# RISE KRISHNA SAI PRAKASAM GROUP OF INSTITUTIONS::ONGOLE

(Approved by AICTE-NEW DELHI, Affiliated to JNTUK KAKINADA)

(An ISO 9001:2015 certified Institute, NBA accredited for B.Tech. in ECE,EEE,CE and ME)

NH-16, Valluru,-523272, Ongole, Prakasam District, A.P

## DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

## COURSE OUTCOMES (2019-20)

## III SEMESTER

| CO No. | Subject: DATA BASE MANAGEMENT SYSTEMS | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC 1631.1 | Demonstrate Data Base with different applications of DBMS. Identifies the entity, attributes, Relationships and keys in various Data Models. | Understanding |
| MC 1631.2 | Utilize relational algebra concepts like selection ,projection ,relational calculus which helps in understanding queries | Applying |
| MC 1631.3 | Experiment ddl, dml cmds ect,  by writing queries in standard language of relational databases.. | Applying |
| MC 1631.4 | Develop various advance SQL queries related to Transaction Processing & Locking using concept of Concurrency control. | Applying |
| MC 1631.5 | Analyze indexing mechanisms for efficient retrieval of information from a database. | Analyzing |

| CO No. | Subject: COMPUTER COMMUNICATION | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC 1632.1 | Outline the basic concepts of reference models and Identify the functionality of physical layer in computer communications | Understanding |
| MC 1632.2 | Explian various physical layer trasmission techniques, Examine the datalink layer design issues | Applying |
| MC 1632.3 | list various data link access methods and network layer functions | Applying |
| MC 1632.4 | outlline the IEEE 802.11 standard | Applying |
| MC 1632.5 | Examine various application layer functionalities | Analyzing |

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## DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

| CO No. | Subject: UNIX PROGRAMMING | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC 1633.1 | Understand commands &File System and Permissions of UNIX | Understanding |
| MC 1633.2 | Understand the basic syntax for command line used in UNIX | Applying |
| MC 1633.3 | Understand the different filters and awk used in UNIX | Applying |
| MC 1633.4 | Shell Programming basics and IPC | Applying |
| MC 1633.5 | Understand the basic process commands in UNIX. | Analyzing |

| CO No. | Subject: MANAGEMENT INFORMATION SYSTEMS | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC 1634.1 | Relate the basic concepts and technologies used in the field of management information systems | Understanding |
| MC 1634.2 | Compare the processes of developing and implementing information systems. | Applying |
| MC 1634.3 | Outline the role of the ethical, social, and security issues of information systems | Applying |
| MC 1634.4 | Translate the role of information systems in organizations, the strategic management processes, with the implications for the management | Applying |
| MC 1634.5 | Apply the understanding of how various information systems like work together to accomplish the information objectives of an organization. | Analyzing |

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## DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

| CO No. | Subject: DESIGN AND ANLYSIS OF ALGORITHMS | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC1635.1 | Understand the fundamentals for analyzing time and space complexity of algorithams | Understanding |
| MC1635.2 | Apply divide and conquer technique to solve real time problems related to computing and use greedy technique to solve problems | Applying |
| MC1635.3 | Make use of dynamic programming paradigm for solving problems like knapsack,matrix multiplication and optimal binary search tree. | Applying |
| MC1635.4 | illustrate backtracking with applications on n-queen problem sum of subsets and graph coloring | Applying |
| MC1635.5 | Explain branch and bound paradigm with Travelling sales person problem and o/I knapsack problem. | Analyzing |

| CO No. | Subject: DATA BASE MANAGEMNT SYSTEMS LAB | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC 1636.1 | Demonstrate Data Base with different applications of DBMS. Identifies the entity, attributes, Relationships and keys in various Data Models. | Understanding |
| MC 1636.2 | Utilize relational algebra concepts like selection ,projection ,relational calculus which helps in understanding queries | Applying |
| MC 1636.3 | Experiment ddl, dml cmds ect, by writing queries in standard language of relational databases.. | Applying |
| MC 1636.4 | Develop various advance SQL queries related to Transaction Processing & Locking using concept of Concurrency control. | Applying |
| MC 1636.5 | Analyze indexing mechanisms for efficient retrieval of information from a database. | Analyzing |

