MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA 571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: **OOPs with C++ Programming** Subject Code: **18MCA11**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA11.1	Understand the concept of object oriented programming and differentiate it with procedure oriented programming.
18MCA11.2	Apply C++ features such as class, objects, constructors, destructors, inheritance and templates in program design and implementation.
18MCA11.3	Analyze the characteristics of OOPS and build object oriented software using C++.
18MCA11.4	Assess the OOPs features like Virtual Functions, Polymorphism and Exception Handling with other programming languages.
18MCA11.5	Develop an application using the concepts of OOPS and associated concepts for complex problem.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA11.1	3									
18MCA11.2	3		3	3	2					2
18MCA11.3		3	2	3	3					
18MCA11.4		3	3		3					
18MCA11.5			3		3					2
CO Average	3	3	2.75	3	2.75					2

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TQ, MANDYA-571477
Department of Master of Computer Applications

Course Outcome

Subject: UNIX And Shell Programming **Subject Code: 18MCA12**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA12.1	Understand the Unix Architecture, Unix environment (Commands and its options), Shell Scripting, AWK scripting.
18MCA12.2	Apply the Unix commands and scripting language constructs for file processing.
18MCA12.3	Analyze the problem scenario and identify the commands and options required to solve the problem.
18MCA12.4	Evaluate the correctness of solution for a given problem written through shell scripts/AWK scripts.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA12.1							2			
18MCA12.2	3		2							
18MCA12.3		3								
18MCA12.4			3							
CO Average	3	3	2.5				2			

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TQ, MANDYA-571477
Department of Master of Computer Applications

Date:

Course Outcome

Subject: Web Technologies **Subject Code: 18MCA13**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA13.1	Present the comprehension of the fundamentals of HTML, CSS, client side technologies such as javascript, JQuery etc .
18MCA13.2	Apply HTML5 syntax and semantics to compose forms and tables using CSS.
18MCA13.3	Apply Object Oriented concepts in JavaScript to build dynamic web pages.
18MCA13.4	Analyze the correctness of the scripts, code and protocols that ensures a qualitative web page.
18MCA13.5	Design a dynamic web portal by using HTML5 and client side scripting language for real world scenarios.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA13.1							3	2		
18MCA13.2	3									
18MCA13.3	3									
18MCA13.4		3								
18MCA13.5			3							
CO Average	3	3	3				3	2		

Course Outcome

Subject: Software Engineering **Subject Code: 18MCA14**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA14.1	Apply the knowledge about fundamental concepts of software engineering, process models, modern engineering tools used in software development.
18MCA14.2	Make use of the concepts of software engineering in preparing structured SRS document, identifying the suitable process model for a given problem.
18MCA14.3	Analyze the suitability of chosen model using different UML diagrams for a given problem.
18MCA14.4	Assess the errors in the designed model for free application using suitable testing techniques.
18MCA14.5	Evaluate Software engineering concepts and skills in the real world problem scenario independently.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA14.1	3	-	-	-	-	-	-	-	-	-
18MCA14.2	-	2	-	-	-	-	-	-	-	-
18MCA14.3	-	2	-	-	-	-	-	-	-	-
18MCA14.4	-	-	-	3	-	-	-	-	-	-
18MCA14.5	-	-	-	2	-	-	-	-	-	-
CO Average	3	2	-	2.5	-	-	-	-	-	-

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA 571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Fundamentals of Computer Organization **Subject Code: 18MCA15**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA15.1	Understand the fundamentals on Basic Digital System, memory system and Computer System Organization.
18MCA15.2	Apply the concepts to get understand the basics of computer organization
18MCA15.3	Analyze number system, combinational logic circuits and assembly language programs. Design and construct logic circuits and assembly programs.
18MCA15.4	Evaluate the computer architectural design and their Logic circuits in digital system.
18MCA15.5	Invent new solutions to current day problems of computers

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA15.1	3									
18MCA15.2	3		3	3	2					2
18MCA15.3		3	2	3	3					
18MCA15.4		3	3		3					
18MCA15.5			3		3					2
CO Average	3	3	2.75	3	2.75					2

