

**SCHEME FOR  
MASTER OF COMPUTER APPLICATIONS  
NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA  
(2007-10)**

**SEMESTER – I**

SUBJECT CODE	COURSE TITLE	LECTURE hrs	LAB hrs	CREDITS
MCA-101	Computer Programming	4	0	4
MCA-103	Computer Organization and Architecture	4	0	4
MCA-105	Discrete Mathematics	4	0	4
MCA-107	Microprocessors	4	0	4
MCA-109	File Structures	4	0	4
MCA-111	Computer Programming Lab	0	3	1.5
MCA-113	Microprocessors Lab	0	3	1.5
Total Credits				23

**SEMESTER – II**

SUBJECT CODE	COURSE TITLE	LECTURE hrs	LAB hrs	CREDITS
MCA 102	Data Structures and Algorithms	4	0	4
MCA 104	Object Oriented Programming	4	0	4
MCA 106	Programming Languages	4	0	4
MCA 108	Operating Systems	4	0	4
MCA 110	Numerical Analysis and Optimization Techniques	4	0	4
MCA 112	Data Structures and Algorithms Lab	0	3	1.5
MCA 114	Object Oriented Programming Lab	0	3	1.5
MCA 116	Computational Techniques Lab	0	3	1.5
Total Credits				24.5

**SEMESTER – III**

SUBJECT CODE	COURSE TITLE	LECTURE hrs	LAB hrs	CREDITS
MCA 201	Database Management Systems	4	0	4
MCA 203	Software Engineering	4	0	4
MCA 205	Computer Networks	4	0	4
MCA 207	Visual Programming	4	0	4
MCA 209	Web Engineering	4	0	4
MCA 211	Database System (Pr.)	0	2	1
MCA 213	Visual Programming (Pr.)	0	2	1
MCA 215	Web Engineering(Pr.)	0	2	1
MCA 217	SEMINAR	1	0	1
Total Credits				24

## SEMESTER – IV

SUBJECT CODE	COURSE TITLE	LECTURE hrs	LAB hrs	CREDITS
MCA 202	Server Side Computing with Java	4	0	4
MCA 204	Linux and Shell Programming	4	0	4
MCA 206	System Programming	4	0	4
MCA 208	Elective-I	4	0	4
MCA 210	Elective-II	4	0	4
MCA 212	Server Side Computing Lab (Pr.)	0	2	1
MCA 214	Unix Programming (Pr.)	0	2	1
MCA 216	Mini Project	0	2	1
MCA 218	SEMINAR	1	0	1
			Total Credits	24

### List of Electives

MCA 220 Data Warehousing and Data Mining  
MCA 222 System Security and Cryptography  
MCA 224 E-Governance  
MCA 226 E-Commerce

### **Weightage for Theory Courses:**

During Semester Evaluation Weightage - 40%  
End Semester Examination Weightage - 60%

### **Weightage for Lab Courses:**

During Semester Evaluation Weightage - 60%  
End Semester Examination Weightage - 40%