# BRAINWARE UNIVERSITY

**Term End Examination 2024-2025**
**Programme – B.Tech.(CSE)-AIML-2021/B.Tech.(CSE)-DS-2021/B.Tech.(CSE)-AIML-2022/B.Tech.(CSE)-DS-2022/B.Tech.(CSE)-AIML-2023/B.Tech.(CSE)-DS-2023/B.Tech.(CSE)-2023**
**Course Name – Object Oriented Programming**
**Course Code - PCC-CSM403/PCC-CSD403/PCC-CSG403**
**( 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) In JAVA, Byte code is defined as
   a) Platform dependent b) Platform independent
   c) Architecture dependent d) depend on OS

(ii) In Java source codes are converted into _____, define it
   a) Byte code b) Machine code
   c) Bit code d) None of these

(iii) State which is not a type of class?
   a) final Class b) start Class
   c) abstract Class d) string Class

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

(v) The valid declaration of an object of class Test is defined by
   a) Test obj = new Test ( ); b) Test obj = new Test ;
   c) obj = new Test ( ); d) new Test obj;

(vi) Select which operator is used to allocate the memory for an object in JAVA
   a) malloc b) alloc
   c) new d) free

(vii) Select which return type of a method, does not return any value.
   a) int b) void
   c) float d) double

(viii) ____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

(ix) The method overloading is defined as

a) run time
b) compile time
c) coding time
d) execution time

(x) Select from the following which keyword can be used to refer current class instance variable.

a) import
b) abstract
c) catch
d) this

(xi) Choose the following option that is not the methods of the Thread class.

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

(xii) Write the option that are not Java modifiers.

a) public
b) private
c) friendly
d) none

(xiii) Choose option, method overloading is determined_____

a) At run time
b) At compile time
c) At coding time
d) At execution time

(xiv) Choose the option that methods must be made static.

a) main()
b) delete()
c) run()
d) finalize()

(xv) Write the name of class taht is prevent inheritance of a class.

a) super
b) constant
c) class
d) final

## Group-B

(Short Answer Type Questions) 3 x 5=15

2. Describe main features of OOP. (3)
3. Discuss about polymorphism with example. (3)
4. Define different access specifiers in Java with proper example. (3)
5. Describe role of constructor overloading with an example. (3)
6. Compare the concepts of encapsulation and abstraction in Object-Oriented Programming (OOP), discussing their differences. (3)

OR

Distinguish between polymorphism and method overloading in Object-Oriented Programming (OOP), explaining their differences. (3)

## Group-C

(Long Answer Type Questions) 5 x 6=30

7. Explain "final" keyword in Java, particularly in the context of inheritance and method overriding. (5)
8. Describe Bytecode in Java. (5)
9. Explain the concept of multilevel hierarchy in inheritance and provide an example demonstrating its use. (5)
10. Explain the process of creating and implementing interfaces in Java, highlighting their role in achieving multiple inheritance. (5)
11. Evaluate user define package with example (5)
12. Evaluate thread example by using runnable interface (5)

**OR**

Evaluate Multitasking concept in Thread (5)