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Sl. No.

22MCA1C2L

MCA I Semester (NEP) Degree Examination, June - 2023
MASTER OF COMPUTER APPLICATIONS
Object Oriented Programming using JAVA

Time : 3 Hours

Maximum Marks : 70

Instruction to the Candidate : Answer **any five** questions. (Question **No.1** is **Compulsory**)

1. (a) Mention the different primitive data types available in Java. Give their default values and memory required in terms of bytes. **7**
(b) Explain the components of Java architecture. **7**
2. (a) Differentiate between method and constructor in Java with an example. **7**
(b) Develop a Java program to find the factorial of a given number using recursion. **7**
3. (a) What is inheritance ? How inheritance can be achieved in Java ? Develop a Java program to demonstrate method overriding. **7**
(b) Demonstrate a Java program to call superclass constructor using super keyword. **7**
4. (a) Is it possible to extend interfaces ? Explain with programming example. **7**
(b) Define a package. Name any five built-in packages in Java with one class in each package. **7**
5. (a) Compare throw and throws with an example. **7**
(b) Develop a Java program to demonstrate the exception handling (nested try-catch and finally) using methods. **7**
6. (a) Define constructor and explain the scenario of overloading constructor with an example. **7**
(b) Mention the different uses of 'super' keyword. Develop a Java program to demonstrate the uses of super keyword. **7**
7. (a) How can we implement multiple interface in single class with an example. **7**
(b) Develop a Java program to check whether the given number is prime or not using packages. **7**
8. Write short notes on the following : **5+5+4**
 - (a) Polymorphism
 - (b) Multiple Inheritance
 - (c) Access Specifiers

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