MOUNT ACRMEL SCHOOL
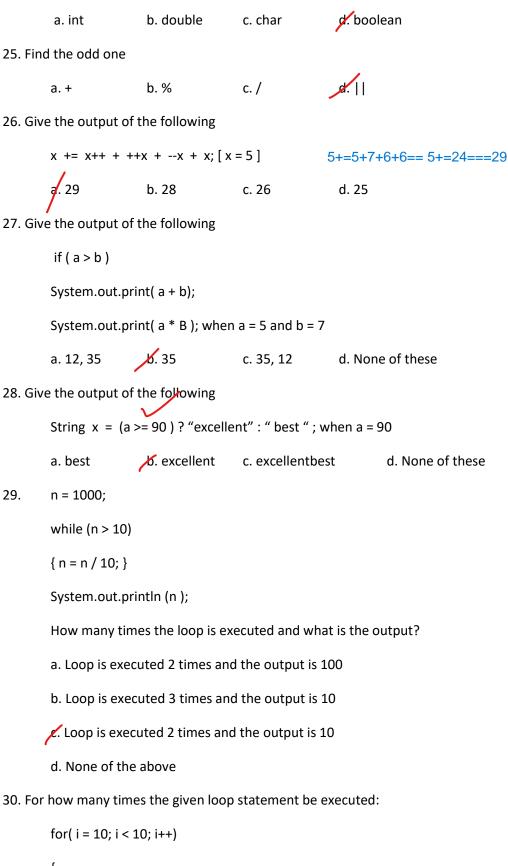## FIRST PRE-BOARD EXAM 2021-22
COMPUTER APPLICATION

Maximum Marks: 50
Time allowed : One hour (inclusive of reading time)
Each question carries 1 mark

ALL QUESTIONS ARE COMPULSARY
SECTION A (30 Marks)

1. A constant which gives the exact representation of data is called

    a. Variable   b. Literal   c. Identifier   d. Character

2. The Unicode of lower case alphabets range from

    a. 65 – 90   b. 60-85   c. 97 – 122   d. 65 – 96

3. Which of the following is non-primitive data type

    a. long   b. byte   c. String   d. boolean

4. Which of the following keyword is used to refer to the object which invoked the function

    a. new   b. class   c. this   d. None of these

5. What is the final value stored in variable x?

double a = -18.02;

double x = Math.abs(Math.floor(a));

    a. 19.0   b. 18.0   c. -19.0   d. -18.0

6. Name the type of error in the statement given below:

int r = 10/ (5 – 5);

    a. Syntax   b. Runtime   c. Logical   d. None of these

7. The _____ allows a class to use the properties and methods of another class

    a. Inheritance   b. Polymorphism   c. Encapsulation   d. Static

8. The number of bytes occupied by long data type is _____ bytes

    a. 2   b. 4   c. 8   d. 16

9. The statement n +=4 is equivalent to

    a. ++n   b. n=n+4   c. n+4   d. none

10. int m, p; m = 5; p = 0; p = m-- + ++m; the value of p will be: p=5+5==10

    a. 11   b. 10   c. 8   d. 12

11. The _____ is called an instance of a class

    a. Object   b. Attributes   c. State   d. None of these

12. Method that accepts a character and returns its Unicode value as int

    a. nextInt( )   b. readLine( )   c. read( )   d. next( )

