

Jaypee Institute of information Technology, Noida
Software Development Fundamentals 1 - Lab Sheet

Week 9: 24th Sept- 29th Sept

Assignment Type: Practice

Lab A & B
(C Programming- Conditional Structures)

- Q1.** Write a C program to accept two integers and check whether they are equal or not.
- Q2.** Write a C program to check whether a given number is even or odd.
- Q3.** Write a C program to check whether a given number is positive or negative.
- Q4.** Write a C program to find whether a given year is a leap year or not.
- Q5.** Write a C program to read the age of a candidate and determine whether it is eligible for casting his/her own vote.
- Q6.** Write a C program to read the value of an integer m and display the value of n is 1 when m is larger than 0, 0 when m is 0 and -1 when m is less than 0.
- Q7.** Write a C program to find the eligibility of admission for a professional course based on the following criteria:
Marks in Maths ≥ 65
Marks in Phy ≥ 55
Marks in Chem ≥ 50
Total in all three subject ≥ 180
or
Total in Math and Subjects ≥ 140
- Q8.** Write a C program to calculate the root of a Quadratic Equation.
- Q9.** Write a C program to read temperature in centigrade and display a suitable message according to temperature state below :
Temp < 0 then Freezing weather
Temp 0-10 then Very Cold weather
Temp 10-20 then Cold weather
Temp 20-30 then Normal in Temp
Temp 30-40 then Its Hot
Temp ≥ 40 then Its Very Hot
- Q10.** Write a C program to check whether a triangle is Equilateral, Isosceles or Scalene.
- Q11.** Write a C program to check whether a character is an alphabet, digit or special character.

- Q12.** Write a program in C to calculate and print the Electricity bill of a given customer. The customer id., name and unit consumed by the user should be taken from the keyboard and display the total amount to pay to the customer. The charge are as follow :

Unit	Charge/unit
upto 199	@ 1.20
200 and above but less than 400	@ 1.50
400 and above but less than 600	@ 1.80
600 and above	@ 2.00

If bill exceeds Rs. 400 then a surcharge of 15% will be charged and the minimum bill should be of Rs. 100.

- Q13.** Write a program in C to accept a grade and declare the equivalent description :

Grade	Description
E	Excellent
V	Very Good
G	Good
A	Average
F	Fail

- Q14.** Write a program in C to read any day number in integer and display day name in the word. (Using Switch case).
- Q15.** Write a program in C to read any Month Number in integer and display Month name in the word. (Using Switch case)
- Q16.** Write a program in C which is a Menu-Driven Program to perform simple calculations.
- Q17.** Write a C program to check whether an alphabet is vowel or consonant using switch case.
- Q18.** Write a C program print total number of days in a month using switch case.
- Q19.** Write a C program to reverse and print a given three digit number.
- Q20.** What is the output of the following C Code:

```
# include <stdio.h>
int main()
{
    int num = 2;
    switch (num + 2)
    {
```

```
case 1:
    printf("Case 1: ");
case 2:
    printf("Case 2: ");
case 3:
    printf("Case 3: ");
default:
    printf("Default: ");
}
return 0;
}
```