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## DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

| CO No. | Subject: UNIX PROGRAMMING LAB | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC1637.1 | To demonstrate the basic knowledge of Linux commands and file handling utilities by using Linux shell environment | Understanding |
| MC1637.2 | To evaluate the concept of shell scripting programs by using an AWK and SED commands. | Applying |
| MC1637.3 | To create the directory, how to change and remove the directory. | Applying |
| MC1637.4 | To analyze the process of how the parent and child relationships | Applying |
| MC1637.5 | To define IPC mechanism. | Analyzing |

| CO No. | Subject: COMPUTER NETWORKS LAB | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC1638.1 | Choose the practical approach to network communication protocols. | Understanding |
| MC1638.2 | Choose network layers, structure/format and role of each network layer. | Applying |
| MC1638.3 | Analyze to design and implement various network application such as data transmission between client and server | Applying |
| MC1638.4 | Develop to design and implement various network application such as file transfer, real-time multimedia transmission. | Applying |
| MC1638.5 | Buildthe various Routing Protocols/Algorithms and Internetworking. | Analyzing |

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## DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

IV SEMESTER

| CO No. | Subject: OBJECT ORIENTED ANALYSIS AND DESIGN | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC 1641.1 | Apply complex system using object-oriented approach | Understanding |
| MC 1641.2 | Build the class diagram with responsibilities and state using UML notation | Applying |
| MC 1641.3 | Identify the events, classes and responsibilities of the problem domain. | Applying |
| MC 1641.4 | Describe basic Interactions, Use cases of the problem domain. | Applying |
| MC 1641.5 | Implement various states and advanced behavioral modeling using UML notation. Classify components and nodes of the problem domain | Analyzing |

| CO No. | Subject: ADVANCED JAVA AND WEB TECHNOLOGY | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC 1642.1 | Identify HTML elements and its attributes | Understanding |
| MC 1642.2 | Develop Clint Side Script using HTML,CSS & JavaScript | Applying |
| MC 1642.3 | Develop applications using SERVLET and WEB.XML Schema | Applying |
| MC 1642.4 | Develop dynamic web application using JSP | Applying |
| MC 1642.5 | Implement programs through JSP and JDBC | Analyzing |

| CO No. | Subject: DATA WAREHOUSING AND DATA MINING | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC 1643.1 | Understand the data warehouse principles, data mining concepts and working. Understand various data preprocessing procedures and their application | Understanding |
| MC 1643.2 | Discuss the general approach to solve Classification problem | Applying |

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| MC 1643.3 | Discuss basic concepts and algorithms of Association analysis. | Applying |
| MC 1643.4 | Understand the basic concepts and algorithms of Cluster Analysis. | Applying |
| MC 1643.5 | Understand the basic concepts of data mining | Analyzing |

| CO No. | Subject: SOFTWARE PROJECT MANAGEMENT | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC 1647.1 | Conventional Software Management | Understanding |
| MC 1647.2 | Life cycle phases | Applying |
| MC 1647.3 | Model based software architectures | Applying |
| MC 1647.4 | Project Control and Process instrumentation | Applying |
| MC 1647.5 | Future Software Project Management | Analyzing |

| CO No. | Subject: HUMAN COMPTER INTERACTION | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC 1645.1 | Popularity of graphics, the concept of direct manipulation, graphical system | Understanding |
| MC 1645.2 | Human interaction with computers, importance of human characteristics human consideration | Applying |
| MC 1645.3 | screen navigation and flow, Visually pleasing composition, amount of information | Applying |
| MC 1645.4 | Components text and messages, Icons and increases, Multimedia, colors, uses problems, choosing colors | Applying |
| MC 1645.5 | Keyboard and function keys, pointing devices, speech recognition digitization and generation | Analyzing |

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## DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

| CO No. | Subject: DATA WARE HOUSING AND DATA MINING LAB | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC164B.1 | Understand the data warehouse principles, data mining concepts and working. Understand various data preprocessing procedures and their application | Understanding |
| MC164B.2 | Discuss the general approach to solve Classification problem. | Applying |
| MC164B.3 | Discuss basic concepts and algorithms of Association analysis | Applying |
| MC164B.4 | Understand the basic concepts and algorithms of Cluster Analysis | Applying |
| MC164B.5 | Understand the basic concepts of datamining | Analyzing |

| CO No. | Subject: ADVANCED JAVA AND WEB TECHNOLOGY LAB | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC164A.1 | To implement the various Web Pages using HTML, CSS, JavaScript. | Understanding |
| MC164A.2 | To Perform setting up and Installing web server's i.e Tomcat server | Applying |
| MC164A.3 | Implement simple visual bean with various areas filled with different color | Applying |
| MC164A.4 | To Implement user authentication, session and cookies concepts using JSP & Servlets | Applying |
| MC164A.5 | To analyze the process of JDBC connections , implement JDBC using JSP. | Analyzing |

