1.

```
public class Q1 {
    static int x = 5;
    int y = 10;

int sum() {
        return x + y;
    }

public static void main(String[] args) {
        Q1 obj = new Q1();
        System.out.println(obj.sum());
    }
}
```

a) 10 b) 15 c) Compilation error d) Runtime error

2.

```
public class Q2 {
    static int a = 10;
    int b = a + 5;

public static void main(String[] args) {
        Q2 obj = new Q2();
        a = 20;
        System.out.println(obj.b);
    }
}
```

a) 15 b) 25 c) 20 d) Compilation error

3.

```
public class Q3 {
    static int a = 3;
    int b = a;

public static void main(String[] args) {
        Q3 obj1 = new Q3();
        a = 6;
        Q3 obj2 = new Q3();
        System.out.println(obj1.b + obj2.b);
    }
}
```

a) 6 b) 9 c) 12 d) Compilation error

```
public class Q4 {
    static int count = 0;
    int value = count++;

public static void main(String[] args) {
        Q4 obj1 = new Q4();
        Q4 obj2 = new Q4();
        System.out.println(obj2.value);
    }
}
```

a) 0 b) 1 c) 2 d) Compilation error

5.

```
public class Q5 {
   int a = 10;
   static int b = 20;

static int compute() {
      Q5 obj = new Q5();
      return obj.a + b;
   }

public static void main(String[] args) {
      System.out.println(compute());
   }
}
```

a) 10 b) 20 c) 30 d) Compilation error

6.

```
public class Q6 {
    static int total = 0;
    int add = 5;

    void update() {
        total += add;
    }

    public static void main(String[] args) {
        Q6 q = new Q6();
        q.update();
        q.update();
        System.out.println(total);
    }
}
```

a) 5 b) 10 c) 15 d) Compilation error

```
public class Q7 {
   int x = 2;
   static int y = 4;

int multiply() {
     return x * y;
}

public static void main(String[] args) {
   Q7 q = new Q7();
   System.out.println(q.multiply());
}
```

a) 2 b) 4 $\frac{\text{c}}{\text{8}}$ d) Compilation error

8.

```
public class Q8 {
   int a = 7;
   static int b = 3;

  static int result(Q8 obj) {
     return obj.a - b;
   }

  public static void main(String[] args) {
     Q8 q = new Q8();
     System.out.println(result(q));
   }
}
```

a) 4 b) 3 c) 10 d) Compilation error

```
public class Q9 {
    static int x = 1;
    int y = x + 2;

void display() {
        System.out.println(y);
    }

public static void main(String[] args) {
        Q9 q = new Q9();
        x = 5;
        q.display();
```

```
}
a) 3 b) 5 c) 7 d) Compilation error
```

10.

```
public class Q10 {
   int a = 5;
   static int b = 2;

  void change() {
      a = a * b;
  }

  public static void main(String[] args) {
      Q10 obj = new Q10();
      obj.change();
      System.out.println(obj.a);
  }
}
```

a) 2 b) 5 c) 10 d) Compilation error

11.

```
public class Q11 {
    static int total = 0;
    int val = 2;

    void process() {
        total += val;
    }

    public static void main(String[] args) {
        Q11 obj1 = new Q11();
        Q11 obj2 = new Q11();
        obj1.process();
        obj2.process();
        System.out.println(total);
    }
}
```

a) 2 b) 4 c) 6 d) Compilation error

```
public class Q12 {
  int data = 100;
  static int value = 50;
```

```
static int access(Q12 ref) {
    return ref.data - value;
}

public static void main(String[] args) {
    Q12 q = new Q12();
    System.out.println(access(q));
}
```

a) 50 b) 150 c) -50 d) Compilation error

13.

```
public class Q13 {
    static int a = 5;
    int b = a * 2;

public static void main(String[] args) {
        a = 10;
        Q13 q = new Q13();
        System.out.println(q.b);
    }
}
```

a) 10 b) 20 c) 5 d) Compilation error

14.

```
public class Q14 {
   int a = 1;
   static int b = 2;

int add() {
    return a + b;
}

public static void main(String[] args) {
   Q14 obj = new Q14();
   System.out.println(obj.add());
}
```

a) 1 b) 2 $\frac{\text{c}}{\text{c}}$ 3 d) Compilation error

```
public class Q15 {
  int x = 2;
  static int y = 4;
```

```
public static void main(String[] args) {
    Q15 obj = new Q15();
    obj.x += y;
    System.out.println(obj.x);
}
```