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: C++ Laboratory **Subject Code: 18MCA16**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA16.1	Understand and Acquires the basic knowledge on Object Oriented Programming concepts
18MCA16.2	Analyze and assess Encapsulation, Inheritance and Polymorphism.
18MCA16.3	Learn to Design and construct class and objects for problems.
18MCA16.4	Create, think and Implement solution for problems using C++.
18MCA16.5	Apply OOP's concepts to solve real world problems using C++.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA16.1								3		
18MCA16.2		2								
18MCA16.3	3	2	2							
18MCA16.4		2								
18MCA16.5	3									
CO Average	3	2	2					3		

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TQ, MANDYA-571477
Department of Master of Computer Applications

Course Outcome

Subject: UNIX and Shell Programming Laboratory Subject Code: 18MCA17

CO's	DESCRIPTION OF THE OUTCOMES
18MCA17.1	Understand the Unix Architecture, Unix environment (Commands and its options), Process management, Shell Scripting and present the same.
18MCA17.2	Apply the Unix commands to extract, interpret data for further processing.
18MCA17.3	Analyze the problem scenario and identify the commands and options required to solve the problem and infer the results.
18MCA17.4	Evaluate the correctness of solution for an application problem written through shell scripts/AWK scripts.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA17.1							2			
18MCA17.2	3		2	3	2					2
18MCA17.3		3	2	3	3					
18MCA17.4		2	3		3					
CO Average	3	2.5	2.33	3	2.67		2			2

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA Taluk, MANDYA-571438
Department of MCA

Date:

Course Outcome

Subject: Web Technologies **Subject Code: 18MCA18**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA18.1	Apply HTML5 syntax and semantics to compose forms and tables using CSS.
18MCA18.2	Apply Object Oriented concepts in JavaScript to build dynamic web pages.
18MCA18.3	Analyze the correctness of the scripts, code and protocols that ensures a qualitative web page.
18MCA18.4	Design a dynamic web portal by using HTML5 and client side scripting language for real world scenarios.
18MCA18.5	Conduct experiments either individuals or in a team and present its corresponding outcomes and process the both orally and in a written form.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA18.1	3									
18MCA18.2	3									
18MCA18.3		3								
18MCA18.4			3							
18MCA18.5				3	3					
CO Average	3	3	3	3	3					

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject Java Programming Laboratory **Subject Code: 18MCA26**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA26.1	Apply the Core OOP concepts in Java, Java Networking and Applets in writing Java Programs.
18MCA26.2	Code, debug and demonstrate the working nature of java applications.
18MCA26.3	Analyze the given problem statement using Core java concepts.
18MCA26.4	Evaluate the suitability of classes, interfaces in the development of java console based application.
18MCA26.5	Design the learning's into real world problems solutions.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA26.1										
18MCA26.2	3		3	3	2					2
18MCA26.3		3	2	3	3					
18MCA26.4		3	3		3					
18MCA26.5			3		3					2
CO Average	3	3	2.75	3	2.75					2

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA 571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Data Structures Using C++ **Subject Code: 18MCA22**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA22.1	Understand the behavior of different data structures, arrays, stack, queue, list and tree with their applications in its entire spectrum.
18MCA22.2	Apply data structure concepts and programming knowledge to solve given problem under study.
18MCA22.3	Analyze the results of chosen data structures in terms of its effectiveness to solve the problem and infer the same.
18MCA22.4	Evaluate the correctness of the chosen type of structure in terms of their efficacy to solve complex application problem.
18MCA22.5	Create applications using data structures for complex problem.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA22.1	3									
18MCA22.2	3		3	3	2					2
18MCA22.3		3	2	3	3					
18MCA22.4		3	3		3					
18MCA22.5			3		3					2
CO Average	3	3	2.75	3	2.75					2

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA Taluk, MANDYA-571438
Department of MCA

Date:

Course Outcome

Subject: DISCRETE MATHEMATICALSTRUCTURES

Subject Code: 18MCA23

CO's	DESCRIPTION OF THE OUTCOMES
18MCA23.1	Understand and use logical notation and mathematical fundamental concepts using sets, relations & functions, permutation and mathematical induction.
18MCA23.2	Construct logic gates and use the rules of inference for logical implication.
18MCA23.3	Explain the probability through Baye's theorem, concept of discrete and continous probability distribution with mean and variance.
18MCA23.4	Apply permutation combination and statistical methods for correlation, regression and also for curve fitting.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA23.1	3	2					2			
18MCA23.2	3	2					2			
18MCA23.3	3	2					2			
18MCA23.4	3	2					2			
CO Average	3	2					2			

