

**JYOTI NIVAS COLLEGE AUTONOMOUS
SYLLABUS FOR 2018 BATCH AND THEREAFTER**

Programme: B.C.A

Semester: V

ADVANCED JAVA PROGRAMMING

Course Code: 18BCAVT1

No. of Hours: 60

COURSE OBJECTIVES:

- Learn to create the graphical user interface oriented applications using platform independent and light weight components such as swings.
- Understand the architecture of Remote Method Invocation (RMI) and Common Object Request Broker Architecture (CORBA)
- Understand how the database programming concepts are implemented in java using JDBC.

LEARNING OUTCOMES:

- It will help in understanding the advantages of using swings over applet programs.
- Understanding of an architecture of RMI and CORBA help in developing an applications which utilizes the resources efficiently.
- Knowledge about the database programming will add an advantage in developing efficient and secure applications.

UNIT - I

10 HRS

Swings – JApplet – Icons and Labels – Text Fields – Buttons – Combo Boxes – Tabbed panes – Scroll Panes – Trees – Tables – Exploring Swing.

Network Basics – InetAddress – TCP/IP Sockets – URL – URLConnection - Datagrams.

UNIT - II

10 HRS

Remote Method Invocation - Introduction – Architecture – Developing RMI Application – Executing an RMI application.

CORBA – Introduction – Architecture – Functioning of CORBA Applications

UNIT - III

14 HRS

Database Programming With JDBC – Database Drivers – loading a Database Driver and Opening Connections – Establishing Connection – Creating and Executing SQL Statements – Querying Database Using ResultSet Interface – Prepared Statements – Mapping SQL Type to Java – Transaction Support – Scrollable and Updatable Result Sets – Batch Updates.

UNIT - IV

14 HRS

JSP Basics – Introduction – JSP Directives – Scripting Elements – Standard Actions – Implicit Objects – Scope – JSP Design Basics – The Dispatcher Approach.

Servlets – Life Cycle of Servlet – Java Server Development Kit – Servlet API – javax.servlet.Package – javax.servlet.httpPackage – Handling HTTP Requests and Responses – Using Cookies – Session Tracking.

UNIT - V

12 HRS

Java Beans - Introduction to Java Beans, Advantages of Java Beans, Bean Development Kit, JAR files, Introspection, Using Bound properties, Bean Info Interface, Constrained properties Persistence, Customizers, Java Beans API.

REFERENCES:

1. Patrick Naughton and Herbert Schildt. The complete Reference Java 2. Tata McGraw-Hill Publishing Co. Fifth Edition, 2002. **(Unit I, II, IV & V)**
2. Subrahmanyam Allamaraju et.al. Professional Java Server Programming. J2EE Edition. Volume – I. Wrox Press Ltd. Shroff publishers & Distributors pvt. Ltd. **(Unit III & IV)**
3. Pallavi Jain and Shadab Siddiqui. J2EE Professional Projects. NIIT. **(Unit II)**