GUJARAT UNIVERSITY
K. S. SCHOOL OF BUSINESS MANAGEMENT
M.Sc. IN COMPUTER APPLICATIONS AND INFORMATION TECHNOLOGY
[Five Years' (Full-time) Integrated Degree Course]

Sixth Semester M.Sc. (CA & IT)
KS_C_SE-361 Advance Java

3 credit course

Objective:
The subject and the course content will help the student to understand the concepts of threading and thread-safe programming in Java, Write client-side Java applications using Swing, Work with XML in Java, Work with Java Web Services

UNIT I: **(20%)**
- **Advanced Java Swing Programming: -**Introduction of Swing, Swing Components, Look and Feel for Swing Components
- **Multimedia Programming: -** 2D and 3D Graphics, Audio and Video, Animations,

UNIT II: **(20%)**
- **JavaBeans: -** The Software Component Assembly Model, The JavaBeans Development Kit, Developing Beans
- **Database Programming: -** ODBC and JDBC Drivers, Connecting to Database with the java.sql Package, Using JDBC

UNIT III: **(20%)**
- **Servlets :-** Introduction to Servlets, Servlet Life Cycle, Servlet based Applications, Servlet and HTML
- **JSP :-** Introduction to JSP, JSP implicit objects, JSP based Applications

UNIT IV: **(20%)**
- **XML: -** XML syntax and semantics, XML based applications
- **RMI: -** The RMI Architecture, RMI exceptions, Developing Applications with RMI

UNIT V: **(20%)**
- **J2EE:-** The J2EE Platform, The J2EE connector Architecture, J2EE Packaging and Deployment
- **Other Java Technologies :-** Java Message Service (JMS), Java in small memory space (PDA),Overview of Distributed Computing (J2EE, CORBA, DCOM)

Recommended Lecture Scheme: Approximately 45 hours of classroom teaching,

Recommended Practical Scheme: Not Applicable

Assignment: One assignment every month.

Text Books:
1. Professional Java Server Programming (a Press)
   By Allamaraju
2. Developing Java Servlets (Techmedia – SAMS)
   By James Goodwill

Reference Books:
1. Using Java 1.2 Special Edition (PHI)
   By Webber
2. Java 2 Unleashed (Techmedia – SAMS)
   By Jamie Jaworski