COURSE OUTCOMES –MCA

MCA-1

FIT

CO1: introduce the fundamental of Number system, microprocessor and system bus

CO2: explain software and its various development activities; distinguish between different computer languages and introduction of computer graphics devices.

CO3: define operating system, DBMS and its types. Introduce DOS commands and practice it on system

CO4: explain network and its types, how they are created and how they work.

Programming in C

CO1: the students will be able to understand the basics of C language, commands and data structure. This will help them in understanding basics of programming languages

CO2: students will study advanced data types, pointers and dynamic memory allocation, develop an application by managing memory.

CO3: the students will be taught about C preprocessors, using Linux with C, string and file Handling. Develop macros & use it in an application development

CO4: students will study Linux admin and other commands. They will know how to create and manage multiple users on Linux systems.

Discrete mathematics

CO1: student will study formal logic, basic principle of DM like permutation, combination, sets, relations which will help students in solving both simple and complex mathematical problems.

CO2: students study Boolean algebra, lattices, well ordering recursive definition etc. which are required for better understanding of working with well-ordered numbers

CO3: Students understand RSA cryptosystems and error correcting codes that will make them understand how cryptography in computer works using DM

CO4: students study graphs and trees enabling them to organize data in a well-defined format

Computer Organization

CO1: discuss the concept of multiplexer, decoder, adder and register

CO2: illustrated basic computer organization and design with special emphasis on MCU and CPU

CO3: pipelining and IO organization is interpreted by the students through various algorithms

CO4: types of memories and details about multiprocessor is demonstrated with the help of animations

Principles and practices of management

CO1: student will be able to understand the concept, nature, importance of management and distinguish between science and art of management

CO2: student should be able to interpret the nuances of planning, organizing and delegation of authority

CO3: student would be explained about different real world scenarios related to staffing and motivation

CO4: students would be involved in different role plays related to leadership, controlling and change management.

MCA 2

Data and File structures

CO1: BIG 'O' notation and time and space complexity of various data structures is discussed with the students with the help of different programs

CO2: the concept of trees has been described by talking practical example and real world entities.

CO3: different algorithms of graphs, searching and sorting have been discussed with animated slides

CO4: students will understand the concept the Files organization and operation along with data representation

OOPs in C++

CO1: student will understand basics of OOPS and implement these concepts in their programs

CO2: students apply abstract data type concepts and polymorphism to their projects

CO3: inheritance, polymorphism, IO and exception handling is discussed in detail

CO4: students apply generic programing concepts and master STL algorithm in making their programs more effective and industry relevant

Operating Systems

CO1: student will understand the basics of OS, process management and CPU scheduling.

CO2: we discuss inter process communication, deadlock, memory management and virtual memory concept with the students so that they can apply them in the organization

CO3: students analyze device management and secondary storage structures in various kinds of OS

CO4: students interpret file system implementation and OS security by taking the case study of LINUX and windows XP OS

DBMS

CO1: intend to make the students understand the importance and role of DBMS in project development.

CO2: discuss SQL queries and views with the intention to insert, update, delete and extract an appropriate data to/ from the database.

CO3: students will be able to apply the knowledge about oracle DBMS in the real world environment

CO4: student will be able to interpret the concept of normalization, concurrency control and recovery both in centralized and distributed database environment

Software Engineering

CO1: discuss different SDLC life cycle models and understand the purpose and role of SRS by collecting and analyzing different requirements of the clients.

CO2: illustrate different size and cost estimation techniques that they will use in their projects.

CO3: compare different software metrics, related to software code, reliability and quality in order to develop quality software.

CO4: demonstrate different testing techniques that they will apply to test their projects and debug them. They will also learn software maintenance process, software reengineering and configuration management.

MCA 3

TOC

CO1: students will be made to understand the concept of finite and non-finite automata in addition to regular and non-regular languages

CO2: students will be explained about context free grammar through various theorems, figures and machines

CO3: student experiment with Turing machines to understand halting problem, reducibility and recursion theorems

CO4: space and time complexity and probability is illustrated using algorithms and programs

Computer Graphics

CO1: scanning and transformation is explained using various animated models

CO2: students learn the nuances of curves and surfaces by drawing them on graphical IDEs

CO3: students learn to apply transformation, clipping, projection and solid modeling on graphical models

CO4: studded experiment with shading and hidden surface removal using various algos

Java Programming

CO1: student understand the basics of JVM and java programming language using various programs

CO2: the concept of exception handling, multithreading, input output programming and N/W programming is illustrated in real life projects

CO3: the concepts of Event handling, collection and JDBC are applied in various programs so that the students understand the concept well.

CO4: students are made to experiment on RMI, java beans and swings.

Data Communication and networking

CO1: introduction of networking, OSI reference model, and digitization.

CO2: the concept of data link layer and the ALOHA protocols has been elaborated to the students with simulations.

CO3: detail of Network layer along with distinction between IPv4 and IPv6

CO4: elaborated the use of Transport layer and Application layer in OSI model.

