BRAINWARE UNIVERSITY

Term End Examination 2025-2026
Programme – BCA(MAWT)-Hons-2024/BCA(MAWT)-Hons-2025
Course Name – Object Oriented Programming in JAVA
Course Code - BMT27103 (T)
(Semester II)

Full Marks : 40 **Time : 2:0 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 10=10

1. *Choose the correct alternative from the following :*

(i) Select the method that provides access to the main thread in a Java application.
a) getMainThread() b) currentThread()
c) mainThread() d) getThread()

(ii) Indicate which exception could be thrown by the sleep(long millis) method.
a) IllegalThreadStateException b) InterruptedException
c) NullPointerException d) IllegalMonitorStateException

(iii) Indicate how the Scanner class object is declared and initialized.
a) Scanner sc = new Scanner(System.console()); b) Scanner sc = new Scanner(System.in);
c) Scanner sc = new Scanner(System.file()); d) Scanner sc = new Scanner(String.in);

(iv) Indicate what will be the output of the following code: int i = 0; do { System.out.print(i + " "); } while (i++ < 3);
a) 0 1 2 b) 0 1 2 3
c) 0 1 2 3 4 d) 1 2 3

(v) Spot the problem with the code snippet below: abstract class Print { abstract void show(); } class Display extends Print {}
a) It is correct b) Method show() should not have a return type
c) Method show() is not implemented in Display d) Display does not contain any members

(vi) What is the correct syntax for handling exceptions in Java?
a) try { ... } throw { ... } catch { ... } b) try { ... } catch { ... } finally { ... }
c) catch { ... } finally { ... } d) finally { ... } try { ... } catch { ... }

(vii) Find the method that can be used to make the main thread be executed last among all threads.
a) stop() b) sleep()

c) join() d) call()

(viii) Identify the method is used to explicitly set the priority of a thread.

a) setpriority() b) SetPriority()
c) setPriority() d) Setpriority()

(ix) What will be the output of the following code? public class Test { public static void main(String args[]) { try { int a = 5 / 0; } catch (Exception e) { System.out.println("Exception caught"); } System.out.println("Execution continues"); } }

a) Exception caught, Execution continues b) Runtime Error
c) Compilation Error d) Program terminates abnormally

(x) Identify which method is used to get the stack trace of an exception?

a) getMessage() b) printStackTrace()
c) getStackTrace() d) toString()

Group-B

(Short Answer Type Questions) 3 x 5=15

2. Summarize what happens if an exception is not handled in Java? (3)
3. Demonstrate the concept of method overriding in Java. (3)
4. Can we have multiple catch blocks in Java? If yes, give an example. (3)
5. Describe the lifecycle of a thread created using the Thread class in Java. (3)
6. Analyze is the purpose of the 'throw' keyword in Java? Demonstrate with an example. (3)

OR

What is the difference between synchronized and volatile keywords in Java? (3)

Group-C

(Long Answer Type Questions) 5 x 3=15

7. Classify the different types of access modifiers in Java and explain how they control visibility within and across packages. (5)
8. What is a nested try block in Java? Explain its significance with an example. (5)
9. Analyze the concept of custom (user-defined) exceptions in Java with an example program. (5)

OR

What is a daemon thread in Java? Explain with an example. (5)

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