Question-Answers:

Section - 1 - MCQ

Question 1:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **1/1**
Time spent: **44 secs**

A recursive function can be replaced with ___ in c language.

- for loop
- while loop
- do while loop
- ✓ All of these

Candidate Answer:

- ✓ All of these

Question 2:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **1/1**
Time spent: **1 min, 27 secs**

What is the output of C program.? int main() { char grade[] = {'A','B','C'}; printf("GRADE=%d, ", *grade); printf("GRADE=%d", grade[0]); }

- A A
- 65 A
- ✓ GRADE=65, GRADE=65
- None of these

Candidate Answer:

- ✓ GRADE=65, GRADE=65

Question 3:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **0/1**
Time spent: **1 min, 55 secs**

What will be the output of the following code snippet?

```
#include<stdio.h>
void main()
{
printf("Before continue ");
continue;
printf("After continue\n");
}
```

Before continue

Compile time error

After continue

Before continue After continue

Candidate Answer:

Before continue

Question 4:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **1/1**
Time spent: **1 min, 24 secs**

Find the output of the following code snippet:

```
int main()
{
int j;
for (j = -3; j < -5; j++)
printf("Hello");
}
```

Hello

Infinite Hello

Run time error

Nothing

Candidate Answer:

Nothing

Question 5:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **1/1**
Time spent: **18 secs**

What is the symbol used to get the address of a variable in C?

%æ

&

$

Candidate Answer:

&

Question 6:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **1/1**
Time spent: **1 min, 30 secs**

What is a pointer array in C language?

- ✓ An array of pointers
- An array of integers
- An array of characters
- None of these

Candidate Answer:

- ✓ An array of pointers

Question 7:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **1/1**
Time spent: **34 secs**

What happens if you try to print an element outside the range of an array in C language?

- The program will terminate
- The program will give an error message
- ✓ The program will print garbage value
- None of these

Candidate Answer:

- ✓ The program will print garbage value

Question 8:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **1/1**
Time spent: **40 secs**

A recursive function is faster than __.

- for loop
- while loop
- do while loop
- ✓ None of these

Candidate Answer:

None of these

Question 9:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **1/1**
Time spent: **15 secs**

Can you change the address stored in a pointer in C?

- Yes, it can be changed
- No, it cannot be changed
- It depends on the compiler
- It depends on the operating system

Candidate Answer:

Yes, it can be changed

Question 10:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **1/1**
Time spent: **3 mins, 38 secs**

What will be the output of this code snippet?

```
int sum = 1;
for(int i = 1;i<=3; i++)
for(int j = 1; j<=2; j++)
sum = sum + i + j;
printf (“%d”, sum);
```

- 22
- 20
- 21
- 6

Candidate Answer:

22

Section - 2 - MCQ

Question 1:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **2/2**
Time spent: **3 mins, 20 secs**

What will be the output of the following program:

```
#include<stdio.h>
void increment(int *i)
```

```
void increment(int *i)
{
(*i)++;
}
void printValue(int x){
printf("%d\t", x++);
}
int main(){
int i = 10;
increment(&i);
printValue(i++);
increment(&i);
printValue(++i);
return 0;
}
```

- 10 13
- 10 14
- 11 13
- ✓ 11 14

Candidate Answer:

- ✓ 11 14

Question 2:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **2/2**
Time spent: **1 min, 30 secs**

```
#include <stdio.h>
int main()
{
int i = 2;
{
int i = 3, j = 4;
printf("%d%d", i, j);
}
printf("%d", i);
}
```

What will be the output of the above code?

- Compile Error
- ✓ 3 4 2
- 3 4 3
- 2 4 2

Candidate Answer:

3 4 2

Question 3:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **2/2**
Time spent: **1 min, 42 secs**

```
#include<stdio.h>
int main()
{
int myNumbers[] = {20, 30, 50, 70};
int i;
for (i = 0; i<4; i++) {
printf("%d ", i[myNumbers]);
}
}
```

What will be the output of the above program?

- Compile Error
- 20 30 50 70
- Runtime Error
- 0 1 2 3

Candidate Answer:

20 30 50 70

Question 4:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **2/2**
Time spent: **26 secs**

Which loop is the infinite loop among the following?

- for(;;){}
- while(1){}
- do{}while(1);
- All of the above

Candidate Answer:

All of the above

Question 5:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **2/2**
Time spent: **1 min, 1 sec**

What will be the output of following code:

```
#include<stdio.h>
int main()
{
char str[] = "abcd";
printf("%d",sizeof(str)/sizeof(str[0]));
}
```

- 4
- 1
- ✓ 5
- 2

Candidate Answer:

- ✓ 5

Section - 3 - Coding

Question 1:

Total Time Spent Outside: **3 secs**
Total Move Count: **2**

Score: **5/5**
Time spent: **3 mins, 48 secs**
Times Compiled: **1**

Sum of series

Anil is wondering if he can find out the sum of series using loops in C. Help him write a C program to get the following sum of series up to 4 decimal places if 'N' is being provided.

