

2023
B.A./B.Sc.
Second Semester
CORE – 4
COMPUTER SCIENCE
Course Code: CSC 2.21
(Programming in Java)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. (a) Explain for-loop in java with an example. 4
(b) What are variables? Explain the various types of variables. 1+3=4
(c) List and explain the features of java. 6
2. (a) Write a java program to find factorial of a number. 3
(b) What are datatypes? Explain the various datatypes in java. 1+4=5
(c) Explain while and do while looping in java with example. 6

UNIT-II

3. (a) Write a program to illustrate parametrized constructor. 4
(b) Explain access specifiers in java. 5
(c) What are methods? Explain user defined method with an example. 1+4=5
4. (a) Define an object and a class. 2
(b) Write a java program to demonstrate replace(), charAt(), trim() and concat(). 4
(c) Explain 1-D and 2-D array with an example each. 8

UNIT-III

5. (a) Explain encapsulation and polymorphism. 4
(b) Write a note on this and super keyword. 4

(c) What is method overriding? Explain with an example. 2+4=6

6. (a) Write a java program to illustrate inheritance. 4
(b) What is garbage collection? Write a note on finalize(). 2+2=4
(c) What is method overloading? Write a program to illustrate method overloading. 2+4=6

UNIT-IV

7. (a) What is threading and multithreading in java? Explain the states of thread. 2+4=6
(b) Explain try, catch, throw, and finally in java with an example. 8
8. (a) Differentiate between throw and throws in java. 2
(b) Write a note on the main thread in java. 4
(c) Write a note on java's built in exceptions. 8

UNIT-V

9. (a) Write a note on event. Explain event source and event listener. 2+4=6
(b) Explain java applet initialization and termination in detail. 8
10. (a) Write a java applet that displays a simple message. 2
(b) Explain any four methods in graphic class. 4
(c) Write a note on java AWT. 8