WELLAND GOULDSMITH SCHOOL ,PATULI

CLASS-IX

SUBJECT-COMPUTER APPLICATIONS

PROJECT TOPIC-JAVA PROGRAMS

1. Write a program to input the dimensions of a rectangle and find the area of that square whose perimeter is equal to the perimeter of the rectangle.(Use input stream reader for input)
   Perimeter of rectangle =2(length + breadth)
   Perimeter of Square= 4 * side
   Area of square=side * side

2. If the marks obtained by a student in five different subjects are input through the keyboard, write a program to find out the aggregate marks and percentage marks obtained by the student. Assume that the maximum marks that can be obtained by a student in each subject is 100

3. Write a program to input the three sides of a triangle and find the perimeter and area of the triangle. If a, b and c are the 3 sides then,
   Perimeter=a+b+c
   Area=$\sqrt{s(s-a)(s-b)(s-c)}$ where s=a+ b+ c

4. A library charges a fine for books returned late. Following are the fines:
   First five days : 40 paise per day.
   Six to Ten days : 65 paise per day.
   Above ten days : 80 paise per day.
   Design a program to calculate the fine. Take the number of days as input.

5. Write a program to input a number and check and display whether it is Palindrome or not.(A number is a palindrome which when read in the reverse order is the same as the original number)
   Example: 11,101,151 etc.

6. Write a menu-driven program using switch case to check whether a number is
   i) Even or odd
   ii) Multiple of 17 or not
   iii) Two digit number or not

7. Write a program to calculate and print the sum of n natural numbers. The integer n is to be entered by the user.

8. Write a menu driven program using switch case to perform the following tasks:
   i) Display the series: 0,1,1,2,3,5,……n
   ii) Find the sum of the series:- S=1+ $\frac{1}{3}$ +$\frac{1}{5}$ + ……..$\frac{1}{19}$

9. Write a program to input a number and check whether a number is Perfect number or not. (A number is called Perfect if it is equal to the sum of its factors other than the number itself)

   Example: 6=1+2+3

10. Write a program to input a number and check whether a number is Prime or not.(A number is said to be prime ,if it is only divisible by 1 and itself)

    Example: 3,5,7,11…