

UNIT – I

Generics: What are generics, A simple generic example, a generic class with two type parameters, the general form of a generic class.

Java Collections Framework: Collection Overview, The collection interfaces – The collection interfaces, the list interface, the set interface, the socket set interface. The collection classes – The arraylist class, the linked list class, the hashset class, the linked hashset class, the treeset class. Accessing a collection via an iterator using an iterator, the for-each alternative to iterative. Working with maps – The map interfaces, the map classes. Using a comparator.

UNIT – II

Java Beans: What is a java beans, advantages of java beans, introspection, java beans API, A bean example.

JDBC Objects: The concept of JDBC, JDBC Driver Types, JDBC Packages, A brief overview of the JDBC Process, Database Connection, Associating the JDBC/ODBC Bridge with the database, Statement Objects, Resultset, Transaction Processing, Metadata, Model Programs, Tables, and Indexing, Inserting data into tables, selecting data from a table, updating tables, deleting data from a table.

UNIT – III

HTML, XML and XHTML: HTML – Basic Concepts of HTML, The Skeleton of a web page, creating a form, tables, XML, XHTML. Parsing XML.

Java Servlets: Java servlets and common gateways interface programming, A simple java servlet, anatomy of a java servlet.

Java ServerPages: JSP – Installation, JSP Tags – Variables and objects, methods, control statements, loops, Tomcat, Request String, User sessions, Cookies, Session objects,

UNIT – IV

Java Script: Introduction to Java Script – What is dynamic HTML? Java Script, JavaScript Basics, Variables, String Manipulation, Mathematical functions, statements, operators, arrays, functions.

Objects in Java Script: Data and objects in java scripts, Regular expressions, exception handling, built-in objects, cookies, events.

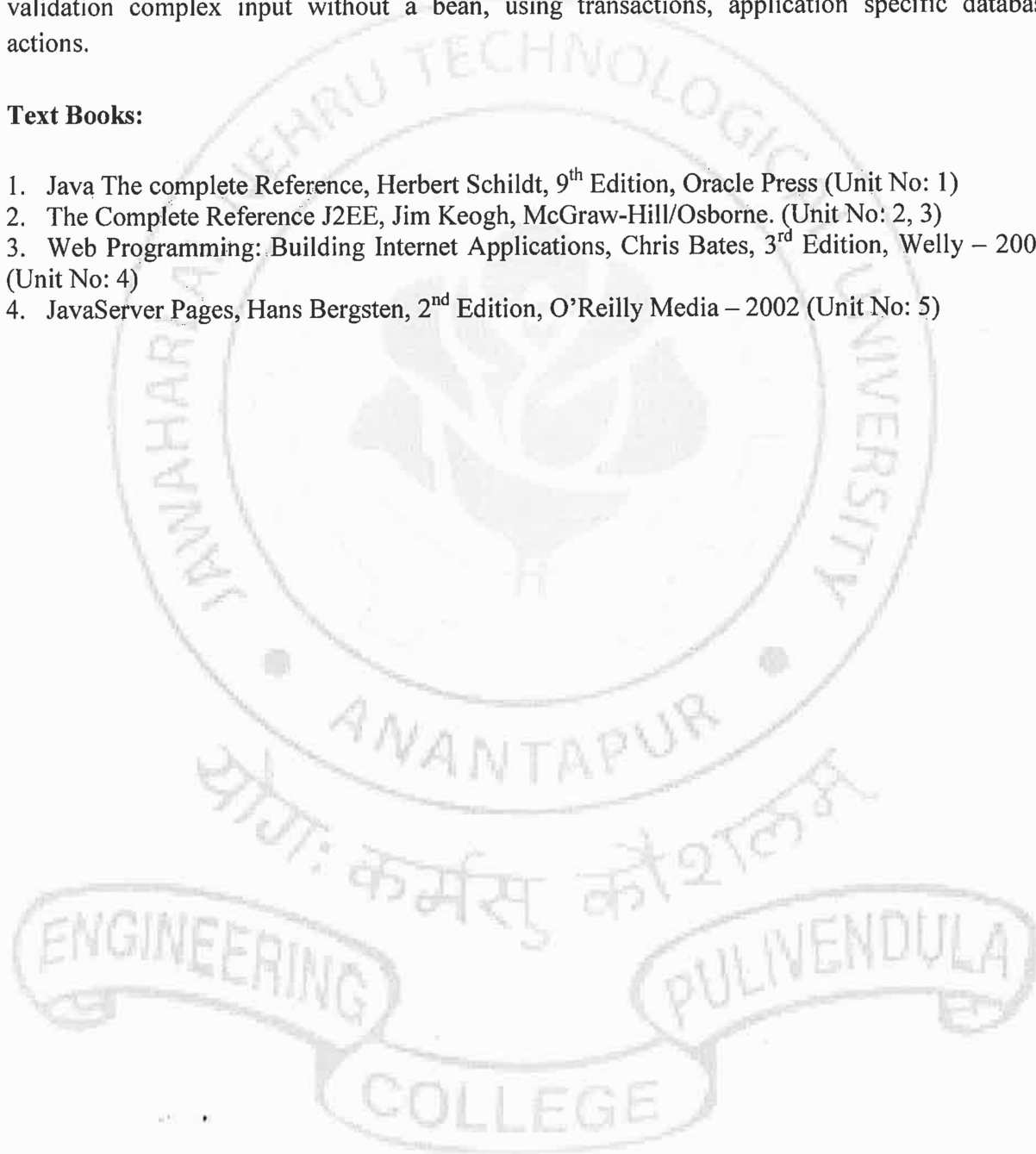
Dynamic HTML with JavaScript: Data Validation, Opening a new window, messages and confirmation, the statusbar, writing to a different frame, rollover buttons, moving images, multiple pages in a single download, a text only menu system, floating logo.

UNIT – V

Accessing a Database: Accessing a database from a JSP page – Application architecture example, table example, the data source interface and jdbc drivers reading and storing information in a database, generating html from a query result, searching for rows based on partial information, deleting database information, displaying data over multiple pages, validation complex input without a bean, using transactions, application specific database actions.

Text Books:

1. Java The complete Reference, Herbert Schildt, 9th Edition, Oracle Press (Unit No: 1)
2. The Complete Reference J2EE, Jim Keogh, McGraw-Hill/Osborne. (Unit No: 2, 3)
3. Web Programming: Building Internet Applications, Chris Bates, 3rd Edition, Welly – 2006. (Unit No: 4)
4. JavaServer Pages, Hans Bergsten, 2nd Edition, O'Reilly Media – 2002 (Unit No: 5)



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