QUESTION BANK

1) WAP in java to print true if Signs of two integers are same else print false

2) WAP in java to check if the given number is a leap year

3) WAP in java to check for divisibility of 6 via nested if else (check via 2 and 3)

4) WAP in java to calculate factorial of N

5) WAP any program in java to print command line arguments using for loop

6) WAP in java to check if the number entered is prime or not (via for loop)

7) WAP in java to print prime series for entered range (via for loop)

8) WAP in java to display multiplication table of N

9) WAP in java to calculate to display Fibonacci series of N

10) WAP in java to display right-angled triangle (via '*')
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*****
```

11) WAP in java to display upside down right-angled triangle (via '*')

```
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*
```

12) WAP in java to display right-angled pyramid (via '*')

```
    *
   * *
  * * *
 * * * *
* * * * *
```

13) WAP in java to display upside down right-angled pyramid (via '*')

```
* * * * *
 * * * *
  * * *
   * *
    *
```

14) WAP in java to reverse and sum a 4-digit number

15) WAP in java to check if the integer entered is an Armstrong number or not

16) WAP in java to check if the integer entered is a palindrome number or not

17) WAP in java to convert kilometres(int) to meters(double) and miles(double)
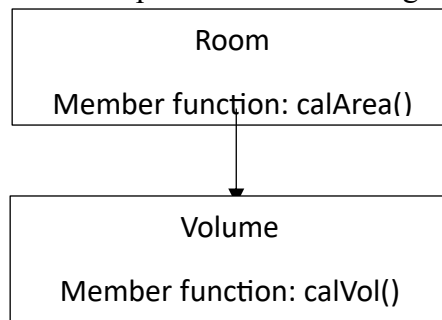
18) WAP in java to find roots of a quadratic equations – roots(double) -a,b,c – (int)

19) WAP to print even numbers from 1-100 and sum of it

20) WAP to print odd numbers from 1-100 and sum of it

21) WAP in java to find the character represented by the ASCII value entered by the user.

22) WAP in java to convert centigrade to Fahrenheit

23) WAP in java to perform addition of two complex numbers using different constructors

24) WAP in java to create a class 'Book'. Make a default constructor to initialize default values and data members. Accept and display for 1 book. Take suitable data members

25) WAP in java to create a class 'student'. Make use of parameterized constructor to create 1 object and display it.

26) WAP in java to create a class 'vehicle'. Make use of constructor with copy constructor. Accept and display for one object.

27) WAP in Java to show use of all methods of String Class.

28) WAP in Java to show use of all methods of String Buffer Class.

29) WAP in java to search an element On a 1D array

30) WAP in java to perform sorting On a 1D array

31) WAP in java to find sum and average of all elements in a 1D array

32) WAP in java to find largest and smallest element in a 1D array

33) WAP in java to transpose a (mXn) matrix

34) WAP in java to multiply two (mXn) matrix

35) WAP in java to find sum of diagonals of (mXn) matrix

36) WAP in java to print sum and average of (mXn) matrix

37) WAP in java to add two (mXn) matrix

38) WAP in Java to implement a vector that accepts command line arguments & store them in a vector and display objects stored in vector.

39) WAP in Java to implement a vector that creates and stores 2 integer objects, 2 string object, 2 character objects, 2 float objects and apply various methods of Vector class

40) WAP in Java to convert String value into Integer Wrapper class object.

41) WAP to convert integer object value into primitive data type byte, short and double value.

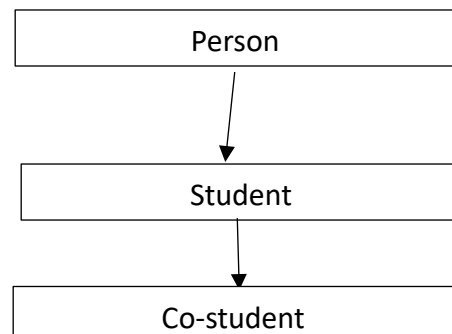42) WAP In Java to make use of Character Wrapper Class methods

43) Develop a program to extend 'dog' from 'animal' to override 'move()' method using super keyword.

44) Develop a program to extend 'square' from 'rectangle''. Override the 'area()' method to demonstrate the concept of overriding.

45) WAP in Java to implement the following inheritance:

```
┌──────────────────────────────┐
│            Room              │
│                              │
│  Member function: calArea()  │
└──────────────────────────────┘
               │
               ▼
┌──────────────────────────────┐
│           Volume             │
│                              │
│  Member function: calVol()   │
└──────────────────────────────┘
```

46) WAP in Java to implement the following inheritance. Assume suitable data members & member functions.

```
┌──────────────────────────────┐
│           Person             │
└──────────────────────────────┘
               │
               ▼
┌──────────────────────────────┐
│           Student            │
└──────────────────────────────┘
               │
               ▼
┌──────────────────────────────┐
│          Co-student          │
└──────────────────────────────┘
```

47) WAP in Java to implement the following inheritance.

