ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY
Survey No. 2/8, 2/9 and 2/2, Kamakshipura, Hesaraghatta Hobli, Yelahanka, Bengaluru, Karnataka, 560089
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Semester: 3	Department of AIML & CSE(AIML)	AY: 2026-27
Course Code:1BCS302	Course Name: OOPS WITH JAVA	

Question Bank

Q.	Question	M	L	C
	Module-01			
1.	Explain different lexical issues in JAVA	8	L2	CO1
2.	Discuss the different data types supported by Java along with the default values and literals	8	L2	CO1
3.	Justify the statement "Compile once and run anywhere" in Java	8	L2	CO1
4.	Define Array. Write a Java program to implement the addition of two matrixes	8	L2	CO1
5.	Explain the syntax of declaration of 1 D and 2D arrays with examples	8	L2	CO1
6.	Explain the following operators with examples: Unary, Arithmetic, Shift, Relational	8	L2	CO1
7.	Explain the following operators with examples: Bitwise, Logical, Ternary, Assignment	8	L2	CO1
8.	Explain object-oriented principles.	8	L2	CO1
	Module-02			
9.	Explain classes and objects with syntax and example program	8	L2	CO2
10.	What are constructors? Explain two types of constructors with an example program	8	L2	CO2
11.	Explain the various access specifiers in Java with an example	8	L2	CO2
12.	Explain the use of this in JAVA with an example.	8	L2	CO2
13.	Examine Java Garbage collection	8	L2	CO2
14.	Develop a JAVA program to add TWO matrices of suitable order N (The value of N should be read from command line arguments).	8	L2	CO2
15.	Develop a stack class to hold a maximum of 1 0 integers with suitable methods. Develop a JAVA main method to illustrate Stack operations.	8	L2	CO2
16.	Explain use of this in JAVA with example program.	8	L2	CO2
17.	Write a JAVA program demonstrating Method overloading.	8	L2	CO2
18.	Distinguish between method overloading and method overriding	8	L2	CO2
19.	Explain memory allocation and use of garbage collector in JAVA.	8	L3	CO2
20.	Explain call by value and call by reference with example program.	8	L2	CO2
21.	Explain nested and inner classes.	8	L2	CO2

Q.	Question	M	L	C
Module-03				
22.	Which are the restrictions present for static declared methods?	8	L2, L3	CO3
23.	Explain how interface is used to achieve multiple inheritances in Java.	7	L3	CO3
24.	Write a java program to implement multilevel inheritance with 3 levels of hierarchy.)	8	L3	CO3
25.	Write a java program to extend interface assuming suitable data.	8	L3	CO3
26.	What is single level inheritance? Explain with suitable example.	7	L3	CO3
27.	What is meant by interface? State its need and write syntax and features of interface.	7	L3	CO3
28.	Explain inheritance and polymorphism features of Java.	8	L3	CO3
29.	Explain method overriding with suitable example.	7	L3	CO3
30.	What is importance of super keyword in inheritance? Illustrate with suitable example.	7	L3	CO3
31 .	Write a single program to implement inheritance and polymorphism in java.	8	L3	CO3
32.	Explain concept of nesting of interface.	7	L3	CO3
33.	What is abstract class and abstract method? Explain with example.	7	L3	CO3
Module-04				
34.	Which are the ways to access package from another package? Explain with example.	8	L2	CO4
35.	How to add new class to a package? Explain with an example.	8	L2	CO4
36.	What is package? How do we create it? Give the example to create and to access package.	8	L2	CO4
37.	What do you mean by a package? How do you use it in a Java program? Explain with a program.	8	L2	CO4
38.	How do you import a package? Explain.	7	L2	CO4
39.	Write a note on access protection in Java.	8	L2	CO4
40.	Define an interface. Explain how to define and implement an interface with an example.	8	L3	CO4
41 .	Differentiate abstract base class and an interface.	8	L2	CO4
42.	How do you define variables inside interface? List out the characteristics of such variables.	6	L2	CO4
43.	Define an exception. What are the key terms used in exception handling? Explain.	8	L2	CO4
44.	Demonstrate working of nested try block with an example.	8	L2	CO4
45.	Write a program which contains one method which will throw Illegal Access Exception and use proper exception handles so that exception should be printed.	8	L3	CO4

46.	Write a note on: Java's built-in exception, Uncaught Exceptions.	8	L2	CO4

47.	How do you create your own exception class? Explain with a program.	7	L3	CO4

Q.	Question	M	L	C
	Module-05			
48.	Define Enumerations. Give an example.	8	L2	CO5
49.	Discuss values() and valueOf() methods in Enumerations with suitable examples.	8	L2	CO5
50.	"Enumerations in Java are class types"-justify this statement with appropriate examples.	8	L2	CO5
51 .	Write a note on ordinal() and compareTo() methods.	8	L2	CO5
52.	What are wrapper classes? Explain with examples.	8	L2	CO5
53.	Explain auto boxing / unboxing in expressions.	8	L2	CO5
54.	What is multithreading? Write a program to create multiple threads in JAVA.	8	L2	CO5
55.	What do you mean by thread? Explain the different ways of creating threads.	8	L2	CO5
56.	Write a JAVA program to create two threads, one displays "computer science" and another displays "information science" five times.	8	L3	CO5
57.	With syntax, explain use of isAlive() and join() methods.	8	L2	CO5
58.	What is the need of synchronization? Explain with an example how synchronization is implemented in JAVA.	8	L2	CO5
59.	Explain with an example how inter thread communication is implemented in JAVA.	8	L2	CO5
60.	What is meant by thread priority? How to assign and get the thread priority?	8	L2	CO5
61 .	Explain how to achieve suspending, resuming and stopping threads with an example program.	8	L3	CO5