13. Courses of Study and Scheme of Assessment

MASTER OF COMPUTER APPLICATIONS **(2020 REGULATIONS)**

(Minimum No. of credits to be earned: 86#)

Course Code	Course Title	Hours/Week			Credits	Maximum Marks			CAT
		Lecture	Tutorial	Practical		CA	FE	Total	
I SEMESTER									
20MX11	Mathematical Foundations of Computer Science	3	1	0	4	50	50	100	PC
20MX12	Structured Programming Concepts	3	2	0	5	50	50	100	PC
20MX13	Data Structures	3	0	0	3	50	50	100	PC
20MX14	Database Management System	3	0	0	3	50	50	100	PC
20MX15	Unix Architecture and Programming	3	2	0	5	50	50	100	PC
20MX16	Data Structures Laboratory	0	0	4	2	100	0	100	PC
20MX17	RDBMS Laboratory	0	0	2	1	100	0	100	PC
20MX18	Web Application Development	0	0	4	2	100	0	100	EEC
20MX19	Professional Communication	0	0	2	1	100	0	100	EEC
Total 32hrs		**15**	**5**	**12**	**26**	**650**	**250**	**900**	
II SEMESTER									
20MX21	Object Oriented Programming using Java	3	0	0	3	50	50	100	PC
20MX22	Design and Analysis of Algorithms	3	1	0	4	50	50	100	PC
20MX23	Enterprise Computing	3	1	0	4	50	50	100	PC
20MX24	Artificial Intelligence	3	1	0	4	50	50	100	PC
20MX25	Software Engineering Methodologies	3	1	0	4	50	50	100	PC
20MX__	Elective I	3	0	0	3	50	50	100	PE
20MX27	Java Programming Laboratory	0	0	4	2	100	0	100	PC
20MX28	Enterprise Application Development	0	0	4	2	100	0	100	EEC
20MX29	Comprehensive Viva voce	0	0	0	0	100	0	Grade	EEC
Total 30 hrs		**18**	**4**	**8**	**26**	**600**	**300**	**800**	
III SEMESTER									
20MX31	Cloud Computing	3	2	0	5	50	50	100	PC
20MX__	Elective II	3	0	0	3	50	50	100	PE
20MX__	Elective III	3	0	0	3	50	50	100	PE
20MX__	Elective IV	3	0	0	3	50	50	100	PE
20MX__	Elective V	3	0	0	3	50	50	100	PE

20MX36	Mobile Application Development	0	0	4	2	100	0	100	EEC
20MX37	Mini Project / Internship$	0	0	0	2	100	0	100	EEC
20MX38	Technical Seminar	0	0	2	1	100	0	100	EEC
Total 23hrs		**15**	**2**	**6**	**22**	**550**	**250**	**800**	
IV SEMESTER									
20MX41	Project Work	0	0	**24**	**12**	50	50	100	EEC

 # - the minimum number of credits to be earned by a student
$ - Miniproject/Internship will be carried out during vacation following second semester and beyond class hours during third semester.

ELECTIVE COURSES (FIVE to be opted)									
Course Code	Course Title	Hours / Week				Maximum Marks			
		Lecture	Tutorial	Practical	Credits	CA	FE	Total	CAT
20MXAA	Design Patterns	3	0	0	3	50	50	100	PE
20MXAB	Software Project Management	3	0	0	3	50	50	100	PE
20MXAC	Security in Computing	3	0	0	3	50	50	100	PE
20MXAD	Advanced Database Technology	3	0	0	3	50	50	100	PE
20MXAE	Computer Graphics	3	0	0	3	50	50	100	PE
20MXAF	Evolutionary Computing	3	0	0	3	50	50	100	PE
20MXBA	Computer Networks	3	0	0	3	50	50	100	PE
20MXBB	Data Mining and Analytics	3	0	0	3	50	50	100	PE
20MXBC	Machine Learning	3	0	0	3	50	50	100	PE
20MXBD	Internet of Things	3	0	0	3	50	50	100	PE
20MXBE	Wireless Networks	3	0	0	3	50	50	100	PE
20MXBF	Deep Learning	3	0	0	3	50	50	100	PE
20MXBG	Multidimensional Data Structures	3	0	0	3	50	50	100	PE
20MXBH	Open Source Systems	3	0	0	3	50	50	100	PE
20MXBI	Ubiquitous and Pervasive Computing	3	0	0	3	50	50	100	PE
20MXBJ	Human Computer Interaction	3	0	0	3	50	50	100	PE
20MXBK	Soft Computing	3	0	0	3	50	50	100	PE
20MXBL	Social Networking and Web Mining	3	0	0	3	50	50	100	PE
20MXBM	Multi-Core Programming	3	0	0	3	50	50	100	PE
20MXCA	Entrepreneurship	3	0	0	3	50	50	100	PE
20MXCB	Principles of Management and Behavioural Sciences	3	0	0	3	50	50	100	PE
20MXCC	Probability and Statistics	3	0	0	3	50	50	100	PE
20MXCD	Optimization Techniques	3	0	0	3	50	50	100	PE
20MXCE	Numerical Methods	3	0	0	3	50	50	100	PE
20MXCF	Applied Graph Theory	3	0	0	3	50	50	100	PE

CAT – Category; PC – Professional Core; PE - Professional Elective EEC – Employability Enhancement Course

ONE CREDIT COURSES

20XK01 Domain Specific Languages
20XK02 Software Testing – Industry Perspectives
20XK03 Operating System Performance Assessment
20XK04 Multi-Core Technology
20XK05 Skills for Virtual Teams
20XK06 Software Configuration Management and Continuous Delivery.