

## FACULTY OF ENGINEERING

B.E. (IT) IV-Semester (AICTE) (Main) (New) Examination, September/October 2022

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 Questions 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) Write about different usages of "super" keyword in Java.  
(b) Differentiate between method overloading and method overriding in Java.  
(c) What is an Applet in Java?  
(d) What is a package in Java, and how to create it?  
(e) What is an exception, list keywords used in handling an exception?  
(f) What is the difference between List and Set interface in Java Collections?  
(g) List different JDBC drivers.
2. (a) Explain about Dynamic Method Dispatch in Java. Write a program to demonstrate it.  
(b) Write a program to define and implement an interface in Java.
3. (a) Explain about multithreading in Java, write a program to create multiple threads.  
(b) How does Java achieve synchronization among multiple threads?
4. (a) Explain about Serialization in Java, and write a program to demonstrate it.  
(b) Explain about the life cycle of a Java Applet using a program.
5. (a) Explain about the Array List collection class and demonstrate how to access contents of it using an Iterator.  
(b) Differentiate between Swing and AWT components.
6. (a) Discuss in detail about all usages of "super" keyword in java, and demonstrate the same using a Java program.  
(b) Briefly explain about File class and various attributes it has, and write a program.
7. (a) Explain about Java Servlets in detail, the classes and interfaces used in it and write a program to demonstrate a simple Servlet.  
(b) List and explain methods of Sorted Set interface.