Syllabus and Scheme of Examinations
Master of Computer Applications (MCA) Regular Programme
w.e.f. 2016-17
MCA First Year

Semester-I

Paper Code	Course	University Exams	Internal Assessment	Total Marks	Credits (L:T:P)
16MCA31C1	Mathematical Foundation of Computer Science	80	20	100	4:0:0
16MCA31C2	Computer Fundamentals and Programming in C	80	20	100	4:0:0
16MCA31C3	Digital Design	80	20	100	4:0:0
16MCA31C4	Internet and Web Designing	80	20	100	4:0:0
16MCA31C5	Object Oriented Programming Using C++	80	20	100	4:0:0
16MCA31CL1	Software Lab-1 i) Programming in C i) Web Programming Using HTML	100*	----	100	0:0:3
16MCA31CL2	Software Lab-2 Programming in C++	100*	----	100	0:0:3
					26 Credits

Semester-II

Paper Code	Course	University Exams	Internal Assessment	Total Marks	Credits (L:T:P)
16MCA32C1	Data Structures using C++	80	20	100	4:0:0
16MCA32C2	Computer Organization and Architecture	80	20	100	4:0:0
16MCA32C3	Complier Design	80	20	100	4:0:0
16MCA32C4	Data Base Management System	80	20	100	4:0:0
16MCA32C5	Visual Language Programming	80	20	100	4:0:0
16MCA32CL1	Software Lab-3 i) Data Structure implementation in C++ i) Programming in 8086/88/80x6 Assembly	100*	----	100	0:0:3
16MCA32CL2	Software Lab-4 i) Oracle & SQL Prog. ii) Visual Programming	100*	----	100	0:0:3
	Total Credits				26 Credits

Foundation Elective (F)	
To be Chosen from the pool of Foundation Electives provided by the university.	2

Total Credits= 28 Credits

* 20 marks out of 100 will be based on the evaluation/assessment of the candidate in Test(s) and Assignment(s) during the semester, which will be forwarded by the Head of Dept./Director to the Examiner(s). Further, both practical exams of a semester may be conducted on the same day in 2 sittings each maximum of 3 hours.

MCA Second Year

Semester-III

Paper Code	Course	University Exams	Internal Assessment	Total Marks	Credits (L:T:P)
17MCA33C1	Computer Graphics	80	20	100	4:0:0
17MCA33C2	Operating Systems	80	20	100	4:0:0
17MCA33C3	Advance Database Systems	80	20	100	4:0:0
17MCA33C4	Data Communication and Computer Networks	80	20	100	4:0:0
17MCA33C5	Object Technology	80	20	100	4:0:0
17MCA33CL1	SoftwareLab-5 i) Graphics Programming Using C/C++. ii) UNIX /Shell Programming.	100*	----	100	0:0:3
17MCA33CL2	SoftwareLab-6 i) Java Programming ii)ADBMS (PL/SQL & MYSQL)	100*	----	100	0:0:3
					26 Credits

Semester-IV

Paper Code	Course	University Exams	Internal Assessment	Total Marks	Credits (L:T:P)
17MCA34C1	Advanced Java Programming	80	20	100	4:0:0
17MCA34C2	Object Oriented Analysis and Design using UML	80	20	100	4:0:0
17MCA34DA1/ 17MCA34DA2/ 17MCA34DA3	i) Theory of Computation or ii) Software Engineering or iii) Multimedia and Its Applications	80	20	100	4:0:0
17MCA34DB1/ 17MCA34DB2/ 17MCA34DB3	i) Analysis and Design of Algorithms or ii) Computer Security or iii)Digital Image Processing	80	20	100	4:0:0
17MCA34C3	Artificial Intelligence and Expert System	80	20	100	4:0:0
17MCA34CL1	SoftwareLab-7 Advance Java Programming	100*	----	100	0:0:3
17MCA34CL2	Software Lab-8 i)Object Oriented Analysis and Design using UML ii) PROLOG	100*	----	100	0:0:3
17MCA34C4	Minor Project-I	-	100	100	0:2:0
	Total				**28 Credits**

Open Elective (O)	
To be Chosen from the pool of Open Electives provided by the University (excluding the open elective prepared by the Department of Comp Sc. & Appls.)	3

Total Credits= 31 Credits

* 20 marks out of 100 will be based on the evaluation/assessment of the candidate in Test(s) and Assignment(s) during the semester, which will be forwarded by the Head of Dept./Director to the Examiner(s). Further, both practical exams of a semester may be conducted on the same day in 2 sittings each maximum of 3 hours.