Course Outcome

Subject: Computer Networks **Subject Code: 18MCA24**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA24.1	Present the comprehension of fundamentals of networking concepts such as layers, protocols, frame works / architecture, working principles of various layer protocols and associated concepts
18MCA24.2	Apply the appropriate algorithm for error control, flow control and reliable transmission of data over the network.
18MCA24.3	Analyze the performance of a network as affected through different network layers.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA24.1	-	-	-	-	-	-	3	3	-	-
18MCA24.2	3	-	-	-	-	-	-	-	-	-
18MCA24.3	-	3	-	-	-	-	-	-	-	-
CO Average	3	3	-	-	-	-	3	3	-	-

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TQ, MANDYA-571477
Department of Master of Computer Applications

Course Outcome

Subject: Operating System **Subject Code: 18MCA25**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA25.1	Understand the structure of OS and basic architectural components involved in OS design
18MCA25.2	Apply process scheduling techniques to formulate solutions for critical section problems
18MCA25.3	Analyze suitable techniques for handling deadlocks and effective memory management of system
18MCA25.4	Evaluate Linux OS case studies in terms of its performance on various aspects and environment.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA25.1							2			
18MCA25.2	3									
18MCA25.3		3								
18MCA25.4			3							
CO Average	3	3	3				2			

Course Outcome

Subject Java Programming Laboratory **Subject Code: 18MCA26**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA26.1	Apply the Core OOP concepts in Java, Java Networking and Applets in writing Java Programs.
18MCA26.2	Code, debug and demonstrate the working nature of java applications.
18MCA26.3	Analyze the given problem statement using Core java concepts.
18MCA26.4	Evaluate the suitability of classes, interfaces in the development of java console based application.
18MCA26.5	Design the learning's into real world problems solutions.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA26.1										
18MCA26.2	3		3	3	2					2
18MCA26.3		3	2	3	3					
18MCA26.4		3	3		3					
18MCA26.5			3		3					2
CO Average	3	3	2.75	3	2.75					2

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Data Structures Lab **Subject Code: 18MCA27**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA27.1	Understand the behavior of different data structures, arrays, stack, queue, list and tree with their applications in its entire spectrum.
18MCA27.2	Apply data structure concepts and programming knowledge to solve given problem under study.
18MCA27.3	Analyze the results of chosen data structures in terms of its effectiveness to solve the problem and infer the same.
18MCA27.4	Evaluate the correctness of the chosen type of structure in terms of their efficacy to solve complex application problem.
18MCA27.5	Create applications using data structures for complex problem.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA27.1	3									
18MCA27.2	3		3	3	2					2
18MCA27.3		3	2	3	3					
18MCA27.4		3	3		3					
18MCA27.5			3		3					2
CO Average	3	3	2.75	3	2.75					2

Course Outcome

Subject: Computer Networks Laboratory **Subject Code: 18MCA28**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA28.1	Apply suitable methodology for building familiar networks and associated algorithms with C/C++ and TCL scripting language.
18MCA28.2	Analyze given problem scenario, infer the correctness of the selected parameters based on efficacy of solution and document the same.
18MCA28.3	Design network topology with different protocols for better performance using NS2.
18MCA28.4	Conduct experiments either individually or in a team and present its corresponding outcomes and process both orally and in a written form.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA28.1	3									
18MCA28.2		3								
18MCA28.3			3		2					
18MCA28.4								3		
CO Average	3	3	3	3	2			3		

Course Outcome

Subject: Database Management Systems **Subject Code: 18MCA31**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA31.1	Understand the ER-Model, Schema Design, Writing of Queries ,Views ,Procedures, Triggers and Transaction management concepts in DBMS.
18MCA31.2	Apply the Database concepts in designing and writing queries for the problem .
18MCA31.3	Analyze the given problem scenario using DBMS concepts.
18MCA31.4	Evaluate the suitability of ER-model, Database schema design, optimality of Queries, Views, Procedures and Triggers for efficient data transactions.
18MCA31.5	Create ER-model, Database, queries on relations, views, procedures and triggers for a given real world problem.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA31.1										
18MCA31.2	3		3	3	2					2
18MCA31.3		3	2	3	3					
18MCA31.4		3	3	2	3					
18MCA31.5			3		3					2
CO Average	3	3	2.75	2.66	2.75					2

