USN | | | | | | | | | | | **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)**

* * * * *