

PRACTICE QUESTIONS - IF CONSTRUCT

1. Write a program to read three numbers from the user and to display the numbers in ascending order.
2. Write a program to calculate the roots of the quadratic equation ax^2+bx+c if the roots are real, otherwise display a suitable message.
3. Write a program to read admission number, name, and marks of 5 subjects from the user and to calculate percentage and result. Result is calculated as follows :

If the student fails in one subject , his/her result is Compartment.

If the student fails in two or more subjects , his/her result is Fail.

If the student passes in all subjects then result is calculated as follows :

Percentage	Result
≥ 75	Distinction
≥ 60	First Class
≥ 50	Second Class
≥ 35	Pass

[Percentage is calculated only if student passes in all subjects otherwise is shown as -]

4. Write a program to read the employee number, name, category(A,B,C) and basic salary from the user and to calculate his HRA, DA, TAX and NetPay using the following table.

Category	HRA	DA	Tax
A	55% of basic salary	44% of basic salary	10% of basic salary
B	25% of basic salary	Nil	5% of basic salary
C	15% of basic salary	Nil	Nil

NetPay is calculated as Basic Salary + HRA + DA – Tax

5. Write a program that reads monthly salary and calculates annual salary and taxable income of an employee. Annual Salary above 600000 is taxable. It also calculates his education tax, surcharges and income tax depending upon the conditions given below :

Taxable Income	Education Tax	Surcharge	Income Tax
Above 100000	7% of taxable income exceeding 100000	1000	12% of taxable income
50001 – 100000	5% of taxable income exceeding 50000	750	7% of taxable income
Below 50001	1500	250	5% of taxable income

6. A car rental company rents out two types of cars(L – Luxury, S – Standard). The rate per day of each category depends on the season (S-Summer,W-Winter,M-Monsoon). The rate per day is given below :

Season	Type	Rate per day
S	L	8000
	S	4500
W	-	5000
R	L	10000
	S	6000

Write a program that reads the customer name, season, type of the car and the number of days from the user and calculate the total bill. If the total bill exceeds 30000, the customer gets a discount of 5%.