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TQ, MANDYA-571477
Department of Master of Computer Applications

Course Outcome

Subject: Programming Using Python **Subject Code: 18MCA32**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA32.1	Present the comprehension of the fundamental concepts of python programming
18MCA32.2	Apply the Python programming for control statements, loops and functions to write programs for a wide variety problem in mathematics, science, and games.
18MCA32.3	Analyze the adoptability of OOPs concepts on python platform.
18MCA32.4	Design python programs using core data structures like Lists, Dictionaries; use Regular expressions and GUI based Applications

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA32.1							2	2		
18MCA32.2	3									
18MCA32.3		3								
18MCA32.4			3							
CO Average	3	3	3				2	2		

Course Outcome

Subject: Design and Analysis of Algorithms **Subject Code: 18MCA33**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA33.1	Present the comprehension fundamental steps for problems solving, of the performance of recursive and non recursive algorithms and use of asymptotic notations to measure the performance of algorithms.
18MCA33.2	Apply prior knowledge of mathematics and standard algorithm techniques to solve given problems.
18MCA33.3	Analyze the computational complexity of different algorithms and infer the results.
18MCA33.4	Design algorithms for different types of problems by using various design techniques.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA33.1	-	-	-	-	-	-	3	3	-	-
18MCA33.2	3	-	-	-	-	-	-	-	-	-
18MCA33.3	-	3	-	-	-	-	-	-	-	-
18MCA33.4	-	-	3	-	-	-	-	-	-	-
CO Average	3	3	3	-	-	-	3	3	-	-

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TQ, MANDYA-571477
Department of Master of Computer Applications

Date: / /

Course Outcome

Subject: System Software **Subject Code: 18MCA34**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA34.1	Present the comprehension of different types of machine architectures such as SIC, SIX/XE machine architecture
18MCA34.2	Present the comprehension of working procedure of assemblers, loaders and linkers, Macros and compilers.
18MCA34.3	Apply a grammar for matching the input pattern for designing compilers.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA34.1							3	2		
18MCA34.2	-						3	2		
18MCA34.3	3									
CO Average	3						3	2		

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Management Information System **Subject Code: 18MCA354**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA354.1	Present the comprehend of leadership role of Management Information Systems in achieving business competitive advantage through informed decision-making and business applications & E-commerce initiatives.
18MCA354.2	Apply Management Information Systems knowledge and skills learned to facilitate the acquisition, development, deployment, and management of information systems.
18MCA354.3	Analyze business information needs to facilitate evaluation of strategic alternatives.
18MCA354.4	Assess communicate strategic alternatives in terms of their efficacy to facilitate decision-making.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA354.1	2									
18MCA354.2	2			3						
18MCA354.3		3								
18MCA354.4		3						3		2
CO Average	2	3		3						2

Course Outcome

Subject: Database Management Systems Laboratory **Subject Code: 18MCA36**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA36.1	Understand the ER-Model, Schema Design, Writing of Queries ,Views ,Procedures, Triggers and Transaction management concepts in DBMS.
18MCA36.2	Apply the Database concepts in designing and writing queries for the problem .
18MCA36.3	Analyze the given problem scenario using DBMS concepts.
18MCA36.4	Evaluate the suitability of ER-model, Database schema design, optimality of Queries, Views, Procedures and Triggers for efficient data transactions.
18MCA36.5	Create ER-model, Database, queries on relations, views, procedures and triggers for a given real world problem.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA36.1										
18MCA36.2	3		3	3	2					2
18MCA36.3		3	2	3	3					
18MCA36.4		3	3	2	3					
18MCA36.5			3		3					2
CO Average	3	3	2.75	2.66	2.75					2

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TQ, MANDYA-571477
Department of Master of Computer Applications

Course Outcome

Subject: Programming Using Python Lab **Subject Code: 18MCA37**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA37.1	Apply the Python programming for control statements, loops and functions to write programs for a wide variety problem in mathematics, science, and games.
18MCA37.2	Analyze the adoptability of OOPs concepts on python platform.
18MCA37.3	Design python programs using core data structures like Lists, Dictionaries; use Regular expressions and GUI based Applications
18MCA37.4	Conduct experiments either individually or in a team and present its corresponding outcomes and process both orally and in written form.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA37.1	3									
18MCA37.2		3								
18MCA37.3			3							
18MCA37.4				3	3					
CO Average	3	3	3	3	3					

