sub-queries, Sub-queries in FROM clause, Scalar and correlated Sub queries), WITH Clause, Hierarchical retrieval.

UNIT-5:

PLSQL : Introduction, Overview and benefits of PL/SQL, Subprograms, types of PL/SQL blocks, Simple Anonymous Block, Identifiers, types of identifiers, Declarative Section.

REFERENCES:

1. Web Design The complete Reference, Thomas Powell, Tata McGrawHill
2. HTML and XHTML The complete Reference, Thomas Powell, Tata McGrawHill
3. JavaScript 2.0 : The Complete Reference, Second Edition by Thomas Powell and Fritz Schneider
4. PHP : The Complete Reference By Steven Holzner, Tata McGrawHill