C#

CO1: discussed the basic concept of CLI, CTS, CLS, CLR and CIL to students along with the concept of assemblies.

CO2: basics of C# programming have been introduced to students with the help of small programs and projects

CO3: advance features of C# programming like delegates and events, collections have been discussed. Introduce the concept of ADO.NET and demonstrate the creation and working of .NET application.

CO4: Explain the concept of LINQ, LINK to SQL and extension methods with the use of database linking in projects.

MCA4

DAA

CO1: introduction of different algorithms, use of Big O, mathematical analysis of recursive and non-recursive algorithms.

CO2: discussed various searching and sorting techniques by analyzing their complexities.

CO3: application of different greedy and non- greedy algorithms has been discussed and their impact on programs has been illustrated using programs.

CO4: different problems like assignment, travelling salesman etc. has been elaborated with examples.

Data Warehousing and Mining

CO1: introduction of the basics of data warehouse, its building blocks, and its features along with some OLAP operations has been discussed.

CO2: concept of Star schema and its advantages, Snowflake schema has been introduced to students. Also elaborate the design and construction of data warehouse.

CO3: Introduction of data mining, KDD and the difference between OLAP and data mining has been discussed.

CO4: explanation of different data mining techniques and algorithms has been discussed with the intent to analyze the collected data.

Web Technologies

CO1: overview of HTML, DHTML and CSS has been discussed with students with introduction of Java Script.

CO2: hands on experience on ASP.Net, Web Forms with ADO.Net technology is provided to the students.

CO3: creation of ASP.Net applications with tracking user session and authentication has been illustrated to the students.

CO4: concepts of web services and latest trends in web technologies have been discussed with case studies.

OOAD

CO1: Overview of object oriented Concepts with thinking and rethinking approach. Differentiate between traditional software life cycle models with object oriented lifecycle model . Also introduce various object oriented methodologies

CO2: discuss various models including requirements model, analysis model, the design model, the implementation model & test model.

CO3: major focus on Construction and testing model with block design and test cases.

CO4: overview of UML with 4+1 view architecture of UML. Also introduce the Basic Building Blocks of UML with nine types of diagrams for system development

ACN

CO1   Identify and use various networking components Understand different transmission media and design cables for establishing a network

CO2: Implement any topology using network devices

CO3: Understand the TCP/IP configuration for Windows and Linux s

CO4: Implement device sharing on network. Learn the major software and hardware technologies   used on computer networks

MCA 5

Paper: Linux Programming

At the end of this course the student will be able to:

CO1 To define and comprehend the basic concepts of Linux Operating System .

CO2 To analyze & manage resources in Linux operating System.

CO3 To Implement Linux System programs through GCC compiler.

CO4 To Understand the basic concept of Socket programming (TCP and UDP).

Software Testing

At the end of this course the student will be able to:

CO1 Appreciate the fundamentals of software testing and its application through the software life cycle.

CO2 Develop skills in designing and executing software tests suitable for different stages in the software life cycle.

CO3 Understand and appreciate the role of software testing in systems development, deployment and maintenance.

CO4 Develop a continuing interest in software testing, and obtain satisfaction from its study and practice.

CO5 Appreciate the responsibilities of software testers within software projects, the profession and the wider community.

Enterprise Computing in Java

At the end of this course the student will be able to:

CO1 To define and comprehend the basic concepts of J2EE Technology . They should be able to develop dynamic websites.

CO2 To analyze & explain how Enterprise JavaBeans (EJBs) contain the application's business logic.

CO3 To critically evaluate how Enterprise JavaBeans contain the application's business data.

Advanced Database Management System

At the end of this course the student will be able to:

CO1 To define and comprehend the basic concepts of Database Management Systems .

CO2 To analyze advanced information about database management system and their development.

CO3 To design distributed database system for real life applications.

CO4 To apply the various concepts to develop distributed database system for real life applications.

Multimedia Technologies

At the end of this course the student will be able to:

CO1: To define and comprehend the basic concepts of multimedia and various I/O technologies.

CO2: To study the graphics techniques and Compression and decompression algorithms related to different element of multimedia.

CO3: To apply the various concepts to develop their creativity and hands on experience on different software tools like Blender.

CO4: To learn new upcoming techniques in multimedia and the stages required to develop multimedia project

Software Quality Management

At the end of this course the student will be able to:

CO1 To define and comprehend the basic concepts of Software Quality.

CO2 To implement the software quality Assurance.

CO3 to get acquaint with the industry perspective towards software Quality.

CO4 To describe how to conduct formal technical reviews and why they are the most important SQA activity.

Research Project

CO1: To apply computing knowledge to conduct research and develop solutions

CO2: To demonstrate professionalism and ethics in conducting research

Project Dissertation

Student will be able

CO1- To apply conceptual knowledge , to solve business solutions

CO2- To undertake research

C03- Able to work individually and in teams and demonstrate professionalism