Structure for M.Sc. IT – CBCS Programme

Semester-I

COURSE NO.	COURSE TYPE	SUBJECT	CREDIT
M.Sc.IT 101	CORE	Enterprise Data Management & ERP	06
M.Sc.IT 102	CORE	Advance Java Programming	06
M.Sc.IT 103	CORE	Web Technology Tools	06
M.Sc.IT 104	CORE	Practical Based On 102 and 103	12
		TOTAL	30

Internal Continuous Evaluation:

1. There will be Internal Continuous Evaluation in Theory papers of Core Course.
2. There will be 30 marks for Assignments in Course No: M.Sc.IT-101, M.Sc.IT -102, M.Sc.IT - 103

M.Sc IT	**Course: Enterprise Data Management & ERP**	Course No: M.Sc IT-101

Semester: 01　　　　　　　　　　Type of Course : Core Course
Marking Scheme: External Examination: 70 + Internal Examination: 30 = 100
Credits: 06　　　　　　　　　　　　　　　Teaching Hours Per Week: 06

Unit	Detailed Syllabus	Teaching Hours	Marks/ Weight
Unit-1	**Introduction to ERP**	**18**	**14**
	• Enterprise: introduction, business modeling, integrated data model, integrated management information. • Enterprise Resource Planning (ERP): introduction, history, Basic concept of ERP. Risks (All type of risks in brief).		
Unit-2	**ERP & Related Technologies**	**18**	**14**
	• Benefits of ERP, Business Process Reengineering (BPR). • Data Warehousing, Data Mining and Online Analytical Processing (OLAP). • Product Life Cycle Management (PLM). • Supply Chain Management (SCM). • Customer Relationship Management (CRM).		
Unit-3	**ERP Manufacturing Perspective**	**18**	**14**
	• MRP- Material Requirement Planning. • BOM- Bill Of Material. • MRP – Manufacturing Resource Planning. • DRP- Distributed Requirement Planning. • PDM- Product Data Management. • ERP Products and Modules • Introduction to ERP Products and modules • Finance, Plant Maintenance, Quality Management, Materials Management.		
Unit-4	**ERP- Selection and Implementation**	**18**	**14**
	• ERP Package Selection ,ERP Implementation life Cycle • Introduction, Objective, Phase of implementation. • Why do ERP implementation Fail?		
Unit-5	**ERP- Operation, Maintenance & Evaluation**	**18**	**14**
	• Operation of the ERP system. • ERP Maintenance Phase. • Measuring performance of ERP. • Functional modules of ERP software.		
Reference Books			
1. Enterprise Resource Planning – Alexis Leion - McGraw Hill Education (India) 2. Enterprise Resource Planning : Concepts & Practice – Garg, Vinodkumar, Venkitakrashnan – PHI Learning (Eastern Economy Edition)			

M.Sc IT	**Course: Advanced Java Programming**	Course No: M.Sc IT-102
Semester: 01	Type of Course : Core Course	
Marking Scheme: External Examination: 70 + Internal Examination: 30 = 100		
Credits: 06	Teaching Hours Per Week: 06	

Unit	Detailed Syllabus	Teaching Hours	Marks/ Weight
Unit-1	**Active Window Toolkit**	**18**	**14**
	• Fundamental of Window ,Frame Windows • Frame Window in AWT • Graphics, color, Font Metrics • Controls – Labels, Button, Check Box, Scroll bar, Text area and TextField		
Unit-2	**Multithreading and Applet Programming**	**18**	**14**
	• Threading-Main Thread, Creation, isAlive(),join(),sleep(),Synchronization • Life cycle of Applet , Passing Parameters to Applet • Event Delegation Model or Technique • Event Classes		
Unit-3	**Swing**	**18**	**14**
	• Introduction, Features of Swing, Difference between AWT and Swing • JApplet • JFrame and JPanel • Layout Managers: FlowLayout, SpringLayout, BoxLayout		
Unit-4	**Swing Components**	**18**	**14**
	•JLabel, JButton, JTextField •JCheckBox, JRadioButton •JComboBox, JList •JMenu, JDialog		
Unit-5	**JDBC Connectivity using MS-Access**	**18**	**14**
	• JDBC Architecture • Steps Of Database Connectivity and Database operation: insert,update,delete • Statement and ResultSet object • Display Records using JTable component		
Reference Books 1. **The Complete Reference Java By Herbert Schildt Publisher: TMH** 2. **Programming in Java By Sachin Malhotra & Saurabh Choudhary Publisher:OXFORD University Press** 3. **PROGRAMMING WITH JAVA A PRIMER By E-Balaguruswami**			

M.Sc IT	**Course: Web Technology & Tools**	Course No: M.Sc IT-103
Semester: 01	Type of Course : Core Course	
Marking Scheme: External Examination: 70 + Internal Examination: 30 = 100		
Credits: 06		Teaching Hours Per Week: 06

