

```
Q 15 What will be the output of the following pseudocode for a=507
            1. Integer fun(Integer a)
            2. Integer b
            3.
                        Set b = 10
            4. return a - b
            5. End function fun()
Ops: A. 

None of the mentioned options
      B. () 40
      C. O 60
      D. O 50
Q 16 What will be the output of the following pseudocode?
            1. Integer i, j, k, m
            2. Set j = No, i = 8, k = 7, m = 1
3. if ( (j^i) mod k EQUALS 0)
            4.
                        m = m + 1
            5. else
            6.
            7. End if
            8. Print m
       [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
       ^ 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 Ы
       is 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0]
 Ops: A. () 3
       B. 00
       C. O1
```

1	Q 19	Wh	at will b	e the output of the following pseudocode?	
The state of the s			3.	<pre>Integer a1, p Set a1 = 8 p = a1 + 5/7 * 4 print p * 8</pre>	
	Ops:	A.	0 8		
		В.	O 64		
		C.	\bigcirc 0		
		D.	07	to the second se	
				by	
	Q 20	Wh	at will b	e the output of the following pseudocode?	
	Ops:	A. B. C.	1. 2. 3. 4. 5. 6. 07 05 06	<pre>Integer x, y, z Set x = 0, y = 1 for(each z from 0 to 2) x = x + y + z end for Print x</pre>	
	Q 21	Wh	1.	the output of given pseudocode for b = 18? Integer calculate(Integer b) If(b EQUALS 1) return 0	

```
1. Integer p, q, r
2. Set p = 6, q = 3, r = 0
3. while(1)
4. r = p - q
5. p = p + r
6. if(p > 23)
7. Jump out of the loop
8. else
9. q = p - q
10. end if
11. Print q
12. end while
```

[Note:While(1): It is an infinite loop which will run till a break or similar statement is issued explicitly.]

Q 12 What will be the output of the following pseudocode?

```
1 What will be the output of given pseudocode for b = 18?
              Integer calculate(Integer b)
        1.
              If(b EQUALS 1)
         2.
         3.
                     return 0
              else
         4.
              return 5 + calculate(b / 2)
         5.
              End function calculate()
         6.
: A.
       34
   В.
       O 20
   C.
       \bigcirc 21
   D.
       \bigcirc 56
2 Select the appropriate option for the given pseudocode.
              Integer a[3][3], k, j, sum
         1.
              Set sum = 0
         2.
              Set a[3][3] = \{ \{1, 2, 3\}, \{4, 5, 6\}, \{7, 8, 9\} \}
         З.
              for(each k from 0 to 2)
         4.
                 for(each j from 0 to 2)
         5.
                         sum = sum + a[k][j]
         6.
         7.
                  end for
                   jump out of the loop
         8.
              end for
         9.
              print sum
        10.

    It will print the sum of the elements of the second row of given 2-D array

s: A.

    It will print the sum of the elements of the first column of given 2-D array

    В.
        O It will print the sum of the elements of the second column of given 2-D array
    C.

    It will print the sum of the elements of the first row of given 2-D array

    D,
```

ons

W	What will be the output of the following pseudocode?	
ı	1. Integer a, b, c	The same of the sa
ı	2. Set b = 1, c = 1	
	 for(each a from 1 to 3) 	The state of the s
	4. b = b >> 1	
	5. c = c << b	and the state of t
	6. End for	
	7. Print b+c	
i		
		the second operand decides the number of place
No	lote- >> - Bitwise right shift operator, it takes two numbers, right	shifts the bits of the first operand, the second operand decides the number of plac
No hil	lote- >> - Bitwise right shift operator, it takes two numbers, right slift	shifts the bits of the first operand, the second operand decides the number of place
No hil	lote- >> - Bitwise right shift operator, it takes two numbers, right s ift < - Bitwise left shift operator, it takes two numbers, left shifts the	shifts the bits of the first operand, the second operand decides the number of place bits of the first operand, the second operand decides the number of places to shift
hill <	ift < - Bitwise left shift operator, it takes two numbers, left shifts the	shifts the bits of the first operand, the second operand decides the number of place bits of the first operand, the second operand decides the number of places to shift
\ <	ift < - Bitwise left shift operator, it takes two numbers, left shifts the 2	shifts the bits of the first operand, the second operand decides the number of plac bits of the first operand, the second operand decides the number of places to shi
hill <	ift < - Bitwise left shift operator, it takes two numbers, left shifts the	shifts the bits of the first operand, the second operand decides the number of plac bits of the first operand, the second operand decides the number of places to shi
hill <	ift < - Bitwise left shift operator, it takes two numbers, left shifts the 2	shifts the bits of the first operand, the second operand decides the number of place bits of the first operand, the second operand decides the number of places to shift
No hill <	ift < - Bitwise left shift operator, it takes two numbers, left shifts the 2 4	shifts the bits of the first operand, the second operand decides the number of place bits of the first operand, the second operand decides the number of places to shift

