MCS-206

POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS

(PGDCA-NEW)

Term-End Examination

June, 2024

MCS-206 : OBJECT ORIENTED PROGRAMMING USING JAVA

Time : 3 Hours   *Maximum Marks : 100*

Note :   Question No. 1 is compulsory. Attempt any *three* questions from the rest.

1. (a)   What is a class ? How a class is defined in Java ? Explain the differences between public and private classes.   5

    (b)   What is a relational operator ? List and explain the use of different relational operators in Java.   5

    (c)   Write a Java program which take radius of a circle as input and display its area. Define appropriate class and methods in the program. 5

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    (d)   What is inheritance ? How it is implemented in Java ? Define Vehicle class and inherit classes "Two wheeler vehicle" and "four wheeler vehicle" from vehicle class. Define appropriate constructors in all these three classes.   10

    (e)   What is File class in Java ? Explain the use of any two methods in File class.   5

    (f)   What is assertions in Java ? Explain how assertions are enabled and disabled in Java.   5

    (g)   Explain the use of JDBC in two-tier system. Also, explain the need of JDBC driver.   5

2. (a)   Write a Java program to explain the use of "switch case" and "break" statements.   5

    (b)   What is method overloading ? Implement it with the help of a program ?   5

    (c)   What is abstract class ? List its advantages. In java how an abstract class is defined ? Can you crate object from an abstract class ? Also, explain differences between abstract class and interface.   10

3. (a)   What is an exception ? Discuss the Throwable class hierarchy. Also, explain checked and unchecked exception.

(b) What is an access specifier (control) ? What are the different types of access specifiers ? Explain why methods of interface are public ? Write Java code to show how interface is extended.   10

4. (a) What are the various steps for connecting Java application with database using JDBC ? Explain with the help of program segment. Also, explain the difference between commit and rollback.

(b) What is the need of event handling in GUI programming ? Explain how events are handled in Java Fx.   10

5. Write short notes on the following :   4×5=20

(a) Multithreading in Java

(b) Use of "finally" block in Exception Handling

(c) uses of "super" keyword

(d) Arrays in Java

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