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Algorithms Laboratory **Subject Code: 18MCA38**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA38.1	**Apply** the appropriate design techniques (brute-force, greedy, dynamic programming, etc.) on various **problems**.
18MCA38.2	**Analyze** the time based performance of algorithms using language features like Time() function in C/C++.
18MCA38.3	**Design** an application to solve real world problem using an appropriate algorithm using C/C++.
18MCA38.4	**Conduct** experiments either individually or in a team and **present** its corresponding outcomes and process both orally and in a written form.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA38.1	3	-	-	-	-	-	-	-	-	-
18MCA38.2	-	3	2	-	-	-	-	-	-	-
18MCA38.3	-	-	3	-	-	-	-	-	-	-
18MCA38.4	-	-	-	3	3	-	-	-	-	-
CO Average	3	3	2.5	3	3	-	-	3	-	-

Course Outcome

Subject: Advanced Java Programming **Subject Code: 18MCA41**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA41.1	Comprehend the concept of Servlets , JSP, JDBC Architecture, Database interactions and EJBs.
18MCA41.2	Apply the usage of Servlets, JSP, Java beans, JDBC concepts in the development of Java Web and Enterprise Applications.
18MCA41.3	Analyze the usage of Servlets, JSP, Java beans and JDBC in Web application development.
18MCA41.4	Evaluate the suitability of Servlets, JSP, Java beans and JDBC concepts in the development of an efficient application.
18MCA41.5	Create the Java Database web application using Servlets, JSP, Java beans and JDBC concepts.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA41.1										
18MCA41.2	3		3	3	2					2
18MCA41.3		3	2	3	3					2
18MCA41.4		3	3		3					
18MCA41.5			3		3					2
CO Average	3	3	2.75	3	2.75					2

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TQ, MANDYA-571477
Department of Master of Computer Applications

Date:

Course Outcome

Subject: Advanced Web Programming **Subject Code: 18MCA42**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA42.1	Present the comprehension of the basic knowledge of Client side and server side scripting languages such as Boostrap, Ruby on Rails, PHP and AJAX.
18MCA42.2	Apply the Bootstrap and semantics to compose simple programs.
18MCA42.3	Apply PHP and Ruby syntax and semantics to design dynamic web portals.
18MCA42.4	Analyze the correctness of the scripts, code and protocols that ensures a qualitative web page.
18MCA42.5	Design a dynamic web portal by using client side and server side scripting language for real world scenarios.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA42.1							3	3		
18MCA42.2	3									
18MCA42.3	3									
18MCA42.4		3								
18MCA42.5			3							
CO Average	3	3	3				3	3		

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Object Oriented Modeling & Design **Subject Code: 18MCA43**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA43.1	Present the comprehend of object oriented concepts and apply UML notations to model objects of applications.
18MCA43.2	Apply the fundamentals of object oriented concepts to differentiate between various object relationships and associations.
18MCA43.3	Analyze the structural and behavioral models and hence a software system.
18MCA43.4	Estimate performance and design a reuse plan through domain and application analysis.
18MCA43.5	Evaluate the design patterns and its variants and assess the effectiveness in solving recurring programming problems.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA43.1	3									
18MCA43.2	2									
18MCA43.3		3		2						
18MCA43.4				3						
18MCA43.5				3						3
CO Average	**2.5**	**3**		**2.6**						**3**

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Cloud Computing **Subject Code: 18MCA444**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA444.1	Present the comprehend of fundamental concepts of cloud computing such as paradigms, virtualization and service models.
18MCA444.2	Apply the principles of computing paradigms like parallel and distributed computing for given problem under study.
18MCA444.3	Analyze the correctness of the chosen model in terms of its potential to solve an application problem.
18MCA444.4	Evaluate the suitability of different deployment and service models for an application problem.
18MCA444.5	Evaluate ethical and potential security issues related to cloud environment.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA444.1	2	-	-	-	-	-	-	-	-	-
18MCA444.2	-	2	-	-	-	-	-	-	-	-
18MCA444.3	-	3	-	-	-	-	-	-	-	-
18MCA444.4	-	-	-	2	-	-	-	-	-	-
18MCA444.5	-	-	-	2	-	-	-	-	-	-
CO Average	2	2.5	-	2	-	-	-	-	-	-