Q 7	Con: A: D B: A C: A D: B	
	Ider	ntify the correct statement(s).
Ops:	A.	G is a strongly connected graph
	В.	○ In degree of A is 2
	C.	Out degree of B is 1
	D.	 All of the mentioned options
Q B	How	www.www.evwill you initialize a multidimensional array on data structures?
Ops:		int a[][]
	B.	○ int []a[]
	C.	O int a[]
	D.	O int a[[]]
Q 9	Wha	at do you mean by overflow condition in the stack?
Ops:	A.	 It is when the stack is emptional you try to push an element to the stack.
	B.	 It is when the stack is completely filled and you try to pop an element from the
	C.	 It is when the stack is empty and you try to pop an element from the stack.
	D.	It is when the stack is completely filled and you try to push an element to the s
Q 10	Whi	ich of the following expressions is written in polish notation?
Ops:	٨.	O .CD
	B.	○ A+B+C

```
Q 16 What will be the output of the following pseudocode?

1. Integer a1, p
2. Set a1 = 8
3. p = a1 + 5/7 * 4
4. print p * 8

Ops: A. ○ 7
B. ○ 0
C. ○ 64
D. ○ 8
```

```
Q 17 Select the appropriate option for the given pseudocode.
```

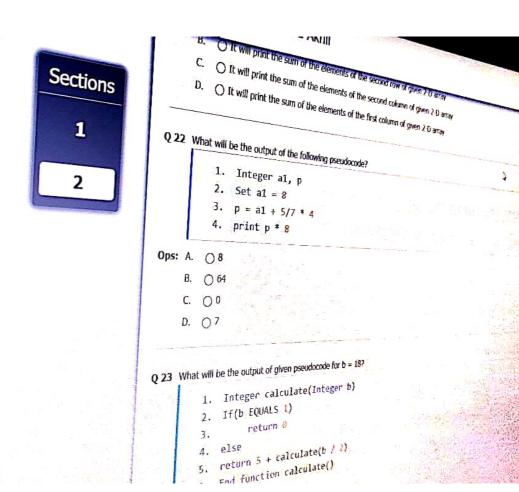
```
    Integer a[3][3], k, j, sum
    Set sum = 0
    Set a[3][3] = { {1, 2, 3}, {4, 5, 6}, {7, 8, 9} }
    for(each k from 0 to 2)
    for(each j from 0 to 2)
    sum = sum + a[k][j]
    end for
    jump out of the loop
```

ections

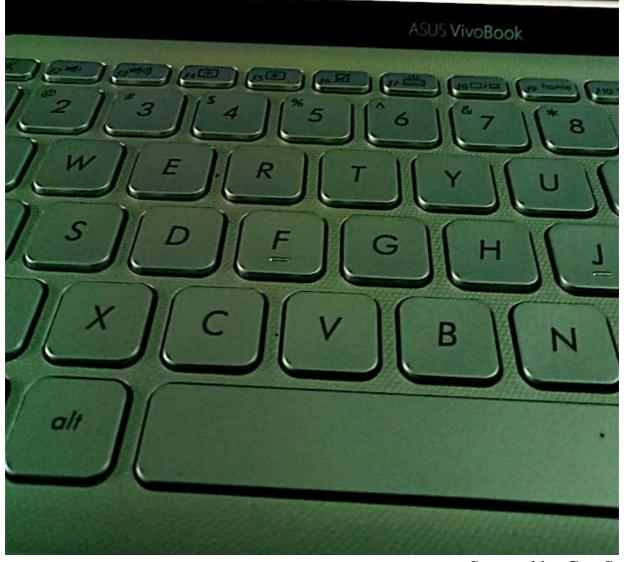
reset answer

```
Q 18 What will be the output of the following pseudocode for x=y=3?
                Integer p(integer x, integer y)
              if (y EQUALS 0)
           2.
                              return 1
           3.
                     else if (y mod 2 EQUALS 0)
                              return p(x,y/2) * p(x,y/2)
           7.
                              return x^* p(x,y/2)^* p(x,y/2)
                End function p()
     [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]
         09
         O 81
         O 36
         O 27
Q 19 What will be the output of the following pseudocode of fun for a=b=8 and c=2?
               void fun(Integer a, Integer b, Integer c)
```





```
O It will print 'laptop' 2 times
          8. O It will print 'leptop' 7 times
         C O It will print 'laptop' 6 times
         D. O It will print 'laptop' 5 times
   Q 25 What will be the output of the following pseudocode?
                 Integer array1[6], p, j, q
             2. Set p = 3
                Set array1[6] = {3, 6, 10, 12, 23, 33}
             4. for(each j from 0 to 5)
                        if((array1[j] MOD p) EQUALS 0)
                                 p = array1[j] - (p*3)
            7.
            8.
                        q = p + array1[j] - 3
            9.
                 end for
           10. Print q
     [Note: MOD finds the remainder after the division of one number by another. For example, the expression
     2 leaves a quotient of 2 and a remainder of 1]
Ops: A. O 64
     В.
        0 44
     C. 0 34
    D. 0 54
```

