NARSIMHA REDDY ENGINEERING COLLEGE
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NAAC Accreditation **'A'** Grade
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Department of Information and Technology

UNIT WISE QUESTION BANK

S.No		Questions	BT	CO	PO
		UNIT–I **FOUNDATIONS OF JAVA**			
		Part – A (Short Answer Questions)			
1		What is abstract class? Give example	L1	CO1	PO1
2		Explain the use of 'for' statement in Java with an example.	L1	CO1	PO1
3		Differentiate between class and object.	L1	CO1	PO1
4		What is meant by ad-hoc polymorphism?	L1	CO1	PO2
5		Differentiate between print() and println() methods in Java.	L1	CO1	PO1
6		What is inheritance? Give example.	L1	CO1	PO3
7		What are the commands used for compilation and execution of java programs?	L1	CO1	PO1
8		What is java bytecode? What is JVM?	L1	CO1	PO5
9		Contrast between abstract class and interface.	L1	CO1	PO5
10		How to write comments in JAVA?	L1	CO1	PO2
		Part – B (Long Answer Questions)			
11	a)	Explain the method overriding and method overloading with an example.	L2	CO1	PO2
	b)	Describe different levels of access protection available in Java.	L2	CO1	PO3
12	a)	Explain about the primitive data types available in Java and explain	L2	CO1	PO1
	b)	What is polymorphism? Explain different types of polymorphisms with examples.	L2	CO1	PO2
13	a)	What is the purpose of constructor in Java programming?	L2	CO1	PO1
	b)	Distinguish between method overloading and method overriding.	L2	CO1	PO2
14	a)	What is meant by byte code? Briefly explain how Java is platform independent.	L2	CO1	PO5
	b)	Explain the significance of public, protected and private access specifiers in inheritance.	L2	CO1	PO3
15	a)	What is an array? How do you declare the array in java? Give examples.	L2	CO1	PO1
	b)	Discuss about precedence of operators and associativity	L2	CO1	PO1
16	a)	Explain briefly class, public, static, void, main, string[] and system.out.println() keywords.	L3	CO1	PO1
	b)	Write a java method to find minimum value in given two values.	L3	CO1	PO1

UNIT–II
EXCEPTION HANDLING, FILES AND I/O STREAMS

S.No		Questions	BT	CO	PO
		Part – A (Short Answer Questions)			
1		Define exception	L1	CO2	PO2
2		List out the benefits of Stream oriented I/O.	L1	CO2	PO2
3		How to read the console input?	L1	CO2	PO2
4		What are the methods available in the character streams?	L1	CO2	PO2
5		What is the difference between error and an exception?	L1	CO2	PO1
6		What are the run time errors and logical errors in Java?	L1	CO2	PO1
7		Explain about try-catch implementation.	L1	CO2	PO2
8		Explain about the finally block	L1	CO2	PO1
9		What happens if the finally block throws an exception?	L1	CO2	PO1
10		What is Inner Exception?	L1	CO2	PO1
		Part – B (Long Answer Questions)			
11	a)	What are advantages of using Exception handling mechanism in a program?	L2	CO2	PO2
	b)	Write a java program that demonstrates how certain exception types are not allowed to be thrown.	L2	CO2	PO2
12	a)	Write a program with nested try statements for handling exception.	L2	CO2	PO1
	b)	How to create a user defined exception?	L2	CO2	PO2
13	a)	Write a java program that illustrates the application of multiple catch statements	L2	CO2	PO1
	b)	Write about some Java's built in exceptions. What is an Exception? How is an Exception handled in JAVA?	L2	CO2	PO1
14	a)	What is exception handling? Explain an example of exception handling in the case of division by zero.	L2	CO2	PO3
	b)	Explain about Exception Handling Clauses.	L3	CO2	PO3
15	a)	What are the methods available in the Character Streams? Discuss	L2	CO2	PO1
	b)	Distinguish between Byte Stream Classes and Character Stream Classes.	L2	CO2	PO1
16	a)	Write about file class in java.	L2	CO2	PO2
	b)	Explain Random Access File class.	L4	CO2	PO2

UNIT–III
PACKAGES AND COLLECTIONS

S.No		Questions	BT	CO	PO
		Part – A (Short Answer Questions)			
1		Define a Package? What is its use in java? Explain.	L1	CO3	PO4
2		What is the significance of the CLASSPATH environment variable in creating/using a package?	L1	CO3	PO4

