

SEMESTER III – PAPER VIII – C++ AND JAVA PROGRAMMING – MODULE II

C++ PROGRAMMING

UNIT I: OBJECT-ORIENTED SYSTEM DEVELOPMENT

Introduction – Object-Oriented paradigm, Object Oriented Notations and Graphs-Steps in Object Oriented Analysis – Steps in Object-Oriented Design-Templates-Introduction-Class Templates-Function Templates – Member function templates – Templates Arguments – Exception Handling.

UNIT II : I/O OPERATIONS & WORKING WITH FILES

-I/O Operations-Introduction-C++ Streams – C++ Stream Classes – Unformatted I/O Operations-Formatted I/O Operations-Managing Output with Manipulators. Introduction-Classes For File Stream Operations-Opening and Closing a File-Detecting End-of-File-More About Open (): File Modes-File Pointers And Their Manipulations-Sequential Input and Output Operations-Updating a File: Random Access-Error Handling During File Operations-Command Line Arguments.

JAVA PROGRAMMING

UNIT III: STRING HANDLING

String Literals – String concatenation-Character Extraction-String Comparison-Searching strings-Modifying a string Data Conversion Using Value of () – Networking-Networking Basics – Java and the Net-TCP/IP Client Sockets-URL-URL Connection-TCP/IP Server Sockets-

UNIT IV: THE APPLET CLASS

Applet Basics – Applet Architecture – An Applet Skeleton-Simple Applet Display Methods-The HTML APPLET Tag- Event Handling – The Delegation Event Model-The Action Event Class-Action mouse Listener-Action mouse motion listener only. – Introducing AWT: AWT Classes – Window Fundamentals-Working With Frame Windows-Creating a Frame Window in an Applet – Displaying Information within a Window.

UNIT V: IMAGES

Image Fundamentals: Creating, Loading and Displaying-Image & graphics Observer-Servlets-Background-The Life Cycle of a Servlet – The Java Servlet Development Kit – A sample servlet.

BOOKS FOR STUDY

- 1) Object Orient Programming with C++, E.Balagurusamy, Tata McGraw-Hill Publishing Limited, New Delhi. Ch9 10, 11 & 12 and Appendix A.
- 2) The Complete Reference Java 2 – Patrick Naughton and Herbert Schildt – Tata McGraw – Hill Publishing Limited, New Delhi – 2000.
Ch 13 p 341-362, Ch 18-p571-587, Ch 19-p611-627, Ch 20-p637-644, p651-652, Ch21-p669-687, Ch23 p781-787, Ch25-p845-859, p866-867 Ch 27-p899-903, Ch28-p934-937
- 3) Schaum's Outline Theory and Problems with C++ John R.Hjub Bard – Tata McGraw – Hill Publishing Limited, New Delhi.
- 4) Schaum's Outlines theory and Problems of Programming with JAVA, John R.Hubbard, - McGraw Hill International, 1999.
- 5) Programming Java – An introduction to programming Using Java, Rick Decker and Stuart Hirshfield, Books/Cole Publishing Company, United Kingdom (2000)