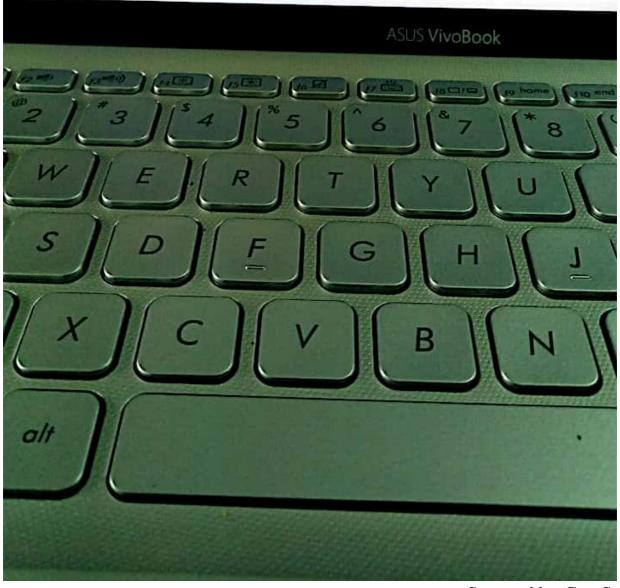


```
Q 24 What will be the output of the following pseudocode?
                 Integer a,b
                for(each a from 0 to 2)
            3.
                     for(each b from 0 to a)
                            print "laptop"
                     end for
            6. end for
 Ops: A.
          O It will print 'laptop' 2 times
      B. O It will print 'laptop' 7 times
      C. O It will print 'laptop' 6 times
      D. O It will print 'laptop' 5 times
Q 25 What will be the output of the following pseudocode?
              Integer array1[6], p, j, q
             Set p = 3
              Set array1[6] = {3, 6, 10, 12, 23, 33}
              for(each j from 0 to 5)
                     if((array1[j] MOD p) EQUALS 0)
         5.
         6.
                             p = array1[j] - (p*3)
         7.
                     end if
         8.
                    q = p + array1[j] - 3
        9.
             end for
       10.
             Print q
                                                         ASUS VivoBook
```

```
Consider the value of n=5

    Integer Fibonacci(Integer n)

            2. If ( n EQUALS 0 )
            3.
                       return 0
                    else if ( n EQUALS 1 )
            5.
                       return 1
            6.
                   else
                      return ( Fibonacci(n-1) + Fibonacci(..... blank space .....
            8. End function Fibonacci()
 Ops: A. () n-3
      B. On
      C. O n-2
      D. O n-1
Q 24 What will be the output of the following pseudocode?
              Integer a,b
              for(each a from 0 to 2)
                   for(each b from 0 to a)
          4.
                          print "laptop"
          5.
                   end for
             end for
Ops: A. O It will print 'laptop' 2 times
```



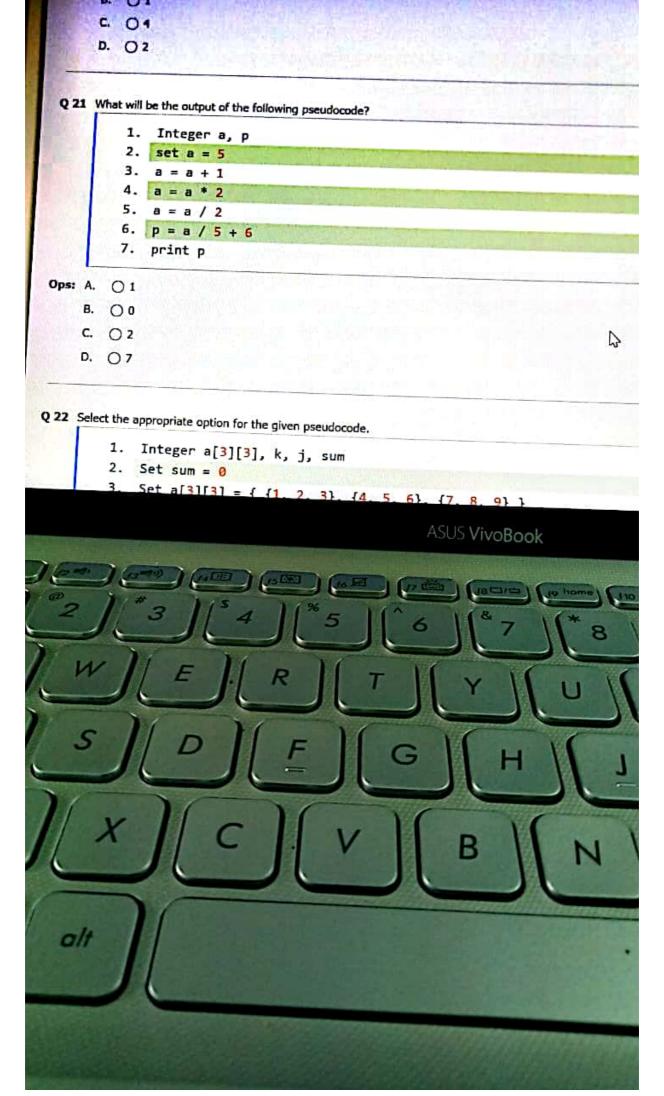
```
Q 23 Select the appropriate option for the given pseudocode.

    Integer a[3][3], k, j, sum

             2. Set sum = 0
                 Set a[3][3] = \{ \{1, 2, 3\}, \{4, 5, 6\}, \{7, 8, 9\} \}
                 for (each k from 0 to 2)
                     for (each j from 0 to 2)
            6.
                            sum = sum + a[k][j]
                     end for
                      jump out of the loop
                 end for
           10. print sum
          O It will print the sum of the elements of the second row of given 2-D array
          O It will print the sum of the elements of the second column of given 2-D array

    It will print the sum of the elements of the first column of given 2-D array

          O It will print the sum of the elements of the first row of given 2-D array
Q 23 Which of the following is the correct value for the blank space given in the code that will make the code to print Fit
     Consider the value of n=5
                Integer Fibonacci(Integer n)
               if ( n EQUALS 0 )
          2.
          3.
                       return 0
                   else if ( n EQUALS 1 )
                       return 1
                                                              ASUS VivoBook
  alt
```



