

SCHEME
For
MCA COURSE
In
DEPARTMENT OF COMPUTER ENGINEERING
(w.e.f Session 2010)



DEPARTMENT OF COMPUTER ENGINEERING

YMCA UNIVERSITY OF SCIENCE AND TECHNOLOGY
FARIDABAD

**YMCA UNIVERSITY OF SCIENCE AND TECHNOLOGY
FARIDABAD**

**SYNOPSIS OF
SCHEME OF STUDIES & EXAMINATIONS
3 YEARS MCA SEMESTER I-VI (2010-11)**

Total Credits: 180

Total Theory Subjects: 25

Total Labs including Seminars, Projects :12 Industrial Training: 1

Total Teaching Schedule:

Lectures	Practical	Total
120	88	208

Total Marks:

Sessional	End Term	Total
1625	2475	4100

Itemized Break-up:

	No.	Hours	Marks	Credits
Theory Subjects	25	120	2500	120
Labs	12	80	1000	40
Soft Skills	2	4	50	4
Projects	2	4	50	4
Industrial Training	1	1 semester	500	12
Total			4100	180

Master of Computer Applications (MCA) Regular Programme
Syllabus and Scheme of Examination
W.e.f. 2010-11
MCA First Year
Semester-I

Course No	Course Title	Teaching Schedule			Marks for Sessional	Marks for end term Examination		Total Marks	Credits
		L	P	Total		Theory	Practical		
MCA-101	Mathematical Foundations of Computer Science	5	0	5	40	60	-	100	5
MCA-102	Computer Fundamentals and Programming in C	5	0	5	40	60	-	100	5
MCA-103	Digital Design	5	0	5	40	60	-	100	5
MCA-104	Internet and Web Designing	4	0	4	40	60	-	100	4
MCA-105	Data Base Management Systems	5	0	5	40	60	-	100	5
MCA-106	Software Lab 1 a) Programming in C b) Web Programming using HTML	0	8	8	60	-	40	100	4
MCA-107	Software Lab 2 a) Oracle & SQL , PL SQL Programming b) Use of MS Office	0	8	8	60	-	40	100	4
MCA-109	Soft Skill 1		2	2	25	-	-	25	2
	Total	24	18	42	345	300	80	725	34

Note: Exam duration will be as under

- (a) Theory exams will be of 3 hours duration
- (b) Practical exams will be of 3 hours duration
- (c) Workshop exam will be of 8 hours duration

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Semester-II

Course No	Course Title	Teaching Schedule			Marks for Sessional	Marks for end term Examination		Total Marks	Credits
		L	P	Total		Theory	Practical		
MCA-201	Data Structures	5	0	5	40	60	-	100	5
MCA-202	Computer Organization and Architecture	4	0	4	40	60	-	100	4
MCA-203	Computer Based Management System and E Commerce	5	0	5	40	60	-	100	5
MCA-204	Object Oriented Programming Using C++	5	0	5	40	60	-	100	5
MCA-205	Operating System	5	0	5	40	60	-	100	5
MCA-206	Software Lab 3 a)Data Structure implementation in C/C++ b) Programming in 8086/88/80x6 assembly	0	8	8	60	-	40	100	4
MCA-207	Software Lab 4 a) Programming in C++ b) System Programming using C, C++	0	8	8	60	-	40	100	4
MCA-208	Soft Skill II		2	2	25			25	2
	Total	24	18	42	345	300	80	725	34

Note: Exam duration will be as under

- (a) Theory exams will be of 3 hours duration**
- (b) Practical exams will be of 3 hours duration**
- (c) Workshop exam will be of 8 hours duration**

