1. **What will be the output of the following pseudo-code?**

```
String str1, str2
Set str1 = "."
Set str2 = "Hello"
If str1 ! = str2
    str2  =str2 + "world" +str1
End if
str2 = str2 + str1 + " Goodbye"
print (str2)
```

- ○ HelloWorld
- ○ .Goodbye
- ◉ HelloWorld..Goodbye
- ○ HelloWorldGoodbye..

2. **What will be the output of the following pseudo code?**

```
Integer p, q, r
Set p=6, q=8, r=9
p = (r + r) & q
if ( ( 4 ^ 9) < p )
     p = 9 & p
     r = ( 4 + 7) + q
End if
P = ( 8 & 4) +p
Print p+ q+ r
```

- ○ 12
- ○ 18
- ○ 29
- ◉ 17

3. **What will be the output of the following pseudo-code?**

```
Integer p, q, r
Set p=2, q=4, r=10
If ( 7 < r || (q+ p) < (p +q) )
       r = r ^ p
End if
P = 5+r
if ( ( q + r) < ( r +q ) )
     r = 4 + q
End if
q = 11 + p
Print p+ q+ r
```

- ◉ 45
- ○ 51

- ○ 48
- ○ 46

4. What will be the output of the following pseudo code?

```
Integer j
Integer arr = {3, 1, 0, 4}
If ( ( 3^4 ) < arr[3])
    arr[3] = ( arr ([3]+2) + arr[3] )
End if
arr[3] = ( arr[0] + 4) + arr[1]
Print arr[1]+arr[2]
```

- ○ 10
- ○ 2
- ○ -4
- ◉ 1

5.
```
Integer pp, qq, rr
Set pp=4, qq=7, rr=7
qq=(1&10)+rr
if((qq&rr)<rr)
        rr=(qq+rr)^qq
        qq=12+qq
End if
Print pp+qq+rr
```

- ○ 9
- ◉ 18
- ○ 25
- ○ 33

6.
```
Integer p,q,r
Set p=2, q=5, r=10
p=r+q
if((7-8)>(q+7))
        q=(r+11)+r
End if
if((p+q+r)<(q+r+p)
        p=7+q
Else
        r=(p+4)+p
End if
q=5+r
print p+q+r
```

- ○ 101
- ○ 84

- ○ 91
- ◉ 88

7. What will be the output of the following pseudo code?

```
Integer p, q, r
Set p=1, q=5, r=7
p=(r+p)^p
if((p+r)>(r-p))
        r=10^p
Else
        If((r&p%q)<(p+q-r))
                r=9^q
        Else
                q=(p+10)+q
        End if
End if
Print p+q+r
```

- ◉ 17
- ○ 12
- ○ 25
- ○ 21

8.

```
Integer a, b, c
Set a=1, b=5, c=7
If((c+a+b)>(b+c))
        If((c+5+b)>(3+c))
                a=(4+8)+b
        Else:
                b=8+a
        End if
Else
        a=5+b
        if((a-b+c)>(c+a))
                a=(a+7)+b
        End if
End if
Print a+b+c
```

- ○ 36
- ○ 41
- ○ 16
- ◉ 29

9. What will be the output of the following pseudocode for given array a[5]=3,4,6,1,2 and pos is 2?
[note: n=size of the array i.e. 5 and starting array index is 0]

```
Declare i,j,n,pos
```

repeat for j=pos to n-1
set a[j] = a[j+1] [end of loop]
n=n-1;
display the new array
end

- ○ 3 2 4 6 1 2
- ◉ 3 4 1 2
- ○ 3 4 2 1 2
- ○ 3 6 1 2

10. What will be the output of the following pseudocode?

```
input : 5
algorithm (integer num)
set integer i = 2
while i <= num/2
   if num mod i = 0
      print "unsuccessful" and exit;
   i = i+1
if (i == (num/2)+1)
   print "successful"
```

- ○ It will not print anything
- ◉ Successful
- ○ Unsuccessful
- ○ Undefined behavior of the algorithm

11. What will be the output of the following algorithm?

```
start
declare a, i and b
for i = 0 to 4
increment a by 1
if i=3 then
print hello
get out of the loop
end if
end for
print a
```

- ○ 1
- ○ 4
- ○ hello
- ◉ hello4

12. Predict the output.

```
a = 1
b = 2
```

```
c = 3
d = 4
e = 5
f = 6
n = 1
repeat until(n <= 5) {
   a = a + n
   b = b + n
   c = c + n
   d = d + n
   e = e + n
   f = f + n
   print(f)
   n = n + 1
}
```

- ○ 9 11 14 18 23
- ◉ 7 9 12 16 21
- ○ 10 12 15 19 24
- ○ 8 10 13 17 22

13. What is the output of this code?

```
a = 5
b = 10
n = 1
Repeat until(n < 5):
   c = a + b
   a = b
   b = c
   print(c)
   n = n + 1
```

- ○ 15 30 45 60
- ◉ 15 25 40 65
- ○ 15 20 25 30
- ○ 15 30 60 120

14. What is the output of the following code?

```
n = 1
x = 10
y = 10
z = 10
sum = 0
i = 0
Repeat till(i <= n) {
   sum = (x + y + z) * (x - y - z)
   i = i + 1
```

```
}
print(sum)
```

- ○ 29
- ◉ -300
- ○ 30
- ○ 31

15. What is the output for the following code?

```
num = 1
Repeat till(num <= 15) {
   num = num + 1
}
Print(num)
```

- ○ 1
- ○ 14
- ○ 15
- ◉ 16

16. What is the output of this code?

```
a = 1
b = 2
c = 3
d = 4
n = 1
Repeat until(n <= 5):
   c = a * c
   d = a * d
   print(c)
   n = n + 1
```

- ○ 1 1 1 1
- ○ 2 2 2 2
- ◉ 3 3 3 3
- ○ 4 4 4 4

17. What will be the output of the following pseudocode for a = 8, b = 4, c = 4?

```
1. Integer funn(Integer a, Integer b, Integer c)
2.          for(each c from 3 to 5)
3.                    b=b^a
4.                    if((b-a+c)<(c-b))
5.                              Continue
6.                    Else
7.                              a=b+c
8.                    End if
9.          End for
```

10. return a+b
11. End function funn()

[Note- Continue: When a continue statement is encountered inside a loop, control jumps to the beginning of the loop for next iteration, skipping the execution of statements inside the body of the loop for the current iteration.
^ 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.]

- ○ 24
- ◉ 29
- ○ 31
- ○ 48

18. What will be the output of the following pseudocode for a = 1, b = 3, c = 10?

```
1. Integer funn(Integer a, Integer b, Integer c)
2.         c=(12+1)^c
3.         a=(c+b)^c
4.         c=7+c
5.         if((b+a)<(a-b) || b<c)
6.                 c=b+c
7.                 a=(6&1)+c
8.         End if
9.         return a+b+c
10. End function funn()
```

[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.
||: 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.]

- ○ 43
- ○ 35
- ○ 45
- ◉ 37