| SL.NO | SUBJECT CODE | SUBJECT/LAB | CO | DESCRIPTION OF COURSE OUTCOMES |
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| 1 | MCA01005 | Database Engineering | CO-1 | Students will be able to install, configure and interact with a relational database management system |
| | | Database Engineering | CO-2 | Students will be able to master the basics of SQL and construct queries using SQL |
| | | Database Engineering | CO-3 | Students will be able to design and develop a large database with optimal query processing |
| | | Database Engineering | CO-4 | Understand the Basic design concepts of a database |
| 2 | MCA01003 | C and Data Structure | CO-1 | Recollect various programming constructs and to develop C programs. |
| | | C and Data Structure | CO-2 | Understand the fundamentals of C programming. |
| | | C and Data Structure | CO-3 | Choose the right data representation formats based on the requirements of the problem. |
| | | C and Data Structure | CO-4 | Implement different Operations on arrays, functions, pointers, structures, unions and files. |
| 3 | MCA03002 | Compiler Design | CO-1 | Be familiar with compiler architecture and concepts involved in compilation process. |
| | | Compiler Design | CO-2 | Understand the use of lexical analyser, parser generator tools, Register allocation and de-allocation and compiler optimization. |
| | | Compiler Design | CO-3 | Understand the use of various tools like LEX, YACC, FLEX, and JFLAP. |
| | | Compiler Design | CO-4 | Write a scanner, parser and semantic analyser. |
| | | Compiler Design | CO-5 | Understand and describe techniques for intermediate code and machine code generation |
| | | Compiler Design | CO-6 | Understand and describe techniques for code optimization. |
| 4 | MCA01002 | Computer System Architecture | CO-1 | Describe and explain the fundamental components of a computer system |
| | | Computer System Architecture | CO-2 | Ability to design of control unit and Explain the instruction set, instruction formats and Addressing modes of CPU. |
| | | Computer System Architecture | CO-3 | Ability to analyze memory hierarchy and its impact on computer Cost/performance,cache memory and virtual memory |
| | | Computer System Architecture | CO-4 | Demonstrate concepts of pipelining in hardware/software |
| | | Computer System Architecture | CO-5 | Describe architectural features of advanced processors and parallelism also. |
| 5 | MCA03001 | Software Engineering | CO-1 | Students will able to choose a proper life cycle model for different real life industrial project |
| | | Software Engineering | CO-1,CO-2 | Project Management system |
| | | Software Engineering | CO-2 | Students will able to prepare SRS documents |
| | | Software Engineering | CO-3 | Students will able to design the software using function-oriented approach(DFD) and OO approach(UML) |
| | | Software Engineering | CO-4 | An ability to Coding and Testing using different strategies |
| | | Software Engineering | CO-5 | An ability to understand the case tools for development and maintenance and reuse of software systems |

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| 6 | MCA01004 | Operating System | CO-1 | Describe and explain the fundamental components of a computer operating system. |
| | | Operating System | CO-2 | Understand and analyze theory and implementation of processes, threads and scheduling. |
| | | Operating System | CO-4 | Identify the various aspects of handling deadlock |
| | | Operating System | CO-3 | Evaluate the requirement for process synchronization and coordination handled by operating system. |
| | | Operating System | CO-5 | Identify use and evaluate the storage management policies with respect to different storage management technologies and thrashing. |
| 7 | MCA01007 | Operating System Lab | CO-1 | Describe and explain the fundamental components of a computer operating system |
| | | Operating System Lab | CO-2 | Understand and analyze theory and implementation of processes, threads and scheduling |
| | | Operating System Lab | CO-3 | Evaluate the requirement for process synchronization and coordination handled by operating system |
| | | Operating System Lab | CO-4 | Identify the various aspects of handling deadlock |
| | | Operating System Lab | CO-5 | Identify use and evaluate the storage management policies with respect to different storage management technologies and thrashing |
| 8 | | Elective-II (To be opted from NPTEL MOOC Pool) | CO-1 | Explain the core concepts of the cloud computing paradigm: how and why this paradigm shift came about, the characteristics, advantages and challenges brought about by the various models and services i |
| | | Elective-II (To be opted from NPTEL MOOC Pool) | CO-2 | Apply the fundamental concepts in datacenters to understand the tradeoffs in power, efficiency and cost. |
| | | Elective-II (To be opted from NPTEL MOOC Pool) | CO-3 | Identify resource management fundamentals, i.e. resource abstraction, sharing and sandboxing and outline their role in managing infrastructure in cloud computing. |
| | | Elective-II (To be opted from NPTEL MOOC Pool) | CO-4 | Analyze various cloud programming models and apply them to solve problems on the cloud. |
| 9 | MCA03008 | Web Programming Lab | CO-1 | To learn the fundamentals of web designing. |
| | | Web Programming Lab | CO-2 | To design and develop standard and interactive web pages. |
| | | Web Programming Lab | CO-3 | To learn some popular web scripting languages. |
| 10 | | Elective-I ( To be opted from NPTEL MOOC Pool) | CO-1 | students will be able to know the basics of IOT |
| | | Elective-I ( To be opted from NPTEL MOOC Pool) | CO-2 | students will get to know the applications of IOT |
| | | Elective-I ( To be opted from NPTEL MOOC Pool) | CO-3 | students will know the basics of python programming |