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Semester-III

Course No	Course Title	Teaching Schedule			Marks for Sessional	Marks for end term Examination		Total Marks	Credits
		L	P	Total		Theory	Practical		
MCA-301	Computer Graphics and Multimedia	5	0	5	40	60	-	100	5
MCA-302	Principals of System Programming & Compiler Design	5	0	5	40	60	-	100	5
MCA-303	Artificial Intelligence and Expert Systems	5	0	5	40	60	-	100	5
MCA-304	Data Communication and Computer Networks	5	0	5	40	60	-	100	5
MCA-305	Object Technology(JAVA)	4	0	4	40	60	-	100	4
MCA-306	Software Lab 5 a) Graphics Programming in C/C++ b) CD/System Programming	0	8	8	60	-	40	100	4
MCA-307	Software Lab 6 a) Java Programming b) Prolog Programming	0	8	8	60	-	40	100	4
	Total	24	16	40	320	300	80	700	32

Note: Exam duration will be as under

- (a) Theory exams will be of 3 hours duration**
- (b) Practical exams will be of 3 hours duration**
- (c) Workshop exam will be of 8 hours duration**

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Semester-IV

Course No	Course Title	Teaching Schedule			Marks for Sessional	Marks for end term Examination		Total Marks	Credits
		L	P	Total		Theory	Practical		
MCA-401	Advanced Java Programming	5	0	5	40	60	-	100	5
MCA-402	Design of Unix OS & Shell Programming	5	0	5	40	60	-	100	4
MCA-403	Software Engineering	5	0	5	40	60	-	100	5
MCA-404	Analysis & Design of Algorithms	5	0	5	40	60	-	100	4
MCA-405	Visual Languages Programming	4	0	4	40	60	-	100	5
MCA-406	Software Lab 7 a) Advance Programming in Java b) Unix and Shell Programming in Java	0	8	8	60	-	40	100	4
MCA-407	Software Lab 8 a) ADA Lab b) Visual Programming using VB	0	8	8	60	-	40	100	4
MCA-408	Minor Project 1		2	2	25			25	2
	Total	24	18	42	345	300	80	725	34

Note: Exam duration will be as under

- (a) Theory exams will be of 3 hours duration
- (b) Practical exams will be of 3 hours duration
- (c) Workshop exam will be of 8 hours duration

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Semester-V

Course No	Course Title	Teaching Schedule			Marks for Sessional	Marks for end term Examination		Total Marks	Credits
		L	P	Total		Theory	Practical		
MCA-501	.Net Technology	5	0	5	40	60	-	100	5
MCA-502	Software Testing and Quality Assurance	5	0	5	40	60	-	100	4
MCA-503	Advanced Database Systems	5	0	5	40	60	-	100	5
MCA-504	Elective 1(chosen from list of electives)	4	0	4	40	60	-	100	4
MCA-505	Elective 2(chosen from list of electives)	5	0	5	40	60	-	100	5
MCA-506	Software Lab 9 a) .Net Programming using C # and / or VB.Net	0	8	8	60	-	40	100	4
MCA-507	Software Lab 10 a) ADS (Working with MS SQL Server)	0	8	8	60	-	40	100	4
MCA-508	Minor Project 2	0	2	2	25			25	2
	Total	24	18	42	345	300	80	725	34

Note: Exam duration will be as under

- (a) Theory exams will be of 3 hours duration
- (b) Practical exams will be of 3 hours duration
- (c) Workshop exam will be of 8 hours duration

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Semester-VI

Course No	Course Title	Teaching Schedule			Marks for Sessional	Marks for end term Examination		Total Marks	Credits
		L	P	Total		Theory	Practical		
MCA-106	Major Project	-	24	24	125	-	375	500	12
	Total	-	24	24	125	-	375	500	12

Note: Exam duration will be as under

- (a) Theory exams will be of 3 hours duration
- (b) Practical exams will be of 3 hours duration

Elective-1

1. Simulation and Modeling
2. Theory of Computation
3. Neural Networks
4. Enterprise Resource Planning
5. Object Oriented Analysis and Design
6. Data warehousing & Data Mining
7. Multimedia and its Applications
8. Soft Computing

Elective-II

1. Digital Image Processing
2. Software Project Management
3. Embedded Systems
4. Bio- Informatics
5. Mobile Computing
6. Perl Programming
7. Computer Security
8. Windows and Visual C++ Programming