<p style="text-align: center;">**Question Paper 50 Marks**</p>

Part A: Multiple Choice Questions (15 marks)

Choose the correct option for each of the following questions. Each question carries 1 mark.

1. Which of the following is a valid way to declare a variable of type int in Java?

(a) int x;

(b) int x = 10;

(c) int x = new int();

(d) All of the above

2. Which of the following is a valid way to create an object of a class named Student in Java?

(a) Student s = new Student();

(b) Student s = Student();

(c) Student s;

(d) None of the above

3. Which of the following is an example of a unary operator in Java?

(a) +

(b) ++

(c) &&

(d) ==

4. Which of the following keywords is used to make a decision based on a condition in Java?

(a) if

(b) switch

(c) case

(d) either (a) or (b)

5. Which of the following keywords is used to repeat a block of code until a condition is false in Java?

(a) for

(b) while

c) do-while

6. What is the output of the following code snippet in Java?
```java
int x = 10;
int y = 20;
if (x > y) {
    System.out.println("x is greater than y");
} else {
    System.out.println("x is less than or equal to y");
}
```

(a) x is greater than y

(b) x is less than or equal to y

c) x is equal to y

(d) Compilation error

7. What is the output of the following code snippet in Java?
```java
int x = 10;
int y = 20;
switch (x + y) {
    case 10:
        System.out.println("The sum is 10");
        break;
    case 20:
        System.out.println("The sum is 20");
        break;
    case 30:
        System.out.println("The sum is 30");
        break;
    default:
        System.out.println("The sum is something else");
}
```

(a) The sum is 10

(b) The sum is 20

c) The sum is 30

(d) The sum is something else

8. What is the output of the following code snippet in Java?
```java
for (int i = 1; i <= 5; i++) {
    System.out.print(i + " ");
}
```

(a) 1 2 3 4 5

(b) 1 2 3 4

(c) 2 3 4 5

(d) 2 3 4 5 6

9. What is the output of the following code snippet in Java?

```
int i = 1;
while (i <= 5) {
    System.out.print(i + " ");
    i++;
}
```

(a) 1 2 3 4 5

(b) 1 2 3 4

© 2 3 4 5

(d) 2 3 4 5 6

10. What is the output of the following code snippet in Java?

```
int i = 1;
do {
    System.out.print(i + " ");
    i++;
} while (i <= 5);
```

(a) 1 2 3 4 5

(b) 1 2 3 4

(c) 2 3 4 5

(d) 2 3 4 5 6

11. What is the difference between a class and an object in Java?

(a) A class is a blueprint for creating objects, while an object is an instance of a class

(b) A class is a collection of objects, while an object is a single entity

(c) A class is a type of object, while an object is a value of a class

(d) There is no difference between a class and an object in Java

12. What is the purpose of the main method in a Java program?

(a) It is the entry point for the execution of the program

(b) It is the method that contains the logic of the program

c) It is the method that returns the result of the program

(d) It is the method that creates the objects of the program

14. What is the syntax for declaring a method in Java?

(a) [access modifier] [return type] [method name] ([parameters]) { [method body] }

(b) [return type] [access modifier] [method name] ([parameters]) { [method body] }

c) [method name] [access modifier] [return type] ([parameters]) { [method body] }

(d) [access modifier] [method name] [return type] ([parameters]) { [method body] }

15. What is the meaning of the keyword this in Java?

(a) It refers to the current object

(b) It refers to the current class

c) It refers to the current method

(d) It refers to the current package

14. What is the meaning of the keyword static in Java?

(a) It means that the variable or method belongs to the class and not to any object

(b) It means that the variable or method can be accessed without creating an object

c) It means that the variable or method can be shared by all the objects of the class

(d) All of the above

Part B: Fill in the Blanks (5 marks)

1. Fill in the blanks with the appropriate words or symbols. Each question carries 1 mark.
2. A _____ is a named memory location that can store a value of a specific type in Java.
3. A _____ is a sequence of characters enclosed by double quotes in Java.
4. The _____ operator is used to concatenate two strings in Java.
5. The _____ keyword is used to define a new class in Java.
6. The _____ keyword is used to inherit the features of another class in Java.

Part C: Short Answer Questions (10 marks)

Answer the following questions in one sentence each. Each question carries 1 mark.

1. What is the difference between primitive and reference types in Java?
2. What is the difference between == and .equals() in Java?
3. What is the difference between public and private access modifiers in Java?
4. What is the difference between break and continue statements in Java?
5. What is the difference between a constructor and a method in Java?
6. What is the difference between a parameter and an argument in Java?
7. What is the difference between overloading and overriding in Java?
8. What is the difference between an abstract class and an interface in Java?
9. .Briefly describe the difference between 'for' and 'while' loops in Java.

10. int x = 11, int y = 6;
    int m = (x++ - y + x) / 2;

1. Write a Java program that prints all the numbers starting from 11 to 117 and divisible by 13.

2. Write a java Code to print all the prime numbers between 0 to 100.