1. Integer a, b, c

2. Set b = 1, c = 1

3. for(each a from 1 to 3)

4. b = b >> 1

5. c = c << b

6. End for

7. Print b+c

[Note- >> - Bitwise right shift operator, it takes two numbers, right shifts the bits of the first operand, the s shift

<< - Bitwise left shift operator, it takes two numbers, left shifts the bits of the first operand, the second ope

Ops: A. () 3

B. O1

C. O4

D. O 2

2

Q 21 What will be the output of the following pseudocode?

Integer a, p

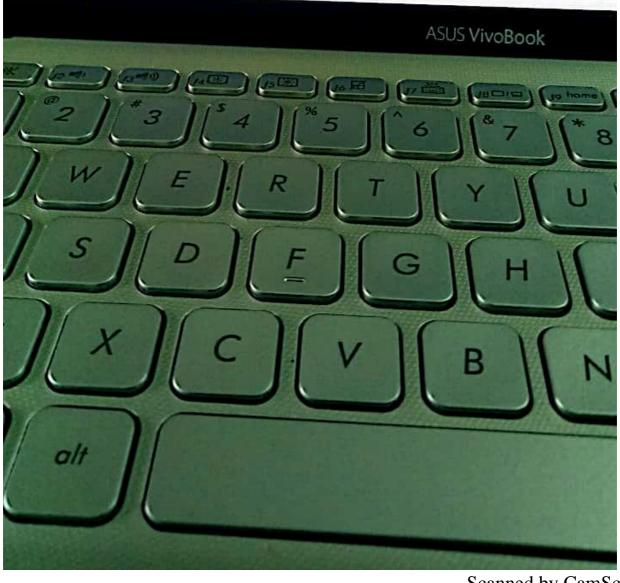
2. set a = 5

3. a = a + 1

4. a = a * 2



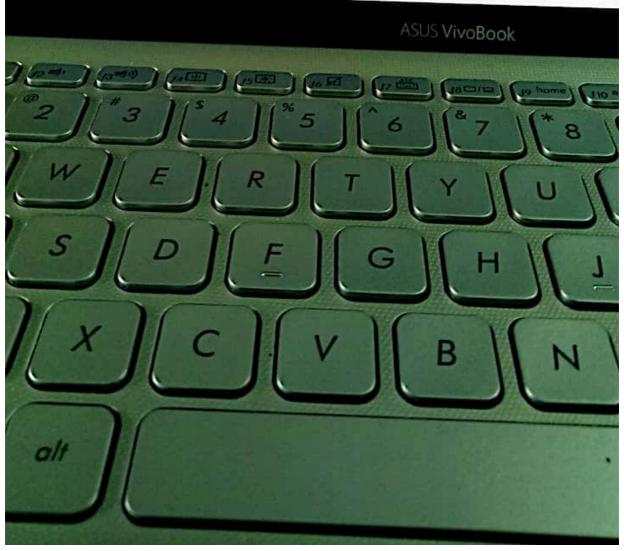
```
Q 19 What will be the output of the following pseudocode?
           1. Integer x, y, z
           2. Set x = 0, y = 1
               for(each z from 0 to 2)
                    x = x + y + z
               end for
           6. Print x
 Opsi A.
        08
     B.
        06
     C. 07
     D. O5
Q 20 What will be the output of the following pseudocode?
             Integer a, b, c
         2. Set b = 1, c = 1
         for(each a from 1 to 3)
                  b = b >> 1
        5.
                  c = c << b
        6. End for
           Print b+c
```

