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18CS653

Sixth Semester B.E. Degree Examination, July/August 2022
Programming in JAVA

Time: 3 hrs.

Max. Marks: 100

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1 a. Explain 3 OOP's principles. **(06 Marks)**
   b. Explain the process of compiling and running the java application with the example. **(06 Marks)**
   c. Discuss the various primitive data types used in Java. **(08 Marks)**

OR

2 a. How are arrays declared and initialized in Java. Explain with suitable examples. **(10 Marks)**
   b. Explain scope and lifetime of variables with an example. **(05 Marks)**
   c. Explain automatic type promotion in expressions with rules and a demo program. **(05 Marks)**

Module-2

3 a. What are different types of operators in Java? Explain them. **(10 Marks)**
   b. Write a program to find biggest among 3 numbers using ternary operator. **(05 Marks)**
   c. Differentiate between while – loop and do-while loop in Java. **(05 Marks)**

OR

4 a. Write a java program to perform simple calculator operation. **(05 Marks)**
   b. Discuss for – each loop with an example. **(05 Marks)**
   c. Demonstrate the use of :
      i) Continue statement in while loop
      ii) Break statement in do while loop. **(10 Marks)**

Module-3

5 a. Explain class with an example. **(05 Marks)**
   b. What are constructors? Explain with an example. **(05 Marks)**
   c. Explain the following :
      i)   this keyword
      ii) Garbage collection in Java
      iii) finalize( ) method. **(10 Marks)**

OR

6 a. What is inheritance? Discuss different types of inheritance with suitable example. **(10 Marks)**
   b. Explain method overriding with an example. **(05 Marks)**
   c. Explain abstract class and abstract method with an example. **(05 Marks)**

Module-4

7 a. What is package? How to create and import package in java. Explain with an example. **(10 Marks)**
   b. What is an interface? Explain how to define and implement interface by taking suitable example. **(10 Marks)**

OR

8 a. What is an exception? Explain the following :
   i)   try
   ii) catch
   iii) throw
   iv) throws
   v)   finally.   (12 Marks)
   b. How do you create your own exception class? Explain with a program.   (08 Marks)

Module-5

9 a. What is applet? Explain program in applet with an example.   (10 Marks)
   b. Explain the following :
   i)   Enumerations
   ii) Type wrappers.   (10 Marks)

OR

10 a. What is string in Java? Explain string class constructors with an example. (10 Marks)
   b. Explain the following :
   i) String comparison method
   ii) Modifying a string.   (10 Marks)

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