



VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
CHOICE BASED CREDIT SYSTEM (CBCS)
SCHEME OF TEACHING AND EXAMINATION 2018 – 19 Onwards
Master of Computer Applications (MCA)

I SEMESTER

Sl. No	Course Code	Title	Teaching Department	Teaching Hours /Week			Examination			Credits	
				Theory (L)	Practical (P)	Tutorial (T)	Duration in hours	SEE Marks	CIE Marks		Total Marks
1	18MCA11	Advanced C and OOP with C++	MCA	03	-	01	03	60	40	100	04
2	18MCA12	Introduction to Unix	MCA	03	-	01	03	60	40	100	04
3	18MCA13	Introduction to Web Programming	MCA	03	-	01	03	60	40	100	04
4	18MCA14	Software Engineering	MCA	03	-	-	03	60	40	100	03
5	18MCA15	Computer Organization and Architecture	MCA	03	-	-	03	60	40	100	03
6	18MCA16	C and C++ Lab	MCA	-	02	-	03	60	40	100	01
7	18MCA17	Unix Lab	MCA	-	02	-	03	60	40	100	01
8	18MCA18	Web Programming Lab	MCA	-	02	-	03	60	40	100	01
TOTAL				Theory: 15hours Practical: 06 hours Tutorial/Instruction: 03hours				480	320	800	21



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II SEMESTER

Sl. No	Course Code	Title	Teaching Department	Teaching Hours /Week			Examination			Credits	
				Theory (L)	Practical (P)	Tutorial (T)	Duration in hours	SEE Marks	CIE Marks		Total Marks
1	18MCA21	Introduction to Java Programming	MCA	03	-	01	03	60	40	100	04
2	18MCA22	Data Structures using C++	MCA	03	-	01	03	60	40	100	04
3	18MCA23	Mathematical Structures and Statistics	MCA/ Mathematics	03	-	01	03	60	40	100	04
4	18MCA24	Computer Networks	MCA	03	-	-	03	60	40	100	03
5	18MCA25	Operating System	MCA	03	-	-	03	60	40	100	03
6	18MCA26	Java Programming Lab	MCA	-	02	-	03	60	40	100	01
7	18MCA27	Data Structures Lab	MCA	-	02	-	03	60	40	100	01
8	18MCA28	Mathematics and Statistics Lab	MCA	-	02	-	03	60	40	100	01
TOTAL				Theory: 15hours Practical: 06 hours Tutorial/Instruction: 03hours				480	320	800	21



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III SEMESTER

Sl. No	Course Code	Title	Teaching Department	Teaching Hours /Week			Examination			Credits	
				Theory (L)	Practical (P)	Tutorial (T)	Duration in hours	SEE Marks	CIE Marks		Total Marks
1	18MCA31	Database Management System	MCA	03	-	01	03	60	40	100	04
2	18MCA32	Introduction to Python Programming	MCA	03	-	01	03	60	40	100	04
3	18MCA33	Object Oriented Modeling and Design	MCA	03	-	01	03	60	40	100	04
4	18MCA34	Design and Analysis of Algorithms	MCA	03	-	-	03	60	40	100	03
5	18MCA35	Cloud Computing	MCA	03	-	-	03	60	40	100	03
6	18MCA36	DBMS Lab	MCA	-	02	-	03	60	40	100	01
7	18MCA37	Python Programming Lab	MCA	-	02	-	03	60	40	100	01
8	18MCA38	OOMD Lab	MCA	-	02	-	03	60	40	100	01
TOTAL				Theory: 15hours Practical: 06 hours Tutorial/Instruction: 03hours				480	320	800	21



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IV SEMESTER

Sl. No	Course Code	Title	Teaching Department	Teaching Hours /Week			Examination			Credits	
				Theory (L)	Practical (P)	Tutorial (T)	Duration in hours	SEE Marks	CIE Marks		Total Marks
1	18MCA41	Advanced Java Programming	MCA	03	-	01	03	60	40	100	04
2	18MCA42	Advanced Web Programming	MCA	03	-	01	03	60	40	100	04
3	18MCA43	Software Testing	MCA	03	-	-	03	60	40	100	03
4	18MCA44X	Elective I	MCA	03	-	-	03	60	40	100	03
5	18MCA45X	Elective II	MCA	03	-	-	03	60	40	100	03
6	18MCA46	Professional Communication & Ethics	MCA	02	-	01	03	60	40	100	02
7	18MCA47	Advanced Java Programming Lab	MCA	-	02	-	03	60	40	100	01
8	18MCA48	Advanced Web Programming Lab	MCA	-	02	-	03	60	40	100	01
9	18MCA49	Software Testing Lab	MCA	-	02	-	03	60	40	100	01
TOTAL				Theory: 17hours Practical: 06 hours Tutorial/Instruction: 03hours				540	360	900	22

Elective I		Elective II	
18MCA441	Wireless Sensor Networks	18MCA451	Enterprise Resource Planning (ERP)
18MCA442	Cyber Security	18MCA452	Data Warehousing and Data Mining
18MCA443	Internet of Things(IoT)	18MCA453	Advanced Database Management Systems
18MCA444	Advanced Computer Networks	18MCA454	Software Architecture



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V SEMESTER

Sl. No	Course Code	Title	Teaching Department	Teaching Hours /Week			Examination			Credits	
				Theory (L)	Practical (P)	Tutorial (T)	Duration in hours	SEE Marks	CIE Marks		Total Marks
1	18MCA51	Programming using C#.net	MCA	03	-	01	03	60	40	100	04
2	18MCA52	Mobile Applications	MCA	03	-	01	03	60	40	100	04
3	18MCA53	Data Analytics	MCA	03	-	-	03	60	40	100	03
4	18MCA54X	Elective III	MCA	03	-	-	03	60	40	100	03
5	18MCA55X	Elective IV	MCA	03	-	-	03	60	40	100	03
6	18MCA56	C#.net Lab	MCA	-	02	-	03	60	40	100	01
7	18MCA57	Mobile Applications Lab	MCA	-	02	-	03	60	40	100	01
8	18MCA58	Mini Project	MCA	-	04	-	03	60	40	100	02
TOTAL				Theory: 15hours Practical: 08 hours Tutorial/Instruction: 02hours				480	320	800	21

Elective III		Elective IV	
18MCA541	Machine Learning	18MCA551	System Simulation and Modeling
18MCA542	Artificial Intelligence	18MCA552	Computer Graphics
18MCA543	Image Processing	18MCA553	Multimedia Systems
18MCA544	Parallel Computing	18MCA554	Software Project Management



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Sl. No	Course Code	Title	Teaching Department	Teaching Hours /Week			Examination			Credits	
				Theory	Practical	Tutorial	Duration in hours	SEE Marks	CIE Marks		Total Marks
1	18MCA61	Internship	MCA	-	-	-	-	-	50	50	2
2	18MCA62	Seminar	MCA	-	-	-	-	-	50	50	1
3	18MCA63	Major Project	MCA	-	-	-	03	100	100	200	16
TOTAL								100	200	300	19