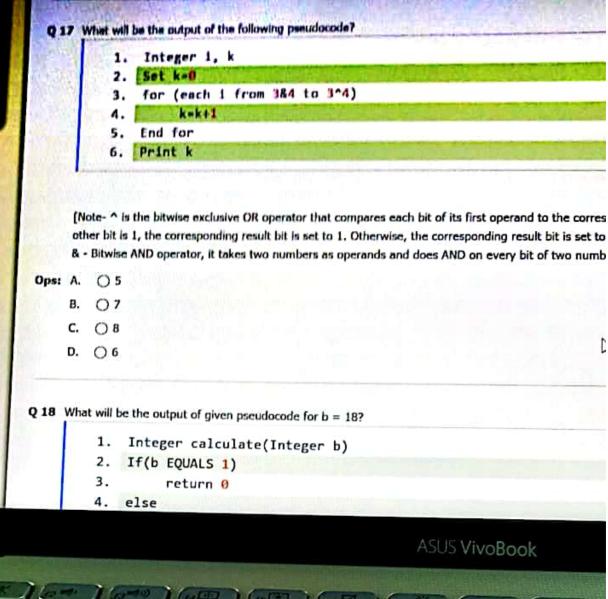


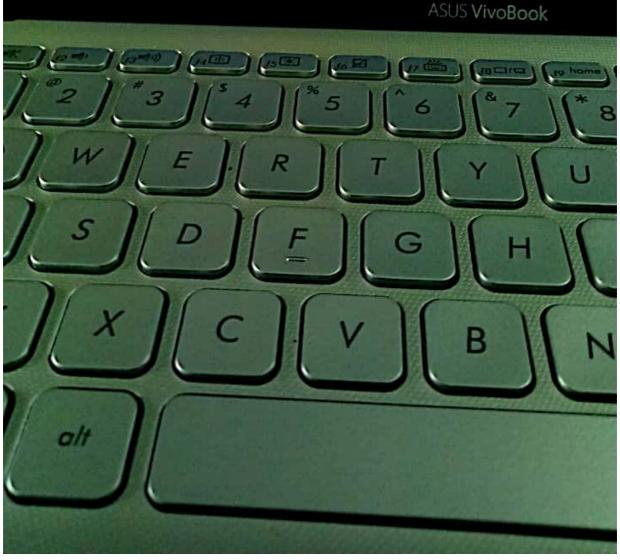
```
E 08
        P. O 6
  Q 18 What will be the output of given pseudocode for b = 18?
                Integer calculate(Integer b)
           2. If(b EQUALS 1)
           3.
                     return 0
           4. else
              return 5 + calculate(b / 2)
           6. End function calculate()
 Ops: A.
        O 21
      B.
         O 56
     C. O 34
     D. O 20
Q 19 What will be the output of the following pseudocode?

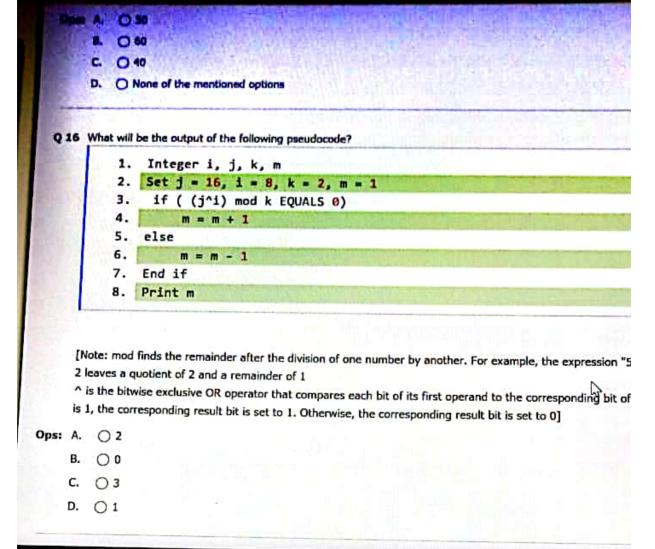
    Integer x, y, z

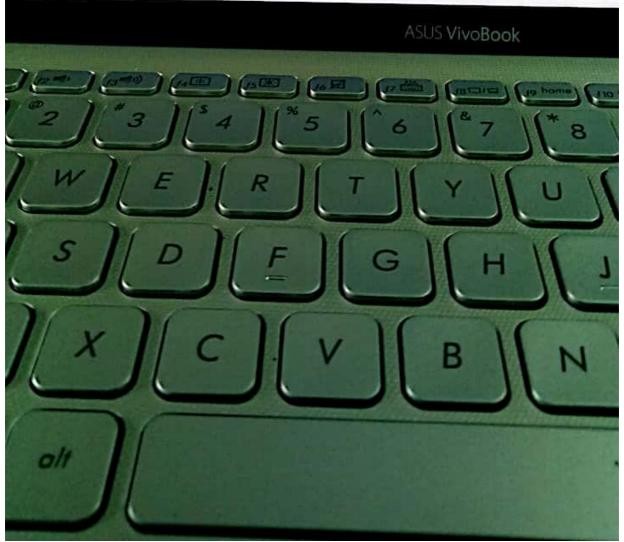
         2. Set x = 0, y = 1
         3. for(each z from 0 to 2)
         4.
                  x = x + y + z
         5. end for
         6. Print x
                                                     ASUS VivoBook
```



