**LABSHEET-4**

**CONDITIONAL STATEMENTS**

**Question No 1 to 11**

**Do the following programs and write the code in lined page and paste printout of terminal output in the right side of the corresponding page.**

**Question No 12 to 30**

**Type, compile and execute the following programs and record the results and observations in the lab workbook. Get the signature from the faculties in charge of the lab towards the end of the lab**

1. Write a program to determine if a person is ***eligible for voting***. Age has to be eighteen or above for a person to vote.
2. Write a program to find the quotient of an integer number without using ‘/’ operator.
3. Write a program to test if the number input is ***positive, negative or zero***.
4. Write a program to ***read three numbers*** & calculate their ***sum & average***. If sum is in the range of 100 & 200 print the message, “Sum is in the allowed range”. Else, print the message, “Sum has exceeded the range”.
5. Write a program to ***calculate the parking charges*** of a vehicle. Input type (a character: ‘c’ for car, ‘b’ for bus, ‘s’ for scooter/motorcycle/cycle) and the number of hours. The charges are as follows:-

Truck/Bus – Rs. 50 per hour

Car – Rs. 25 per hour

Scooter/MotorCycle/Cycle – Rs.10 per hour

1. A company decides to give a bonus to all its employees on Diwali. A 5% bonus on salary is given to the male workers and 10% bonus is given to female workers. Write a program to enter the ***salary and gender*** of the employee. If the salary is less than Rs.10000 then employee gets an extra 2% bonus on salary. ***Calculate the bonus*** that has to be given to the employee and ***display the salary*** that the employee will get.
2. Write a program to enter the marks of a student in four subjects. Calculate and display the ***total and average marks***.
3. ***Get the marks*** (an integer) from the user as input and ***output the grades*** along with the number of conditional expressions executed for determining the grades. Assign grades according to the following table.

A+ : 95- 100

A : 90-94

B+ : 80 - 89

B : 75 -79

C+ : 70 - 74

C : 60 - 69

D- : 50-59

P : 40- 49

F : below 40

1. Write a program to ***calculate the electricity bill*** based on the following information

|  |  |
| --- | --- |
| 1. Consumption Unit | 1. Rate |
| 1. 0-150 | 1. Rs 3 per unit |
| 1. 151-350 | 1. Rs 100 plus Rs3.75 per unit exceeding 150 units |
| 1. 351-450 | 1. Rs 250 plus Rs4 per unit exceeding 350 units |
| 1. 451-600 | 1. Rs 300 plus Rs4.25 per unit exceeding 450 units |
| 1. Above 600 | 1. Rs 400 plus Rs5 per unit exceeding 600 units |

The user should input the electricity consumption in unit and display the bill amount.

1. Using switch statement determines if the input ***character is a vowel or not***.
2. Write a program to enter a ***number from 1 to 7*** and display the corresponding ***day of the week*** using switch case statements.
3. Write a program to find the largest of 4 numbers using the conditional operator. (Use nesting of conditional operators)
4. #include<stdio.h>

int main( )

{

if(!printf(""))

printf("Okkk");

else

 printf("Hiii");

return 0;

}

1. #include<stdio.h>

int main( )

{

int x=22;

if(x=10)

printf("TRUE");

else

 printf("FALSE");

return 0;

}

1. #include<stdio.h>

int main( )

{

char val=1;

if(val--)

printf("TRUE");

else

 printf("FALSE");

return 0;

}

1. #include<stdio.h>

int main( )

{

float a=10.5;

printf("\n===FIRST CONDITION\n");

if(sizeof(a)==sizeof(10.5))

printf("Matched !!!");

else

printf("Not matched !!!");

printf("\n===SECOND CONDITION\n");

if(sizeof(a)==sizeof(10.5f))

printf("Matched !!!");

else

printf("Not matched !!!");

printf("\n===THIRD CONDITION\n");

if(sizeof((double)a)==sizeof(10.5))

printf("Matched !!!");

else

printf("Not matched !!!");

printf("\n===FOURTH CONDITION\n");

if(a==10.5f)

printf("Matched !!!");

else

printf("Not matched !!!");

printf("\n");

}

1. #include <stdio.h>

int main()

{

int a=10;

if(a==10)

{

printf("Hello...");

break;

printf("Ok");

}

else

{

printf("Hii");

}

return 0;

}

1. #include <stdio.h>

int main()

{

if( (-100 && 100)||(20 && -20) )

printf("%s","Condition is true.");

else

printf("%s","Condition is false.");

return 0;

}

1. #include <stdio.h>

#define TRUE 1

int main()

{

if(TRUE)

printf("1");

printf("2");

else

printf("3");

printf("4");

return 0;

}

1. #include <stdio.h>

int main()

{

int pn=100;

if(pn>20)

if(pn<20)

printf("Heyyyyy");

else

printf("Hiiiii");

return 0;

}

1. Which of the following are incorrect statements? If int a=10.

1) if( a==10 ) printf("IncludeHelp");

2) if( 10==a ) printf("IncludeHelp");

3) if( a=10 ) printf("IncludeHelp");

4) if( 10=a ) printf("IncludeHelp");

21. #include <stdio.h>

int main()

{

int a=10;

switch(a){

case 5+5:

printf("Hello\n");

default:

printf("OK\n");

}

}

1. #include <stdio.h>

int main()

{

int a=2;

switch(a)

{

printf("Message\n");

default:

printf("Default\n");

case 2:

printf("Case-2\n");

case 3:

printf("Case-3\n");

}

printf("Exit from switch\n");

}

1. #include <stdio.h>

int main()

{

int a=2;

int b=a;

switch(b)

{

case a:

printf("Case-a\n"); break;

case 3:

printf("Case-3\n"); break;

default:

printf("No option\n"); break;

}

printf("Exit from switch");

}

1. #include <stdio.h>

int main()

{

short day=2;

switch(day)

{

case 2: || case 22:

printf("%d nd",day);

break;

default:

printf("%d th",day);

break;

}

}

1. #include <stdio.h>

int main()

{

int a=2;

switch(a/2\*1.5)

{

case 1:

printf("One...");

break;

case 2:

printf("Two...");

break;

default:

printf("Other...");

break;

}

}

1. #include <stdio.h>

#define TRUE 1

int main()

{

switch(TRUE)

{

printf("Hello");

}

}

1. #include <stdio.h>

#define TRUE 1

int main()

{

int x;

float y=7.0;

switch(x=y+1)

{

case 8: printf("It's Eight."); break;

default: printf("Oops No choice here!!!");

}

}

1. #include<stdio.h>

int main()

{

int k, num = 100;

k = (num > 50 ? (num <= 10 ? 100 : 200): 500);

printf("%d\n", num);

return 0;

}

1. #include <stdio.h>

int main()

{

int a=15;

float b=1.234;

printf("%\*f",a,b);

return 0;

}

1. #include <stdio.h>

int main()

{

float a,b;

a=3.0f;

b=4.0f;

printf("%.0f,%.1f,%.2f",a/b,a/b,a/b);

return 0;

}