

CS-502: CORE JAVA

Teaching and Examination Scheme:

Teaching Scheme			Credits C	Marks			Duration of End Semester Examination 3Hrs
L	T	P/D		Sessional	End Semester Exams	Total	
3	0	0	3	40	60	100	

COURSE OBJECTIVE:

The course should enable the students to understand the basic concepts in Java, gain knowledge in the concepts of methods, packages and applets and build a sample application using Java technologies.

COURSE CONTENT:

UNIT	CONTENT	No. of Hrs.
I	Introduction to Java: Features of java, object oriented concepts, data types, variables, arrays, and system class-print(), println(), and printf() methods. Operators: arithmetic operators, bitwise operators, relational operators, boolean logical assignment operators, '?' operator, operator precedence. Control statements: java's selection statements, iteration statements, jump statements	10
II	Classes, objects, constructors, overloading method, access control, static and fixed methods, inner classes, string class, inheritance, overriding methods, using super, abstract class, dynamic method dispatch, using 'final' with inheritance.	10
III	GUI components, common GUI Event types and listener interfaces J option Pane, J Label, J text field, J button, J check box, J text area, J combo box, J list, J panel, mouse event handling, adapter classes, key event handling	10
IV	Layout managers, flow layout, border layout, grid layout, graphics and java 2D, graphics contexts and graphics objects, color control, font control, drawing lines, rectangles and ovals, J slider, using menus with frames. Packages, access protection, importing packages, interfaces, exception handling, throw and throws, thread, synchronization, runnable interface, inter thread communication, multithreading, I/O streams, file streams, applets, introduction to java API packages (java.lang and java.util)	9

Text Books:

1. C. Muthu, "*Programming in Java*", TMH Publication

55


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 H.P. Technical University
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2. Deitel & Deitel, "*Java How to Program*", PHI Publication

Reference Books:

1. Herbert Schildt, "*The Complete Reference Java*", TMH Publication