

Introduction to Computing Laboratory

Assignment – 4

1. Write a program in C to find the largest of three input numbers.
2. Write a program in C to check whether a given year is leap year or not.
3. Write a program in C to check whether a valid triangle can be formed or not, where the lengths of the sides are entered through keyboard.
4. Write a program in C to check whether a character entered through the keyboard is a capital letter, a small letter, a digit or a special symbol.
5. Write a program in C to find the real roots of a quadratic equation where the values of three coefficients are accepted as input.
6. Write a program in C to find the largest of three given numbers using conditional / ternary operator.
7. Write a program in C to realize the following function:
$$f(x) = 6x+1 \text{ when } x>50,$$
$$= 2x^2+3 \text{ when } 30\leq x\leq 50,$$
$$= 5x^3-6 \text{ when } 1\leq x\leq 29,$$
$$= 0 \text{ otherwise.}$$
8. Write a program in C to accept the marks obtained by a student in three subjects of 100 marks each in an examination. Give the grade of the student as follows:

| Percentage of Marks | Division |
|----------------------|-----------------|
| ≥ 60 | 1 st |
| ≥ 45 but < 60 | 2 nd |
| ≥ 34 but < 45 | 3 rd |
| < 34 | Fail |