RAMAKRISHNA MISSION VIDYAMANDIRA
Department of Computer Science and Electronics

Syllabus for B.Sc. Computer Science

SEMESTER– I

Course Code	Course Title	Credits	Marks	L	T	P
				No. of Hours/Week		
100-level Course	**Major Course**	Attendance: 5 Continuous Assessment: 20 End Semester Examination: 50 Practical: 25				
1CMSCOC1	Computer Fundamentals	3	75	3		
	C Programming Laboratory	1	25			2
100-level Course	**Minor Course (For other Departments)**	Attendance: 5 Continuous Assessment: 20 End Semester Examination: 50 Practical: 25				
1CMSCOC1	Computer Fundamentals	3	75	3		
	C Programming Laboratory	1	25			2
	Skill Enhancement Course (SEC)	Continuous Assessment: 50 Practical: 25				
1CMSSEC1	Digital Electronics	2	50	2		
	Digital Electronics Laboratory	1	25			2
	Value Added Course (VAC)	Continuous Assessment: 50 (1CMSVAC1) End Semester Examination: 50 (1INSVAC1)				
1CMSVAC1	Introduction to Python	2	50			4
1INSVAC1	ICSH	2	50	2		
	Ability Enhancement Course (AEC)	End Semester Examination: 50				
1INSAEC1	(Provided by Institute)	2	50	2		
	Multidisciplinary Course (Provided by Institute)	End Semester Examination: 50				
1INSMDC1	Environmental Science Art and Culture	3	50	3		

RAMAKRISHNA MISSION VIDYAMANDIRA
Department of Computer Science and Electronics

Syllabus for B.Sc. Computer Science

SEMESTER– II

Course Code	Course Title	Credits	Marks	L	T	P
				No. of Hours/Week		
100-level Course	**Major Course**	Attendance: 5 Continuous Assessment: 20 End Semester Examination: 50 Practical: 25				
2CMSCOC1	Data Structure	3	75	3		
	Data Structure Laboratory	1	25			2
100-level Course	**Minor Course (For other Departments)**	Attendance: 5 Continuous Assessment: 20 End Semester Examination: 50 Practical: 25				
2CMSCOC1	Data Structure	3	75	3		
	Data Structure Laboratory	1	25			2
	Skill Enhancement Course (SEC)	Continuous Assessment: 50 Practical: 25				
2CMSSEC1	Computer Aided Data Visualization	2	50	2		
	Computer Aided Data Visualization Laboratory	1	25			2
	Value Added Course (VAC)	Continuous Assessment: 50 (1CMSVAC1) End Semester Examination: 50 (1INSVAC1)				
2CMSVAC1	Object Oriented Programming using JAVA	2	50			4
2INSVAC1	ICSH	2	50	2		
	Ability Enhancement Course (AEC)	End Semester Examination: 50				
2INSAEC1	(Provided by Institute)	2	50	2		
	Multidisciplinary Course (Provided by Institute)	End Semester Examination: 50				
2INSMDC1	Environmental Science	3	50	3		
	Art and Culture					

RAMAKRISHNA MISSION VIDYAMANDIRA
Department of Computer Science and Electronics
Syllabus for B.Sc. Computer Science

SEMESTER– III

Course Code	Course Title	Credits	Marks	L	T	P
				No. of Hours/Week		
200-level Course	**Major Course**	Attendance: 5 Continuous Assessment: 20 End Semester Examination: 50 Practical: 25				
3CMSMJC1	Web Programming	3	75	3		
	Web Programming Laboratory	1	25			2
3CMSMJC2	Microprocessor and Computer Organization	3	75	3		
	Microprocessor and Computer Organization Laboratory	1	25			2
200-level Course	**Minor Course (For other Departments)**	Attendance: 5 Continuous Assessment: 20 End Semester Examination: 50 Practical: 25				
3CMSMIC1	Web Programming	3	75	3		
	Web Programming Laboratory	1	25			2
	Skill Enhancement Course (SEC)	Continuous Assessment: 50 Practical: 25				
3CMSSEC1	Numerical Methods	2	50	2		
	Numerical Methods Laboratory	1	25			2
	Ability Enhancement Course (AEC)	End Semester Examination: 50				
3INSAEC1	(Provided by Institute)	2	50	2		
	Multidisciplinary Course (Provided by Institute)	End Semester Examination: 50				
3INSMDC1	Environmental Science	3	50	3		
	Art and Culture					

RAMAKRISHNA MISSION VIDYAMANDIRA

Department of Computer Science and Electronics

Syllabus for B.Sc. Computer Science

SEMESTER– IV

Course Code	Course Title	Credits	Marks	No. of Hours/Week		
				L	T	P
200-level Course	**Major Course**	**Attendance: 5** **Continuous Assessment: 20** **End Semester Examination: 50** **Practical: 25**				
4CMSMJC1	Design and Analysis of Algorithms 1	3	75	3		
	Design and Analysis of Algorithms 1 Laboratory	1	25			2
4CMSMJC2	Operating Systems	3	75	3		
	Operating Systems Laboratory	1	25			2
4CMSMJC3	Database Management Systems	3	75	3		
	Database Management Systems Laboratory	1	25			2
4CMSMJC4	Computational Mathematics	3	75	3		
	Computational Mathematics Tutorial	1	25		2	
200-level Course	**Minor Course (For other Departments)**	**Attendance: 5** **Continuous Assessment: 20** **End Semester Examination: 50** **Practical: 25**				
4CMSMIC1	Digital Electronics	3	75	3		
	Digital Electronics Laboratory	1	25			2
	Ability Enhancement Course (AEC)	**End Semester Examination: 50**				
4INSAEC1	(Provided by Institute)	2	50	2		