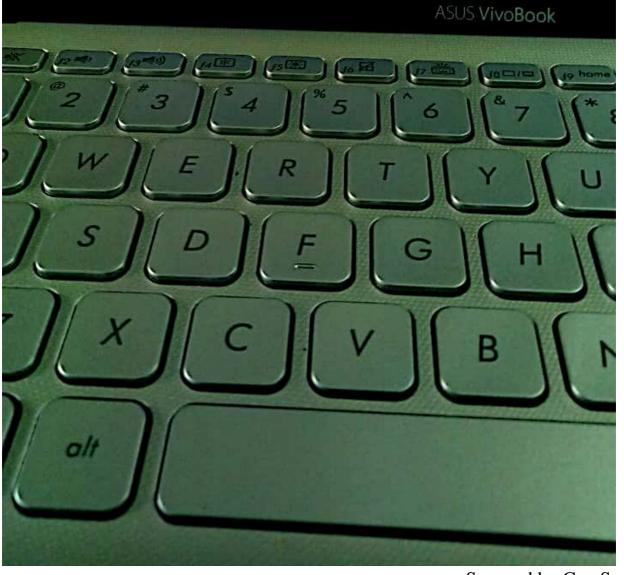




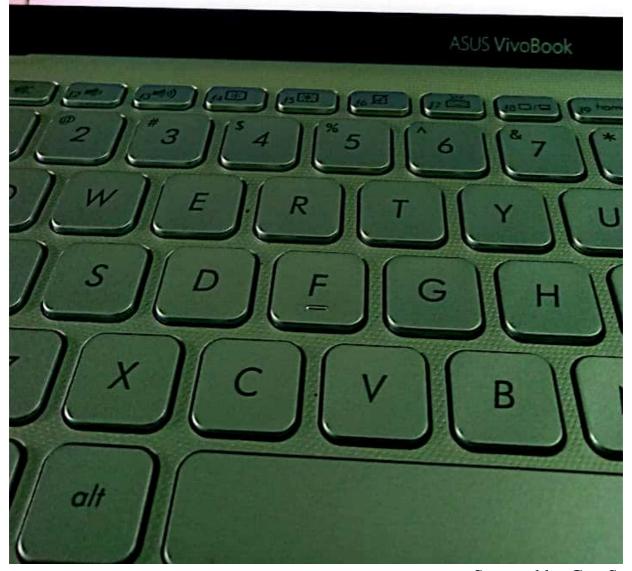




Q 15 What will be the output of the following pseudocode for a=50? Integer fun(Integer a) Integer b Set b = 10 3. return a - b 4. End function fun() O 50 Ops: A. B. 0 60 C. O 40 D. O None of the mentioned options Q 16 What will be the output of the following pseudocode? Integer i, j, k, m 2. Set j = 16, i = 8, k = 2, m = 1if ((j^i) mod k EQUALS 0) m = m + 15. else m = m - 17. End if Print m



Q 14 What will be the output of the following pseudocode? 1. Integer p, q, r, s, t 2. Set q = 12, r = 3 while(q > (r - 1)) r = r * 2 s = r + q t = (s MOD 4) + r 7. end while 8. if(s > t) Print t 9. 10. else 11. Print s 12. end if [Note: MOD finds the remainder after the division of one number by another. For example, the ex 2 leaves a quotient of 2 and a remainder of 1] Ops: A. | 22



- M. O It will change the values of first and second as 12 and -8 respectively
- C. O It will change the values of first and second as -8 and 12 respectively
- D. O It will print the same values for first and second

Q 13 What will be the output of the following pseudocode?