1- ½ + !S - ¼+..... 1/N

Sample Input 1

2

Sample Output 1

0.5000

Sample Input 2:

4

Sample Output 2

0.5833

Input Explanation:

The first line contains the positive integer 'N', where N is the number of terms in the given series.

Output Explanation:

Print the sum of N terms in the series.

Candidate Answer:

Language: C
Total Execution Time: 518ms
Lines of code: 16

Passed, 5 marks

Test Cases:

1 104ms PASS Score: 1	2 104ms PASS Score: 1	3 104ms PASS Score: 1
4 112ms PASS Score: 1	5 94ms PASS Score: 1	

Code Submitted:

```
#include
int main()
{
    int n;
    scanf("%d",&n);
    float f = 0;
    int i;
    for(i=1;i<=n;i++)
    {
        if(1&i)
        f = f + 1.0/i;
        else
        f = f- 1.0/i;
    }
    printf("%.4f",f);
}
```

Question 2:

Total Time Spent Outside: **2 secs**
Total Move Count: **1**

Score: **5/5**
Time spent: **4 mins, 20 secs**
Times Compiled: **1**

Pattern Printing2

Write a program to print the following pattern for the given number of rows (N).

Pattern for N = 4

```
   *
  ***
 *****
*******
```

Input format:

Integer N (Total no. of rows)

Output Format:

The pattern in N lines

Constraints:

0 <= N <= 50

Sample Input 1:

3

Sample Output 1:

```
  *
 ***
*****
```

Candidate Answer:

Language: C
Total Execution Time: 517ms
Lines of code: 16

Passed, 5 marks

Test Cases:

1	92ms	2	102ms	3	104ms
PASS		PASS		PASS	
Score: 1		Score: 1		Score: 1	
4	107ms	5	112ms		
PASS		PASS			
Score: 1		Score: 1			

Code Submitted:

```
#include

int main()
{
    int n;
    scanf("%d",&n);
    int i;
    for( i=0;i
```

Section - 4 - Coding

Question 1:

Total Time Spent Outside: **0 sec**
Total Move Count: **0**

Score: **10/10**
Time spent: **9 mins, 26 secs**
Times Compiled: **1**

Medals calculation

C countries participated in an event that happened in April of 2021 and 2022 in Dubai. There were K categories in which Gold, Silver and Bronze prizes were given to the participants. Given a country and type of medal, **write a C program to get the total number of (required type) medals have been won by the given country (in 2021 and 2022 combined).**

Hint: Matrix Addition

Sample Input 1

3 2 1 // Participated countries=3, Country number =2, Medal type =1

12 1 10 10 4 5 5 12 18 // Medals count for the year 2021

10 6 5 12 4 1 18 1 8 // Medals count for the year 2022

Sample Output 1

22 // 22 gold medal won by country number 2

Input Explanation: The first line contains three positive integers 'C', 'N' and 'M' where **'C'** is the number of countries that participated in 2021 and 2022 , **'N'** is the country number whose total medals is to be calculated and **'M'** is the medal type that's total is to be calculated. The second line contains '3C' space separated Gold, Silver and Bronze medal counts for each of the 'C' countries for the year 2021. The third line contains '3C' space separated Gold, Silver and Bronze medal counts for each of the 'C' countries for the year 2022.

Note:

N=1 means country number 1 , N=2 means country number 2 and so on….

M=1 means Gold, M=2 means Silver, M=3 means Bronze

For Example:

In Sample Input 1,

First line shows that 3 countries participated in 2021 and 2022 and we have to calculate the total Gold medals(since M=1) won by country number 2 in 2021 and 2022 combined .

Second line shows medal counts for 2021:

Country 1 won 12 Gold, 1 Silver and 10 Bronze

Country 2 won 10 Gold, 4 Silver and 5 Bronze

Country 3 won 5 Gold, 12 Silver and 18 Bronze

Third line shows medal counts for 2022:

Country 1 won 10 Gold, 6 Silver and 5 Bronze

Country 2 won 12 Gold, 4 Silver and 1 Bronze

Country 3 won 18 Gold, 1 Silver and 8 Bronze

Output Explanation:

Total Medals of given type won by given Country number.

For Example in Sample Output 1:

Total Gold Medals(given M=1) won by Country Number 2 is (10+12=) 22. So output is 22

Candidate Answer:

Language: C — Passed, 10 marks

Total Execution Time: 956ms

Lines of code: 20

Test Cases:

1	154ms	2	170ms	3	201ms