1. The average salary of 12 officers in a factory is Rs. 3950 per month and that of other employees of the factory is Rs. 1850 per month. If the average salary of all employees (including the officers) of the factory be Rs. 2150 per month, find the total number of employees in the factory. (1) 80   (2) 85   (3) 84   (4) 86

2. In a class there are 40 boys and their average age is 16 years. One boy aged 17 years leaves the school and another joins, and their average age becomes 15.95 years. What is the age of the new boy? (1) 14 years   (2) 15 years   (3) 16 years   (4) 18 years

3. The average weight of 29 students is 40 kg. If the weight of teacher be included, the average weight is increased by 300 gms. The weight of the teacher is: (1) 49 kg   (2) 56 kg   (3) 58 kg   (4) None of these

4. The difference between the ages of two sisters is half the difference between the ages of their parents. The elder sister is 18 years of age. Their father's age was 32 years when the younger sister was born who is now 15 years old. What is their mother's age? (1) 40   (2) 41   (3) 42   (4) 43

5. The average of five results is 46 and that of first four is 45. Find the value of the fifth result. (1) 50   (2) 60   (3) 45   (4) 40

6. Out of three numbers, the first is twice the second and is half of the third. If the average of three numbers is 56, find the largest number. (1) 50   (2) 48   (3) 96   (4) 75

7. The average of three numbers is 42. The first is twice the second and the second is twice the third. What is the difference between the largest and the smallest number? (1) 50   (2) 46   (3) 48   (4) 54

8. The average age of three boys is 15 years. If their ages are in the ratio 3:5:7, what is the age of the youngest boy? (1) 9 years   (2) 8 years   (3) 8 years 3 months   (4) None of these

9. a, b, c, d and e are five consecutive odd numbers. What is their average? (1) a + 2   (2) a + 4   (3) a + 3   (4) a + 1

10. The average height of 30 girls out of a class of 40 is 160 cms and that of the remaining girls is 156 cms. What is the average height of the whole class? (1) 155 cm   (2) 157 cm   (3) 159 cm   (4) None of these

11. The sum of the squares of two positive numbers is greater than their product by 28. If the ratio of the numbers is 2:3, find the numbers. (1) 4 and 6   (2) 6 and 9   (3) 8 and 12   (4) None of these

12. 3 litres of a mixture containing wine and water in the ratio 3:7 and 4 litres of another mixture containing wine and water in the ratio 3:5 are mixed together. What is the ratio of wine and water in the resulting mixture? (1) 11:23   (2) 12:23   (3) 13:24   (4) 12:27

13. When the market price per kg of rice and wheat is in the ratio 3:2, the monthly expenses of a family towards rice and wheat are in the ratio 5:6. If the market price of rice and wheat becomes in

the ratio 4:3, what will be the ratio of expenses towards them? (Assume that the amount of rice and wheat consumed remains unaltered.) (1) 20:29   (2) 20:27   (3) 18:25   (4) 21:37

14. Three vessels of equal volumes contain water and syrup in the ratio 4:1, 5:2, and 7:3 respectively. When they are thoroughly mixed together in a large vessel, find the resulting ratio of water and syrup in the mixture. (Assume that in the mixture total volume remains unaltered.) (1) 11:30   (2) 19:11   (3) 31:11   (4) 11:35

15. A, B, and C go into a business as partners with the agreement that their shares of profit will be in the proportion of their capitals. If A's capital : B's capital = 2:3, and B's capital : C's capital = 2:5, find their shares in a profit of Rs. 3250. (1) Rs. 520, Rs. 780, Rs. 1950   (2) Rs. 540, Rs. 760, Rs. 1950   (3) Rs. 540, Rs. 780, Rs. 1930

16. One morning after purchasing 6 litres of milk from a milkman, a householder found that the weight of this quantity of milk was 6.144 kg. If one litre of pure milk weighs 1.032 kg and that of one litre of pure water 1 kg, then how much water was added to milk? (1) 0.5 kg   (2) 1.2 kg   (3) 0.05 kg   (4) 1.5 kg

17. 5 men, 6 women, and 7 boys finished a work in 3 days and got the remuneration of Rs. 2137.50 for it. If the work of 1 man, 1 woman, and 1 boy in one day be in the proportion of 1 : 2 : 3 : 4, what sum did each man get on a day? (1) Rs. 196   (2) Rs. 197   (3) Rs. 198   (4) Rs. 199

