I/II MCA I-SEMESTER	I/II MCA II-SEMESTER
I/II MCA I-SEMESTER CA111 Data structures CA112 Database Management Systems CA113 Operating Systems CA114 Computer Networks CA115 Discrete Mathematical Structures CA151 Data structures Lab CA152 Database Management Systems Lab CA153 Professional Communication Skills Lab	**I/II MCA II-SEMESTER** CA121 JAVA Programming CA122 Web Technologies CA123 Object Oriented Programming CA124 Software Engineering CA125 Probability and Statistics CA161 Java Programming Lab CA162 Web Technologies Lab CA163 Python Programming Lab
II/II MCA III-SEMESTER CA211 Data Mining and Big Data CA212 Artificial Intelligence CA213 Cloud Computing CA214 **Elective-I** CA215 ***Elective-II** CA251 Data Mining and Big Data Lab CA252 Elective 1lab CA253 Mini Project CA254 Internship	**II/II MCA IV-SEMESTER** **CA221 MOOCs*** CA222 Major Project Work

Elective-I	Elective-II
Elective-I CA214(A) Internet of Things CA214(B) Machine Learning CA214(C) Mobile Application Design and Development CA214(D) Image Processing CA214(E) Data Science	**Elective-II** CA215(A) Programming using C# CA215(B) Devops CA215(C) Block Chain Technology CA215(D) Software testing and Quality Assurance CA215(E) Design and Analysis of Algorithms