

**THIRD SEMESTER M.Sc. DEGREE (REGULAR) EXAMINATION  
NOVEMBER 2019**

Computer Science

**CSS 3C 03—OBJECT ORIENTED PROGRAMMING CONCEPTS**

Time : Three Hours

Maximum : 36 Weightage

**Part A**

*Answer all questions.*

*Each question carries 1 weightage.*

1. What are byte codes in Java ?
2. Define JRE.
3. Is it required to import *java.lang* package? Justify your answer.
4. What is operator overloading ?
5. Define an abstract class.
6. When do an object's finalize method is invoked by the garbage collector ?
7. What is synchronization ?
8. What is the role of *paint ()* method under applet ?
9. List two features of Swing.
10. Define a Socket.
11. What are the common JDBC API components ?
12. Differentiate between local variable and global variable.

(12 × 1 = 12 weightage)

**Part B**

*Answer any six questions.*

*Each question carries 2 weightage.*

13. Explain with an example how a multi-dimensional array is created.
14. Differentiate between packages and interfaces.
15. Explain run-time polymorphism.
16. Explain the life cycle of a thread.

**Turn over**

17. Explain with suitable example, how a user defined exception is created.
18. Describe character stream classes in Java.
19. Write short notes on : (a) Frames and (b) Panel.
20. How is Socket class different from *ServerSocket* class ?
21. Write short notes on : (a) activity diagram and (b) object interaction diagram.

(6 × 2 = 12 weightage)

### Part C

*Answer any three questions.*

*Each question carries 4 weightage.*

22. Discuss : (a) Java primitive data types and (b) Java literals.
23. Write a class Student. It should have the following instance variables for the *name*, *credits*, *grade point average* (GPA), and *quality Points*. Create : (a) constructor method and (b) A method that will return the current grade point average which will be the quality points divided by the credits.
24. Differentiate between method overloading and method overriding with suitable examples.
25. Explain try(), catch() and finally () blocks in Java.
26. Write short notes on : (a) AWT Event classes and (b) AWT Event Listeners.
27. Explain the advantages and disadvantages of Java sockets.

(3 × 4 = 12 weightage)