You might not be familiar with the snapshots of the solutions results. It's written in Python and executed using Google Colab. Python codes are very similar to pseudocodes, so the best way to verify answer of pseudocodes is by writing the code using Python :

Q1)

Solution :

```
[ ]   def fun(w,x):
          y=0
          if((x%w==0) or (w%x)==0):
              y=y+1
          else:
              y=y+10
          print(y)
      print(fun(40,4))


      1
```

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Q2)

Q 63 Consider the pseudocode mentioned below. For how many times, the while loop will be executed?

```
1.  Integer a
2.  Set a = 1
3.  while(a < 5)
4.          a = a + 2
5.  end while
6.  Print a
```

Ops: A.   ○ 1

      B.   ○ 4

      C.   ○ 2

      D.   ○ 3

Solution :

When while loop is executed 1st time, a is incremented to 3, next time again it enters loop and a is incremented to 5. Next time, while loop is not entered. Hence while loop is executed twice.

Q3)

Q 64 What will be the output of the following pseudocode for a = 8, b = 8?

```
1.   Integer funn(Integer a, Integer b)
2.       if(a && b && a+b > 0 )
3.           return a + funn(a - 2, b - 2) + b
4.       End if
5.       return a ^ b
6.   End function funn()
```

[Note- &&: Logical AND - The logical AND operator (&&) returns the Boolean value true(or 1) if both operands are true and return false (or 0) otherwise.

^ is the bitwise exclusive OR operator that compares each bit of its first operand to the corresponding bit of its second operand. If one bit is 0 and the other bit is 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.]

Ops: A. ○ 39

      B. ○ 46

      C. ○ 48

      D. ○ 40

Solution :

```python
def fun(a,b):
    if(a and b and (a+b)>0 ):
        return a + fun(a-2,b-2)+b
    return a ^ b
res = fun(8,8)
print(res)
```

40

Q4)

```
1.   Integer a, b
2.   Set   a = 3, b = 3
3.   a = b
4.   if(1^1)
5.        a = 1
6.   Else
7.        b = 2
8.   End if
9.   Print a + b
```

[Note: ^ is the bitwise exclusive OR operator that compares each bit of its first operand to the corresponding bit of its second operand. If one bit is 0 and the other bit is 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0

If(x) gets executed if the value inside if(), i.e., x is not zero]
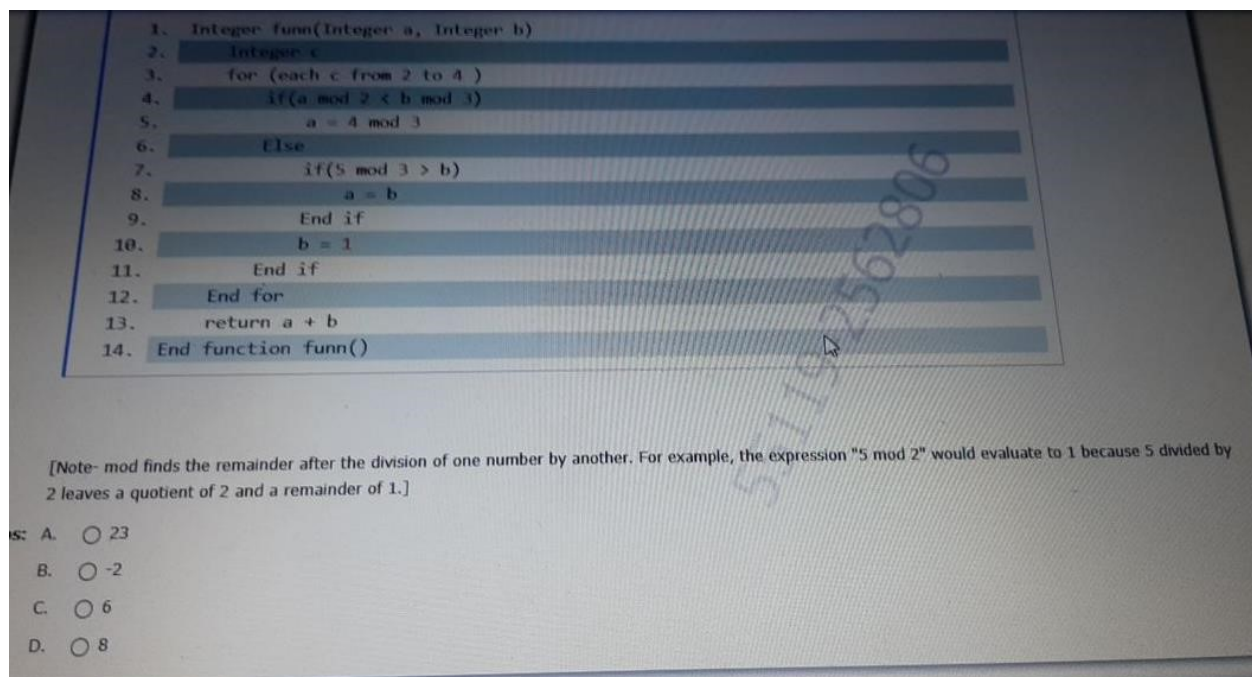
s: A. ○ 16