13. Intermediate code obtained after compilation

java byte code

    a. Byte code   b. Source code   c. Object code   d. None of these

14. The method with the same name as of the class and which does not have a return data type is called as

    a. Function   b. member Variables   c. Constructors   d. None of these

15. The statement to terminate the execution of a construct

    a. System.exit(0)   b. break   c. STOP   d. destructor

16. Invoking a function by passing the objects of a class is termed as

    a. Call by value   b. call by reference   c. call by method   d. None of these

17. What type of value is returned by Math.rint( ) ?

    a. int   b. double   c. float   d. short

18. Package in which System class is defined

    a. io   b. lang   c. util   d. None of these

19. Which of the following statement accomplishes a 'fall through' ?

    a. if-else-if   b. switch   c. for loop   d. do-while loop

20. When the execution of statements are repeated sequentially a number of time, the construct is known as

    a. Sequence   b. Selection   c. Iteration   d. Conditional

21. Which of the following statement creates multiple branching:

    a. loop   b. continue   c. switch   d. break

22. Find the odd one

    a. System   b. Scanner   c. Math   d. String

23. Find the odd one

    a. void   b. int   c. boolean   d. static

24. Find the odd one

     a. int   b. double   c. char   d. boolean

25. Find the odd one

     a. +   b. %   c. /   d. ||

26. Give the output of the following

     x += x++ + ++x + --x + x; [x = 5]   5+=5+7+6+6== 5+=24===29

     a. 29   b. 28   c. 26   d. 25

27. Give the output of the following

     if (a > b)

     System.out.print(a + b);

     System.out.print(a * B); when a = 5 and b = 7

     a. 12, 35   b. 35   c. 35, 12   d. None of these

28. Give the output of the following

     String x = (a >= 90) ? "excellent" : " best " ; when a = 90

     a. best   b. excellent   c. excellentbest   d. None of these

29.   n = 1000;

     while (n > 10)

     { n = n / 10; }

     System.out.println (n);

     How many times the loop is executed and what is the output?

     a. Loop is executed 2 times and the output is 100

     b. Loop is executed 3 times and the output is 10

     c. Loop is executed 2 times and the output is 10

     d. None of the above

30. For how many times the given loop statement be executed:

     for(i = 10; i < 10; i++)

     {

     Statement

        }

        a. 1 time   b. 10 times   c. infinite   d. none

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SECTION – B (20 Marks)

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Question

Given below is a class with the following specifications:
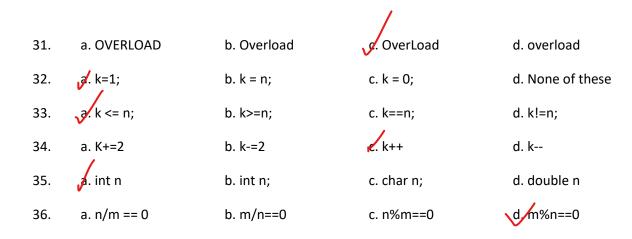
Class name : OverLoad

Member Methods

void print (int n) – to print first 'n' natural numbers

boolean print (int m, int n) – to check whether n is a multiple of m or not

Fill in the blanks of the given program with appropriate java statements listed below

```
class _____(31)_____
{
        void print (int n)
        {
                int k;
                for(___(32)___ ; ____( 33)__ ; ___(34)__)
                {
                System.out.println( k);
                }
        }
        boolean print( int m, ____(35)___ )
        {
                if ( ____(36)____)
                return true;
                else
                return false;
        }
}
```

31.   a. OVERLOAD   b. Overload   c. OverLoad ✓   d. overload

32.   a. k=1; ✓   b. k = n;   c. k = 0;   d. None of these

33.   a. k <= n; ✓   b. k>=n;   c. k==n;   d. k!=n;

34.   a. K+=2   b. k-=2   c. k++ ✓   d. k--

35.   a. int n ✓   b. int n;   c. char n;   d. double n

36.   a. n/m == 0   b. m/n==0   c. n%m==0   d. m%n==0 ✓

Question

The following program is based on the specification given below. Fill in the blanks with appropriate java statements listed below

class name : Telephone

member variables :   int noc [number of calls]

                        double bill [telephone bill to be paid]

                        String n [name of the customer]

Member methods:

void input() – to accept the data using the Scanner class

void print( ) – to print the details

void calculate( ) – to calculate the telephone bill as per the following criteria based on number of calls

