COURSE CODE &NAME: MC5301- ADVANCED DATA STRUCTURES AND ALGORITHMS

REGULATION: R2017

YEAR/SEM: II/ III

| C301.1 | U | Summarize and apply linear data structures-List, Stack and Queue. |
|--------|---|---|
| C301.2 | U | Summarize the graph algorithms. |
| C301.3 | U | Classify different algorithms analysis techniques. |
| C301.4 | A | Apply data structures and algorithms in real time applications |
| C301.5 | A | Analyze the efficiency of algorithm |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C301.1 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 2 |
| C301.2 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| C301.3 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| C301.4 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| C301.5 | 3 | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| C301 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |

COURSE CODE &NAME: MC5302 - COMPUTER NETWORK

REGULATION: R2017

YEAR/SEM: II / III

| C302.1 | E | Explain the basic layers and its functions in computer networks |
|--------|----|---|
| C302.2 | E | Evaluate the performance of a network in data link layer and media access |
| C302.3 | AL | Analyze the various components required to build different networks. |
| C302.4 | C | Design protocols for various functions in the network for transport layer. |
| C302.5 | AL | Analyze the working of various application layer protocols. |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C302.1 | 3 | 2 | 3 | - | - | - | - | - | - | - | - | 3 | 3 | 3 |
| C302.2 | 3 | 3 | 2 | - | - | - | - | - | - | - | - | 2 | 2 | 3 |
| C302.3 | 3 | 3 | 3 | - | - | 1 | - | - | 1 | - | - | 2 | 2 | 3 |
| C302.4 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | ı | 1 | 1 | 3 | 3 | 3 |
| C302.5 | 3 | 3 | 3 | 2 | 1 | 1 | 1 | - | 1 | - | - | 3 | 3 | 3 |
| C302 | 3 | 3 | 3 | 2 | - | - | - | - | - | - | - | 3 | 3 | 3 |

COURSE CODE &NAME: MC5303 - WEB PROGRAMMING ESSENTIALS

REGULATION: R2017

YEAR/SEM: II / III

| C303.1 | C | Create a basic website using HTML and Cascading Style Sheets. |
|--------|----|---|
| C303.2 | C | Design and implement dynamic web pages using Java Script mechanisms. |
| C303.3 | U | Analyze client presentation using AJAX. |
| C303.4 | AP | Apply and implement simple web page in PHP, and present data in XML format. |
| C303.5 | C | Design front end web page and connect to the back end databases. |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C303.1 | 3 | 2 | 3 | - | - | - | - | - | - | - | - | 3 | 3 | 3 |
| C303.2 | 3 | 3 | 2 | 1 | ı | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 |
| C303.3 | 3 | 3 | 3 | 1 | 1 | - | - | - | 1 | - | - | 2 | 2 | 3 |
| C303.4 | 3 | 3 | 2 | 2 | ı | 1 | ı | 1 | 1 | 1 | 1 | 3 | 3 | 3 |
| C303.5 | 3 | 3 | 3 | 2 | 1 | 1 | - | 1 | 1 | - | - | 3 | 3 | 3 |
| C303 | 3 | 2.8 | 2.6 | 2 | | | | - | | - | - | 2.6 | 2.6 | 3 |

COURSE CODE &NAME: MC5304 - PROGRAMMING WITH JAVA

REGULATION: R2017

YEAR/SEM: II / III

| C304.1 | E | Understand the Basic concept of Java. |
|--------|----|--|
| C304.2 | AP | Make use of hierarchy of Java classes to provide a solution to a given set of requirements found in the Java API |
| C304.3 | AP | Make use of the frameworks JSP, Hibernate, Spring. |
| C304.4 | AP | Apply the java concepts in Internals And Networking in sockets. |
| C304.5 | AP | Make use of Design and implement server side programs using Servlet and JSP. |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|------------|-----|-----|------|------|------|------|------|
| C304.1 | 2 | 2 | 1 | 1 | 1 | 1 | - | - | - | - | - | 2 | 1 | 1 |
| C304.2 | 2 | 3 | 3 | 2 | 2 | 2 | - | - | - | - | 1 | 2 | 1 | 1 |
| C304.3 | 2 | 2 | 3 | 1 | 3 | 3 | - | 1 | 1 | 1 | 2 | 2 | 1 | 1 |
| C304.4 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 1 | ı | 1 | 2 | 3 | 2 | 2 |
| C304.5 | 2 | 2 | 2 | 2 | 3 | 1 | ı | ı | 1 | 1 | - | 3 | 1 | 1 |
| C304 | 2.0 | 2.2 | 2.4 | 1.6 | 2.4 | 1.8 | | | • | - | 1.0 | 2.2 | 1.2 | 1.2 |

