EC/EE 225 (R-20)

Total No. of Questions : 10] [Total No.of Pages : 02

II/IV B. Tech. DEGREE EXAMINATIONS, AUGUST - 2024

Second Semester

EC / EE

OBJECT ORIENTED PROGRAMMING THROUGH JAVA

Time : **Three Hours** Maximum : **70** Marks

Answer ONE question from each Unit. 5x14=70 M

All Questions carry equal marks.

UNIT - I

1. a) What is Overloading ? Explain Constructor overloading with an example.

   b) What is garbage collection ? Explain with an example.

(OR)

2. a) Explain about the inner classes and nested classes in Java.

   b) How to request a service from an object through a message ? Explain.

UNIT - II

3. a) How the keyword 'final' can be used to prevent overriding ? Explain with an example.

   b) Write a simple program to demonstrate the order to initialization of the base classes and derived classes.

(OR)

4. a) Explain the characteristics of inheritance for the following :
   (i) Construction (ii) Extension.

   b) What is an abstract class ? What is its importance ? How is it designed in Java ?

UNIT - III

5. a) Give the general form of the import statement. Illustrate a Java program that creates a package and uses it.

   b) Write a Java program that illustrates the concept of abstract classes.

(OR)

P.T.O.

6. a) Define abstract class and interface. What are the differences between them ? Explain with suitable examples.

   b) What are the packages provided by Java API ? Explain.

UNIT - IV

7. a) Explain the working of Java errors and exception detecting and correcting mechanism.

   b) How inter thread communication is done in Java ? Write a Java program to create threads with different priorities.

(OR)

8. a) What is a thread ? Discuss about creation of threads.

   b) Explain how a new exception class can be created and used in another java program.

UNIT - V

9. a) Discuss the various streams in IO programming.

   b) Explain random file access operations in IO programming.

(OR)

10. a) Explain readers and writers in IO programming.

    b) Write about file class, file output stream and file input stream.