

Branch - SOFTWARE SYSTEMS (Five Years Integrated)

PROGRAMMING IN JAVA

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which of the following is used to take input from the console in Java? a) Scanner b) Input c) Console d) Reader	K1	CO1
	2	Constructor in Java is identified by: a) Having no return type b) Being static c) Using void keyword d) Having parameters only	K2	CO1
2	3	In Java, a package is: a) A collection of classes b) A single class c) A method d) A data type	K1	CO2
	4	The catch block in exception handling is used to: a) Throw exceptions b) Handle exceptions c) Ignore exceptions d) Create exceptions	K2	CO2
3	5	Which method is used to start a thread's execution? a) run() b) start() c) init() d) execute()	K1	CO3
	6	Synchronized methods in Java are used to: a) Speed up execution b) Prevent data corruption c) Create threads d) Stop threads	K2	CO3
4	7	Which package contains the basic I/O classes in Java? a) java.util b) java.io c) java.net d) java.awt	K1	CO4
	8	Swing components are part of which package? a) java.awt b) javax.swing c) java.applet d) java.gui	K2	CO4
5	9	The diamond operator <> in generics was introduced in: a) Java 5 b) Java 6 c) Java 7 d) Java 8	K1	CO5
	10	Varargs in Java is denoted by: a) ... b) [] c) {} d) ()	K2	CO5

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

ALL questions carry EQUAL Marks (5 × 7 = 35)				
Module No.	Question No.	Question	K Level	CO
1	11.a.	Interpret the role of constructors and their types in Java with suitable examples.	K2	CO1
	(OR)			
	11.b.	Infer the differences between object-based and object-oriented programming with examples.		

Cont...

2	12.a.	packages with code examples.	K3	CO2
	(OR)			
	12.b.	Demonstrate the use of throw and throws keywords in exception handling.		
3	13.a.	Apply thread priorities to control thread execution in a multithreaded environment.	K3	CO3
	(OR)			
	13.b.	Apply the Runnable interface approach to create and manage threads.		
4	14.a.	Compare reading and writing operations using console input/output streams.	K4	CO4
	(OR)			
	14.b.	Analyze the applet lifecycle methods and their significance in applet execution.		
5	15.a.	Examine the concept of enumerations (Enums) and their advantages in J2SE 5.0.	K4	CO5
	(OR)			
	15.b.	Dissect the differences between Vector and ArrayList in the Collections Framework.		

SECTION -C (30 Marks)

Answer **ANY THREE** questions

ALL questions carry **EQUAL** Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Examine the concept of method overloading and constructor overloading with detailed examples.	K4	CO1
2	17	Analyze how abstract classes differ from interfaces and demonstrate when to use each with comprehensive code examples.	K4	CO2
3	18	Inspect the main thread and its importance in Java multithreading with code demonstrating thread creation and management.	K4	CO3
4	19	Examine the stream class hierarchy in Java I/O and illustrate with examples of reading and writing files.	K4	CO4
5	20	Test the effectiveness of annotations and static import features in J2SE 5.0 with practical programming examples.	K4	CO5

Z-Z-Z

END