QP Code: S253A041 | Reg. No | | | | | | | | | | | AY 23

Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET University)

B. Tech (Third Semester - Regular) Examinations, November 2025

23BCSES23001 – Object-Oriented Programming Using JAVA
(BT, ECE, EEE - VLSI)

Time: 3 hrs | Maximum: 60 Marks

Answer ALL questions

(The figures in the right-hand margin indicate marks)

PART – A **(2 x 5 = 10 Marks)**

Q.1. Answer ***ALL*** questions	CO #	Blooms Level
a. Explain public static void main (String args[]) in Java.	CO1	K1
b. List out the characteristics of "method overloading".	CO2	K1
c. What is the difference between checked and unchecked exceptions in Java?	CO3	K1
d. Explain "label break" with a suitable example.	CO3	K2
e. Write a short note on "upcasting" in polymorphism with an example.	CO4	K1

PART – B **(10 x 5 = 50 Marks)**

Answer ***ALL*** the questions	Marks	CO #	Blooms Level
2. a. Explain all the features of Java.	5	CO1	K1
b. Write a Java program to read 3 numbers using command line arguments and print the largest among them.	5	CO1	K2
(OR)			
c. Describe the Architecture of the JVM with a neat diagram.	5	CO1	K1
d. Write a Java program to accept a number at run time using the Scanner class and check if the given number is a palindrome or not?	5	CO1	K2
3.a. Differentiate between "for loop" and "for each loop". Write a program to arrange elements of an array in descending order using the bubble sort technique.	5	CO2	K2
b. Explain the following methods used in the SringBuffer class with examples. i. append() ii.insert() iii.replace() iv.length()	5	CO2	K1
(OR)			
c. How many ways can a string be created? Explain with a suitable example on each.	5	CO2	K2
d. Write a program to read a string and test whether it is a palindrome or not.	5	CO2	K1
4.a. Write down the characteristics of a constructor. Explain the usage of a parameterised constructor with a suitable example.	5	CO3	K2
b. Write down all the usages of the super keyword in inheritance. Explain any one of the usages with a suitable example.	5	CO3	K2
(OR)			
c. List out the differences between "abstract class" and "interface". Write a program to demonstrate the usage of an interface.	5	CO3	K2
d. Differentiate between method overloading and method overriding. Write a program to explain "method overriding".	5	CO3	K2
5.a. Write a program to copy the content of a file "source.txt" into another file "target.txt"	5	CO4	K1

b.	Explain the types of Java packages and how user-defined packages are created. Discuss the role of the 'import' keyword with a suitable example.	5	CO4	K2
	(OR)			
c.	Write a program to write a sentence “hello friends, how are you” into a file “myfile.txt” by using FileWriter class.	5	CO4	K1
d.	Differentiate between the access modifiers “default” and “public” in case of packages with examples.	5	CO4	K2
6.a.	What is a user-defined Exception in Java? Write a program to accept a student's age and check whether he is eligible to vote or not (Using a user-defined exception) ? Note : Show an appropriate message when the age is not eligible.	5	CO5	K2
b.	Explain various ways of creating a thread. Give example on each.	5	CO5	K1
	(OR)	(OR)		
c.	Write a program to create two threads, where one thread will print the even number between 1 and 50 and the other thread will print odd numbers between 1 and 100.	5	CO5	K2
d.	Explain with a suitable example on “nesting of try-catch”.	5	CO5	K1

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