- 1. Integer a, b
- 2. Set a = 1, b = 1
- 3. a = (a ^ 1) & (1) + (b ^ 1) & (1)
- 4. Print a + b

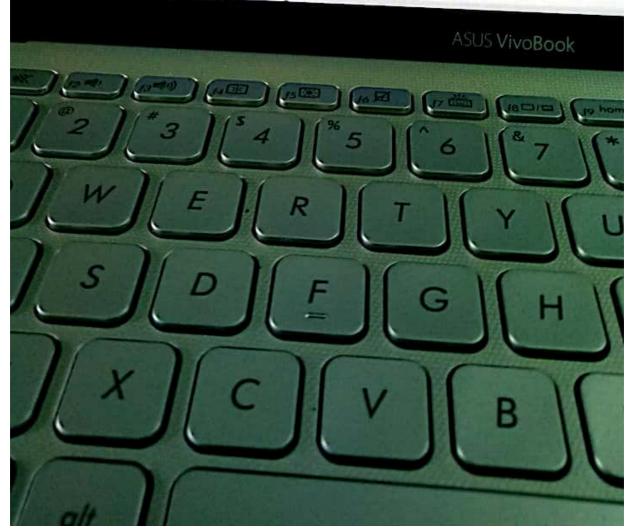
[Note- &: bitwise AND - The bitwise AND operator (&) compares each bit of the first operand to the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0

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

- Ops: A. O 1
 - B. O None of the mentioned options
 - C. O 2
 - D. O 0

Q 14 What will be the output of the following pseudocode?

Integer p, q, r, s, t



```
Print a +
           O 15
        B. O 13
            01
        D. O 12
  Q 12 Which of the following options is correct for the given pseudocode?
             1. Integer first, second
            2. Set first = 12, second = 20
                 first = first + second
            4. second = first - second
                 first = first - second
            6. second = second * 2
            7. print first, second
Ops: A. O It will swap the values of first and second and double the second value

 B. O It will change the values of first and second as 12 and -8 respectively

      C. O It will change the values of first and second as -8 and 12 respectively
      D. O It will print the same values for first and second
Q 13 What will be the output of the following pseudocode?
           1. Integer a, b
           2. Set a = 1, b = 1
               a = (a^{1}) & (1) + (b^{1}) & (1)
```



Algorithms

Q 11 What will be the output of the following pseudocode?

- 1. Integer a, b, c
- 2. Set b = 300, a = 5, c = 1
- if (b > a)
- 4. b = a
- 5. else
- 6. a = b
- 7. End if
- 8. for(each b from 0 to 5)
- 9. a = a + 1
- 10. End for
- 11. Print a + c

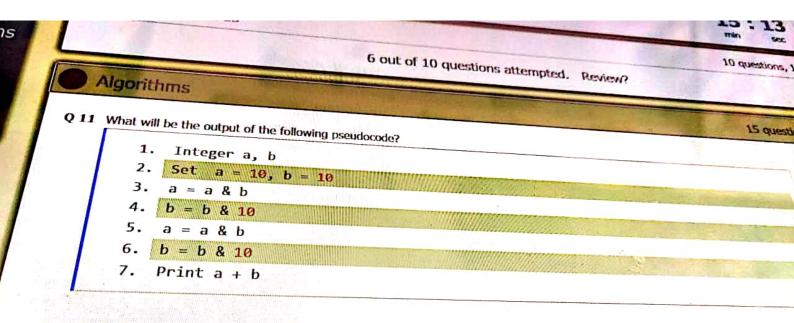
Ops: A. () 15

- B. O 13
- C. O1
- D. O 12

Q 12 Which of the following options is correct for the given pseudocode?



	Ops: A. O front		
	O work 41 = rear		
	B. O front = rear +1	ear and sixe have their us	viinsevm lea
	- Size - 1		
	D. O front == rear	48	
Q	What do you mean by overflow condition in the stack?		
O _I	ps: A. O It is when the		
	It is when the stack is completely filled and		
	B. O It is when the stack is completely filled and you try to pop an element from the	ctack	
	 B. O It is when the stack is empty and you try to push an element from the C. O It is when the stack is completely on 	SIGER	
	C. Off is when the stack is completely filled and would be stack.		
Y	 C. O It is when the stack is completely filled and you try to push an element to the D. O It is when the stack is empty and you try to push an element to the 	stack.	
	Control the stack is empty and you by to		
- 100	you dy to pop an element from the street		
***************************************	D. O It is when the stack is empty and you try to pop an element from the stack.		
	Consider an array A={1,2,3} and an array B={-1,-2,-3}. An array C has been madelements). Calculate the sum of the first and third element present in array C.		эпаэ до
	Consider an array A={1,2,3} and an array B={-1,-2,-3}. An array C has been made elements). Calculate the sum of the first and third element present in array C.		этаэ 10
Ops: A. B.	Consider an array A={1,2,3} and an array B={-1,-2,-3}. An array C has been made elements). Calculate the sum of the first and third element present in array C.		of corre
Ops: A.	Consider an array A={1,2,3} and an array B={-1,-2,-3}. An array C has been made elements). Calculate the sum of the first and third element present in array C.		об съпе
Ops: A. B.	Consider an array A={1,2,3} and an array B={-1,-2,-3}. An array C has been made elements). Calculate the sum of the first and third element present in array C.		епаэ во
Ops: A. B.	Consider an array A={1,2,3} and an array B={-1,-2,-3}. An array C has been made elements). Calculate the sum of the first and third element present in array C.		етаэ То



[Note- &: bitwise AND - The bitwise AND operator (&) compares each bit of the first operand to the corresponding bit of the the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0]

ps: A. O None of the mentioned options

B. 0

Q 11 What will be the output of the following pseudocode?

