

HEMCHANDRACHARYA, NORTH GUJARAT UNIVERSITY, PATAN

B.E SEMESTER - III (IT)

IT304: Object Oriented Programming Using Java

(In force from June 2006)

TEACHING SCHEME:

THEORY 03 HRS/WEEK

PRACT 02 HRS/WEEK

TOTAL 05 HRS/WEEK

EXAM SCHEME:

THEORY 100 MARKS (3 HRS)

PRACT 25 MARKS

TW/VIVA 25 MARKS

TOTAL 150 MARKS

UNIT I:

Introduction to object oriented programming concepts- java as an object oriented programming language – introduction to java applications and applets-control structures-methods-arrays.

UNIT II:

Object based and object oriented programming-creating packages –using overloaded constructors-static class variables-data abstraction and information hiding-relation between super class objects and subclass objects-composition verses inheritance-polymorphism –dynamic method binding-abstract super classes and concrete super classes-inheriting interface- use of inner classes and wrapper classes- StringTokenizer and StringBuffer classes.

UNIT III:

Role of object oriented programming in designing GUI- Graphics and Java2D- overview of swing- event handling, adapter classes and layout managers. Advance GUI components-JPopupMenu- JDesktopPane-advance layout managers.

UNIT IV:

Exception handling and multithreading in object oriented programming- When exception handling should be used-java exception handling-exceptions and inheritance- multithreading in java –thread synchronization-daemon threads- Runnable interface- Files and Streams in java.

UNIT V:

Network and Database handling through object oriented programming- using JDBC – processing queries-overview of servlets- multitier applications using JDBC from a Servlet- introduction to networking-establishing a simple server and a client- introduction to RMI - implementing the remote interface.

Reference Books:

1. Java How To Program, H. M. Deitel and P. J. Deitel, Prentice Hall 3rd edition.
2. "An Introduction to Programming and object oriented Design using Java" by Jaime Nino and Fedric A.Hosch, John Wiley.
3. An introduction to Object Oriented Programming with Java II Edition, C. Thomas Wu, TMH.
4. The complete reference JAVA 2 IV Edition, Herbert Schildt, TMH.
5. Introduction to Java Programming, Daneal/Yong, PHI.
6. Beginning Java 2 , Ivon Horton , Wrox Publishers .
7. Internet and Java Programming, R.Krishnamoorthy nsd S.Prabhu, New Age International.