BRAINWARE UNIVERSITY

Term End Examination 2023-2024
Programme – B.Tech.(CSE)-AIML-2021/B.Tech.(CSE)-DS-2021/B.Tech.(CSE)-AIML-2022/B.Tech.(CSE)-DS-2022
Course Name – Object Oriented Programming
Course Code - PCC-CSM403/PCC-CSD403
(Semester IV)

Full Marks : 60   **Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A
(Multiple Choice Type Question)   1 x 15=15

1. Choose the correct alternative from the following :

(i) State, _____ is a not concept of OOP (JAVA)
   a) Encapsulation   b) Inheritance
   c) Polymorphism   d) Compilation

(ii) Select which one is not a iterative statement?
   a) for(; ;)   b) while()
   c) do-while   d) if-else

(iii) Select which statement is true for Java
   a) Platform independent   b) Platform dependent
   c) Code dependent   d) Sequence dependent

(iv) ____is a method that initializes an object immediately upon creation. It has the same name as that of class in which it resides.
   a) finalize   b) class
   c) delete   d) constructor

(v) Select from the following which keyword can be used to refer current class instance variable.
   a) import   b) abstract
   c) catch   d) this

(vi) Write from the following which is true for args in the following line of code? public static void main(String args[])
   a) args is a String   b) args is an array of String
   c) args is a Character   d) args in an array of Character

(vii) Identify which of these keywords is used to prevent content of a variable from being modified?
   a) final   b) constant
   c) last   d) static

(viii) Inheritance is an example of which type of hierarchy? Choose the correct option.

    a) Class Structure
    b) Object Structure
    c) Class structure and Object Structure
    d) None of the mentioned

(ix) Write, which of the following are not the methods of the Thread class?

    a) yield()
    b) sleep()
    c) go()
    d) stop()

(x) Determine, when does Exceptions in Java arises in code sequence?

    a) Run Time
    b) Compilation Time
    c) Can Occur Any Time
    d) None of the mentioned

(xi) Select, which of these keywords is used to manually throw an exception?

    a) try
    b) finally
    c) throw
    d) catch

(xii) Write, which exception is thrown when divide by zero statement executes

    a) NumberFormatException
    b) ArithmeticException
    c) NullPointerException
    d) None of These

(xiii) Identify the superclass of all AWT components?

    a) Component
    b) Widget
    c) Container
    d) Control

(xiv) Determine which method is used to set the font for a component in Java AWT?

    a) setFont()
    b) setStyle()
    c) setFontStyle()
    d) setComponentFont()

(xv) Write the purpose of the repaint() method in Java AWT?

    a) To update the component's visibility
    b) To refresh the component's appearance
    c) To resize the component
    d) To remove the component from the screen

Group-B
(Short Answer Type Questions)

3 x 5=15

2. Compare between static and dynamic polymorphism with example. (3)
3. Explain the advantages of using packages in Java development, particularly in terms of code (3) organization, reusability, and namespace management.
4. Explain multithreading in Java. (3)
5. Explain with examples the significance of JButton and JFrame in Swing programming. (3)
6. Distinguish between the concepts of class and object in Object-Oriented Programming (3) (OOP), explaining their respective roles.

OR

Explain the concept of message passing in Object-Oriented Programming (OOP), discussing (3) its role in object interaction.

Group-C
(Long Answer Type Questions)

5 x 6=30

7. Explain about JVM, JRE and JDK. (5)
8. Summarize the different uses of "this" keyword in JAVA with examples. (5)
9. Explain how abstract classes and methods are utilized in Java, and what purpose do they (5) serve in object-oriented programming?
10. Explain the concept of multilevel hierarchy in inheritance and provide an example (5) demonstrating its use.
11. Explain deadlocks for threads, and how do they occur? (5)
12. Explain the concept of layout managers in Java AWT programming. Analyse at least three (5) different layout managers.

OR

Explain the difference between AWT and Swing in Java GUI programming. Classify the advantages and disadvantages of each. (5)

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