B. ○ 1

C. ○ 5

D. ○ 6

Solution :

```
a=3
b=3
if(1^1):
    a=1
else:
    b=2
print(a+b)
```

5

Q5)

```
1.   Integer funn(Integer a, Integer b)
2.       Integer c
3.           for (each c from 2 to 4 )
4.               if(a mod 2 < b mod 3)
5.                   a = 4 mod 3
6.               Else
7.                   if(5 mod 3 > b)
8.                       a = b
9.                   End if
10.                  b = 1
11.              End if
12.          End for
13.          return a + b
14.  End function funn()
```

[Note- mod finds the remainder after the division of one number by another. For example, the expression "5 mod 2" would evaluate to 1 because 5 divided by 2 leaves a quotient of 2 and a remainder of 1.]

s: A. ○ 23

B. ○ -2

C. ○ 6

D. ○ 8

Solution : Option wrongly given as −2. Should be 2 as executed by Python program below.
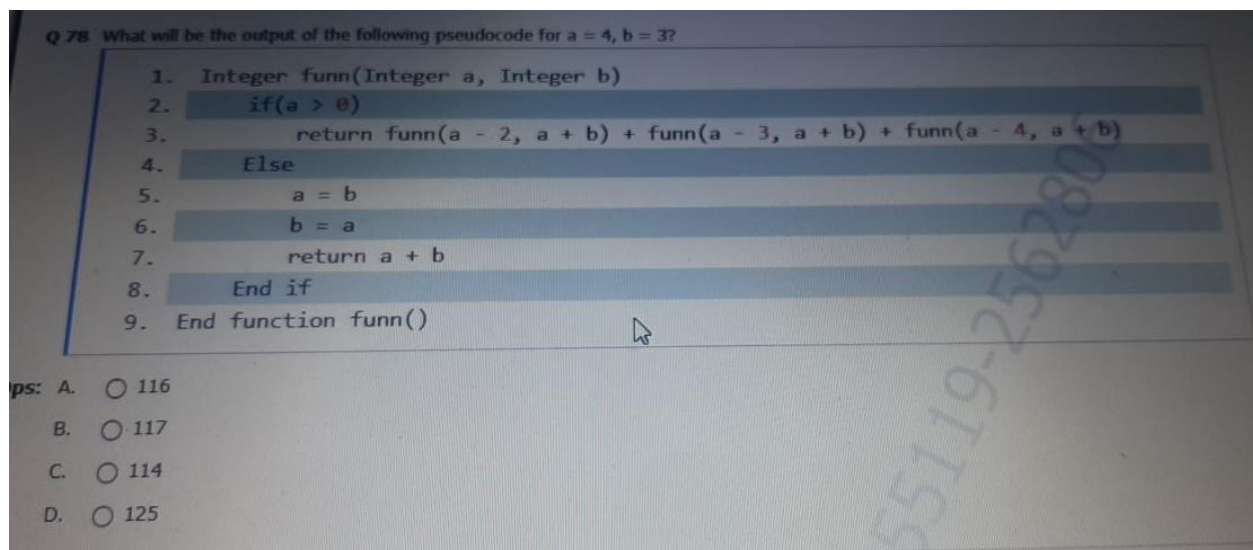
```
[ ]  def fun(a,b):
         for c in range(2,5):
             if((a%2) < (b%3)):
                 a=4%3
             if(5%3>b):
                 a=b
             b=1
         return(a+b)
     print(fun(7,5))

⊳  2
```

