

2022
B.A./B.Sc.
Second Semester
 CORE – 4
COMPUTER SCIENCE
Course Code: CSC 2.21
 (Programming in Java)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

1. (a) What is Java? List and explain the features of Java programming. 1+7=8
- (b) Write a note on JVM and JDK. Write a Java program to list all the even numbers from 0 to 100. 4+2=6
2. (a) What are variables? Explain the types of variables. 1+3=4
- (b) Explain bitwise and relational operators. 4
- (c) Explain if and switch statement with an example each. 6

UNIT-II

3. (a) What is a constructor? Differentiate between default and parametrized constructor. Write a program to illustrate default constructor. 1+2+3=6
- (b) What is a string? Explain charAt(), concat(), replace() and trim(). 1+4=5
- (c) Write a Java program to enter the marks of 3 subjects and display it using array. 3
4. (a) What is an array? Explain the various types of arrays. 1+3=4
- (b) What are methods? Explain the types of methods. 1+3=4
- (c) What are objects and classes? Write a note on access specifier. 2+4=6

UNIT-III

5. (a) What is OOPs? List and explain the features of OOPs. 1+4=5
(b) What is method overriding? Write a program to illustrate method overriding. 1+4=5
(c) Write a program to illustrate encapsulation. 4
6. (a) Write a Java program to illustrate method overloading. 4
(b) What is inheritance? Explain with an example. 1+4=5
(c) What is polymorphism? Explain with an example. 1+4=5

UNIT-IV

7. (a) What is an exception? Explain the exception types in Java. Explain the various keywords used for exception handling. 1+4+4=9
(b) Write a program to illustrate multithreading. 5
8. (a) Explain the various states of a thread. 3
(b) Write a program to illustrate exception handling. 5
(c) What are checked and unchecked exceptions? List and explain any two checked and two unchecked exceptions. 2+4=6

UNIT-V

9. (a) Explain an event and event source? 4
(b) What is an applet? Explain how an applet is initialized and terminated. 2+8=10
10. (a) What is an event listener? 2
(b) Write an applet program to display a string. 4
(c) Explain the following methods: 2×4=8
(i) paint()
(ii) start()
(iii) destroy()
(iv) stop()