Roll No………………………..

<div align="center">

Course Code: 102403CS

Examination: NOV-DEC 2023

Course: OBJECT ORIENTED PROGRAMMING WITH JAVA

</div>

Time Allowed: 3 Hours   **Maximum Marks: 100**

                                             Minimum Marks: 35

Note: Attempt all questions. Part (A) of each question is compulsory and carries 4 marks; attempt any two parts from part (B), (C) and (D) carrying 8 marks each.

Q1	A	Justify the need of finalize method in Java	4
	B	Explain the following line used under java program in detail public static void main (String args[]).	8
	C	Demonstrate the concept of static and final. Write a Java program that counts the number of objects created by using static variable.	8
	D	Define Constructor. Explain types of constructor and calculate area using constructor.	8
Q2	A	Describe interface? How it is different from abstract class? Give example.	4
	B	Define package. Briefly explain how a user defined package can be created with an example.	8
	C	Explain exception handling in JAVA. Write a program to input name and salary of employee and throw user defined exception if entered salary is negative.	8

	D	Explain Inheritance in java with suitable example and how does inheritance perform with final keyword?	8
Q3	A	Define Wrapper class? Why do we need it?	4
	B	Compare String with String Buffer..Write a program to count occurrence of character in a string.	8
	C	Describe multi-threading. Construct a java program to create multiple threads in java by implementing runnable interface.	8
	D	Describe ByteStream and CharacterStream. Write a program to copy the content of one file to another using 'Reader' and 'Writer' class.	8
Q4	A	Define Applet. Explain how it is different from an application.	4
	B	Define Event. Explain Event Delegation Model with suitable example.	8
	C	Explain in brief steps for Java Database Connectivity with a sample program.	8
	D	Describe Sockets. Write a program to demonstrate a simple client server interaction.	8
Q5	A	List the different Collection Framework in java?	4
	B	Explain with an example how generics are used in Collection framework.	8
	C	Compose a program to demonstrate HashSet and TreeSet.	8
	D	Explain the steps involved in creating and executing a jar.	8

Roll No………………………..

Course Code: 102403CS

Examination: NOV-DEC 2023

Course: OBJECT ORIENTED PROGRAMMING WITH JAVA

Time Allowed: 3 Hours   **Maximum Marks: 100**

Minimum Marks: 35

Note: Attempt all questions. Part (A) of each question is compulsory and carries 4 marks; attempt any two parts from part (B), (C) and (D) carrying 8 marks each.

Q1	A	Justify the need of finalize method in Java	4
	B	Explain the following line used under java program in detail public static void main (String args[]).	8
	C	Demonstrate the concept of static and final. Write a Java program that counts the number of objects created by using static variable.	8
	D	Define Constructor. Explain types of constructor and calculate area using constructor.	8
Q2	A	Describe interface? How it is different from abstract class? Give example.	4
	B	Define package. Briefly explain how a user defined package can be created with an example.	8
	C	Explain exception handling in JAVA. Write a program to input name and salary of employee and throw user defined exception if entered salary is negative.	8

	D	Explain Inheritance in java with suitable example and how does inheritance perform with final keyword?	8
Q3	A	Define Wrapper class? Why do we need it?	4
	B	Compare String with String Buffer..Write a program to count occurrence of character in a string.	8
	C	Describe multi-threading. Construct a java program to create multiple threads in java by implementing runnable interface.	8
	D	Describe ByteStream and CharacterStream. Write a program to copy the content of one file to another using 'Reader' and 'Writer' class.	8
Q4	A	Define Applet. Explain how it is different from an application.	4
	B	Define Event. Explain Event Delegation Model with suitable example.	8
	C	Explain in brief steps for Java Database Connectivity with a sample program.	8
	D	Describe Sockets. Write a program to demonstrate a simple client server interaction.	8
Q5	A	List the different Collection Framework in java?	4
	B	Explain with an example how generics are used in Collection framework.	8
	C	Compose a program to demonstrate HashSet and TreeSet.	8
	D	Explain the steps involved in creating and executing a jar.	8