COURSE CODE &NAME: MC5305 - OBJECT ORIENTED ANALYSIS AND DESIGN

REGULATION: R2017

YEAR/SEM: II/ III

| C305.1 | AP | Apply the basic UML diagram using OO concepts |
|--------|----|--|
| C305.2 | AP | Make Use of UML analysis and design diagrams |
| C305.3 | AL | Analyze the domain models and conceptual classes |
| C305.4 | AP | Build the code form design system and apply design patents |
| C305.5 | E | Compare and contrast various testing techniques. |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C305.1 | 3 | 3 | 3 | 2 | - | 2 | - | - | - | - | - | 2 | 3 | 3 |
| C305.2 | 3 | 3 | 3 | 2 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 |
| C305.3 | 3 | 3 | 3 | 3 | - | 3 | - | - | - | - | - | 3 | 3 | 2 |
| C305.4 | 3 | 3 | 2 | 2 | - | 3 | - | - | - | - | - | 2 | 3 | 3 |
| C305.5 | 3 | 3 | 3 | 2 | 1 | 3 | - | - | - | - | - | 3 | 3 | 3 |
| C305 | 3 | 3 | 2.8 | 2.2 | • | 2.8 | - | - | • | - | - | 2.6 | 3 | 2.8 |

COURSE CODE &NAME: MC5311 - DATA STRUCTURES AND ALGORITHMS LABORATORY

REGULATION: R2017

YEAR/SEM: II/ III

| C316.1 | AP | Develop the data structures programs in linear and non-linear array like stack, queue and list ADTs |
|--------|----|--|
| C316.2 | AP | Develop program in data structures using linked list and its applications |
| C316.3 | C | Create the data structure programs in binary search trees and AVL trees |
| C316.4 | C | Design and implement the heaps using priority and graph traversal algorithms |
| C316.5 | C | Design and implement the searching and sorting algorithm with hashing techniques |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C316.1 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 0 | 2 | 3 | 3 |
| C316.2 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 0 | 3 | 3 | 3 |
| C316.3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 0 | 3 | 3 | 3 |
| C316.4 | 3 | 3 | 3 | 0 | 3 | 0 | 0 | 3 | 2 | 3 | 0 | 3 | 3 | 3 |
| C316.5 | 3 | 3 | 3 | 0 | 3 | 0 | 0 | 2 | 2 | 3 | 0 | 3 | 3 | 3 |
| C316 | 3 | 3 | 3 | 0 | 3 | 0 | 0 | 2 | 3 | 3 | 0 | 3 | 3 | 3 |

COURSE CODE &NAME: MC5312 - WEB PROGRAMMING LABORATORY

REGULATION: R2017

YEAR/SEM: II / III

| C327.1 | AP | Develop simple web applications using scripting languages. |
|--------|----|---|
| C327.2 | AP | Implement server side and client side programming develop web applications with various web technology concepts. |
| C327.3 | C | Design a Web application using various technologies such as AJAX, JQuery and JSON. |
| C327.4 | AP | Develop an application for social media using HTML5, CSS3, JQuery, AJAX & PHP |
| C327.5 | U | Summarize server side and client side programming develop web applications using various web. |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|------------|-----|-----|------|------|------|------|------|
| C327.1 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 3 |
| C327.2 | 3 | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 2 | 2 |
| C327.3 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 3 | 3 | 2 |
| C327.4 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 3 | 2 | 3 |
| C327.5 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 3 |
| C327 | 3 | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 3 | 3 | 3 |

