

CMR ENGINEERING COLLEGE: : HYDERABAD**UGC AUTONOMOUS****III–B.TECH–II–Semester End Examinations (Supply) - December- 2025****JAVA PROGRAMMING****(ECE)****[Time: 3 Hours]****[Max. Marks: 60]****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 10 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**(10 Marks)**

1. a) Define Encapsulation. [1M]
- b) List out the advantages of inheritance. [1M]
- c) Define interface. [1M]
- d) What is method overriding? [1M]
- e) What is the purpose of the 'try' block in Java? [1M]
- f) List out the states of Thread in their lifecycle. [1M]
- g) Define Vector with syntax. [1M]
- h) Define Byte Streams. [1M]
- i) Name any two container classes in Swing. [1M]
- j) Define an Event source and give one example. [1M]

PART-B**(50 Marks)**

2. Explain each of the primitive datatypes present in java? Discuss in detail. [10M]
- OR**
3. Explain briefly about String class and discuss various methods in String class with an example. [10M]
4. Discuss in detail about creating and importing packages with an examples. [10M]
- OR**
5. Compare various differences between interfaces and abstract class with an example. [10M]
6. What is an Exception? Explain different types of Exception. [10M]
- OR**
7. What are the challenges of thread synchronization, and how they can be overcome in a multithreaded environment? [10M]
8. Explain the concept of Java collection framework. Write a brief overview on it. [10M]
- OR**
9. Explain JDBC and its types. How can a Java application connect to a database using JDBC? [10M]
10. Explain in detail about AWT class hierarchy. [10M]
- OR**
11. What is the importance of Delegation Event Model on Event Handling? [10M]