			BT	CO	PO
3		What is the benefit of Generics in Collections Framework?	L1	CO3	PO5
4		Differentiate between Enumeration and Iterator interface.	L1	CO3	PO5
5		What does Java API package contain?	L2	CO3	PO3
6		How to import the packages in JAVA.	L1	CO3	PO4
7		What are the various user interface components?	L1	CO3	PO3
8		What is Collection in Java?	L1	CO3	PO2
9		What are the advantages of the collection Framework?	L1	CO3	PO4
10		What are the types of packages in Java?	L1	CO3	PO3
Part – B (Long Answer Questions)					
11	a)	What is an interface? What are the similarities between interfaces and classes?	L3	CO3	PO3
	b)	How can you extend one interface by the other interface? Discuss.	L2	CO3	PO3
12	a)	Discuss about CLASSPATH environment variables	L2	CO3	PO4
	b)	Explain the process of defining and creating a package with suitable examples.	L3	CO3	PO4
13	a)	Describe the process of importing and accessing a package with suitable examples.	L2	CO3	PO3
	b)	How can we add a class to a package? Write about relative and absolute paths.	L3	CO3	PO3
14	a)	What are the types of packages in Java? What is a standard package in Java?	L2	CO3	PO3
	b)	How to create a user-defined package?	L3	CO3	PO3
15	a)	Explain Collections Class	L2	CO3	PO4
	b)	What is ArrayList in Java?	L3	CO3	PO4
16	a)	What is the difference between Comparable and Comparator?	L2	CO3	PO3
	b)	Explain Sorting in Collections	L2	CO3	PO3

UNIT–IV
MULTITHREADING AND JAVA DATABASE CONNECTIVITY

S.No	Questions	BT	CO	PO
Part – A (Short Answer Questions)				
1	How do we start and stop a thread?	L1	CO4	PO3
2	Write the complete life cycle of a thread.	L1	CO4	PO3
3	Differentiate between a thread and a process.	L1	CO4	PO3
4	What is synchronization and why is it important? How do we set priorities for threads?	L1	CO4	PO3
5	What is multithreading?	L1	CO4	PO3
6	What do you understand by inter-thread communication?	L1	CO4	PO3
7	What is the purpose of wait() method in Java?	L1	CO4	PO3
8	What are the states in the lifecycle of a Thread?	L1	CO4	PO3
9	Differentiate between the Thread class and Runnable interface for creating a Thread?	L1	CO4	PO3
10	Is it possible to start a thread twice? Explain?	L1	CO4	PO3
Part – B (Long Answer Questions)				

11	a)	What are the different ways that are possible to create multiple threaded programs in java? Discuss the differences between them	L2	CO4	PO3
	b)	Describe inter-thread communication with a program for producer-consumer communication?	L3	CO4	PO3
12	a)	Differentiate between multiprocessing and multithreading	L2	CO4	PO3
	b)	Write a program that creates two threads. Fist thread prints the numbers from 1 to 100 and the other thread prints the numbers from 100 to 1.	L3	CO4	PO3
13	a)	What do you mean by Multithreading? Why is it important?	L3	CO4	PO3
	b)	What are the two ways of implementing thread in Java?	Ll3	CO4	PO3
14	a)	What is Runnable and Callable Interface? Write the difference between them.	L2	CO4	PO3
	b)	What is synchronized method and synchronized block? Which one should be preferred?	L3	CO4	PO3
15	a)	Explain thread priority.	L2	CO4	PO3
	b)	Explain Basic steps in Developing JDBC Application	L2	CO4	PO3
16	a)	Explain JDBC Classes and Interfaces	L2	CO4	PO3
	b)	Explain JDBC architecture	L2	CO4	PO3

UNIT–V
GUI PROGRAMMING WITH SWING

S.No		Questions	BT	CO	PO
Part – A (Short Answer Questions)					
1		What is an event? Give examples of various event sources.	L1	CO5	PO3
2		What are event classes?	L1	CO5	PO3
3		What are the various classes used in creating a swing menu?	L2	CO5	PO3
4		Discuss in brief about grid layout.	L2	CO5	PO3
5		What is Swing in Java? How it differs from Applet.	L2	CO5	PO3
6		List the layout managers in java.	L1	CO5	PO3
7		Give the hierarchy for swing components	L1	CO5	PO3
8		Write a short note on adapter classes?	L1	CO5	PO3
9		Explain any two swing controls.	L2	CO5	PO3
10		List event listeners in java.	L1	CO5	PO3
Part – B (Long Answer Questions)					
11	a)	Explain the swing architecture with the help of a neat diagram.	L2	CO5	PO3
	b)	Discuss about the JButton, JCheck Box and JTabbedPane?	L2	CO5	PO3
12	a)	Create a user interface to collect data from customer for opening an account in a bank. Use all possible swing components and layout manager for your interface design.	L2	CO5	PO3
	b)	Demonstrates the different types of Event Listeners supported by java.	L3	CO5	PO3
13	a)	Write a Java program to demonstrate the handling keyboard events.	L2	CO5	PO3
	b)	Design a Java program to demonstrate the handling Mouse events.	L3	CO5	PO3

14	a)	What is an adapter class? Demonstrate its role in event handling..	L3	CO5	PO3
	b)	Design a java program to demonstrate border Layout in Java.	L2	CO5	PO3
15	a)	What are the various components of Swing? Explain.	L2	CO5	PO3
	b)	Design a user interface to collect data from the student for admission application using swing components.	L3	CO5	PO3
16	a)	What is a Layout manager? Explain different types of Layout managers in java.	L3	CO5	PO3
	b)	Briefly explain about the following: a)card layout b) Jscrollpane	L2	CO5	PO3

* **Blooms Taxonomy Level (BT)** (L1 – Remembering; L2 – Understanding; L3 – Applying; L4 – Analyzing; L5 – Evaluating; L6 – Creating)