RAMAKRISHNA MISSION VIDYAMANDIRA

Department of Computer Science and Electronics

Syllabus for B.Sc. Computer Science

SEMESTER– V

Course Code	Course Title	Credits	Marks	No. of Hours/Week L	T	P
300-level Course	**Major Course**	Attendance: 5 Continuous Assessment: 20 End Semester Examination: 50 Practical: 25				
5CMSMJC1	Mathematics for Artificial Intelligence	3	75	3		
	Mathematics for Artificial Intelligence Tutorial	1	25			2
5CMSMJC2	Software Engineering	3	75	3		
	Software Engineering Laboratory	1	25			2
5CMSMJC3	Computer Networks	3	75	3		
	Computer Networks Laboratory	1	25			2
5CMSMJC4	Formal Language and Automata Theory	3	75	3		
	Formal Language and Automata Theory Tutorial	1	25		2	
200-level Course	**Minor Course (For other Departments)**	Attendance: 5 Continuous Assessment: 20 End Semester Examination: 50 Practical: 25				
5CMSMIC1	Analog Electronics	3	75	3		
	Analog Electronics Laboratory	1	25			2
5CMSSUM1	**Summer Internship**					

RAMAKRISHNA MISSION VIDYAMANDIRA

Department of Computer Science and Electronics

Syllabus for B.Sc. Computer Science

SEMESTER– VI

Course Code	Course Title	Credits	Marks	No. of Hours/Week		
				L	T	P
300-level Course	**Major Course**	Attendance: 5 Continuous Assessment: 20 End Semester Examination: 50 Practical: 25				
6CMSMJC1	Artificial Intelligence and Machine Learning	3	75	3		
	Artificial Intelligence and Machine Learning Laboratory	1	25			2
6CMSMJC2	Design and Analysis of Algorithms II	3	75	3		
	Design and Analysis of Algorithms II Laboratory	1	25			2
6CMSMJC3	Computer Graphics	3	75	3		
	Computer Graphics Laboratory	1	25			2
6CMSMJC4	Compiler Design	3	75	3		
	Compiler Design Laboratory	1	25			2
200-level Course	**Minor Course (For other Departments)**	Attendance: 5 Continuous Assessment: 20 End Semester Examination: 50 Practical: 25				
6CMSMIC1	Artificial Intelligence and Machine Learning	3	75	3		
	Artificial Intelligence and Machine Learning Laboratory	1	25			2

RAMAKRISHNA MISSION VIDYAMANDIRA
Department of Computer Science and Electronics
Syllabus for B.Sc. Computer Science

SEMESTER– VII

Course Code	Course Title	Credits	Marks	No. of Hours/Week		
				L	T	P
400-level Course	**Major Course**	Attendance: 5 Continuous Assessment: 20 End Semester Examination: 50 Practical: 25				
7CMSMJC1	Internet-of-Things	3	75	3		
	Internet-of-Things Laboratory	1	25			2
7CMSMJC2	Research Methodology	3	75	3		
	Presentation	1	25			2
7CMSMJC3	Elective 1 from MOOC	4	100	As per MOOC Lectures Hours		
7CMSMJC4	Research / Elective 2 from MOOC	4	100	As per MOOC Lectures Hours		
300-level Course	**Minor Course (For other Departments)**	Attendance: 5 Continuous Assessment: 20 End Semester Examination: 50 Practical: 25				
7CMSMIC1	Internet-of-Things	3	75	3		
	Internet-of-Things Laboratory	1	25			2

RAMAKRISHNA MISSION VIDYAMANDIRA

Department of Computer Science and Electronics

Syllabus for B.Sc. Computer Science

SEMESTER– VIII

Course Code	Course Title	Credits	Marks	No. of Hours/Week L	T	P
400-level Course	**Major Course**	Attendance: 5 Continuous Assessment: 20 End Semester Examination: 50 Practical: 25				
8CMSMJC1	Elective 3 from MOOC	4	100	As per MOOC Lectures Hours		
	Without Research	**No Need to Pursue With Research Paper (8CMSMJR1)**				
8CMSMJP1	Project 1	4	100			
8CMSMJP2	Project 2	4	100			
8CMSMJP3	Project 3	4	100			
	With Research	**No Need to Pursue Without Research Papers (8CMSMJP2, 8CMSMJP2, 8CMSMJP3)**				
8CMSMJR1	Research Paper	12	300			
300-level Course	**Minor Course (For other Departments)**	Attendance: 5 Continuous Assessment: 20 End Semester Examination: 50 Practical: 25				
8CMSMIC1	Data Analysis	3	75	3		
	Data Analysis Laboratory	1	25			2