

Course Code: 23CS3T03
BONAM VENKATA CHALAMAYYA INSTITUTE OF TECHNOLOGY & SCIENCE
(AUTONOMOUS)

II-B.TechI-Semester Regular Examinations (BR23), November - 2024
OBJECT ORIENTED PROGRAMMING THROUGH JAVA
(Common to CSE, CSE-(AI &DS), AI & ML branches)

Time: 3 hours

Max. Marks: 70

*Question Paper consists of Part-A and Part-B
 Answer **ALL** the question in **Part-AandPart-B***

PART-A (10X2 = 20M)

| | | Marks | CO | BL |
|-------|--|-------|-----|-----|
| 1. a) | List the Tokens in the Java language. | (2M) | CO1 | BL1 |
| b) | Demonstrate Bitwise operators using a Java program. | (2M) | CO1 | BL3 |
| c) | Define recursion. Discuss the advantages of recursion. | (2M) | CO2 | BL2 |
| d) | Discuss about Overloaded Constructor Methods. | (2M) | CO2 | BL2 |
| e) | Define an array. How can we initialize arrays? | (2M) | CO3 | BL2 |
| f) | Define interface in java? | (2M) | CO3 | BL2 |
| g) | What is Java IO API? | (2M) | CO4 | BL2 |
| h) | Demonstrate class Throwable. | (2M) | CO4 | BL3 |
| i) | Discuss various string Comparison functions in Java. | (2M) | CO5 | BL2 |
| j) | What is JavaFX scene builder? | (2M) | CO5 | BL2 |

PART-B (5X10 = 50M)

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|------|---|------|-----|-----|
| 2a. | Develop a Java program to demonstrate the behavior of static methods & variables? | 5(M) | CO1 | BL4 |
| b. | Explain how with the help of Command line arguments we can customize the behavior of the main() method. | 5(M) | CO1 | BL3 |
| (OR) | | | | |
| 3a. | Compare the working of the while loop and do-while loop with suitable examples. | 5(M) | CO1 | BL2 |
| b. | Demonstrate implicit and explicit type casting with an example program. | 5(M) | CO1 | BL3 |

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| 4a. | Give brief description about the various access control mechanisms used in java. | 5(M) | CO2 | BL3 |
| b. | Write a Java program to swap two numbers using call by reference. | 5(M) | CO2 | BL2 |
| (OR) | | | | |
| 5a. | Demonstrate the method Overloading with an example program | 5(M) | CO2 | BL3 |
| b. | Explain ‘this’ keyword in Java with an example program | 5(M) | CO2 | BL3 |

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|------|---|------|-----|-----|
| 6a. | Enumerate the concept of Super Keyword with a suitable example. | 5(M) | CO3 | BL3 |
| b. | Explain the concept of Dynamic Method Dispatch with a Java program. | 5(M) | CO3 | BL3 |
| (OR) | | | | |
| 7a. | Demonstrate multi-level inheritance with an example program. | 5(M) | CO3 | BL3 |
| b. | Demonstrate the Nested Interfaces using an example program. | 5(M) | CO3 | BL3 |

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| 8a. | Explain about wrapper classes, Auto-boxing and Auto-unboxing. | 5(M) | CO4 | BL3 |
| b. | Elaborate on Java.lang package and its classes. | 5(M) | CO4 | BL3 |
| | (OR) | | | |
| 9a. | Briefly explain check exceptions and unchecked exceptions. | 5(M) | CO4 | BL3 |
| b. | Demonstrate Temporal Adjusters class with an example Java program. | 5(M) | CO4 | BL3 |

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|-----|--|------|-----|-----|
| 10a | What are the states in the lifecycle of a thread? Explain with a neat diagram. | 5(M) | CO5 | BL2 |
| b. | Why are string objects immutable? How to create an immutable class? | 5(M) | CO5 | BL2 |
| | (OR) | | | |
| 11a | Discuss in detail JDBC Architecture with a neat diagram. | 5(M) | CO5 | BL2 |
| b. | Explain the steps to establish MySQL with Java. | 5(M) | CO5 | BL3 |
