

**GIET UNIVERSITY, GUNUPUR – 765022**

B. Tech. (Third Semester - Regular) Examinations, December – 2022

21BCSES23001- Object Oriented Programming Using JAVA

(Biotech / Chemical / ECE / EE/ EEE /Mechanical Engg.)

Time: 3 hrs

Maximum: 70 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. Why java called write once, run anywhere language? CO1 1
- b. Describe the syntax of any one of the following loops – while, do...while, for loop CO2 1
- c. Predict the exception does the program throw? CO3 3

Public class test

```
{
Public static void main(String args[])
{
String s="abc";
System.out.println("char at",s.charAt[3]);
}
```

- d. Explain about event delegation? CO4 2
- e. Define constructor. How do we invoke constructor in JAVA? CO2 2

PART – B**(15 x 4 = 60 Marks)**Answer ***ALL*** questions

Marks CO # Blooms Level

- 2. a. Describe JVM and explain the Architecture of JVM. 8 CO1 2
- b. Write a Java program to define Scanner class which reads the int, string and double value as an input 7 CO1 4

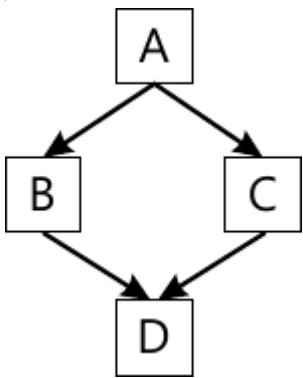
(OR)

- c. Define object-orientation and specify the characteristics of object oriented approach. 8 CO1 3
- d. Write a java program to print maximum between 3 positive number using conditional operator. 7 CO1 4

- 3.a. Differentiate between class and interface with suitable example. 8 CO2 2
- b. Write a Java program to implement Polymorphism. (Note: Consider a scenario, Bank is a class that provides method to get the rate of interest. But, rate of interest may differ according to banks. For example, SBI, ICICI and AXIS banks are providing 8.4%, 7.3% and 9.7% rate of interest. 7 CO2 4

(OR)

- c. Write a program to demonstrate the multipath inheritance for the classes having relations as shown in the figure below 8 CO2 5



- d. Differentiate between auto boxing and unboxing. 7 CO2 2
- 4.a. Explain about thread? Describe the complete life cycle of thread with example. 8 CO3 3
- b. Compose a program to create two threads, one thread will print odd numbers and second thread will print even numbers between 1 to 20 numbers. 7 CO3 4

(OR)

- c. How do we set priorities for threads? Explain with an example. 8 CO3 3
- d. What is exception? Explain try, throw and catch with a suitable example. 7 CO3 5
- 5.a. Write a Java program of event handling by implementing Action Listener? 8 CO4 5
- b. What is an Applet? Explain the life cycle of Applet by a neat diagram. 7 CO4 4

(OR)

- c. Write a Java program to implement Mouse Motion Adapter. 8 CO4 4
- d. Design an applet having a circle which is moving from left to right and reflected back from right to left continuously. 7 CO4 5

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