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18CS653

Sixth Semester B.E. Degree Examination, Dec.2023/Jan.2024
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 the primitive data types in Java. **(10 Marks)**
  b. What is an array? How single dimensional and multi dimensional arrays defined in Java with an example. **(10 Marks)**

OR

2 a. Explain scope and lifetime of variables with an example. **(08 Marks)**
  b. Explain Java class Libraries. **(04 Marks)**
  c. Explain the blocks of code. **(08 Marks)**

Module-2

3 a. Explain selection statements in Java with an example. **(10 Marks)**
  b. Explain jump statements in Java with an example. **(10 Marks)**

OR

4 a. Explain bitwise logical operators in Java with an example. **(08 Marks)**
  b. Explain ternary operator in Java with an example. **(04 Marks)**
  c. Explain switch statements in Java with an example. **(08 Marks)**

Module-3

5 a. Explain the use of static and final keywords in Java with an example. **(10 Marks)**
  b. Explain the process of creating multilevel hierarchy with an example program. **(10 Marks)**

OR

6 a. What is inheritance? Explain the types of inheritance with an example program. **(08 Marks)**
  b. Explain overloading the constructor with an example program. **(08 Marks)**
  c. Explain dynamic method dispatch in Java. **(04 Marks)**

Module-4

7 a. What is an exception? Describe the working of nested try block with an example. **(08 Marks)**
  b. Explain check and unchecked exceptions. **(08 Marks)**
  c. Explain chained exception with an example program. **(04 Marks)**

OR

8 a. Illustrate the following :
     i) Access protection
     ii) Importing packages. **(10 Marks)**
  b. Explain throw, throws and finally keywords in Java with example program. **(10 Marks)**

Module-5

9 a. With examples, illustrate the following operations on strings :
    i)   String comparison
    ii) String search
    iii) Modifying string
    iv) Changing the case of characters.   (10 Marks)
   b. Explain StringBuffer and StringBilder class in Java.   (10 Marks)

OR

10 a. What is an applet? Explain the program in an applet with a skeleton code.   (10 Marks)
    b. What is stream? Explain the types of stream along with their specific classes and methods.
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