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B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

September / October 2022 Semester End Main Examinations

Programme: B.E | **Semester: III**
Branch: Computer Science and Engineering | **Duration: 3 hrs.**
Course Code: 19CS3PCOOJ | **Max Marks: 100**
Course: Object Oriented Java Programming | **Date: 26.09.2022**

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

UNIT - I

1	a)	With an example explain the structure of a Java program. Describe the features of Java that makes java as a powerful language and benefits of bytecode.	10
	b)	Write a Java program to calculate the highest among the elements {125, 132, 95, 116, 110} using foreach in Java. Differentiate **foreach** from **for.**	10

UNIT - II

2	a)	Develop a Java program to implement stack operations.	10
	b)	Develop a Java program to pass four different types of parameters to constructors using a class **Example**.	10

UNIT - III

3	a)	Distinguish between method overloading and overriding in Java with suitable example for overriding methods.	10
	b)	Describe the significance of final and super keywords with examples.	10

UNIT - IV

4	a)	What is a package? What are the steps involved in creating user defined packages? Explain with an example	10
	b)	Define generics. Write a Java program on generics with a parameterized type of single parameter.	10

OR

5 a) Demonstrate the working of nested try blocks with suitable example. **10**

b) Write a Java program to perform nesting of interfaces and invoke suitable methods. **10**

UNIT - V

6 a) Write a Java program to create two threads, one displays "computer science" another displays "information science" five times. **10**

b) Implement thread priority by setting minimum priority to thread A, maximum priority to thread B, Increment current priority of thread C. create three new threads using this priority. Use any of the thread techniques and determine the output. **10**

OR

7 a) What is the need of synchronization? Write a Java program to implement producer-consumer problem using Threads. **10**

b) Write a Java program to handle mouse events. For mouse pressed and mouse clicked events, the number of clicks should be obtained and displayed. Each time the mouse button is released, the phrase "Hello" is shown. As the mouse enters or exits the window, a message "Mouse operating" is displayed. The program need not handle mouse dragging event. **10**

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