                    Number of calls   Rate per call

                    First 100 calls   free

                    Above 100 calls   Rs. 2.50

void main ( ) – to create an object of the class and invoke the functions of the class

class ____(37)_____
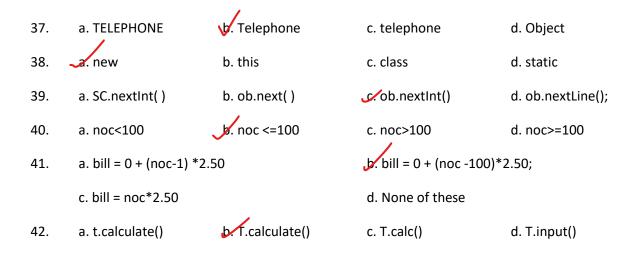
{

        int noc;

        double bill;

        String n;

```java
void input( )

{

        Scanner ob = ___(38)____ Scanner (System.in);

        System.out.println("Enter number of calls");

        noc = ____(39)____;

        System.out.println("Enter name");

        n = ob.next();

}

void calculate( )

{

        if(___(40)___)

        bill = 0;

        else

        bill = ___(41)____;

}

void print( )

{

        System.out.println("Name ="+n);

        System.out.println("Amount to be paid :"+ bill);

}

public static void main( )

{

        Telephone T = new Telephone();

        T.input();

        _____(42)____;

        T.print();

}

}
```

37.   a. TELEPHONE   b. Telephone   c. telephone   d. Object

38.   a. new   b. this   c. class   d. static

39.   a. SC.nextInt( )   b. ob.next( )   c. ob.nextInt()   d. ob.nextLine();

40.   a. noc<100   b. noc <=100   c. noc>100   d. noc>=100

41.   a. bill = 0 + (noc-1) *2.50   b. bill = 0 + (noc -100)*2.50;

       c. bill = noc*2.50   d. None of these

42.   a. t.calculate()   b. T.calculate()   c. T.calc()   d. T.input()

Question

The following program segment calculates the norm of a number, norm of a number is square root of sum of squares of all digits of the number.

Example

The norm of 68 is 10

6 X 6 + 8 X 8 = 36 + 64 = 100   Square root of 100 is 10

Fill in the blanks with appropriate java statements listed below

void norm (int n)

{

        int d, s= ___(43)___;

        while (___(44)___)

        {

                d = n%10;

                s = ___(45)___;

                n = n/10;

        }

        System.out.println("Norm =" + ____(46)____);

}

43.   a. 0   b. 0.0   c. 1   d. 1.0

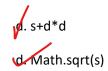44.   a. n<0   b. n>0   c. n<1   d. n>1

45.   a. s*d+d   b. s+d+d   c. s*d*d   **d. s+d*d** ✓

46.   a. Math.Sqrt(n)   b. Math.sqrt(n)   c. Math.Sqrt(s)   **d. Math.sqrt(s)** ✓

Question

Read the paragraph given below and answer the question given below

Case study

To check for a condition and execute the statements based on the conditions can be done using the decision control statements. The two decision control statements in java are if and switch, switch is also called multiple branching statement. An if statement within another if statement is termed as Nested if statement. Repetitive execution of a set of statement is termed as looping. The two types of looping statements are entry controlled and exit controlled loops. Both while and for are termed as entry-controlled loops. A for loop is used when the number of iterations is known. A while loop is used when the set of statements are executed are executed as long as the condition is true, it is executed when the number of iterations are not known.

47. What are the two decision control statements in java?

        a. if and switch ✓   b. for and while   c. if and while   d. for and switch

48. An if statement within another if statement is termed as

        a. Nested   b. Nested while   c. if-else-if   **d. Nested if** ✓

49. Name given for repetitive execution of a set of statements.

        a. Looping ✓   b. Branching   c. Ternary   d. Dangling else

50. Which one of the following does not execute even once

        a. for(k=1; k<=100;K++);   k++   **b. for(k=10; k<1;K++);**   k++ ✓

        c. for(k=1; k>=1;K++);   k++   d. for(k=10; k<=10;K++);