Quiz-4

Question 1

Time: 00:00:32

What will be the output of the following pseudocode?

```
integer p, q, r;

Set p = 4;

q = 6;

r = 2;

p = p + q + r - 7;

q = p + r - 7;

if (p > q)

  Print Hello

else

  Print Hi
```

- ○ Hello
- ○ Hi
- ○ Error
- ○ Hello Hi

- ◉ Hello

As we can see that the value of 'p' after solving the expression p + q + r - 7 will be 5 and now the value of 'q' will be 0 after solving the expression p + r - 7.
Now we can see that the value of p > q so the IF condition will get executed and '**Hello**', will be printed

Question 2

Time: 00:00:06

What will be the output of the following pseudocode if num=4 and element of the array are 1,2,3,4,5?

```
#include <stdio.h>

integer fun (int a[], int num)

    integer x;

if (num is equal to 1)

  return a[0];

else

  x = fun (a, num - 1);

if (x == a[num - 1])

  return x;

else

  return a[num - 1];

End the function fun ()
```

- 1
- 3
- 4
- 5

4

Question 3

Time: 00:00:06

What will be the output of the following pseudocode?

```
#include <stdio.h>

int main()

{

    int p = 2, q = 3;

    for (int i = 0; i <= 6; i = i + 2){

    p = p + q + i;

    p = p + q;

    q = p - q;

    printf("%d ",q);

    }

}
```

- ○ 30 10 27 70
- ○ 5 15 39 99
- ○ 13 10 47 70
- ○ 13 10 27 70

- ◉ 5 15 39 99

The given for loop will be executed 4 times i.e for i= 0, 2, 4, 6. On first iteration the value of p will be 8 and q will be 5 similarly on second, third, and fourth iteration the value of p will be 20, 54,138, and value of q will be 15, 39, 99. Now that we are printing only the value of b so our output will be 5 15 39 99.

Question 4

Time: 00:00:03

What will be the output of the following code :

```
#include <stdio.h>

int main()

{

    static float i=3;

    if(--i){

        main();

        printf("%f ",i);

    }

}
```

- ○ 0.000000 0.000000
- ○ Error
- ○ Segmentation fault
- ○ 3.0 3.0

- ◉ 0.000000 0.000000

Since i is a static variable and is stored in the Data Section, all calls to main share the same i.
First main function will call the 2nd main function at i=2.
Second main function will call the 3rd main function at i=1
if condition of 3rd main function is if(0) so, that won't be executed.
As, i is float hence both the 2nd and 3rd main function will print 0.000000.
So, the output is 0.000000 0.000000

Question 5

What will be the output of the following code?

```
#include <stdio.h>

int main()

{

    int get_the_val;

    get_the_val = (100, 256, 3.3);

    printf("%d", get_the_val);

    return 0;

}
```

◉ 3

It will read the last value from the given set of the values and print the int part of the value

Question 6

Time: 00:00:05

What will be the output of the following pseudocode?

```
#include <stdio.h>

int main()

{

    int i,j;

    for(i=0;i<5;i++)

    {

        for(j=0;j<i;j++)

        {

            printf("%d ",i+j);

        }

        printf("\n");

    }}
```

- ○ 1233454567
- ○ 1223334444
- ○ 1121231234
- ○ Error

- ◉ 1233454567

when i=0, the inner loop wont be executed
at i=1, the inner loop will print 1
at i=2, the inner loop will print 2 3
at i=3, the inner loop will print 3 4 5
at i=4, the inner loop will print 4 5 6 7
So, the final output,
1
2 3
3 4 5
4 5 6 7

Question 7

Time: 00:00:03

what will be the output of the following pseudocode?

```
Integer n, rev, rem, orig;
    Set n=1331; rev=0;
    Set orig=n;
    Repeat while n Not Equals 0
        rem=n%10;
        rev=(rev*10)+rem;
        n=n/10;
        End while
    if(orig is Equal to rev)
        Print Palindrome
    else
        Print Not Palindrome
    End if
```

- ○ Not Palindrome
- ○ Run Time Error
- ○ Palindrome
- ○ Compile Time Error

- ◉ Palindrome

```c
#include<stdio.h>

int main()

{

    int n=1331,rev,rem,orig;

    orig=n;

    rev=0;

    while(n != 0)

    {

        rem=n%10;

        rev=(rev*10)+rem;

        n=n/10;

    }

     if(orig == rev)

    printf(" Palindrome ");

    else

    printf("Not Palindrome ");

}
```

