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## 24NN803

# MCA II Semester (New Scheme) Main Exam-2023-24

MCA 223 - Object Oriented Programming Using Java

Time: 3 Hours

1.05.0000 1.

Maximum Marks: 80 Min. Passing Marks: 26

## Instructions to Candidates:

- Student has to attempt all 10 very short answer type questions (2 marks each).
- Student has to attempt all 5 short answer types questions (4 marks each).
- Student has to attempt all 5 questions (8 marks each).

Use of following supporting materials is permitted during examination. (Mentioned in form No. 205)

1			
1			

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#### PART A

(Attempt all 10 very short answer type questions, 2 marks each)

- Q.1 Explain type casting in java with example.
- Q.2. What do you mean by object oriented programming?
- Q.3. List four Java keywords.
- Q.4. What are the Java literals?
- Q.5. What is interface class?
- Q.6. What is the purpose of JDBC?
- Q.7. What is the purpose of J2EE?
- Q.8. What do you understand by a word applet?
- Q.9. What do you understand by the servlet?
- Q.10. What is the difference between JSP and javascript?

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#### PART B

### (Attempt all 5 short answer type questions, 4 marks each)

- Q.1. Explain Java program life cycle?
- Q.2. What are the differences between AWT and Swing?
- Q.3. How does JSP work? How does JSP Initialization take place?
- Q.4. Define the struts in the J2EE framework? Explain the application of struts?
- Q.5. What are the applications of wrapper class?

#### PART C

#### (Attempt all 5 long answer type questions, 8 marks each)

- Q.1. What is inheritance? Explain in detail different types of inheritance in java with examples.
- Q.2. Employees have a number, date of birth (dd-mm-yy), rank, and salary. When an employee is first recruited then all these are given values of 0. Upon confirmation, the actual values of these are entered for the employee. The employee's rank can be incremented by 1 and when this happens an employee gets an increment of 25%. Write a complete JAVA class for Employee.
- Q.3. What is exception handling? What are the types of exception? Write a code to handle array OutOfBound exception?
- Q.4. Write a sample Java Swing program to create a JButton by inherit the JFrame Class?
- Q.5. Write a short note on two topics among the following topics [4x2=8]
  - A. Overloading vs overriding
  - B. I/O streams
  - C. JSP implicit objects

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