



भारतीय सूचना प्रौद्योगिकी संस्थान गुवाहाटी
Indian Institute of Information Technology Guwahati
COMPUTER PROGRAMMING LAB (CS110)
ASSIGNMENTS-03

1. Write a program in C to find whether a given number is odd or even. If the number is odd, print O. Otherwise, print E.
2. Write a program in C to find the maximum of three numbers.
3. Write a C program to check whether an input alphabet is a vowel or not.
4. Write a program in C to check whether a number is divisible by either 7 or 13, or not.
5. Write a program in C to find if a year is a leap year. If it is a leap year, print Y. Otherwise, print N.
6. Write a program in C to check whether a triangle is an equilateral, isosceles, or scalene triangle. Consider all sides of the triangles as inputs.
7. Write a program in C to check whether a number is Armstrong or not.
Note: A number is known as an Armstrong number if the sum of the cubes of its digits equals the number itself. For e.g. $153 = 1^3 + 5^3 + 3^3$.
8. Write a program in C to input the basic salary of an employee and calculate his/her total salary according to the following rules:
 - i. Total Salary = Basic Salary + HRA + DA
 - ii. If basic salary is up to 30000 rupees, HRA = 20% of Basic salary and DA = 30% of Basic salary.
 - iii. If basic salary is up to 60000 rupees but more than 30000 rupees, he/she gets HRA = 25% of Basic salary and DA = 35% of Basic salary.
 - iv. If the basic salary is more than 60000 rupees, he/she gets HRA = 30% of Basic salary and DA = 40% of Basic salary.
9. Consider a grading scheme as follows:

Marks	Grade
90 — 100	A
80 — 89	B
70 — 79	C
60 — 69	D
50 — 59	E
40 — 49	P
0 — 39	F

Given marks, write a program in C to find the corresponding grade. If the input marks are more than 100 or less than 0, you should assign the grade 'X' to indicate an error with the input marks.