PGSc IT S4 01
Exam. Code: M4PIJ

Programming in Java

SEMESTER- IV

MASTER OF SCIENCE IN INFORMATION TECHNOLOGY

BLOCK-2

KRISHNA KANTA HANDIQUI STATE OPEN UNIVERSITY

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MASTER OF SCIENCE IN INFORMATION TECHNOLOGY
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DETAILED SYLLABUS

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UNIT 9:	**The java.lang.Math Class** Introduction, Methods of the java.lang.Maths: abs, ceil, floor, max, min, random, round, sin, cos, tan, sqrt, exp, log, pow.	**149-164**
UNIT 10:	**Exception Handling** Exception Handling fundamentals, Exception types, Using try and catch, built-In exceptions in Java, User-defined exception.	**165-186**
UNIT 11:	**File Handling** I/O Basics: Streams, The Stream classes, The predefined streams, Reading console input, Writing console output, Reading and writing files	**187-216**
UNIT 12:	**Introduction to Applets** Applets and the World Wide Web, The Applet Class, Applets and HTML , The Life Cycle of an Applet, Using Window Components, Event Handling, Adding Audio and Animation	**217-231**
UNIT 13:	**AWT and Swings** AWT Basics, AWT Components, Event Handling, Application and Menus; Introduction to Swings, Swing Components, Event Handling, Display text and image in a window, Layout manager.	**232-253**
UNIT 14:	**Introduction to JDBC** Basic steps to JDBC, API, JDBC Drivers, Connection Management, JDBC Design Considerations, Two Tier and Three Tier client server model, ResultSet, Prepared statement and callable statement, ResultSet Meta Data Object.	**254-271**
UNIT 15:	**Database Programming using Java** Keeping MySQL or NoSQL as backend and using Java as front end, good GUI should design to insert, update and delete record on a database table.	**272-288**

COURSE INTRODUCTION

This is the second block of the course Programming in Java. This block comprises of the following seven units:

Unit 9 describes the various methods included in java.lang.Math class.

Unit 10 discusses about the different ways in which exceptions are handled in Java programming.

Unit 11 deals with file handling. Topics like stream classes and reading and writing to files are discussed in this unit.

Unit 12 gives an introduction to Applets. Topics like applet class, window components, event handling and addition of audio and animation are described in this unit.

Unit 13 deals with AWT and Swings. AWT and Swings components along with application and menus are described in this unit.

Unit 14 gives an introduction to JDBC. Topics like connection management and two and three tier architecture are included in this unit.

Unit 15 discusses how database programming using can be done using Java.

Each unit of this block includes some along-side boxes to help you know some of the difficult, unseen terms. Some "EXERCISES" have been included to help you apply your own thoughts. You may find some boxes marked with: "LET US KNOW". These boxes will provide you with some additional interesting and relevant information. Again, you will get "CHECK YOUR PROGRESS" questions. These have been designed for you to self-check your progress of study. It will be helpful for you if you solve the problems put in these boxes immediately after you go through the sections of the units and then match your answers with "ANSWERS TO CHECK YOUR PROGRESS" given at the end of each unit.