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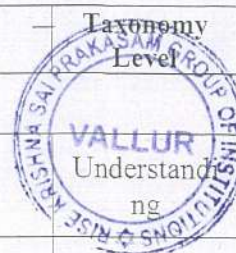NH-16, Valluru,-523272, Ongole, Prakasam District, A.P
## DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

| CO No. | Subject: OBJECT ORIENTED ANALYSIS AND DESIGN LAB | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC164C.1 | Apply complex system using object-oriented approach. | Understanding |
| MC164C.2 | Build the class diagram with responsibilities and state using UML notation | Applying |
| MC164C.3 | Identify the events, classes and responsibilities of the problem domain | Applying |
| MC164C.4 | Describe basic Interactions, Use cases of the problem domain. | Applying |
| MC164C.5 | Implement various states and advanced behavioral modeling using UML notation. Classify components and nodes of the problem domain | Analyzing |

## V SEMESTER

| CO No. | Subject: BIG DATA ANALYTICS | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC 1651.1 | Understand the basics of Java Collections and MapReduce, PIG and Hive | Understanding |
| MC 1651.2 | Preparing for data summarization, query, and analysis. | Applying |
| MC 1651.3 | Applying data modelling techniques to large data sets | Applying |
| MC 1651.4 | Creating applications for Big Data analytics | Applying |
| MC 1651.5 | Building a complete business data analytic solution | Analyzing |

| CO No. | Subject: NETWORK PROGRAMMING | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC 1652.1 | OSI model, Unix standards, TCP and UDP & TCP connection establishment | Understanding |
| MC 1652.2 | TCP Echo server functions, Normal startup, terminate and | Applying |

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| | signal handling server process termination | |
|---|---|---|
| MC 1652.3 | Sockets and I/O Multiplexing and socket options | Applying |
| MC 1652.4 | Elementary UDP sockets and Elementary name and Address conversions | Applying |
| MC 1652.5 | IPC and remote Login | Analyzing |

| CO No. | Subject: PYTHON PROGRAMING | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC 1653.1 | Demonstrate indentation in the program. | Understanding |
| MC 1653.2 | Explain various data structures and extend with examples. | Applying |
| MC 1653.3 | Make use of modules and packages. | Applying |
| MC 1653.4 | Build programs for user-defined exceptions. | Applying |
| MC 1653.5 | Experiment with GUI programming. | Analyzing |

| CO No. | Subject: E-COMMERCE | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC1656.1 | Understand E-Commerce applications & , Mercantile Process models | Understanding |
| MC1656.2 | Understand Electronic payment systems | Applying |
| MC1656.3 | Understand the – EDI & SCM | Applying |
| MC1656.4 | Understand the Corporate Digital Library& Advertising on Internet | Applying |
| MC1656.5 | Understand the Consumer Search, Resource Discovery & Desktop video conferencing | Analyzing |

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| CO No. | Subject: SOFTWARE TESTING METHODOLOGIES | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC1659.1 | Understand the basic testing procedures. | Understanding |
| MC1659.2 | Able to support in generating test cases and test suites. | Applying |
| MC1659.3 | Able to test the applications manually by applying different testing methods and automation tools | Applying |
| MC1659.4 | Apply tools to resolve the problems in Real time environment. | Applying |
| MC1659.5 | Illustrate the significance of software testing in web and object oriented techniques. | Analyzing |

| CO No. | Subject: BIG DATA ANALYTICS LAB | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC165A.1 | To implement the various Data structure concept using Java | Understanding |
| MC165A.2 | To Perform setting up and Installing Hadoop in its three operating modes | Applying |
| MC165A.3 | Implement file management tasks in Hadoop | Applying |
| MC165A.4 | To understand Map Reduce Paradigm | Applying |
| MC165A.5 | To analyze the process of configuring pig, Hive and demonstrate the basic knowledge of PIG, Hive command | Analyzing |

| CO No. | Subject: NETWORK PROGRAMMING LAB | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC165B.1 | Implement shell script for basic file operations | Understanding |
| MC165B.2 | Implement shell script for file management operations | Applying |
| MC165B.3 | Implement shell script for file handling work | Applying |

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| MC165B.4 | Implement shell script for basic mathematical programming | Applying |
|---|---|---|
| MC165B.5 | Implement shell script for copy file & count words and line in a file | Analyzing |

| CO No. | Subject: PYTHON PROGRAMMING LAB | Taxonomy Level |
|---|---|---|
| After completing the course the student shall be able to | | |
| MC165C.1 | Implement python basic and operations | Understanding |
| MC165C.2 | Implement python conditional and control flow statements | Applying |
| MC165C.3 | Implement DS concepts like list etc | Applying |
| MC165C.4 | Implement how to use files and functional in python | Applying |
| MC165C.5 | Implement&design oop and GUI , graphics in python | Analyzing |

CO-ORDINATOR

HOD

HEAD OF THE DEPARTMENT
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