1. **What will be the output of the following pseudocode?**

   Integer a, b, c
   Set a = 4, b = 4, c = 5
   if((c + a + b) < (8 - c))
       c = (a + a) + b
       a = a + C
       a = b + b
   End if
   Print a + b + c

   - ◉ 13
   - ○ 14
   - ○ 022
   - ○ 06

2. **What will be the output of the following pseudocode?**

   1. Integer a, b, c
   2. Set a = 3, b = 5, c = 6
   3. if((c&a)<a || (b^c)<c)
   4.   c = (a+b)&b
   5. End if
   6. Print a+b+c

   [Note- &: 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 bits 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.]

   - ○ 14
   - ◉ 8
   - ○ -10
   - ○ 18

3. **What will be the output of the following pseudocode?**

   1. Integer pp, qq, rr
   2. Set pp = 7, qq = 9, rr = 13
   3. pp = (qq + 11) + qq
   4. qq = rr
   5. if((qq - pp) < (pp - qq) OR pp > rr)
   6.   rr = rr
   7. End if
   8. Print pp + qq + rr

   - ◉ 55
   - ○ 54

○ 61

○ 57

4. **What will be the output of the following pseudocode?**

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

   [Note: ^ is the bitwise exclusive OR operator that compares each bit of its first operand to the corresponding bits 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.]

   ○ 11

   ○ 17

   ⦿ 8

   ○ 5

5. **What will be the output of the following pseudocode?**

   1. Integer a, b
   2. Set a = 3, b = 3
   3. a = a + a
   4. b = b + b
   5. if(0 > 1)
   6.   a = 0
   7. Else
   8.   b = -11
   9. End if
   10. Print 11 + a + b + 12

   ○ 6

   ○ 29

   ○ 19

   ⦿ 18

6. **What will be the output of the following pseudocode?**

   1. Integer a, b, c
   2. Set a = 4, b = 9, c = 9
   3. if(b & (c >> 1))
   4.   a = a + 1
   5. End if
   6. Print a + b + c

   [Note: >> - Bitwise right shift operator, it takes two numbers, right shifts the bits of the first operand, and the second operand decides the number of places to shift.

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

- ○ 5
- ○ 41
- ⦿ 22
- ○ 25

7. What will be the output of the following pseudocode?
    1. Integer a, b, c
    2. Set a = 5, b = 5, c = 9
    3. if(b & (c >> 1) || b & (c << 1))
    4.   a = a + 1
    5. End if
    6. Print a + b + c

[Note: >> - Bitwise right shift operator, it takes two numbers, right shifts the bits of the first operand, the second operand decides the number of places to shift.
<< is left shift operator, it takes two numbers, left shifts the bits of the first operand, the second operand decides the number of places to shift.
&: 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.
||: Logical OR - The logical OR operator (||) returns the Boolean value TRUE (or 1) if either or both operands are true and return FALSE (or 0) otherwise.
If(x) gets executed if the value inside if(), i.e., x is not zero.]

- ○ 25
- ○ 39
- ⦿ 20
- ○ 17

8. What will be the output of the following pseudocode for a = 9, b = 2?
    1. Integer funn(Integer a, Integer b)
    2.   if(a > b)
    3.   if(a < 2)
    4.   if(a < 3)
    5.   if(a < 4)
    6.   return b
    7.   End if
    8.   return b - 1
    9.   End if
    10.   return 2
    11.   End if
    12.   return 4
    13.   End if

14.   return 1
15. End function funn()

   ○ 1

   ○ 8

   ○ 6

   ● 4

9.   **What would be the output of the following pseudocode?**
   Integer i, j, k
   Set k = 8
   for(each i from 1 to 1)
      for(each j from the value of i to 1)
         print k+1
      end for
   end for

   ○ 2

   ● 9

   ○ 7

   ○ 8

10. **What will be the output of the following pseudocode?**
   Integer a, b, c, d
   set d = 6
   for(each a from 1 to 2)
      for(each b from a to 2)
         for(each c from b to 2)
            print d
         end for
      end for
   end for

   ○ 6 6 6 6 6 6

   ○ 6 6

   ○ 6 6 6

   ● 6 6 6 6

11. **What will be the output of the following pseudocode?**
   Integer a
   String str1
   Set str1 = "momo"
   for (each a from 1 to 2)
      str1 = str1 + "mm"
   End for
   Print (stringLength(str1))
   [Note: stringLength(): stringLength() functions counts the number of characters)

○ 7

○ 4

○ 6

◉ 8

12. **What will be the output of the following pseudocode?**
Integer a
Set a = 10
while(a NOT EQUALS a/2)
    print "engineering"
    a = a - 1
    if(a EQUALS 3)
        Print "engineering"
    end if
    jump out of the loop
    Print "engineering"
end while
if(a EQUALS 2)
    print "23"
else
    print "engineering"
end if

○ It will print engineering 3 times

◉ It will print engineering 2 times

○ It will print engineering 4 times

○ It will print 23

13. **Which of the following series will be printed by the given pseudocode?**
Integer i, j, k, n
Set j = 1, k = 1
for(each i from 1 to 5)
    print k
    j=j+1
    k=k+j
end for

○ 2 4 6 8 10

◉ 1 3 6 10 15

○ 1 2 3 4 5

○ 1 1 2 3 5

14. **What is the output of the following pseudocode?**
Integer a, b, c
Set b = 2, a = 1
for(each c from 1 to 2)

```
    a = a*c
    b = b*c
End for
if ((1 & 4) || (1 ^ 1) || (2 ^ 3))
    b = a - 1
    a = a - 1
Else
    a = a ^ 1
    b = b ^ 1
End if
print a + b + c
```

- ◯ 1
- ◯ 6
- ◉ 5
- ◯ 7

15. **What will be the output of the following pseudocode?**

```
Integer a, b, c
Set b = 10, a = 1
for(each c form 1 to 2)
    a = (a+c) * c
    b = b - c
End for
if (0)
    b = a - 1
    a = a - 1
    a = b + 1
Else
    a = b + 1
    b = a - 1
    a = a - 1
End if
Print a + b + c
```

- ◯ 20
- ◯ 25
- ◯ 10
- ◉ 17

16. **How many times the following pseudocode will print "btech"?**

```
Integer a, b
for(each a from 0 to 3)
    for(each b from 0 to a)
        print "btech"
    end for
end for
```

○ 8 times

○ 9 times

◉ 10 times

○ 11 times

17. What will be the output of the following pseudocode for a = 2, b = 8?

    1. Integer funn(Integer a, Integer b)
    2.   if(a)
    3.   return a +funn(a - 1, b + 1)
    4.   Else
    5.   return a + b
    6.   End if
    7. End function funn()

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

    ◉ 13

    ○ 10

    ○ 23

    ○ 19

18. What will be the output of the following pseudocode for a = 3, b = 0?

    1. Integer funn(Integer a, Integer b)
    2. if(b)
    3.   return 1
    4. Else
    5.   return funn(a+2, b+1)
    6. End if
    7. return 29
    8. End funn()

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

    ○ 14

    ○ 18

    ○ 4

    ◉ 1