

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
MCAL31	Core and Advanced Java Lab	--	--	4	--	--	2	2
		Examination Scheme						
		Term Work			Practical	Oral	Total	
		40			10	10	60	

Prerequisite Course codes	MCA11	
Course Outcomes	CO1	Understand the basic object oriented features of JAVA and solve problems based on it.
	CO2	Implement Database connectivity and file handling concept in JAVA
	CO3	Understand Web technologies like Servlet and JSP in JAVA and implement real time problem based on it.
	CO4	Apply EJB applications and Struts framework of JAVA to solve real time application.

Expt. No.	Experiment Details	Ref.	Marks
1	Fundamentals of Java Programming	1,2	5
2	Objects and Classes	1,2	5
3	Generics, Collections and Lambda Expression	1,2	5
4	Program based on Exception Handling and Multi-threading	1,2	5
5	File Handling	1,2	5
6	Event handling and GUI programming Database Programming	2	5
7	Web development using Servlets and JSP	5	5
8	Introduction to Spring Frameworks	13	5
Total Marks			40

References:

- [1] Herbert schildt, "The complete reference JAVA2", Tata McGraw Hill, Seventh Edition.
- [2] Sharanam Shah and vaishali shah, "Core Java for beginners", SPD, First Edition.
- [3] Savalia, "Advance Java Technology", Dreamtech Press/Wiley India, First Edition.
- [4] Kogent Learning Solutions Inc, "Java Server Programming java EE6", Dreamtech press First Edition.
- [5] Wigglesworth, "Java Programming Advanced Topics w/2CDs", Third Edition, Cengage Learning.
- [6] Ivan Byaross, "Commercial web development using java 2.0", BPB, Revised Edition.
- [7] Marty Hall and Larry Brown, "Core Servlets and Java Server Pages :Vol I: Core Technologies", Pearson, Second Edition.
- [8] Sharnam Shah and vaishali shah, "Java EE 6 for Server Programming for professionals", SPD, Second Edition.
- [9] E.Balaguruswamy, "Programming with Java A Primer", Tata McGraw Hill, Fourth Edition.
- [10] Craig Walls, "Spring in Action", 3rd Edition, Manning.