

**BHARATHIAR UNIVERSITY, COIMBATORE.**  
**M. Sc. INFORMATION SCIENCE & MANAGEMENT COURSE**  
(Affiliated Colleges - Effective from the academic Year 2010-2011)

**SCHEME OF EXAMINATIONS – CBCS PATTERN**

em	Study Components	Course title	ns. hrs/ week	Examinations				Credit
				Dur.Hrs.	CIA	Marks	Total Marks	
	<b>Semester I</b>							
I	Paper I	Digital Computer Fundamentals	4	3	25	75	100	4
	Paper II	Programming in C	5	3	25	75	100	4
	Paper III	Data Structures and Algorithms	5	3	25	75	100	4
	Paper IV	System Analysis and Design	4	3	25	75	100	4
	Paper V	Management Principles	4	3	25	75	100	4
	Practical I	C Lab	5	3	40	60	100	4
	Paper VI	Web Designing	3	3	25	75	100	4
II	Paper VII	Relational Database Management Systems	5	3	25	75	100	4
	Paper VIII	Computer Networks	5	3	25	75	100	4
	Elective		5	3	25	75	100	4
	Paper IX	Management Information Systems	6	3	25	75	100	4
	Practical II	RDBMS Lab	6	3	40	60	100	4
	Paper X	Web Services	3	3	25	75	100	4
III	Paper X	Software Project Management	5	3	25	75	100	4
	Paper XI	Visual Programming	5	3	25	75	100	4
	Paper XII	Enterprises Resource Planning	5	3	25	75	100	4
	Paper XIII	Human Resources Management	5	3	25	75	100	4
	Practical III	Visual Programming Lab	4	3	40	60	100	4
	Paper XIV	ASP.NET	3	3	25	75	100	4
	Practical IV	ASP.NET programming Lab	3	3	40	60	100	4
IV	Project work and Viva voce		-	-	-	-	250*	10
	Total						2250	90

\* Project report - 200 marks; Viva-voce – 50 marks

Elective Papers :

1. Data Mining & Warehousing
2. Neural Networks and Fuzzy Systems
3. Multimedia Systems

Note:

1. The Syllabus for the above papers (except **Elective Papers 2. Neural Networks and Fuzzy Systems & 3. Multimedia Systems**) be the same as prescribed for the academic year 2008-09.
2. The syllabus for the **Elective Papers 2. Neural Networks and Fuzzy Systems & 3. Multimedia Systems** are furnished below :

## **ELECTIVE - PAPER - 2 NEURAL NETWORKS AND FUZZY SYSTEMS**

### **Subject Description**

This Course presents the details of Neural Networks and Fuzzy Systems

### **Goals**

To enable the students to learn the fundamentals of Neural Networks and Fuzzy Systems

### **Objective**

On successful completion of the course the students should have:

- Understood the trends and principles of Hopfield Networks and Fuzzy Sets

### **Contents**

#### **UNIT I**

Pattern classification – Learning Generalization – Structure of neural networks – ADA line, Delta rule – input output value – perceptions – Linear separability – Back propagation – XOR Function – Introduction to Boolean Neural Networks.

#### **UNIT II**

Hopfield Networks – Energy – The Hamming Network – RAM – Boltzmann machine – Instar, Outstar Network – ART – Kohonen's Network Neocognitron.

#### **UNIT III**

Fuzzy relation – Member function – Fuzzy matrices – Fuzzy Entropy – Fuzzy operation – Fuzzy composition.

#### **UNIT IV**

Fuzzy variables – Linguistic Variables – Measure of fuzziness – Transition Matrix – Concept of Defuzzification and applications

#### **UNIT V**

CASE STUDY : Application of Neural Networks in Character recognition, drug discovery, speech recognition, Application of Fuzzy logic Concepts in Fuzzy Controller design and Fuzzy querying in Relational Database Model.

### **REFERENCE BOOKS:**

1. P.D.Wasserman,"Neural Computing and practice",Van Nostran ReinHold, NewYork, 1991.
2. Limin Fu,"Neural Network in Computer Intelligence", McGraw Hill International editions,1994
3. B Kosko."Neural Network and Fuzzy Systems",Prentice Hall,1996.
4. Klir & Yuan."Fuzzy Sets and Fuzzy Logic", Theory and Applications,Prentice Hall of India.

## **ELECTIVE - PAPER - 3 MULTIMEDIA**

### **Subject Description**

This Course presents the Multimedia basics

### **Goals**

To enable the students to learn the fundamentals and Tools in Multimedia to develop applications

### **Objectives**

On successful completion of the course the students should have:

- Understood How to design the Web page using Multimedia

### **Contents**

#### **Unit I**

What is Multimedia – Introduction to making Multimedia – Macintosh and Windows Production platforms – Basic Software tools.

#### **Unit II**

Making Instant Multimedia – Multimedia authoring tools – Multimedia building blocks – Text – Sound.

#### **Unit III**

Images – Animation – Video

#### **Unit IV**

Multimedia and the Internet – The Internet and how it works – Tools for World Wide Web – Designing for the World Wide Web.

#### **Unit V**

High Definition Television and Desktop Computing – Knowledge based Multimedia systems.

### **REFERENCE BOOKS**

1. Tay Vaughan, “Multimedia making it work”, Fifth Edition, Tata McGraw Hill
2. John F. Koegel Bufford, “Multimedia Systems”, Pearson Education
3. Multimedia in Practice (Technology and Applications) – Judith Jeffloat – PHI