COURSE CODE &NAME: MC5313 – PROGRAMMING WITH JAVA LABORATORY

REGULATION: R2017

YEAR/SEM: II / III

| C338.1 | AP | Apply the Object Oriented features of Java for programming on the internet |
|--------|----|---|
| C338.2 | AP | Implement, compile, test and run Java program, |
| C338.3 | C | Make use of hierarchy of Java classes to provide a solution to a given set of requirements found in the Java API |
| C338.4 | E | Understand the components and patterns that constitute a suitable architecture for a web application using java servlets |
| C338.5 | E | Demonstrate systematic knowledge of backend and front end by developing an appropriate application. |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|------------|-----|-----|------|------|------|------|------|
| C338.1 | 2 | 2 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 |
| C338.2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| C338.3 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 |
| C338.4 | 2 | 2 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 |
| C338.5 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| C338 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 1.8 | 1.4 |

COURSE CODE &NAME: MC5401 - RESOURCE MANAGEMENT TECHNIQUES

REGULATION: R2017

YEAR/SEM: II / IV

| C401.1 | AP | Make use of simplex method to solve optimization problems. |
|--------|----|--|
| C401.2 | AP | Apply the concept of duality to solve Shortest route problem |
| C401.3 | E | Explain integer programming method. |
| C401.4 | C | Build the types of constraints and optimization methods. |
| C401.5 | AP | Utilize PERT and CPM in project management. |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C401.1 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 2 | 3 | 2 | 3 | 3 |
| C401.2 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 2 | 3 | 2 | 3 | 3 |
| C401.3 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 3 | 3 |
| C401.4 | 3 | 3 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 2 |
| C401.5 | 3 | 3 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 2 |
| C401 | 3 | 3 | 3 | 2.6 | 3 | 0 | 0 | 0 | 0 | 2.7 | 3 | 2.8 | 3 | 2.8 |

COURSE CODE &NAME: MC5402 – MOBILE COMPUTING

REGULATION: R2017

YEAR/SEM: II / IV

| C402.1 | AL | Classify the knowledge about various types of Wireless Data Networks and Voice Networks. |
|--------|----|--|
| C402.2 | U | Understand the architectures, the challenges and the Solutions of Wireless Communication |
| C402.3 | U | Realize the role of Wireless Protocols in shaping the future Internet. |
| C402.4 | C | Develop simple Mobile Application Using Android |
| C402.5 | U | Summarize basic components needed for Mobile App development |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|------------|-----|-----|------|------|------|------|------|
| C402.1 | 2 | 1 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 |
| C402.2 | 2 | 2 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| C402.3 | 2 | 2 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| C402.4 | 2 | 2 | 2 | 1 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 |
| C402.5 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 1 | 1 |
| C402 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 0 | 1.5 | 2 | 2 | 1.8 | 1.7 | 1 |

COURSE CODE &NAME: MC5403 - ADVANCED DATABASES AND DATA MINING

REGULATION: R2017

YEAR/SEM: II / IV

| C403.1 | C | Create relational data models. |
|--------|----|--|
| C403.2 | AP | Apply the association rules for mining the data. |
| C403.3 | C | Design and deploy appropriate classification techniques. |
| C403.4 | AL | Survey Multidimensional Intelligent model from typical system. |
| C403.5 | E | Evaluate various mining techniques on complex data objects. |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C403.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C403.2 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 2 |
| C403.3 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 3 |
| C403.4 | 3 | 3 | 3 | 2 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| C403.5 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 2 | 0 | 3 | 3 | 3 | 3 |
| C403 | 3 | 3 | 3 | 2 | 3 | 2 | 0 | 0 | 2 | 0 | 3 | 3 | 3 | 3 |

