1. **What is the output of the following code if the value of give and receive is 500 and 900, respectively?**

```
Input give, receive
lost = receive - give
perc = (lost / receive) * 100
Print(perc)
```

- ○ 55.55
- ◉ 44.44
- ○ 55.4
- ○ 64.7

2. **What is the output of the following code?**

```
z = 3 + 4 - 20 * 4 * 4 + 7
print(z)
```

- ○ -310
- ◉ -306
- ○ 306
- ○ 310

3. **What is the output for the following code, if the value of a is 4, n is 12, and r is 2?**

```
Input a, n, r
sum = 0
sum = (a * (1 - power(r, n + 1))) / (1 - r)
Print(sum)
```

- ○ 8
- ○ 16382
- ○ 64
- ◉ 32764

4. **What is the output for the following code, if the value of a is 20 and b is 35?**

```
Integer a, b
Input a, b
a = b
b = a
Print(a,b)
```

- ○ 20 35
- ◉ 35 35
- ○ 20 20
- ○ 35 20

5.

What will be the output of the following pseudocode?

```
integer a =50, b =25, c =5
print a * b / c + c
```

- (●) 255
- ( ) 125
- ( ) 120
- ( ) 256

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

```
int j = 41, k = 37
j = j + 1
k = k - 1
j = j / k
k = k / j
print k, j
```

- ( ) 42 36
- (●) 36 1
- ( ) 1 1
- ( ) 1 36

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

```
input m=9,n=6
m=m+1
n=n-1
m=m+n
if(m>n)
   print m
else
   print n
```

- ( ) 10
- ( ) 6
- ( ) 5
- (●) 15

8. What will be the output of the following pseudocode for a=12 and b=-26?

```
start
take 2 variables a and b
check if a is less than 0 set a = -a
check if b is less than 0 set b = -b
repeat while a is not equal to b
if a > b set a = a-b
else set b = b - a
print a
Stop
```

- [x] 2
- [ ] 4
- [ ] 12
- [ ] 6

9. What will be the value of val if the input is 1, 2, 3, 9, 4 corresponding to n1 to n5?

```
If(n1 < n2)
Set val to n2
Else
Set val to n1
If(n3 > val)
Set val to n3
If(n4 > val)
Set val to n4
If(n5 > val)
Set val to n5
```

- [x] 9
- [ ] 3
- [ ] 2
- [ ] 1

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

```
int a=9, b=7, c=8, d=4, e
e = a + b + c + d / 4
if (e > 5)
   print "PASS"
else
   print "FAIL"
```

- [ ] FAIL
- [ ] 0
- [ ] 1
- [x] PASS

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

```
Integer a, b
Set a = 3, b = 5
if (a & (b + 1))
a = a + a
End if
Print a + b
```

[Note: If(x) gets executed if the value inside if(), i.e., x is not zero
&: 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 corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0]

- (●) 11
- ( ) 30
- ( ) 8
- ( ) 7

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

```
Integer a, b
Set a = 10
Set b = a + a
if (b > a && 0)
   b = b - a
   b = b mod a
End if
if (b > a || 0)
   b = b + a
   b = b + a
End if
Print b
```

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

- ( ) 50
- ( ) 10
- (●) 40
- ( ) 20

13. 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

14.

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

15. 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

16. 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

17. 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

18. 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