**C-Lab-Day-8**

c-language-mcq's

-----------------

Q-1 :- [ok]

------------

What will be the output of the below c program snippet?

#include <stdio.h>

int main() {

if(printf("Hey ")){

printf("Hello ");

}

printf("Hi");

return 0;

}

Output :- Hey Hello Hi

---------

Q-2 :- [ok]

-----------

What will be the output of the below c program snippet?

#include <stdio.h>

int main() {

if(printf("")){

printf("Hello ");

}

printf("Hi");

return 0;

}

Output :-Hi

---------

Q-3 :- [ok]

-----------

What will be the output of the below c program snippet?

#include <stdio.h>

int main() {

if(printf(" ")){

printf("Hello ");

}

printf("Hi");

return 0;

}

Output :-Hello Hi

Q-4 :- [ok]

-----------

What will be the output of the below c program snippet?

#include <stdio.h>

int main() {

printf("%d",printf("Hello"));

return 0;

}

Output :- Hello5

----------

Q-5 :- [ok]

-----------

What will be the output of the below c program snippet?

#include <stdio.h>

int main() {

printf("%d",printf("%d",10));

return 0;

}

Output :- 102

---------

Q-6 :- [ok]

-----------

What will be the output of the below c program snippet?

#include <stdio.h>

int main() {

int val;

printf("Enter a Value ");

printf("%d",scanf("%d",&val));

printf("\nThe value of Val is %d ",val);

return 0;

}

Output :-Enter a Value 3

1

The Value of val is 3

---------

Q-7 :- [ok]

------------

What will be the output of the below c program snippet?

#include <stdio.h>

int main() {

int val1, val2;

printf("Enter a Two Values ");

printf("%d",scanf("%d%d",&val1,&val2));

printf("\nThe value of Val1 and Val2 are %d %d",val1,val2);

return 0;

}

Output :-Enter a Two Values 1

2

2

The value of Val1 and Val2 are 1 2

---------

Q-8 :- [ok]

-----------

What will be the output of the below c program snippet?

#include <stdio.h>

int main() {

int a = 10, b = 20, c = 30;

printf("%d",printf("%d%d%d",a, b, c));

return 0;

}

Output :- 1020306

----------

Q-9 :- [ok]

-----------

What will be the output of the below c program snippet?

#include <stdio.h>

int main() {

int val = 0;

printf("Enter a value ");

if(scanf("%d",&val)){

printf("Hello ");

}

printf("The value is %d",val);

return 0;

}

Output :-Enter a value 3

Hello The value is 3

---------

Q-10 :- [ok]

------------

What will be the output of the below c program snippet?

#include <stdio.h>

int main() {

printf("%d",printf(""));

return 0;

}

Output :- 0

---------

Q-11 :- [ok]

-------------

#include <stdio.h>

int main() {

int a = 10;

printf("%d",if(a>5){

printf("a is big");

});

return 0;

}

Output :- Error

5 | printf("%d",if(a>5){

| ^~

---------

Q-12 :- [ok]

------------

What will be the output of the below c program snippet?

#include <stdio.h>

int main() {

int a = 10, b = 30, c = 20;

printf("%d is big", (a > b) ? ((a > c) ? a : c) : ((b > c) ? b : c));

return 0;

}

Output :- 30 is big

---------

Q-13 :- [ok]

------------

What will be the output of the below c program snippet?

int x = -5;

if (x) {

printf("True\n");

} else {

printf("False\n");

}

a) True

b) False

c) Compilation error

d) Undefined behavior

Output :-a)True

---------

Q-14 :- [ok]

------------

What will be the output of the below c program snippet?

#include <stdio.h>

int main() {

int a = 20, b = 20;

(a>b) ? printf("A is big %d ",a) : printf("B is big %d ",b);

return 0;

}

Output :-B is big 20

---------

Q-15 :- [ok]

------------

What will be the output of the below c program snippet?

#include <stdio.h>

int main() {

printf(printf("hi"));

return 0;

}

Output :-Error

---------

Programs

--------

Program-1 :-

------------

"Write a C program to find the largest number among three numbers using the ternary operator. Take input values using the scanf() function."

Sample-run

----------

Test Case 1 :-

--------------

[Positive and Negative Values]

------------------------------

Input: a = 15, b = -8, c = 7

Expected Output: The largest number is 15

Test Case 2 :-

--------------

[All Values are Equal]

----------------------

Input: a = 10, b = 10, c = 10

Expected Output: The largest number is 10

Test Case 3 :-

--------------

[Zeros and Positive Values]

---------------------------

Input: a = 0, b = 0, c = 5

Expected Output: The largest number is 5

Sol:

// Online C compiler to run C program online

#include <stdio.h>

int main() {

int a,b,c;

printf("a=");

scanf("%d",&a);

printf("b=");

scanf("%d",&b);

printf("c=");

scanf("%d",&c);

printf("The largest number is %d",(a>b)?((a>c)?a:c):((b>c)?b:c));

return 0;

}

Program-2 :-

------------

Write a C program to find the sum and average of a student's marks in five subjects. The program should take the marks as input, calculate the sum and percentage, and then print both the sum and percentage using an if statement?

Note :-

-------

Add validation to ensure that marks are non-negative.

Sample-run

----------

Test Case-1 :-

--------------

-> Input: 80, 70, 90, 85, 75

-> Expected Output:

-> Sum of marks: 400

-> Percentage: 80.00%

-> Result: "The student has passed."

Test Case-2 :-

--------------

-> Input: 50, 45, 55, 60, 40

-> Expected Output:

-> Sum of marks: 250

-> Percentage: 50.00%

-> Result: "The student has passed."

Test Case-3 :-

--------------

-> Input: 30, 40, 35, 25, 45

-> Expected Output:

-> Sum of marks: 175

-> Percentage: 35.00%

-> Result: "The student has failed."

Test Case 4 :-

--------------

-> Negative Marks (Invalid Input)

-> Input: 80, -10, 90, 85, 75

-> Error: "Invalid input: Marks cannot be negative."

Sol:

Using Marks:

\_\_\_\_\_\_\_\_\_\_\_\_

// Online C compiler to run C program online

#include <stdio.h>

int main() {

int s1,s2,s3,s4,s5,sum;

float percent;

printf("Input:");

scanf("%d%d%d%d%d",&s1,&s2,&s3,&s4,&s5);

printf("Expected output:\n");

if(s1>=0 && s2>=0 && s3>=0 && s4>=0 && s5>=0)

{

sum=s1+s2+s3+s4+s5;

printf("Sum of marks:%d\n",sum);

percent=sum\*100/500;

printf("Percntage:%.4f%\n",percent);

if(sum>175) puts("The student has passed");

else puts("The student has failed");

}

else puts("Invalid");

return 0;

}