```
┌─────────────────────────────────┐
│            Student              │
│                                 │
│  Data member: name, rollno,     │
│              age                │
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│             Test                │
│                                 │
│  Data member: m1, m2, m3        │
│                                 │
│  Member function: showresult()  │
└─────────────────────────────────┘
```

48) WAP for following interface:

```
┌──────────────┐
│   Student    │
└──────────────┘
        ▲ extends
        │
┌──────────────┐           ┌──────────────┐
│     Exam     │           │    Sports    │
└──────────────┘           └──────────────┘
        ▲                         ▲
        │  extends                │  implements
        │                         │
      ┌──────────────┐
      │    Result    │
      └──────────────┘
```

49) WAP for following interface:

```
┌────────────────────┐      ┌────────────────────┐
│  Interface: Salary │      │  Class: Employee   │
│    Basic_salary    │      │     Name,age       │
│    Basic_sal()     │      │     Display()      │
└────────────────────┘      └────────────────────┘
           │                           │
           │                           │
           └───────────┐   ┌───────────┘
                       ▼   ▼
                ┌────────────────────┐
                │   Class: Gross     │
                │    TA,DA,HRA       │
                │    Total_sal()     │
                └────────────────────┘
```
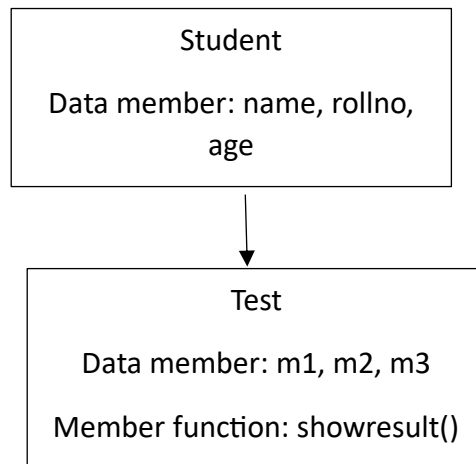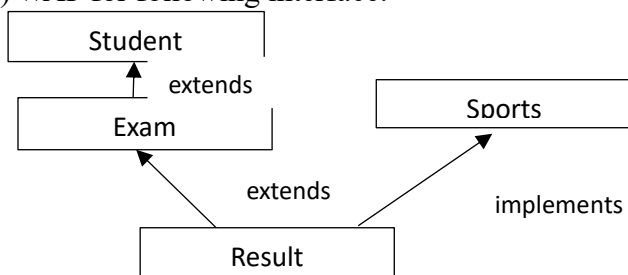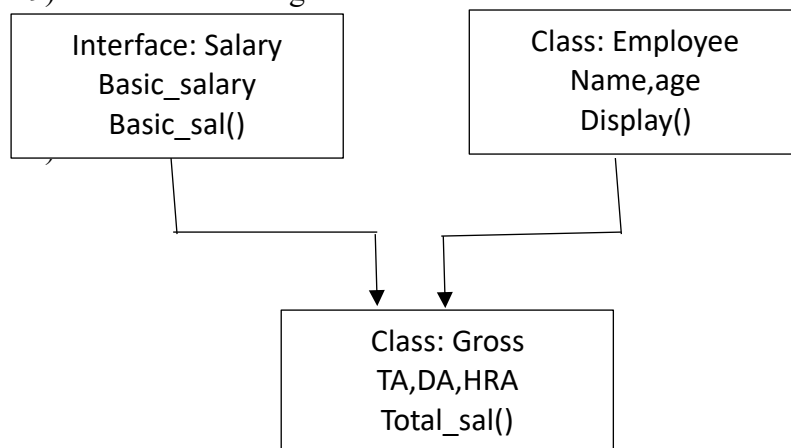
50) Define a package named myInstitute include class named as department with one method to display the staff of that department. Develop a program to import this package in java application and call method defined in the package

51) Develop a program which consists of package named let_me_calculate with class named calculator and a method named add to add two integer numbers. Import let_me_calculate package in another program (class named Demo) to add two numbers

52) WAP in Java to create two threads. One will print even numbers from 1 to 10 and other will print odd numbers from 1 to 10

53) WAP to define two thread one to print 1 to 10 and other to print 10 to 1. First thread transfer control to second thread after delay of 500ms

54) WAP in Java to create three threads. Assign minimum priority to thread 1 which will print 1 to 10. Assign maximum priority to thread 3 which will print 21 to 30. Thread 2 will print 11 to 20. Use priority methods. (getPriority and setPriority)

55) WAP to accept a password from user and throw "Authentication Failure" exception if password is incorrect.

56) WAP to input name and balance of customer and throw user defined exception if balance is less than 1500

57) WAP input name and salary of an employee and throw user defined exception if salary is negative

58) Define an exception called "NotMatchException" that is thrown when a string is not equal to 'India'. WAP that uses this exception

59) Develop a basic applet to display 'Welcome to the World of Applet'

60) Write an applet to accept username as parameter and display Hello username.

61) Write an applet program to set background and foreground colour

62) Develop a program to draw a polygon

63) Develop an applet for drawing a human face

64) WAP to design an applet to display 3 circles with 3 different colors.

65) WAP to create an applet for displaying circle, rectangle, triangle, round rectangle and fill them with different colors.

66) WAP to draw 3 concentric circles

67) Develop a program to draw cone, cylinder and cube

68) Develop a program to draw: i) Square inside a circle ii) Circle inside a square

69) WAP to copy characters from one file to another

70) WAP to write a data in a file using character stream

71) WAP to read a data from a file using character stream