1. Integer a, b
2. Set a = 10, b = 10
3. a = a & b
4. b = b & 10
5. a = a & b
6. b = b & 10
7. Print a + b

[Note- &: bitwise AND - The bitwise AND operator (&) compares each bit of the first operand to the corresponding bit of the the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0]

Ops: A. O None of the mentioned options

B. O 0

C. 0 20

D. 05

2. What will be the output of given reseudocode for b = 18?

D. O 21 **Q 13** What will be the output of the following pseudocode for k = 50? fun(integer k) 🖟 1. 2. . if(k > 55) 3. return 4. end if 5. print k 6. fun(k+4)7. print k End function fun() 8. Ops: A. O 50 50 50 50 O 50 54 54 50 B.

D. O 21 **Q 13** What will be the output of the following pseudocode for k = 50? fun(integer k) ऄ 1. 2. if(k > 55)З. return end if 4. print k 5. fun(k+4) 6. print k 7. End function fun() 8. O 50 50 50 50 Ops: A. 50 54 54 50 В.

```
Q 12 What will be the output of given pseudocode for b = 18?
                Integer calculate(Integer b)
            1.
            2.
                If(b EQUALS 1)
           3.
                      return 0
           4.
                else
                return 5 + calculate(b / 2)
           5.
                End function calculate()
           6.
Ops: A.  ○ 56
     В.
          () 34
           ) 20
```

```
What will be the output of the following pseudocode?
        Integer p, q, r, s, t
    2. Set q = 12, r = 3
        while(q > (r - 1))
    4.
              r = r * 2
   5.
              5 = r + q
              t = (s MOD 4) + r
      end while
  8. if(s > t)
  9.
             Print t
 10. else
               Q.
 11.
             Print s
12. end if
```

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

Ops: A. ○ 24

B. ○ 20

C. ○ 26

```
Q 15 What will be the output of the following pseudocode?
                     Integer i, j
              1.
              2.
                           Set i = 0, j = 9
              3.
                             do
              4.
                                  i = i + 1;
              5.
                                  if ((j=j-1) < (i=i+1))
             6.
                                       JUMP OUT OF LOOP
             7.
                                  end if
             8.
                                  Wyile (i < 5);
             9.
                             Print i, j
Ops: A.
           \bigcirc 6, 6
           \bigcirc 5, 5
      В,
      C.
          \bigcirc 5, 6
          04,4
     D.
```

```
Q 16 What will be the output of the following pseudocode?
                 Integer a, b, c
               if (b > a)
b = a
            7.
                End if
               for(each b from 0 to 5)
           9.
          10.
          11.
Ops: A.
          \bigcirc 13
     В.
         O 12
         \bigcirc 1
     C.
     D.
         O 15
```

```
Q 18 What will be the output of the following pseudocode?
             Integer array1[6], p, j, q
            Set p = 3
             Set array1[6] = {3, 6, 10, 12, 23, 33}
        4. for(each j from 0 to 5)
        5.
                   if((array1[j] MOD p) EQUALS 0)
        6.
                  p = array1[j] - (p*3)
        7.
                   end if
        8.
            q = p + array1[j] - 3
            end for
        9.
      10.
           Print q
                   B
```

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

C. 0 44

D. 064

ı	1. 2.	Threeger 1 5 1
-	3,	j = 16, j = 91
	4.	if ((j^i) mod k EQUALS 0) m = m + 1
	5.	else
	6.	$\mathbf{m} = \mathbf{m} - 1$
	7.	m = m - 1 End if
	8.	Print (1)
	1, 1	Control of the contro

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

^ 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]

Q 25 What will be the output of the following pseudocode? Integer x 1. Set x = 15 2. while(x EQUALS 15) print "student" 5. jump out of the loop end while 6. Ops: A. O It will print 'student' 16 times It will print 'student' unlimited number of times B. O It will print 'student' only one time C. ○ It will print 'student' 15 times D.

Submit and Logout

```
D. O 118
  Q 24 What will be the output of the following pseudocode?
                 Integer a[5], k
             2. Set a[5] = {1, 2, 3, 4, 5}
                 for(each k from 0 to 4)
                        if(k mod 2 equals 0)
                             print a[k]*2
            6.2
                       else
            7.
                             print a[k]
            8.
                       end if
            9.
                 end for
      [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 to
      2 leaves a quotient of 2 and a remainder of 1]
Ops: A. 014385
     B. O None of the mentioned options
     C. 0126410
     D. 0226410
```