COURSE CODE &NAME: MC5405 – WEB APPLICATION DEVELOPMENT

REGULATION: R2017

YEAR/SEM: II / IV

| C404.1 | C | Design and implement Internet systems for enhancing education and engineering design |
|--------|---|--|
| C404.2 | U | Understand functionality of Internet system |
| C404.3 | C | Design a system according to customer needs using the available Internet technologies |
| C404.4 | C | Design and develop interactive, client-side, server-side executable web applications. |
| C404.5 | C | Develop a rapid application in many areas on most platforms. |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C404.1 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 3 | 2 | 3 | 3 | 3 |
| C404.2 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 3 | 2 | 3 | 3 | 2 |
| C404.3 | 3 | 3 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 3 | 2 | 3 | 2 |
| C404.4 | 3 | 3 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 2 | 3 | 2 | 2 | 3 |
| C404.5 | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 2 | 3 | 2 | 3 | 3 |
| C404 | 3 | 3 | 3 | 2.8 | 3 | 0 | 0 | 0 | 0 | 3 | 3 | 2.8 | 2.6 | 3 |

COURSE CODE &NAME: MC5003 - SOFTWARE PROJECT MANAGEMENT

REGULATION: R2017 YEAR/SEM: II / IV

| C411.1 | AL | Analyze the need for Software Project Management and control |
|--------|----|---|
| C411.2 | AL | Classify the various activities of project scheduling and evaluation |
| C411.3 | AL | Contrast the risk assessment and management process |
| C411.4 | AP | Build the different models of software process and network planning |
| C411.5 | AL | Utilize the characteristic of organizational behaviors and management |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C411.1 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 3 | 3 | 2 | 3 | 2 | 3 |
| C411.2 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 3 | 3 | 2 | 2 | 2 | 3 |
| C411.3 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 2 | 3 | 2 | 2 | 3 | 2 |
| C411.4 | 3 | 3 | 3 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 3 | 2 |
| C411.5 | 3 | 3 | 3 | 0 | 3 | 0 | 0 | 0 | 2 | 3 | 2 | 3 | 3 | 2 |
| C411 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 2.3 | 3 | 2 | 3 | 3 | 2.8 |

COURSE CODE &NAME: MC5411 - MOBILE APPLICATION DEVELOPMENT LABORATORY

REGULATION: R2017

YEAR/SEM: II / IV

| C416.1 | AL | Assume configure Android application development tools. |
|--------|----|---|
| C416.2 | C | Design user Interfaces for the Android platform. |
| C416.3 | AP | Apply Java programming concepts to Android application development. |
| C416.4 | C | Construct business trends impacting mobile applications. |
| C416.5 | AL | Classify the characterization and architecture of mobile applications |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C416.1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| C416.2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| C416.3 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| C416.4 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 2 |
| C416.5 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 1 | 1 | 2 |
| C416 | 2 | 2 | 2 | 1.8 | 2 | 1.9 | 2 | 0 | 0 | 0 | 1.4 | 1 | 1 | 2 |

COURSE CODE &NAME: MC5412– WEB APPLICATION DEVELOPMENT LABORATORY

REGULATION: R2017

YEAR/SEM: II / IV

| C427.1 | C | Design and develop interactive, client-side, server-side executable web applications. |
|--------|---|---|
| C427.2 | C | Develop a simple online application using Spring MVC |
| C427.3 | C | Create applications using web services such as JSON, WSDL and SOAP |
| C427.4 | C | Develop a simple database application using Spring JDBC/Struts with CURD functionality |
| C427.5 | C | Develop a web service using JSON and XML formats |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|------------|-----|-----|------|------|------|------|------|
| C427.1 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 |
| C427.2 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 2 | 3 |
| C427.3 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 2 | 3 |
| C427.4 | 3 | 3 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 2 |
| C427.5 | 3 | 2 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 3 |
| C427 | 3 | 3 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 |