Q6)

Q 78 What will be the output of the following pseudocode for a = 4, b = 3?

```
1.    Integer funn(Integer a, Integer b)
2.        if(a > 0)
3.            return funn(a - 2, a + b) + funn(a - 3, a + b) + funn(a - 4, a + b)
4.        Else
5.            a = b
6.            b = a
7.            return a + b
8.        End if
9.    End function funn()
```

ps: A. ○ 116

B. ○ 117

C. ○ 114

D. ○ 125

Solution :

```python
[ ] def fun(a,b):
        if(a>0):
            return fun(a-2,a+b) + fun(a-3,a+b) + fun(a-4,a+b)
        else:
            a=b
            b=a
            return(a+b)
    print(fun(4,3))

    116
```

Q7)

Q 77 What will be the output of the following pseudocode for a = 6, b = 1?

```
1.    Integer funn(Integer a, Integer b)
2.        a = a + a
3.        b = b + b
4.            return a + b
5.    End function funn()
```

Ops: A. ○ 23

B. ○ 14

C. ○ 12

D. ○ 16

Solution : a = 6+6 = 12 ; b = 1+1 = 2. Return 12+2 that is 14. Hence ans is 14.

```
def fun(a,b):
    a=a+a
    b=b+b
    return a+b
print(fun(6,1))
```

14

Q8)

```
1.    Integer a, b, c
2.    Set  a = 2, b = 4, c = 2
3.    if(b - a)
4.          b = a ^ b
5.          a = c
6.          if(b)
7.                a = a ^ b
8.          End if
9.          b = b - 1
10.   End if
11.   if(c)
12.         a = b
13.   End if
14.   Print a + b + c
```

[Note- ^ is the bitwise exclusive OR operator that compares each bit of its first operand to the corresponding bit of its second operand. If one bit is 0 and the other bit is 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

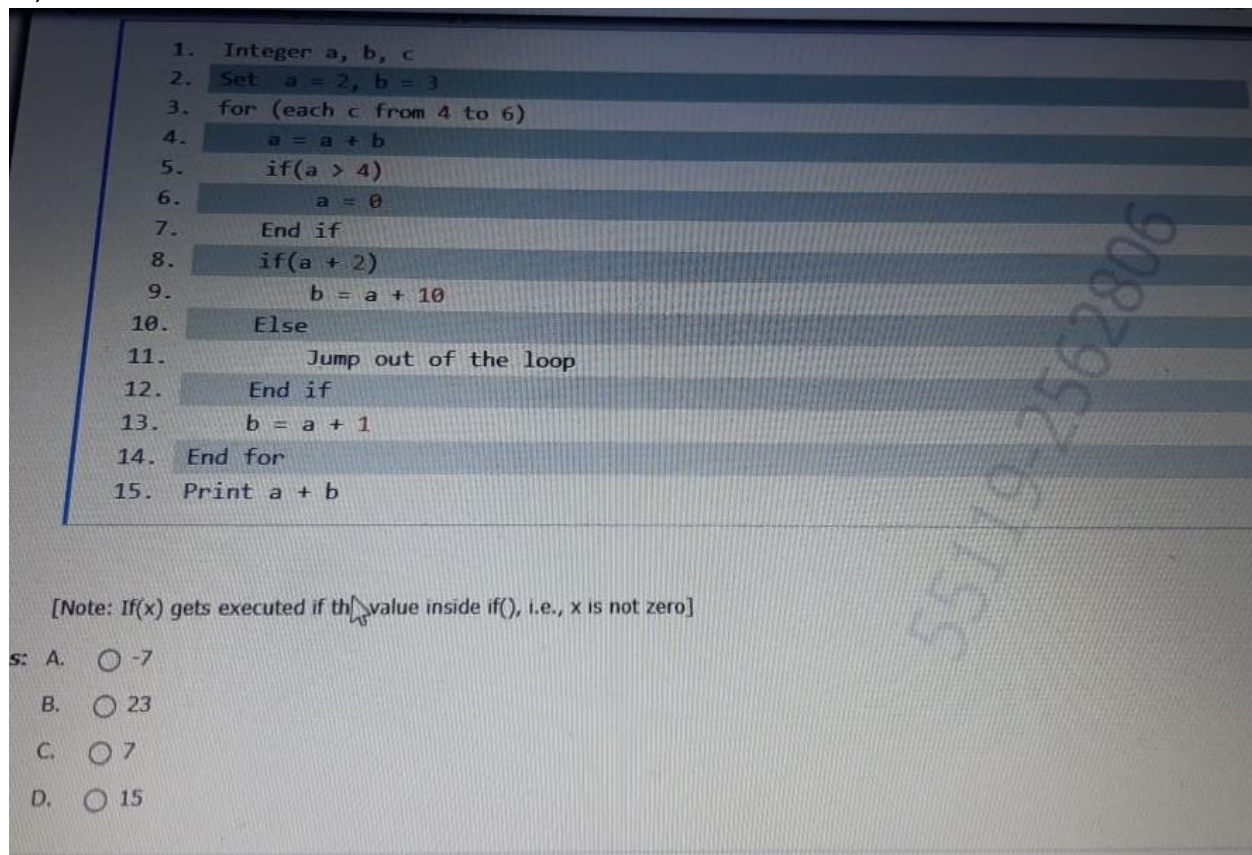If(x) gets executed if the value inside if(), i.e., x is not zero]