Unit	Detailed Syllabus	Teaching Hours	Marks/ Weight
Unit-1	**Basics of CSS -1**	**18**	**14**
	• What is CSS?, Advantages of CSS, CSS Structure and Syntax. • Types of CSS: Internal, External, Inline. • CSS Color, Background and Border. • CSS Margin, Padding , height and Width.		
Unit-2	**Basics of CSS-2**	**18**	**14**
	• CSS Text, Fonts. CSS Icons and Links. • CSS List and Tables. • CSS Pseudo class and CSS Pseudo Elements.		
Unit-3	**Introduction to JQuery**	**18**	**14**
	• What is Jqury?, Use of Jquery in Web Designing, Adding Jquery in your page. • Jquery Syntax, Events in Jquery • JQuery Functions:hide(), show(), toggle(),fadeIn(), fadeOut(), fadeToggle(), fadeTo(). • JQuery Sliding Method: slideDown(), slideUp(), slideToggle(),animate(), Stop(). • Add Element, Remove Element, Add Class and Remove Class.		
Unit-4	**Introduction to Boostrap**	**18**	**14**
	• What is Boostrap, History of Boostrap, Benefits of Boostrap, how to add Boostrap in to the page. • Boostrap properties for Text/Typography • <h1>...<h6>, <small>, <mark>, <kbd>, <code>,<dl>, <abbr> . • Boostrap for Table , Boostrap for Image • Boostrap for Alerts,		
Unit-5	**Bootstrap 2**	**18**	**14**
	• Boostrap Buttons, Boostrap Buttons Group. • Boostrap Glyphicons, Boostrap Progress bar. • Boostrap Pagination, Pager. • Boostrap Form.		

Reference Books
1. Mastering HTML, CSS & JavaScript Web Publishing by Laura, Rafe & Jennifer, BPB Publication
2. Bootstrap – by Jake Spurlock, O'Reilly Publication
3. www.w3schools.com

M.Sc IT	**Course: Practical Based on 102 and 103**	Course No: M.Sc IT-104

Semester: 01   Type of Course : Core Course

Marking Scheme: External Examination: 100

Credits: 12   Teaching Hours Per Week: 12

	Detailed Syllabus	**Teaching Hours**	**Marks/ Weight**
1	**Paper 102:Advance Java Programming**	**90**	**50**
2	**Paper 103: Web Technology Tools**	**90**	**50**

Structure for M.Sc. IT – CBCS Programme

Semester-II

COURSE NO.	COURSE TYPE	SUBJECT	CREDIT
M.Sc.IT 201	CORE	Web Application Development Using PHP	06
M.Sc.IT 202	CORE	Mobile Application Development Using Android	06
M.Sc.IT 203	CORE	Linux Operating System And Shell Programming	06
M.Sc.IT 204	CORE	Practical Based On 201, 202 and 203	12
		TOTAL	30

Internal Continuous Evaluation:

1. There will be Internal Continuous Evaluation in Theory papers of Core Course.
2. There will be 30 marks for Assignments in Course No: M.Sc.IT-201, M.Sc.IT -202, M.Sc.IT - 203

M.Sc IT	**Course: Web Application Development Using PHP** Course No: M.Sc IT-201

Semester: 02   Type of Course : Core Course

Marking Scheme: External Examination: 70 + Internal Examination: 30 = 100

Credits: 06   Teaching Hours Per Week: 06

Unit	Detailed Syllabus	Teaching Hours	Marks/ Weight
Unit-1	Introduction	**18**	**14**
	Fundamental of APACHE Server. Concept of Wamp & Xampp Server. History & Versions of PHP Features of PHP Introduction to PHP Programming.		
Unit-2	Introduction to Java Script	**18**	**14**
	• Variable and Data Type Types of Operators Conditional Statements, looping Statements • Array, Functions ,Events ,Message Box ,Objects Based Programming • Validation of form using JavaScript ,Different types of effects in designing using JavaScript		
Unit-3	Basic PHP	**18**	**14**
	• Introduction to PHP, PHP Variables • Operators in PHP • Conditional Statements & looping Statements in PHP • Array , Types of Array • Functions – UDF and Built in Functions.		
Unit-4	Form Handling	**18**	**14**
	• Handling form with GET & POST, Cookies, Session, Server variable • Regular Expressions in PHP, Functions used in Regular Expressions, Symbols used in Regular Expressions • Exception Handling • Object Oriented concept in PHP		
Unit-5	**Interaction between PHP & MySQL**	**18**	**14**
	• PHP-MySQL Architecture • PHP API • Creating & Connecting Database using Wamp Server • Executing DML Commands. • Overview of CMS-WordPress		

Reference Books

4. Ivan Bayross,Sharanam Shah:PHP 5.1 For Beginners,Sh off Publishers & Distributors(SPD)
5. Janet Valade: PHP5 & MYSQL Projects,Wiley Dreamtech
6. Dave W. Mercer: Beginning PHP5,Wiley India Edition
7. Steven Holzer:The Complete Reference PHP,Tata McGRAW-HiLL,New Delhi.

