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Code No: F-13717/N/BL/AICTE

**FACULTY OF ENGINEERING****B.E. CSE (AI & ML) IV - Semester (AICTE) (Main & Backlog) (New) Examination,  
August / September 2024****Subject: Java Programming****Time: 3 Hours****Max. Marks: 70**

- Note:** (i) First question is compulsory and answer any four questions from the remaining six questions. Each question carries 14 Marks.  
(ii) Answer to each question must be written at one place only and in the same order as they occur in the question paper.  
(iii) Missing data, if any, may be suitably assumed.

1. a) Distinguish between an exception and error.  
b) Explain about thread priorities.  
c) Explain the significance of 'finally' block in Java.  
d) What are the different ways to create a Java Servlet?  
e) Differentiate between byte streams and character streams.  
f) What is the difference between Calendar class and GregorianCalendar class?  
g) Explain about JDBC.
2. a) Demonstrate the use of Inner classes in Java with a suitable program.  
b) Explain method overriding with an example program.
3. a) Define an interface? Explain how multiple inheritance can be accomplished using interfaces in Java.  
b) Explain the concept of thread synchronization with the help of example program.
4. a) Describe Collection in java. Explain ArrayList and LinkedList classes with suitable examples.  
b) What is serialization? Demonstrate the concept of serialization and deserialization with help of a program.
5. a) Discuss in detail about the AWT Event Delegation Model with suitable examples  
b) Write short notes on (i) Applet (ii) MVC Architecture
6. a) Demonstrate the handling of HTTP request and response using a Java Servlet program.  
b) Explain the following in detail with examples:  
(i) JComboBox (ii) JTextField (iii) JScrollPane (iv) JButton
7. a) What are command-line arguments? Write a Java program to add two integer numbers using command line arguments.  
b) What are the primitive datatypes in Java? Describe type casting and conversion with examples.