18. Twenty years ago the ratio between the ages of Sita and Meena was 1:4 and at present it is 1:2. What is the age of Sita at present? (1) 25   (2) 35   (3) 30   (4) None of these

19. A mixture contains alcohol and water in the ratio 4:3. If 5 litres of water is added to the mixture the ratio becomes 4:5. The quantity of alcohol in the given mixture is: (1) 12 litres   (2) 10 litres   (3) 14 litres   (4) 16 litres

20. If $x : y = 8 : 9$, then $5x - 4y : 3x + 2y$ is equal to: (1) 2:19   (2) 3:17   (3) 2:21   (4) None of these

Technical MCQ :

1.Which loop is used when number of iterations is known?
A) while   B) do-while   C) for   D) switch

2.
```
int i=10;
while(i++ <= 10);
System.out.print(i);
```

A) 10   B) 11   C) 12   D) Infinite

3.
```
class Test {
  Test() {
     System.out.print("A");
  }
  Test(int x) {
     System.out.print("B");
```

```
  }
  public static void main(String[] args) {
    new Test(10);
  }
}
```
A) A   B) B   C) AB   D) Compile error

4.
```
class A {
  A() {
    System.out.print("A");
  }
}
class B extends A {
  B() {
    System.out.print("B");
  }
  public static void main(String[] args) {
    new B();
  }
}
```
A) A   B) B   C) AB   D) BA

5.
```
class Test {
  Test() {
    this(10);
    System.out.print("A");
  }
  Test(int x) {
    System.out.print("B");
  }
  public static void main(String[] args) {
    new Test();
  }
}
```
A) AB   B) BA   C) A   D) B

6.
```
class A {
  static void show() {
    System.out.print("A");
  }
}
class B extends A {
```

```java
    static void show() {
        System.out.print("B");
    }
    public static void main(String[] args) {
        A obj = new B();
        obj.show();
    }
}
```
A) A   B) B   C) Compile error   D) Runtime error

7.
```java
class A {
    private void show() {
        System.out.print("A");
    }
}
class B extends A {
    void show() {
        System.out.print("B");
    }
}
```
A) Compile error   B) Runtime error   C) Method overriding   D) Method hiding

8.
```java
class A {
    int x = 10;
}
class B extends A {
    int x = 20;
    public static void main(String[] args) {
        A obj = new B();
        System.out.print(obj.x);
    }
}
```
A) 10   B) 20   C) Compile error   D) Runtime error

9.
```java
int[] a = new int[3];
System.out.print(a[0] + a[1] + a[2]);
```
A) 0   B) null   C) Compile error   D) Garbage value

10.
```java
int[] a = {1, 2, 3};
a = new int[]{4, 5};
System.out.print(a.length);
```
A) 2   B) 3   C) 5   D) Compile error

11. byte a = 5;
byte b = 3;
byte c = a & b;
System.out.print(c);
A) 1   B) 5   C) Compile error   D) Runtime error

12. int a = 1;
System.out.print(a << 31);
A) 2147483648   B) -2147483648   C) 0   D) Compile error

13. static void fun() {
   fun();
}
public static void main(String[] args) {
   fun();
}
A) Compile-time error   B) Runtime error   C) Infinite loop   D)
StackOverflowError

14. static int fun(int n) {
   if(n <= 1)
      return n;
   return fun(n - 1) + fun(n - 2);
}
public static void main(String[] args) {
   System.out.print(fun(4));
}
A) 2   B) 3   C) 4   D) 5

15. Which statement is TRUE about recursion?
A) Always faster than loop   B) Uses heap memory
C) Requires base condition   D) Cannot return value

16. int[][] a = {{1,2},{3,4}};
int[][] b = a;
b[0][1] = 9;
System.out.print(a[0][1]);
A) 2   B) 4   C) 9   D) Compile error

17. What is the output of System.out.println(10 + 20 + "30");?
A) 3030   B) 60   C) 30   D) Compile error

18. Which data type is NOT allowed in switch?

A) byte   B) int   C) long   D) char

19. Recursion uses which memory?
A) Heap   B) Stack   C) Register   D) Cache

20. One interface many forms refers to:
A) Abstraction   B) Encapsulation   C) Polymorphism   D) Inheritance

NAME OF STUDENT: _____

BATCH: _____

01		02		03		04		05	
06		07		08		09		10	
11		12		13		14		15	
16		17		18		19		20	
21		22		23		24		25	
26		27		28		29		30	
31		32		33		34		35	
36		37		38		39		40	