COURSE CODE &NAME: MC5413 – TECHINAL SEMINAR AND REPORT WRITING

REGULATION: R2017

YEAR/SEM: II / IV

| C438.1 | AP | Develop writing skills in different type of essays and project proposals. |
|--------|----|--|
| C438.2 | E | Explain their writing skills with specific reference to technical writing |
| C438.3 | AP | Develop students critical thinking skills |
| C438.4 | AP | Develop the more opportunities to produce their project and proposal writing skills |
| C438.5 | AP | Organize Read and evaluate texts critically in various professional context |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C438.1 | - | - | - | - | - | - | - | - | 2 | 3 | 0 | 2 | 2 | 2 |
| C438.2 | - | - | - | - | - | - | - | - | 2 | 3 | 0 | 2 | 2 | 2 |
| C438.3 | - | - | - | - | - | - | - | - | 2 | 3 | 0 | 2 | 3 | 2 |
| C438.4 | - | - | - | - | - | - | - | - | 2 | 3 | 0 | 2 | 3 | 3 |
| C438.5 | - | - | - | - | - | - | - | - | 2 | 3 | 0 | 2 | 3 | 3 |
| C438 | - | - | - | - | - | - | - | - | 2 | 3 | 0 | 2 | 3 | 2 |

COURSE CODE &NAME: MC5501 - CLOUD COMPUTING

REGULATION: R2017

YEAR/SEM: III / V

| C501.1 | E | Compare the Distributed Computing and Cloud Architectures. |
|--------|----|---|
| C501.2 | AP | Apply Cloud computing techniques to solve large scale scientific problems |
| C501.3 | AP | Apply the concepts of virtualization |
| C501.4 | AP | Make use of cloud tool kits |
| C501.5 | AP | Apply the security models in the cloud environment |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C501.1 | 3 | 3 | 3 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 3 | 3 | 2 | 3 |
| C501.2 | 3 | 3 | 3 | 2 | 3 | 2 | 0 | 0 | 0 | 0 | 2 | 3 | 2 | 3 |
| C501.3 | 3 | 3 | 3 | 2 | 3 | 2 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 2 |
| C501.4 | 3 | 3 | 3 | 2 | 2 | 3 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 2 |
| C501.5 | 3 | 3 | 3 | 2 | 2 | 3 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 2 |
| C501 | 3 | 3 | 3 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 3 | 3 | 2.8 | 3 |

COURSE CODE &NAME: MC5502 - BIG DATA ANALYTICS

REGULATION: R2017 YEAR/SEM: III / V

| C502.1 | U | Understand the fundamentals of various big data analysis techniques |
|--------|----|---|
| C502.2 | AL | Analyze the big data analytic techniques for useful business applications. |
| C502.3 | C | Design efficient algorithms for mining the data from large volumes. |
| C502.4 | AL | Analyze the HADOOP and Map Reduce technologies associated with big data analytics |
| C502.5 | U | Understand the applications using Map Reduce Concepts |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C502.1 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 2 | 3 |
| C502.2 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 2 | 3 |
| C502.3 | 3 | 3 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 2 |
| C502.4 | 3 | 3 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 2 |
| C502.5 | 3 | 3 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 2 |
| C502 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 3 |

COURSE CODE &NAME: MC5503 – SOFTWARE TESTING AND QUALITY ASSURANCE

REGULATION: R2017 YEAR/SEM: III / V

| C503.1 | AP | Applying various testing techniques. |
|--------|----|--|
| C503.2 | AP | Organize the entire computer based systems at all levels. |
| C503.3 | AP | Apply applications in the specialized environment using various automation tools. |
| C503.4 | E | Evaluate the web applications using bug tracking tools. |
| C503.5 | AP | Apply quality and reliability metrics to ensure the performance of the software |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C503.1 | 3 | 3 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 2 | 3 |
| C503.2 | 3 | 3 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 2 | 3 |
| C503.3 | 3 | 3 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 2 |
| C503.4 | 3 | 3 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 2 |
| C503.5 | 3 | 3 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 2 |
| C503 | 3 | 3 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 3 |