Ops: A.   ○ 13

B.   ○ 12

C.   ○ 30

D.   ○ 9

```
a=2
b=4
c=2
if(b-a):
    b= a ^ b
    a=c
    if(b):
        a = a ^ b
    b=b-1
if(c):
    a=b
print(a+b+c)
```

12

Solution :

Q9)

```
1.   Integer a, b, c
2.   Set   a = 2, b = 3
3.   for (each c from 4 to 6)
4.          a = a + b
5.          if(a > 4)
6.              a = 0
7.          End if
8.          if(a + 2)
9.              b = a + 10
10.         Else
11.             Jump out of the loop
12.         End if
13.         b = a + 1
14.  End for
15.  Print a + b
```
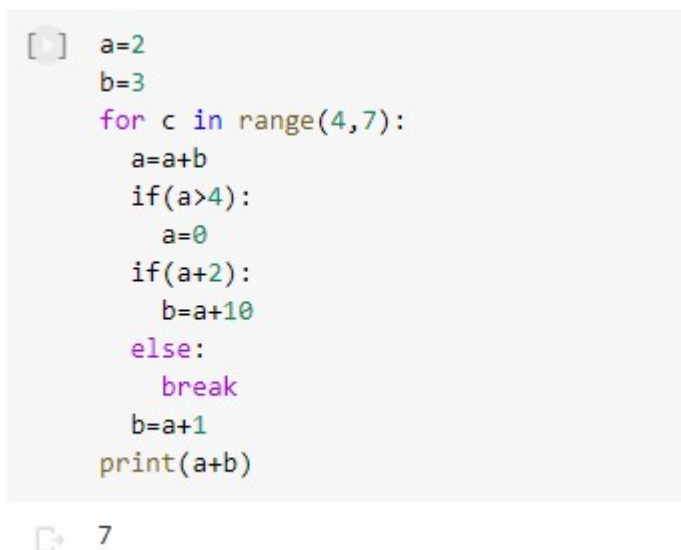
[Note: If(x) gets executed if the value inside if(), i.e., x is not zero]

s: A. ○ -7
   B. ○ 23
   C. ○ 7
   D. ○ 15

Solution :

```
[ ]  a=2
     b=3
     for c in range(4,7):
         a=a+b
         if(a>4):
             a=0
         if(a+2):
             b=a+10
         else:
             break
         b=a+1
     print(a+b)
```

7

Q10)

Q 73 What will be the output of the following pseudocode?

```
1.   Integer m, n
2.   Set m = 9, n = 6
3.   m = m + 1
4.   n = n - 1
5.   m = m + n
6.   if(m>n)
7.            print m
8.   else
9.            print n
10.  end if
```

Ops: A. ○ 5

   B. ○ 10

   C. ○ 15

   D. ○ 6

Solution :

```
[ ]  m=9
     n=6
     m = m+1
     n = n-1
     m = m+n
     if(m>n):
         print(m)
     else:
         print(n)
```

     15

Q11)

Q 72 What will be the output of the following pseudocode?

```
1.   Integer p, q, r
2.   Set  p = 1, q = 4, r = 2
3.   if (p^q > p&q)
4.        r = p&q
5.   Else
6.        r = p ^q
7.   End if
8.   if (q > r && r > p)
9.        p = q
10.  End if
11.  Print p - q + r - 2
```

[Note- &&: Logical AND - The logical AND operator (&&) returns the Boolean value true(or 1) if both operands are true and return false (or 0) otherwise.