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA 571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: ENTERPRISE RESOURCE PLANNING **Subject Code: 18MCA451**

CO's	DESCRIPTION OF THE OUTCOMES
CO1	Present the comprehension of important business concepts in ERP and SCM.
CO2	Analyze the various ERP solutions and its implementation process.
CO3	Justify the need of ERP solution and its impact on organization.
CO4	Evaluate different ERP vendor's products and solutions for their features and performance.
CO5	Identify suitable and effective ERP products for an organization.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
CO1		3						3		
CO2		3								
CO3		3			3					
CO4			3	3	3					
CO5			3	3	3					
CO Average		3	3	3	3			3		

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA 571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Professional Communication and Report Writing **Subject Code: 18MCA46**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA46.1	Understand the different roles of communication in workplace, process of human communication and standard of grammar.
18MCA46.2	Apply appropriate etiquettes of writing skills to compose letters precisely and effectively.
18MCA46.3	Analyze the importance of communication through group discussion, presentation and IT ethics.
18MCA46.4	Asses the different communication modes in terms of their suitability according for a given business scenario.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA46.1	-	-	-	-	-	-	3	3	-	-
18MCA46.2	-	3	-	-	2	3	-	3	-	-
18MCA46.3	-	3	-	-	-	3	-	-	-	-
18MCA46.4	-	-	-	-	-	-	-	3	-	-
CO Average	-	3	-	-	2	3	3	3	-	-

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA 571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Advanced Java Programming Laboratory **Subject Code: 18MCA47**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA47.1	Apply the fundamental concepts of Servlets , JSP, JDBC Architecture, Database interactions and EJBs.
18MCA47.2	Code, debug and demonstrate the working nature of Servlets, JSP, Java beans, JDBC concepts in the development of Java Web and Enterprise Applications.
18MCA47.3	Identify the given problem and design the Java Web application using advanced Java concepts.
18MCA47.4	Evaluate the suitability of Servlets, JSP, Java beans and JDBC concepts in the development of an efficient application.
18MCA47.5	Create the Java Database web application using Servlets, JSP, Java beans and JDBC concepts.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA47.1										
18MCA47.2	3		3	3	2					2
18MCA47.3		3	2	3	3					2
18MCA47.4		3	3	3	3					
18MCA47.5			3		3					2
CO Average	3	3	2.75	3	2.75					2

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TQ, MANDYA-571477
Department of Master of Computer Applications

Date:

Course Outcome

Subject: Advanced Web Programming **Subject Code: 18MCA48**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA48.1	Apply the JQuery syntax and semantics to compose simple programs.
18MCA48.2	Apply PHP and Ruby syntax and semantics to design dynamic web portals.
18MCA48.3	Analyze the correctness of the scripts, code and protocols that ensures a qualitative web page.
18MCA48.4	Design a dynamic web portal by using client side and server side scripting language for real world scenarios.
18MCA48.5	Conduct experiments either individuals or in a team and present its corresponding outcomes and process the both orally and in a written form.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA48.1	3									
18MCA48.2	3									
18MCA48.3		3								
18MCA48.4			3							
18MCA48.5				3	3					
CO Average	3	3	3	3	3					

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Object Oriented Modeling and Design Lab **Subject Code: 18MCA49**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA49.1	Present the comprehend of fundamental principles of Object-Oriented analysis, design, development and programming
18MCA49.2	Demonstrate and represent the UML model elements, to enable visual representation of the system being developed
18MCA49.3	Implement object oriented design model with the help of modern tool, Rational software Architect.
18MCA49.4	Evaluate various design patterns for applicability, reasonableness, and relation to other design criteria.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA49.1	3									
18MCA49.2				3						
18MCA49.3					3					
18MCA49.4				2						3
CO Average	**3**			**2.5**	**3**					**3**

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Object Oriented Modeling & Design **Subject Code: 17MCA51**

CO's	DESCRIPTION OF THE OUTCOMES
17MCA51.1	Present the comprehend of object oriented concepts and apply UML notations to model objects of applications.
17MCA51.2	Apply the fundamentals of object oriented concepts to differentiate between various object relationships and associations.
17MCA51.3	Analyze the structural and behavioral models and hence a software system.
17MCA51.4	Estimate performance and design a reuse plan through domain and application analysis.
17MCA51.5	Evaluate the design patterns and its variants and assess the effectiveness in solving recurring programming problems.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
17MCA51.1	3									
17MCA51.2	2									
17MCA51.3		3		2						
17MCA51.4				3						
17MCA51.5				3						3
CO Average	**2.5**	**3**		**2.6**						**3**