COURSE CODE &NAME: MC5009 – HUMAN RESOURCE MANAGEMENT

REGULATION: R2017 YEAR/SEM: III / V

| C524.1 | AL | Classify the primary external influences affecting HRM. |
|--------|----|--|
| C524.2 | U | Outline the components and the goals of staffing, training and development. |
| C524.3 | U | Understand the selection procedure in various organizations. |
| C524.4 | U | Understand the practices used to retain the employees and able to evaluate their performance. |
| C524.5 | U | Outline the stress and the cause of burn out |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C524.1 | 3 | 3 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 2 | 3 |
| C524.2 | 3 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 3 |
| C524.3 | 3 | 3 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 2 |
| C524.4 | 3 | 3 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 2 |
| C524.5 | 3 | 3 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 2 |
| C524 | 3 | 3 | 3 | 2 | 2.8 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 3 |

COURSE CODE &NAME: MC5012 – SERVICE ORIENTED ARCHITECTURE

REGULATION: R2017 YEAR/SEM: III / V

| C535.1 | U | Summarize the structure of XML and to design and store data in XML |
|--------|----|--|
| C535.2 | AP | Apply SOAP, HTTP and UDDI services in the web applications. |
| C535.3 | AP | Apply SOA architecture and the underlying design principles for the web projects |
| C535.4 | U | Understand the role of SOA in J2EE and .NET. |
| C535.5 | AL | Classify the types of clouds and its architecture |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|------------|-----|-----|------|------|------|------|------|
| C535.1 | 3 | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 2 |
| C535.2 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| C535.3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| C535.4 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| C535.5 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| C535 | 3 | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |

COURSE CODE &NAME: MC5511 - CLOUD AND BIG DATA LABORATORY

REGULATION: R2017

YEAR/SEM: III / V

| C516.1 | AP | Select the Cloud Toolkit. |
|--------|----|---|
| C516.2 | C | Design and Implement applications on Cloud. |
| C516.3 | E | Select the Virutalization Toolkit |
| C516.4 | C | Design and implement cloud applications on Cloud. |
| C516.5 | C | Construct the applications according to the services. |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C516.1 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 2 |
| C516.2 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| C516.3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| C516.4 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| C516.5 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| C516 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |

COURSE CODE &NAME: MC5512 – SOFTWARE TESTING LABORATORY

REGULATION: R2017 YEAR/SEM: III / V

| C527.1 | C | Construct the software by applying various testing techniques. |
|--------|----|--|
| C527.1 | C | Construct the project and to test the entire computer based systems at all levels. |
| C527.1 | AP | Build the applications in the specialized environment using various automation tools. |
| C527.1 | E | Evaluate the web applications using bug tracking tools. |
| C527.1 | AP | Apply quality and reliability metrics to ensure the performance of the software |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C527.1 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 2 |
| C527.1 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 3 |
| C527.1 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 |
| C527.1 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 2 |
| C527.1 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 2 |
| C527 | 3 | 3 | 2.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 2 |

COURSE CODE &NAME: C5513 – MINI PROJECT

REGULATION: R2017 YEAR/SEM: III / V

| C538.1 | C | Estimate the problem by applying acquired knowledge. |
|--------|---|--|
| C538.2 | C | Develop the executable project modules after considering risks |
| C538.3 | C | Choose efficient tools for designing project modules. |
| C538.4 | C | Combine all the modules through effective team work after efficient testing. |
| C538.5 | C | Elaborate the completed task and compile the project report. |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C538.1 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 2 |
| C538.2 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 3 |
| C538.3 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 |
| C538.4 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 2 |
| C538.5 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 2 |
| C538 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2.5 | 2.8 |

COURSE CODE &NAME: C5513 – MINI PROJECT

REGULATION: R2017 YEAR/SEM: III / V

COURSE OUTCOMES

| C538.1 | C | Estimate the problem by applying acquired knowledge. |
|--------|---|--|
| C538.2 | C | Develop the executable project modules after considering risks |
| C538.3 | С | Choose efficient tools for designing project modules. |
| C538.4 | C | Combine all the modules through effective team work after efficient testing. |
| C538.5 | C | Elaborate the completed task and compile the project report. |

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| C538.1 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 2 |
| C538.2 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 3 |
| C538.3 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 |
| C538.4 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 2 |
| C538.5 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 2 |
| C538 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2.5 | 2.8 |

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