RAMAKRISHNA MISSION VIDYAMANDIRA

Syllabus for M.Sc. in Computer Science

SEMESTER – I

Course code	Course title	Credits	Marks	No. of Hours/Week		
				L	T	P
Theoretical						
CC1	Artificial Intelligence (AI)	4	50	5	1	0
CC2	Essential Statistics and Mathematics for AI and Machine Learning (ML)	4	50	5	1	0
CC3	Advanced Algorithms and Data Structures	4	50	5	1	0
Practical						
CC4	AI Problem Solving Lab using Python & Statistics Essentials using R Programming Lab	4	25+25	0	2	6
CC5	Advanced Algorithms and Data Structures Lab	4	25+25	0	2	6
	Total	**20**	**250**			

SEMESTER – II

Course code	Course title	Credits	Marks	No. of Hours/Week		
				L	T	P
Theoretical						
CC6	Introduction to Machine Learning	4	50	5	1	0
CC7	Advanced Architecture and System Programming	4	50	5	1	0
CC8	Internet-of-Things (IoT)	4	50	5	1	0
Practical						
CC9	Machine Learning Lab, Advanced Architecture and System Programming Lab	2+2	25+25	0	2	6
CC10	IoT Lab using Raspberry Pi/Arduino, Minor Project and Presentation	2+2	25+25	0	2	6
	Total	**20**	**250**			

SEMESTER – III

Course code	Course title	Credits	Marks	No. of Hours/Week		
				L	T	P
Theoretical						
CC11	Introduction to Deep Learning	4	50	5	1	0
CC12	Data Science and Natural Language Processing (NLP)	4	50	5	1	0
CC13	Elective-I	4	50	5	1	0
Practical						
CC14	Deep Learning Lab, Data Science and NLP Lab	4	25+25	0	2	6
CC15	Elective-I Lab and Project Designing	4	25+25	0	2	6
	Total	**20**	**250**			

SEMESTER – IV

Course code	Course title	Credits	Marks	No. of Hours/Week		
				L	T	P
CC16	Elective-II	4	50	5	1	0
CC17	Dissertation/Project	14	125	0	2	16
CC18	Research Methodology and Presentation Lab	2	25	0	2	2
CC19	Grand Viva	4	50	0	0	0
	Total	**24**	**250**			

ELECTIVE PAPERS
(Choose Elective-I and Elective-II from the following lists)

Paper Name
Elective -I
Computer Vision
Cybersecurity
Big Data Analytics
Advanced Database Management Systems
Elective -II
Image Processing
Bioinformatics
VLSI Design
Blockchain