## **Conditional Structured**

- 1. Find the absolute value of a number entered by the user
- 2. Write a program which asks the user to input 2 numbers now determine which number is greater and print the result.
- **3.** Write a program which asks the user to input 4 numbers now determine which number is greater and print the result.
- **4.** Write a program which asks the user to input time if user enters negative time the program should output/print an error and exit.
- Write a program that inputs 2 numbers from the user and display message if 2<sup>nd</sup> number is square of 1<sup>st</sup> no.
- **6.** Write a program that input a year from the user and display the entered year id Leap year or not.
- 7. Write a program to calculate the total expenses. Quantity and price per item are input by the user and discount of 10% is offered if the expense is more than 5000.
- **8.** Write a program that inputs name and 3 subjects marks from the user, calculate marks average if average is above 80 then program display message you are outstanding.
- **9.** Any integer is input by the user. Write a program to find out whether it is an odd number or even number.
- **10.** Program to check whether a given number is Armstrong number or not.
- 11. Write a program to check whether a triangle is valid or not, when the three angles of the triangle are entered by the user. A triangle is valid if the sum of all the three angles is equal to 180 degrees.
- **12.** Write a program to calculate the net pay of an employee. Input the basic pay, Calculate the net pay of an employee:
  - House rent is 45% of the basic.
  - Medical allowance is 5% of basic pay if basic pay is greater than Rs.4000/-. It is 7% of basic pay if the basic pay is less or equal than Rs.4000/-.
  - Conveyance allowance is Rs.91/-.If basic pay is less than or equal Rs.4000/-.It is Rs.153/-if the basic pay is more than Rs.4000/-.
  - Net pay is calculated by adding basic pay, medical allowance, conveyance allowance and house rent.
- 13. Write a program to determine whether the seller has made profit or incurred loss. Also determine how much profit he made or loss he incurred. Cost price and selling price of an item is input by the user.
- **14.** Write a program that inputs salary and grade. It adds 70% bonus if the grade is greater than 17.it adds 25% bonus if the grade is 17 or less and then display the total salary
- **15.** Write a program to find the roots of a quadratic equation of type ax<sup>2</sup>+bx+c where quadratic equation is not equal to zero.
- Write a program to calculate the monthly telephone bills as per the following rule: Minimum Rs. 200 for upto 100 calls.

Plus Rs. 0.60 per call for next 50 calls.

Plus Rs. 0.50 per call for next 50 calls.

Plus Rs. 0.40 per call for any call beyond 200 calls.

17. The marks obtained by a student in 5 different subjects are input by the user. The student gets a division as per the following rules:

Percentage above or equal to 60 - First division

Percentage between 50 and 59 - Second division

Percentage between 40 and 49 - Third division

Percentage less than 40 - Fail

Write a program to calculate the division obtained by the student.

- **18.** Write a program that calculates the electricity bill. The rate of electricity per unit as follows.
  - If the units consumed are <=100, then the cost is Rs. 5.5/- per unit.
  - If the units consumed are <100 and <=250, then the cost is Rs. 7.5/- per unit.
  - If the units consumed exceed <250, then the cost is Rs. 10.5/- per unit.

A line rent Rs. 50 is also added to the bill and surcharge of 7% extra if the bill exceeded Rs. 1500/-.calculate the total bill.

- **19.** Write a program that displays the following menu for a parking area.
  - Enter B for Bike
  - Enter C for car
  - Enter T for truck

The program inputs the type of vehicle and number of days to park the vehicle. It finally displays the total charges for the parking according to the following.

- Bike Rs. 300/- per dayCar Rs. 5000/- per dayTruck Rs. 10000/- per day