M.Sc IT **Course: Mobile Application Development Using Android**   Course No: M.Sc IT-202

Semester: 02   Type of Course : Core Course

Marking Scheme: External Examination: 70 + Internal Examination: 30 = 100

Credits: 06   Teaching Hours Per Week: 06

Unit	Detailed Syllabus	Teaching Hours	Marks/ Weight
Unit-1	**Introduction to Android**	**18**	**14**
	• History of Mobile Software Development • The Android Platform and Android SDK • Anatomy of an Android applications • Android terminologies		
Unit-2	**Android Application Design Essential**	**18**	**14**
	• Application Context, Activities, Services, Intents • Component of Android Manifest File and Application Resources • Receiving and Broadcasting Intents • Configuring android manifest file, registering activities and other application components, working with permissions, working with resources.		
Unit-3	**Android User Interface Design Essentials**	**18**	**14**
	• Introducing android views and layouts, displaying text with Text-view, • Retrieving data from users, using buttons, check boxes and radio groups, • Getting dates and times from users, using list view to display data to Users, adjusting progress with Seek bar, handling user events, working with dialogs, working with styles and themes.		
Unit-4	**Animation and Content Provider**	**18**	**14**
	• Introduction of animations and types in Android. • Drawing and Working with Animation • Working with bitmaps • Sharing Data Between Applications with Content Providers		
Unit-5	**Using Common Android APIs**	**18**	**14**
	• Managing data using SQLite • Using Android Networking APIs • Using Android Web APIs using web view • Using Android Telephony APIs using SMS, making and receiving phone call		
Reference Books		

Reference Books

1. Android Wireless Application Development By Lauren Darcey and Shane Conder, Pearson Education, 2nd ed. (2011)
2. Beginning Android Application Development By Wei-Meng Lee, Wrox Publication
3. Mark L Murphy, "Beginning Android", Wiley India Pvt Ltd(2009)

M.Sc IT **Course: Linux Operating system and Shell Programming** Course No: M.Sc IT-203

Semester: 02 Type of Course : Core Course

Marking Scheme: External Examination: 70 + Internal Examination: 30 = 100

Credits: 06 Teaching Hours Per Week: 06

Unit	Detailed Syllabus	Teaching Hours	Marks/ Weight
Unit-1	**Introduction**	**18**	**14**
	• History of Unix Operating System Definition of Kernel, Shell, File, Process,System Calls. • Linux Operating System,Features of Unix and Linux Operating System, • Concept of Open source software,Application area of Linux Operating System • Various Linux Flavors • Desktop Environment : (a) X Window Basics (b) KDE Basics (c) GNOME Basics • Terms and condition of Copying, Distribution, and Modifications (Linux & GNU) • Advantages and Disadvantages of Linux		
Unit-2	**File Structure and Linux Shells.**	**18**	**14**
	• Understanding File system hierarchy standard. • Directory Commands • File and Directory commands: • Understanding Job (process). • Process Commands: • User commands: • Misc Commands		
Unit-3	**User Management**	**18**	**14**
	• GUI user management tools: User admin and KUser • Password file, Managing user environment • Adding and removing users with useradd, usermod and userdel • Managing groups, Controlling access to directories and file using chmod		
Unit-4	**Networking concepts & Server configuration**	**18**	**14**
	• Basics of network system, Basics of TCP/IP Networking, IP address, IP address • class and mask, port number, DNS, NFS server configuration • Telnet and FTP server fundamentals • Basics of Samba server: Installation and configuration		
Unit-5	**Bash Shell Programming**	**18**	**14**
	• Introduction to Vi Editors • Introduction to Shell : Korn, Bash, and C Shell with their difference • Variables in shell, how to print or access values in shell, echo command. • Shell arithmetic, commands and command line arguments, I/O redirection • Structured language construct: if, else, else – if, case statement, loops in shell,		

• Arrays, Command line argument.		

Reference Books

Richard Petersen: The complete reference – 6th edition – McGraw Hill

2. Sumitabha Das: Concepts and Application of UNIX 4th edition – Tata McGraw Hill

3. Peter Nortons's: Complete Guide to Linux, Techmedia

   4. Yashwant Kanitkar: Unix Shell Programing, BPB Publication

M.Sc IT	**Course: Practical Based on 202 and 203**		Course No: M.Sc IT-204	
Semester: 02	Type of Course : Core Course			
Marking Scheme: External Examination: 100				
Credits: 12			Teaching Hours Per Week: 12	
	Detailed Syllabus		**Teaching Hours**	**Marks/ Weight**
1	**Paper 201: Web Application Development Using PHP**		**60**	**40**
2	**Paper 202: Mobile Application Development Using Android**		**60**	**30**
3	**Paper 203: Linux Operating system and Shell Programming**		**60**	**30**