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| 11 | MCA03006 | Software Engineering Lab | CO-1 | Develop SRS documents, design documents such as ER Diagram, DFDs, UML Diagram etc for given project |
| | | Software Engineering Lab | CO-2 | Develop efficient code for a given software project using appropriate coding standard and guideline and test the develop code using different tools |
| | | Software Engineering Lab | CO-3 | Implement different software management techniques such as FP,COCOMO,CPM and PERT |
| | | Software Engineering Lab | CO-4 | Know the use of CASE tools(comp added soft engg in the development, maintenance of the soft system |
| 12 | MCA02003 | Object Oriented Programming Using Java | CO-1 | To comprehend the core ideas and ideas behind platform independent object oriented language. |
| | | Object Oriented Programming Using Java | CO-2 | Learn the fundamentals of object-oriented programming with Java and C++. |
| | | Object Oriented Programming Using Java | CO-3 | Apply Java, JDK components, the class concept, and create simple Java programmes. |
| | | Object Oriented Programming Using Java | CO-4 | Create straightforward Java programmes that handle exceptions and use inheritance. |
| | | Object Oriented Programming Using Java | CO-5 | Develop Multi-threading Programming and Interfaces. |
| | | Object Oriented Programming Using Java | CO-6 | Use Applet classes, Swing components, and event handling programmes to create GUI applications. |
| 13 | MCA02002 | Analysis and Design of Algorithms | CO-1 | CO1: Able to understand the correctness of algorithms using inductive proofs and Analyze worst-case running times of algorithms using asymptotic analysis. |
| | | Analysis and Design of Algorithms | CO-2 | CO2: Able to explain important algorithmic design paradigms (divide-and-conquer, greedy method, dynamic-programming and Backtracking) and apply when an algorithmic design situation calls for it. |
| | | Analysis and Design of Algorithms | CO-3 | CO3: Able to Explain the major graph algorithms and Employ graphs to model engineering problems, when appropriate |
| | | Analysis and Design of Algorithms | CO-4 | CO4: Able to understand different types of data structures like Tree and Graph. |
| | | Analysis and Design of Algorithms | CO-5 | CO5: Able to Describe the classes P, NP, and NP Complete and be able to prove that a certain problem is NP-Complete. |
| | | Analysis and Design of Algorithms | CO-6 | CO6: Able to analyze String matching algorithms. |

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| 14 | MCA02001 | Computer Networks | CO-1 | Explain basic concepts, OSI reference model,services and role of each layer of OSI model and TCP/IP, networks devices and transmission media, Analog and digital data transmission |
| | | Computer Networks | CO-2 | Apply channel allocation, framing, error and flow control techniques. |
| | | Computer Networks | CO-3 | Describe the functions of Network Layer i.e. Logical addressing, subnetting & Routing Mechanism. |
| | | Computer Networks | CO-4 | Explain the different Transport Layer function i.e. Port addressing, Connection Management, Error control and Flow control mechanism. |
| | | Computer Networks | CO-5 | Explain the functions offered by session and presentation layer and their Implementation. |
| | | Computer Networks | CO-6 | Explain the different protocols used at application layer i.e. HTTP, SNMP, SMTP, FTP, TELNET and VPN. |
| 15 | MCA02005 | Internet and Web Programming | CO-1 | To introduce the fundamentals of Internet, and the principles of web design |
| | | Internet and Web Programming | CO-2 | Analyze a web page and identify its elements and attributes |
| | | Internet and Web Programming | CO-3 | To construct basic websites using HTML and Cascading Style Sheets |
| | | Internet and Web | CO-4 | To build dynamic web pages with validation using Java Script |
| | | Internet and Web Programming | CO-5 | To develop modern interactive web applications using PHP, XML and MySQL |
| | | Internet and Web Programming | CO-6 | To explain the different protocols used at application layer i.e. HTTP, SNMP, SMTP, FTP, TELNET and VPN |
| 17 | MCA02004 | Object Oriented Analysis & Design | CO-1 | Ability to define the fundamental OO approach |
| | | Object Oriented Analysis & Design | CO-2 | Ability to design OO application using design pattern. |
| | | Object Oriented Analysis & Design | CO-3 | Ability to solve real world problem by applying OOAD principle. |
| | | Object Oriented Analysis & Design | CO-4 | Ability to acquire expertise in programming. |
| 18 | MCA01008 | Database Engineering Lab (MCA01008) | CO-1 | Understand the Basic design concepts of a database |
| | | Database Engineering Lab (MCA01008) | CO-2 | Students will be able to master the basics of SQL and construct queries using SQL |
| | | Database Engineering Lab (MCA01008) | CO-3 | Students will be able to design and develop a large database with optimal query processing |