

**Visvesvaraya Technology University (VTU)
] Syllabus-MCA**

I SEMESTER

II SEMESTER

S.No	Title of the Subject	S.No	Title of the Subject
1	Problem Solving using C	1	Business Data Processing with COBOL
2	Discrete Mathematics	2	Object Oriented Programming with C++
3	Fundamentals of Computer Organization	3	Data Structures using C
4	Introduction to Unix	4	Management Information Systems
5	Professional Communication & Ethics	5	Operations Research
6	C Programming Laboratory	6	COBOL Programming Laboratory
7	Unix Laboratory	7	Data Structures Using C Laboratory
8	IT and Digital Electronics Laboratory	8	Object Oriented Programming with C++ Laboratory

III SEMESTER

IV SEMESTER

S.No	Title of the Subject	S.No	Title of the Subject
1	Systems Software	1	Topics in Enterprise Architectures –I
2	Computer Networks	2	Software Engineering
3	Programming with Java	3	Web Programming
4	Database Management Systems	4	Design and Analysis of Algorithms
5	Operating Systems	5	Elective I
6	Systems Programming Laboratory	6	J2EE Laboratory
7	Java Programming Laboratory	7	Web programming Laboratory
8	DBMS Laboratory	8	Algorithms Laboratory

<i>Elective I</i>	
	Computer Graphics and Visualization
	UNIX system Programming
	Multimedia Systems
	Pattern Recognition
	Principles of User Interface Design
	Advanced Computer Networks

V SEMESTER - Master of Computer Applications

S.No	Title of the Subject
1	Object-Oriented Modeling and Design Patterns
2	System Simulation and Modeling
	Topics in Enterprise Architectures -II
4	Elective II
5	Elective III
6	Software Design Laboratory
7	.Net Laboratory
8	Mini Project

<i>Elective II</i>		<i>Elective III</i>	
	Information Retrieval		Information & Network Security
	Data Mining		Software Testing
	Supply Chain Management		Services Oriented Architecture
	Network Management		Mobile Computing
	Compiler Design		Storage Area Networks
	Software Architectures		Web 2.0 & Rich Internet Applications

VI SEMESTER - Master of Computer Applications

S.No	Subject Code	Title of the Subject
1		Project Work

NOTE: Students have to register for one Elective from each of the Three Elective Groups