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TQ, MANDYA 571477
Department of Master of Computer Applications

Date: / /

Course Outcome

Subject: PROGRAMMING USING C#&.NET **Subject Code: 17MCA52**

CO's	DESCRIPTION OF THE OUTCOMES
17MCA52.1	Present the comprehension of the .Net Framework architecture and its components.
17MCA52.2	Apply OOPs concepts to develop console applications, using C# programming language.
17MCA52.3	Apply the knowledge of ADO.net, MySQL, ASP.NET for creating different applications.
17MCA52.4	Analyze the use of .Net Components depending on the problem statement.
17MCA52.5	Create web based and Windows based application with Database connectivity using ASP.NET, ADO.NET

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
17MCA52.1							3	3		
17MCA52.2	3									
17MCA52.3	3									
17MCA52.4		3								
17MCA52.5			3							
CO Average	3	3	3				3	3		

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Mobile Applications Development **Subject Code: 17MCA53**

CO's	DESCRIPTION OF THE OUTCOMES
17MCA53.1	Understand the fundamental concepts of mobile applications and all associated concepts within the purview mobile applications.
17MCA53.2	Apply the principles of mobile applications to device programs suitable for known mobile operating systems.
17MCA53.3	Analyze the correctness of the programs in terms of their efficacy to function in the existing OS.
17MCA53.4	Evaluate the system specification of the operating system and device suitable program for the same using various architecture and algorithms.
17MCA53.5	Create the mobile applications to meet the dynamic requirement of security and functioning considering optimal usage of resources.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
17MCA53.1	3									
17MCA53.2	3		3	3	2					2
17MCA53.3		3	2	3	3					
17MCA53.4		3	3		3					
17MCA53.5			3		3					2
CO Average	3	3	2.75	3	2.75					2

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Cloud Computing **Subject Code: 17MCA542**

CO's	DESCRIPTION OF THE OUTCOMES
17MCA542.1	Present the comprehend of fundamental concepts of cloud computing such as paradigms, virtualization and service models.
17MCA542.2	Apply the principles of computing paradigms like parallel and distributed computing for given problem under study.
17MCA542.3	Analyze the correctness of the chosen model in terms of its potential to solve an application problem.
17MCA542.4	Evaluate the suitability of different deployment and service models for an application problem.
17MCA542.5	Evaluate ethical and potential security issues related to cloud environment.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
17MCA542.1	2	-	-	-	-	-	-	-	-	-
17MCA542.2	-	2	-	-	-	-	-	-	-	-
17MCA542.3	-	3	-	-	-	-	-	-	-	-
17MCA5424	-	-	-	2	-	-	-	-	-	-
17MCA542.5	-	-	-	2	-	-	-	-	-	-
CO Average	2	2.5	-	2	-	-	-	-	-	-

Course Outcome

Subject: Software Project Management **Subject Code: 17MCA554**

CO's	DESCRIPTION OF THE OUTCOMES
17MCA554.1	Understand the practices and methods of successful software project management
17MCA554.2	Apply the Cost-benefit Analysis for selecting the project
17MCA554.3	Apply PERT and CPM techniques for project Activity planning.
17MCA554.4	Analyze the scheduling of project activities using different graphical notations, and identify and categorize the Risks involved in the project.
17MCA554.5	Identify and categorize the Risks involved in the project and assess its impact and recommend the suitable solutions to manage the risks.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
17MCA554.1						2				
17MCA554.2	3		3	3	2					2
17MCA554.3		3	2	3	3					
17MCA554.4		3	2		3					
17MCA554.5			3		2					2
CO Average	3	3	2.5	3	2.75	2				2

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA 571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Software Design Lab **Subject Code: 17MCA56**

CO's	DESCRIPTION OF THE OUTCOMES
17MCA56.1	Present the comprehend of fundamental principles of Object-Oriented analysis, design, development and programming
17MCA56.2	Demonstrate and represent the UML model elements, to enable visual representation of the system being developed
17MCA56.3	Implement object oriented design model with the help of modern tool, Rational software Architect.
17MCA56.4	Evaluate various design patterns for applicability, reasonableness, and relation to other design criteria.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
17MCA56.1	3									
17MCA56.2				3						
17MCA56.3					3					
17MCA56.4				2						3
CO Average	3			2.5	3					3

