M.K.INSTITUTE OF COMPUTER STUDIES
JAVA PROGRAMMING LANGUAGE

Practical Assignment

1. WAP to generate following pattern:

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

2. WAP to generate following pattern:

```
    0
    1 2
    3 4 5
    6 7 8 9
```

3. Using method overloading, calculate and display area of any three shapes in a class.

4. Find out the area of triangle and rectangle using method overriding, super keyword and abstract method.

5. WAP to create a class called cricketer with data member's cname and number of matches. Create a derived class batsman and bowler from cricketer. Class batsman have data member like total run and member function for initializing data member, calculating average runs and displaying data. Class bowler has members, calculating average wickets and display data.

6. WAP to illustrate how to use interface inheritance. Create two interfaces P1 and P2. Interface P12 inherits from both P1 and P2. Each interface declares one constant and one method. Class Q implements P12. Display all Constants.

7. Enter a string, display its length. Enter second string and find out whether two strings are equal or not, enter third string and display it in given sample format.

Sample format:

Input string: PROGRAM

Format:

P

P R

P R O

P R O G

P R O G R

P R O G R A

P R O G R A M

8. Write a program to accept 3 strings from the user. Do the following with appropriate methods.

1) Display length and capacity of each String.
2) Count total number of characters in each string.
3) Convert 2nd word in to uppercase.
4) Convert 3rd word in lowercase.
5) Count total number of vowels.
6) Replace vowels with '$'.
7) Delete character 'S' from string.

9. Enter 5 employee names from user. Print all names with surname "shah" in it.

10. Write a program to enter your full name as:
I/P : Ram Prasad Sharma
O/P : R.P.Sharma

11.WAP that accepts command-line arguments. Count how many vowels are there in the input.

12. WAP to read marks of three subjects of all respective students from command line. (Create one with student no., mark1, mark2, and mark3). Calculate the percentage (2 digits) of each student & generate a user-defined exception for all percentages below 36. The user exception should handle all percentages between 32 and 35 (both included) and promote them to 36. Finally display all records.

13. WAP that generates a custom exception if any inputted a value is not in limit -5 to +5.

14. Write a program which except 5 employee name and salary. Arrange employee name in descending order as per the salary. And display result at interval of 2 seconds.

15.WAP that executes 3 threads from one thread class. One thread displays "JAVA" at every 1 second and 2nd thread displays "PAPER" at every 2 seconds and last one displays "COLLEGE" at every 3 second.