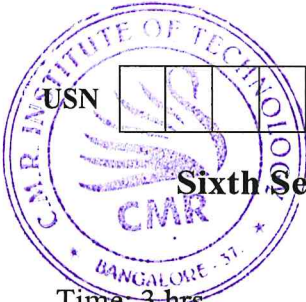


# CBCS SCHEME



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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

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

OR

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

### Module-2

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

OR

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

### Module-3

- Explain class with an example. (05 Marks)
  - What are constructors? Explain with an example. (05 Marks)
  - Explain the following :
    - this keyword
    - Garbage collection in Java
    - finalize() method.(10 Marks)

OR

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

### Module-4

- What is package? How to create and import package in java. Explain with an example. (10 Marks)
  - 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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