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TQ, MANDYA-571477
Department of Master of Computer Applications

Date: / /

Course Outcome

Subject: NET LABORATORY **Subject Code: 17MCA57**

CO's	DESCRIPTION OF THE OUTCOMES
17MCA57.1	Apply OOPs concepts using C# programming language to develop console applications.
17MCA57.2	Apply the knowledge of ADO.net, MySQL, ASP.NET for creating different applications.
17MCA57.3	Analyze the use of .Net Components depending on the problem statement.
17MCA57.4	Create a web based and Windows based application with Database connectivity using ASP.NET, ADO.NET
17MCA57.5	Conduct experiments either individuals or in a team and present its corresponding outcomes and process the both orally and in a written form.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
17MCA57.1	3									
17MCA57.2	3									
17MCA57.3		3								
17MCA57.4			3							
17MCA57.5				3	3					
CO Average	3	3	3	3	3					

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Mobile Applications Development Lab **Subject Code: 17MCA58**

CO's	DESCRIPTION OF THE OUTCOMES
17MCA58.1	Understand the fundamental concepts of mobile applications and all associated concepts within the purview mobile applications.
17MCA58.2	Apply the principles of mobile applications to device programs suitable for known mobile operating systems.
17MCA58.3	Analyze the correctness of the programs in terms of their efficacy to function in the existing OS.
17MCA58.4	Evaluate the system specification of the operating system and device suitable program for the same using various architecture and algorithms.
17MCA58.5	Create the mobile applications to meet the dynamic requirement of security and functioning considering optimal usage of resources.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
17MCA58.1	3									
17MCA58.2	3		3	3	2					2
17MCA58.3		3	2	3	3					
17MCA58.4		3	3		3					
17MCA58.5			3		3					2
CO Average	3	3	2.75	3	2.75					2

Course Outcome

Subject: SEMINAR **Subject Code: 17MCA59**

CO's	DESCRIPTION OF THE OUTCOMES
17MCA59.1	Identify associated topic of relevance , write technical document and give oral presentations related to the topic using suitable presentation tools to help convey the topic in focus
17MCA59.2	Develop ability to comprehend multi disciplinary computer application technological concepts within ethical, environment and social contests and uplift professional potential
17MCA59.3	Manage time and verbal interaction and continuously develop the ability to address the queries through supporting explanations in public and professional dialogue

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
17MCA59.1	2	-	-	-	-	-	-	2	-	-
17MCA59.2	-	-	3	-	-	3	-	-	-	-
17MCA59.3	-	-	-	-	-	2	2	-	-	-
CO Average	2	-	3	-	-	2.5	2	2	-	-

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Internship **Subject Code: 18MCA61**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA61.1	Understand the key concerns, practices, standard operating procedures protocols & new concepts of the particular company/industry in which they have worked.
18MCA61.2	Apply hands on experience, communication, interpersonal & other critical skills to integrate theory & practice in multidisciplinary area.
18MCA61.3	Manage time, analyze the skills which are transferable to new contexts & identify which appropriate technology could be used to solve given problem.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA61.1		2		2						
18MCA61.2					3			3	2	3
18MCA61.3		3							2	3
CO Average		**2.5**		**2**	**3**			**3**	**2**	**3**

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Course Outcome

Subject: Project Work **Subject Code: 18MCA62**

CO's	DESCRIPTION OF THE OUTCOMES
18MCA62.1	Apply the technical and knowledge gained from previous courses with the awareness of impact of technology on the society and their responsibilities to identify suitable problem.
18MCA62.2	Analyze the use of appropriate tools, segregate work and execute / implement project.
18MCA62.3	Evaluate the findings of complex problems through critical thinking and decision making capabilities to propose project based solutions.
18MCA62.4	Develop skills to disseminate technical and general information by means of oral as well as written presentation skills with professionalism.

CO No	PO No									
	1	2	3	4	5	6	7	8	9	10
18MCA62.1	3		2	3	1	2				
18MCA62.2		3			3					3
18MCA62.3				3						
18MCA62.4						2		3		3
CO Average	**3**	**3**	**2**	**3**	**2**	**2**		**3**		**3**