&: bitwise AND - The bitwise AND operator (&) compares each bit of the first operand to the corresponding bit of the second operand. If both bits are 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

^ is the bitwise exclusive OR operator that compares each bit of its first operand to the corresponding bit of its second operand. If one bit is 0 and the other bit is 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.]

s: A. ○ -5
   B. ○ -4
   C. ○ -12
   D. ○ 3

Solution :

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```
[ ]  p=1
     q=4
     r=2
     if((p^q)>p&q):
         r= p&q
     else:
         r=p^q

     if(q>r and r>p):
         p=q
     print(p-q+r-2)

     -5
```

Q12)

Q 71 What will be the output of the following pseudocode?

```
1.  Integer pp, qq, rr
2.  Set  pp = 7, qq = 7, rr = 2
3.  pp = ( (pp + pp) ^ ((pp + pp) mod pp) ) ^ (pp + pp)
4.  if(pp && qq)
5.      pp = pp ^ pp
6.      qq = qq + qq
7.  End if
8.  Print pp + qq + rr
```

[Note- mod finds the remainder after the division of one number by another. For example, the expression "5 mod 2" would evaluate to 1 because 5 divided by 2 leaves a quotient of 2 and a remainder of 1.

&&: Logical AND - The logical AND operator (&&) returns the Boolean value true(or 1) if both operands are true and return false (or 0) otherwise.

^ is the bitwise exclusive OR operator that compares each bit of its first operand to the corresponding bit of its second operand. If one bit is 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

If(x) gets executed if the value inside if(), i.e., x is not zero]

A. ○ 5
B. ○ 18
C. ○ 9
D. ○ 10

Solution :

```
pp=7
qq=7
rr=2
pp = ((pp+pp) ^ ((pp+pp) % pp)) ^ (pp+pp)
if (pp and qq):
    pp = pp ^ pp
    qq = qq + qq
print(pp+qq+rr)
```

9

Q13) Coding Round Question 1 :

accenture

Hide problem statement «

Problem statement

Instru

You are required to implement the following function:

```
def InitialsName(name):
```

The function accepts a string 'name' as its argument. The string 'name' is composed of first, middle (optional) and last name separated with a space. Initials of a 'name' are written using the first letter of first name followed by a dot('.') and space, first letter of middle name (if present) followed by a dot('.') and space and retaining the last name as it is. You are required to return the initials of string 'name'.

Note:

- last name in initials are retained
- If 'name' = NULL, return NULL. Incase of python if 'name' is None return None.
- 'name' can have only English alphabets and dot ('.')

Assumptions:

- Length of string 'name' ≤ 100000 characters

Example:

Input:

name: Abc Xyz Pqrst

Output:

A. X. Pqrst

Explanation:

Now le

1 # 2 p 3 # 4

5 de 6 7 8 9

https://github.com/amirkhan1092

space and retaining the last name as it is. You are required to return the initials of string 'name'.

Note:

- last name in initials are retained
- If 'name' = NULL, return NULL. Incase of python if 'name' is None return None.
- 'name' can have only English alphabets and dot ('.')

Assumptions:

- Length of string 'name' ≤ 100000 characters

Example:

Input:

name: Abc Xyz Pqrst

Output:

A. X. Pqrst

Explanation:

The initials of name "Abc Xyz Pqrst", using the first letter of first name followed by a dot ('.') and space, middle name followed by a dot ('.') and space and retaining the last name is "A. X. Pqrst".

Sample Input

name: Mnas Cdefgh

Sample Output

M. Cdefgh

Solution :

```
name=input()

def InitialsName(name):
    name=name.split(" ")
    newName = ''
    for i in range(len(name)):
        if(i == (len(name)-1)):
            newName = newName + name[i]
        else:
            newName = newName + name[i][0] + ". "
    return newName
p = InitialsName(name)
print(p)
```

```
Mnas Cdefgh
M. Cdefgh
```