

5232 – COMPUTER PROGRAMMING IN JAVA										
Teaching Schedule Per Week			Progressive Assessment		Examination Schedule (Marks)					
Lectures	Practical	Credit			Theory		Practical Ex.		Total	
3	2	5	50		3 Hrs	100	50		200	
Pre-requisite		Source	Semester		Theory	Test	Total	TW	PR	Gr Total
Nil		COM			75	25	100	50	50	200

Rationale: The Internet is here to stay and JAVA today is considered to be the language of the Internet. This subject introduces a student to the world of web programming.

COURSE CONTENTS		Hrs	Mks
1. INTRODUCTION TO JAVA		3	5
The History of the Java, Java and the web, Java architecture, How Java works, Java applets and applications. Java developers kit (JDK)			
2. DATA TYPES, MODIFIERS AND EXPRESSIONS		7	15
Java grammar, Comments, Statements, Code blocks, Source file structure, Keywords, Identifiers, literals, Expressions and operators, Basic data types, Numeric data types, Boolean data types, Variable declarations, Class Declaration, modifiers.			
3. CLASSES, INTERFACE AND PACKAGES		7	15
Casting between primitive types, Reference types, Member reference, Constructors references. Interfaces: Defining an interface, Implement Clause, Using an interface to implement call back functions. Packages: The package statement, Import statement, Packages and directories.			
4. FLOW CONTROL STRUCTURES AND ARRAYS		7	15
Conditional statements – if and Switch statements. Loop statements – For, While, Do. Flow breaking statements: Break, Continue, Return. Arrays, Accessing arrays elements, Creating an array, Multidimensional arrays.			
5. EXCEPTION HANDLING		7	15
The basic Model, hierarchy of exception classes, Handling exception, The throw statement, The throw clause.			
6. THREADS		7	15
Creating and running a thread, Thread controlling methods, thread life cycles, thread groups, Synchronisation, Inter thread communication, priorities and scheduling, Daemon thread.			
7. EVENT HANDLING		7	15
Class event, Applet event trapping, Application event trapping. Component event types – Button, Canvas, Checkbox, Choice, Textfield, List, Scrollbar, Menu events			
8. ANIMATION AND GRAPHICS		3	5
Brief introduction to animation and graphics in java.			
Total		48	100

PRACTICAL:

Exercises based on the above

REFERENCE BOOKS:

1. Java by B. Kris Jasma.
2. Java Developers Handbook.

