SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)
Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai
Accredited by NAAC-UGC with 'A++' Grade (Cycle III) &
Accredited by NBA (B.E - CSE, EEE, ECE, Mech&B.Tech.IT)
COIMBATORE-641 035, TAMIL NADU

UNIT 1: INTRODUCTION TO OOP

Two Marks

1. Define Object-Oriented Programming (OOP).

2. What is an object in Java?

3. What is a class in Java?

4. Differentiate between inheritance and polymorphism.

5. What is encapsulation in Java?

6. Define abstraction in the context of OOP.

7. What is the significance of the `this` keyword in Java?

8. What is a constructor?

9. Explain the purpose of the Java Virtual Machine (JVM).

10. What is the difference between bytecode and machine code?

11. What is JDK?

12. What is the difference between method overloading and method overriding?

13. What is a final class in Java?

14. What is the role of an interface in Java?

15. What is the purpose of the `static` keyword in Java?

16. What is a package in Java?

17. What is a default constructor?

18. What is the purpose of garbage collection in Java?

19. What is the difference between `==` and `equals()` in Java?

20. What is method overriding?

21. What are access modifiers?

22. Explain the term 'object reference'.

23. What is the significance of the `new` keyword in Java?

24. What is the difference between a shallow copy and a deep copy?

25. What is dynamic binding?

UNIT 2: INTRODUCTION TO JAVA

Two Marks

1. What is a variable in Java?

2. Define data type with an example.

3. What is the difference between primitive and reference data types?

4. Explain the purpose of loops in Java.

5. What is the use of the `break` statement?

6. Define an array in Java.

7. What is a method in Java?

8. What is the significance of the `return` keyword?

9. What is the purpose of the `continue` statement?

10. What is method overloading?

11. Define a switch case.

12. What is the purpose of the `void` keyword?

13. Define a control structure.

14. What is the use of the `if-else` statement?

15. Explain the difference between `for` loop and `while` loop.

16. What is a constructor?

17. What are Java operators?

18. What is operator precedence?

19. What is the purpose of the `Math` class?

20. Explain the use of arrays in Java.

21. What is the significance of the `String` class in Java?

22. What is the difference between `int` and `Integer`?

23. What is type casting?

24. What is an enhanced `for` loop?

25. What is recursion?

UNIT 3: OBJECTS AND CLASS

Two Marks

1. What is an object in Java?

2. What is the purpose of constructors?

3. Define a class in Java.

4. What is a finalizer in Java?

5. What are visibility modifiers?

6. What is a static method?

7. What is the difference between a constructor and a method?

8. Explain the significance of the `this` keyword.

9. What is an inner class?

10. What is an abstract class?

11. Define method overriding.

12. What is the purpose of the `super` keyword?

13. What is inheritance?

14. What is an interface?

15. What is the difference between `final`, `finally`, and `finalize`?

16. What is a nested class?

17. What is the purpose of the `toString()` method?

18. What is object cloning?

19. What is an enum in Java?

20. What is a singleton class?

21. What is the purpose of the `instanceof` keyword?

22. What is the difference between `equals()` and `==`?

23. What is a static block?

24. What is the `clone()` method?

25. What is the purpose of the `getClass()` method?

UNIT 4: INHERITANCE AND POLYMORPHISM

Two Marks

1. What is inheritance in Java?

2. Define polymorphism.

3. What is method overriding?

4. What is a superclass?

5. What is a subclass?

6. What is a protected member?

7. What is the difference between `super` and `this`?

8. What is the significance of `final` in inheritance?

9. Define an abstract class.

10. What is an interface?

11. What is multiple inheritance?

12. What is a constructor in the context of inheritance?

13. What is the purpose of the `super()` constructor?

14. Define dynamic method dispatch.

15. What is the difference between static and dynamic binding?

16. What is encapsulation?

17. What is the use of the `instanceof` operator?

18. What is the difference between inheritance and composition?

19. Define method hiding.

20. What is a final method?

21. What is a constructor chain?

22. What is the role of the `abstract` keyword?

23. What is a static method in Java?

24. What is the difference between polymorphism and method overloading?

25. What is the purpose of the `extends` keyword?

UNIT 5: MULTITHREADING IN JAVA

Two Marks

1. What is a thread in Java?

2. Define multithreading.

3. What is the life cycle of a thread?

4. What is the purpose of the `start()` method in a thread?

5. What is the difference between `run()` and `start()` methods?

6. What is thread synchronization?

7. What is the purpose of the `synchronized` keyword?

8. Define thread creation in Java.

9. What is a daemon thread?

10. What is inter-thread communication?

11. What is the purpose of the `wait()` method?

12. What is the difference between `wait()` and `sleep()` methods?

13. What is the `notify()` method used for?

14. What is thread priority?

15. What is a `Runnable` interface?

16. What is the purpose of `try-catch` in exception handling?

17. What is the significance of `finally` in exception handling?

18. What is a thread pool?

19. What is deadlock in multithreading?

20. What is a race condition?

21. What is the purpose of the `yield()` method in Java?

22. What is the `Thread.sleep()` method used for?

23. What is thread interruption?

24. Define `join()` method in thread.

25. What is the purpose of the `ThreadGroup` class?