The above code will test that whether the entered number is an palindrome or not

Question 8

Time: 00:00:03

What will be the output of the pseudocode?

```
#include <stdio.h>

int main()

{

    static int val = 5.2;

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

    if(1.25)

        main();

}
```

- 1.5
- 5.2
- 4.2
- Infinite loop

Infinite loop

This code will get stuck in the infinite loop as IF condition will always be true

Question 9

Time: 00:00:05

What will be the output of the following pseudo code?

```
#include <stdio.h>

int main()

{

    int a=97,b=97,c=98;

    if(a>b && a>c)

    {

        printf("%d ",a);

    }

    if(b>a && b>c)

    {

        printf("%d ",b);

    }

    if(c>a && c>b)

    {

        printf("%d ",c);

    }

}
```

- ○ 98
- ○ c
- ○ b
- ○ 97

◉ 98

We are finding the greatest number in this pseudo code

Question 10

Time: 00:00:04

What will be the output of the following pseudocode?

```
integer a,b

Set a=2; b=90

while(b>9)

    a = b%2 + a

    if( a%2 != 0)

        Print a

    else

        Print b

    b = b/2

End while
```

- 3 90 11 3
- 11 3 3 90
- 90 3 3 11
- 3 3 90 11

- [x] 90 3 3 11

Step 1 - a=0+2=2, print 90,b=45
Step 2 - a=1+2=3, print 3, b=22
Step 3 - a= 0+3=3, print 3, b=11
Step 4 - a=1+3=4, print 11, b=5

Pseudocode Quiz - 4

1] $P = 4, Q = 6, r = 2$

$P = P + Q + r - 7 = 4 + 6 + 2 - 7 = 5$

$Q = P + r - 7 = 5 + 2 - 7 = 0$

if $(P > Q)$ ✓

Print Hello

Ans: Hello

2] fun(a[], 4)

if (4 != 1) x

x = fun(a, 3)

fun (a, 3)

x = fun (a, 2)

= 2

return 3

x = 3

return 4

fun(a, 2)

x = fun(a, 1)

1

a[0] = 1

if (1 != a[1])

x

return 2

Ans: 4

3] p = 2, q = 3

i = 0	i = 2	i = 4	i = 6
p = 2+3+0 = 5	p = 15	p = 39	p = 99
p = 5+3 = 8	p = 20	p = 54	p = 138
q = p-q = 5	q = 15	q = 39	q = 99
print (5)	print (15)	print (39)	print (99)

Ans: 5 15 39 99

4] static float i = 3;

Ans: 0.000000 0.000000

5] int get_the_val;

get_the_val = (100, 256, 3.3); comma operator read the last val

print (3) ← int

Ans: 3

6]

i = 0	i = 1	i = 1	i = 2	i = 2
J = 0 X	J = 0	J = 1 X	J = 0	J = 1
	print (1)		print (2)	print (3)

i = 2	i = 3	i = 3	i = 4	i = 4	i = 4	i = 4
J = 0	J = 1	J = 2	J = 0	J = 1	J = 2	J = 3
print (3)	print (4)	print (5)	print (4)	print (5)	print (6)	print (7)

Ans: 1 2 3 3 4 5 4 5 6 7

7] code checking for palindrome

n = 1331

Ans: Palindrome

8] Ans: Infinite loop (no termination condition

9] code is for print the max among 3

a = 97, b = 97, c = 98

Ans: 98

10] a = 2, b = 90

it - 1

b > 9 ✓

90

a = b % 2 + a

= 0 + 2

= 2

if (2 % 2 != 0) X

print (90)

b = 45

it - 2

45 > 9 ✓

a = 1 + 2

= 3

if (3 % 2 != 0) ✓

print (3)

b = 22

it - 3

22 > 9 ✓

a = 0 + 3

= 3

if (3 % 2 != 0) ✓

print (3)

b = 11

it - 4

11 > 9 ✓

a = 1 + 3

= 4

if (4 % 2 != 0) X

print (11)

b = 5

Ans: 90 3 3 11