a) 2 b) 4 c) 6 d) Compilation error

16.

```
public class Q16 {
    static int base = 10;
    int diff = base - 3;

public static void main(String[] args) {
      Q16 q = new Q16();
      base = 20;
      System.out.println(q.diff);
    }
}
```

a) 7 b) 17 c) 10 d) Compilation error

17.

```
public class Q17 {
   int count = 0;
   static int shared = 0;

void increment() {
      count++;
      shared++;
   }

public static void main(String[] args) {
      Q17 a = new Q17();
      Q17 b = new Q17();
      a.increment();
      b.increment();
      b.increment();
      System.out.println(shared);
   }
}
```

a) 1 $\frac{b}{2}$ c) 3 d) Compilation error

```
public class Q18 {
   static int num = 4;
   int val = num * 2;
```

```
public static void main(String[] args) {
    Q18 obj = new Q18();
    num = 10;
    System.out.println(obj.val);
}
```

a) 4 b) 8 c) 20 d) Compilation error

19.

```
public class Q19 {
    static int x = 2;
    int y = x;

void update() {
        y += 3;
    }

public static void main(String[] args) {
        Q19 obj = new Q19();
        obj.update();
        System.out.println(obj.y);
    }
}
```

a) 2 b) 5 c) 3 d) Compilation error

20.

```
public class Q20 {
   int a = 10;
   static int b = 20;

static int compute(Q20 ref) {
     return ref.a + b;
}

public static void main(String[] args) {
     Q20 obj = new Q20();
     System.out.println(compute(obj));
}
```

a) 10 b) 20 c) 30 d) Compilation error

```
public class Q21 {
  int a = 5;
```

```
int calculate() {
    return b - a;
}

public static void main(String[] args) {
    Q21 obj = new Q21();
    System.out.println(obj.calculate());
}
```

22.

```
public class Q22 {
    static int s = 1;
    int i = s++;

    public static void main(String[] args) {
        Q22 a = new Q22();
        Q22 b = new Q22();
        System.out.println(a.i + b.i);
    }
}
```

a) 1 b) 2 <mark>c) 3</mark> d) 4

a) 5 b) -5 c) 10 d) Compilation error

23.

```
public class Q23 {
   int a = 2;
   static int b = 3;

   static int result() {
      Q23 obj = new Q23();
      return b * obj.a;
   }

   public static void main(String[] args) {
      System.out.println(result());
   }
}
```

a) 2 b) 3 c) 6 d) Compilation error

```
public class Q24 {
  int x = 10;
```

```
static int y = 5;

void update() {
    y += x;
}

public static void main(String[] args) {
    Q24 a = new Q24();
    a.update();
    Q24 b = new Q24();
    b.update();
    System.out.println(y);
}
```

a) 15 <mark>b) 25</mark> c) 30 d) Compilation error

25.

```
public class Q25 {
    static int a = 5;
    int b = a++;

public static void main(String[] args) {
        Q25 obj1 = new Q25();
        Q25 obj2 = new Q25();
        System.out.println(obj1.b + obj2.b);
    }
}
```

a) 5 b) 6 c) 11 d) Compilation error

26.

```
public class Q26 {
   int a = 10;
   static int b = 5;

   static int subtract(Q26 ref) {
      return ref.a - b;
   }

   public static void main(String[] args) {
      Q26 obj = new Q26();
      System.out.println(subtract(obj));
   }
}
```

a) 5 b) 10 c) 15 d) Compilation error

```
public class Q27 {
   int p = 3;
   static int q = 4;

int compute() {
     return p + q;
   }

public static void main(String[] args) {
     Q27 obj = new Q27();
     System.out.println(obj.compute());
   }
}
```

a) 3 b) 4 $^{\rm c)}$ 7 d) Compilation error

28.

```
public class Q28 {
    static int counter = 0;
    int value = counter++;

public static void main(String[] args) {
        Q28 x = new Q28();
        Q28 y = new Q28();
        Q28 z = new Q28();
        System.out.println(z.value);
    }
}

a) 0 b) 1 c) 2 d) 3
```

29.

```
public class Q29 {
   int val = 10;
   static int shared = 5;

  void multiply() {
     val *= shared;
  }

  public static void main(String[] args) {
     Q29 obj = new Q29();
     obj.multiply();
     System.out.println(obj.val);
  }
}
```

a) 10 b) 15 c) 50 d) Compilation error

```
public class Q30 {
    static int staticValue = 3;
    int instanceValue = staticValue + 2;

public static void main(String[] args) {
        staticValue = 7;
        Q30 obj = new Q30();
        System.out.println(obj.instanceValue);
    }
}
```

a) 5 b) 7 $^{\rm c}$) 9 d) Compilation error