

Basavarajeswari Group of Institutions

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT
 (Autonomous Institute under Visvesvaraya Technological University, Belagavi)

2024 SCHEME

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Course Code

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Second Semester MCA Degree Examinations, September 2025
OBJECT ORIENTED PROGRAMMING USING JAVA

Duration: 3 hrs

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
 2. Missing data, if any, may be suitably assumed

<u>Q. No</u>	<u>Question</u>	<u>Marks</u>	<u>(RBTL:CO: PI)</u>
MODULE – 1			
1.	a. How do the core principles of object-oriented programming manifest in Java and how can they be effectively implemented in program?	10	(2:1:1.2.1)
	b. Explain the structure of a basic Java program and describe the role of each component using an example.	10	(2:1:2.1.1)
(OR)			
2.	a. Explain the basic concepts of class and object creation in Java with an example, and describe how data and methods are accessed?	10	(2:1:1.2.1)
	b. Explain different data types in Java with suitable examples and describe their usage in programs.	10	(2:1.2.2.1)
MODULE – 2			
3.	a. What is inheritance? Explain different types of inheritance with example.	10	(2:2:1.2.1)
	b. Explain the concept of method overriding with suitable program.	10	(3:2:1.2.1)
(OR)			
4.	a. Explain about generic functional interfaces with suitable program.	10	(2:2:3.2.1)
	b. Write short note on: (i) Super keyword (ii) Lambda expression.	10	(2:2:1.2.2)
MODULE – 3			
5.	a. Can you explain in your own words about package in java programming, and describe how it is used with a simple example?	10	(3:3:1.2.1)
	b. Explain in detail about interface and illustrate how it works with a simple code example.	10	(3:3:1.1.2)
(OR)			
6.	a. Illustrate the concept of importing a package in a program with an appropriate example.	10	(3:3:1.2.1)
	b. What is exception handling? Describe the main clauses and illustrate each with a simple code example.	10	(2:3:2.3.1)
MODULE – 4			
7.	a. Explain the concept of multithreading in Java, include its benefits and the two primary ways to create threads.	10	(2:4:1.2.1)
	b. Explain the concept of I/O classes and interfaces in java.	10	(2:4:1.2.2)

(OR)

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| 8. | a. Explain the concept of ByteStream classes in java. | 10 | (2:4:1.2.1) |
| | b. Short note on:
(i) alive() and join() (ii) Thread priorities | 10 | (2:4:1.2.1) |

MODULE – 5

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| 9. | a. Explain using the terms event, event source, event listener, and event handler and demonstrate a program to detect and responds to a user's mouse click on a button. | 10 | (3:5:1.2.1) |
| | b. Explain the architecture of JDBC and describe the four main types of JDBC drivers, including how each one connects a Java application to a database. | 10 | (2:5:1.2.1) |

(OR)

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| 10. | a. List and explain the concept of swing components. | 10 | (2:5:1.2.2) |
| | b. What is JavaServer Pages (JSP)? How do you build a simple JSP-based web application? | 10 | (2:5:2.2.1) |

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