



- 1-d. All Interface methods in Java are \_\_\_\_ by default. [CO2] 1
- (a) public
  - (b) abstract
  - (c) public and abstract
  - (d) None of the above
- 1-e. Which of the following package stores all the standard java classes? [CO3] 1
- (a) lang
  - (b) io
  - (c) util
  - (d) java.packages
- 1-f. Choose a correct statement below about importing packages into a class. [CO3] 1
- (a) A Java class or interface can import any number of packages.
  - (b) It is advised to import only the required Classes of a package to save memory.
  - (c) Java packages are usually distributed in the form of JAR files.
  - (d) All the above
- 1-g. What is the default value of priority variable MIN\_PRIORITY AND MAX\_PRIORITY? [CO4] 1
- (a) 0 and 256
  - (b) 0 and 1
  - (c) 1 and 10
  - (d) 1 and 256
- 1-h. Which method must be defined by a class implementing the java.lang.Runnable interface? [CO4] 1
- (a) void run()
  - (b) public void run()
  - (c) public void start()
  - (d) void run(int priority)
- 1-i. Object which can store group of other objects is called [CO5] 1
- (a) Collection Object
  - (b) Java Object
  - (c) Package
  - (d) Wrapper

- 1-j. Which interface does not allow duplicate elements? [CO5] 1
- (a) Set
  - (b) List
  - (c) Map
  - (d) All of the above

2. Attempt all parts:-

- 2.a. Differentiate between an object & a class. [CO1] 2
- 2.b. How can we declare & initialize a two-dimensional array? [CO2] 2
- 2.c. Name the classes used to create strings in Java. Also, mention the interfaces which these classes implement. [CO3] 2
- 2.d. What are the two ways of implementing thread in java? [CO4] 2
- 2.e. Differentiate between a component and a container. [CO5] 2

SECTION B 30

3. Answer any five of the following:-

- 3-a. Describe Aggregation and Composition in respect of the class diagram. [CO1] 6
- 3-b. Demonstrate the working of the do-while statement through example. [CO1] 6
- 3-c. Illustrate constructor overloading with an example. [CO2] 6
- 3-d. How to access elements of an array using for-each loop. [CO2] 6
- 3.e. Explain the exception handling mechanism in Java? [CO3] 6
- 3.f. Differentiate between FileReader and FileWriter. [CO4] 6
- 3.g. Explain the JDBC Architecture? [CO5] 6

SECTION C 50

4. Answer any one of the following:-

- 4-a. Describe all types of operators in Java. [CO1] 10
- 4-b. Distinguish between Polymorphism & Inheritance. [CO1] 10

5. Answer any one of the following:-

- 5-a. Describe the role of Garbage Collector in Java. Also demonstrate the use of gc() & finalize() method. [CO2] 10
- 5-b. Write brief notes on : abstract() method, static() method, main() method, final() method, non static method. [CO2] 10

6. Answer any one of the following:-

- 6-a. Depict the internal working of try-catch block. Can we throw an exception manually? If yes, illustrate with an example. [CO3] 10
- 6-b. Illustrate with an example the following ways to compare Strings in Java: "By using equals() method", "By using == operator", "By compareTo() method". [CO3] 10
7. Answer any one of the following:-
- 7-a. Explain thread priority. Write a program to demonstrate thread priority. [CO4] 10
- 7-b. Write a Java program that reads a character one at a time from a file. [CO4] 10
8. Answer any one of the following:-
- 8-a. Explain the generic class and generic methods? [CO5] 10
- 8-b. Write short notes on: Event Handling in java, HashMap, DriverManager Class, Generic Method. [CO5] 10