

Subject: Computer Science Class 9

Lab Sheet 1 (Use of Input and Output statements)

Write a program for the following.

- 1) To calculate the area of four walls of a room [$A=2H(L+B)$]
- 2) To calculate the sum, difference and product of any two numbers given by the user.
- 3) To calculate the area of a circle. [$A=\pi R^2$]
- 4) To calculate the area and volume of a cylinder. [$A=2\pi RH, V=\pi R^2 H$]
- 5) To calculate the area of a triangle when three sides are given by the user.
 $s=a+b+c/2, A=\sqrt{s(s-a)(s-b)(s-c)}$
- 6) To calculate the perimeter and area of a room. [$P=2(L+B), A=LXB$]
- 7) To calculate simple interest when principle, rate and time is given by the user. [$I=PTR/100$]
- 8) To calculate the circumference of a circle. [$C=2\pi R$]
- 9) To calculate the square and cube of a given number.
- 10) To calculate the area of a triangle when base and height is given by the user.
 $A=1/2 \times \text{base} \times \text{height}$
- 11) To convert the temperature given in centigrade to Fahrenheit. [$F=9C/5+32$]
- 12) To calculate the total surface area of a room. [$TSA=2(LB+BH+HL)$]
- 13) To calculate the volume of a sphere. [$V=4/3\pi R^3$]
- 14) To calculate distance travelled by a bus when initial velocity(u), acceleration (a), and time is given by the user. [$S=ut+1/2at^2$]

Lab Sheet 2 (Use of Control statements)

Write a program for the following.

- 1) To check whether the given number is even or odd.
- 2) To display the smallest number among any two numbers given by the user.
- 3) To check whether the given number is positive, negative or neutral.
- 4) To input three sides of a triangle and check whether the triangle is equilateral, isosceles or scalene.
- 5) To display the greatest number among the three numbers given by the user.
- 6) To input the marks of any three subjects and display whether the student is pass or fail. [Assume the pass marks of each subject is 40]
- 7) To check whether the given number is even, odd or neutral.
- 8) To check whether the given number is exactly divisible by 5 or not.
- 9) To input three angles of a triangle and check whether the triangle is right angled triangle or not.
- 10) To input the percentage from the user and check his division.
 ≥ 80 – distinction, ≥ 60 to < 80 – 1st division, ≥ 45 to < 60 – 2nd division, ≥ 32 to < 44 – 3rd division, < 32 – fail
- 11) To display the middle number (neither greater nor smaller) from the three numbers given by the user.
- 12) To input Selling price and Cost price from the user and calculate the profit or loss amount.
- 13) To calculate the commission amount on the basis of sales amount.

Sales amount	commission (%)
Up to 5000	5%
Between 5000 to 10000	10%
Above 10000	15%