

**CMR ENGINEERING COLLEGE: : HYDERABAD**  
**UGC AUTONOMOUS**

**III-B.TECH-II-Semester End Examinations (Regular) - May- 2023**

**JAVA PROGRAMMING**

**(ECE)**

**[Time: 3 Hours]**

**[Max. Marks: 70]**

**Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART-A**

**(20 Marks)**

1. a) What is a class and object? [2M]
- b) Define Method Overloading and Overriding. [2M]
- c) Define super and sub classes. [2M]
- d) What are abstract classes? [2M]
- e) What is thread in Java? [2M]
- f) What do you mean by multiple processes? [2M]
- g) List various file class methods in Java. [2M]
- h) What is the Collection framework in Java? [2M]
- i) Summarize the uses of appletviewer? [2M]
- j) What is a listener in context to event handling? [2M]

**PART-B**

**(50 Marks)**

- 2.a) How are arrays declared and initialized in Java? Explain with suitable Java Program. [6M]
  - b) List the various primitive data types available in Java and explain. [4M]
- OR**
- 3.a) Explain Conditional and looping statements in Java with examples. [7M]
  - b) Write a short notes on Type casting and Type Conversion in Java. [3M]
4. What is an inheritance? Discuss various types of inheritance with suitable example. [10M]
- OR**
5. What is Package? How to Create, Access and Import the package in Java? Explain with an example. [10M]
6. What is an exception? Explain different exception handling mechanisms with suitable example? [10M]
- OR**
- 7.a) Write a Java program to explain thread priorities usages. [7M]
  - b) Explain how thread can be synchronized. [3M]
- 8.a) Discuss the various steps required to set the JDBC connectivity with Backend Database. [6M]
  - b) Discuss random access file operations with example. [4M]
- OR**
9. Discuss in detail commonly used collection classes in Java. [10M]
- 10.a) What is an event? Explain the models available for event handling? [6M]
  - b) Explain the relationship between Event sources and Listeners. [4M]
- OR**
- 11.a) What is an Applet? Discuss with a sample Java Program. [7M]
  - b) Discuss Applet Security issues. [3M]

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