

1. What will be the output of the following program?

Set

Character array c = {'A', 'B', 'C', 'D'}

Set

Character result = c[1]+31

display result

- ☐ c
- ☐ 97
- ☒ a
- ☐ b

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

1. String str1 = "Mn", str2 = "nNm"

2. Print isPalin(lower(str1+str2))

[Note: isPalin(string) returns 1 if the string is a palindrome, otherwise returns 0, e.g., isPalin("yyy") returns 1.

lower(string) converts all the letters of the strings to lower case, e.g., lower("OKaY") returns "okay".]

- ☐ -1
- ☐ 6
- ☐ 11
- ☒ 1

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

1. Integer p, q, r

2. Set p = 0, q = 8, r = 5

3. q = (q+6)&r

4. r = (q+p)+p

5. p = (9+8)^r

6. Print p+q+r

[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.]

- ☒ 29
- ☐ 30
- ☐ 36
- ☐ 25

4.

What will be the output of the following pseudocode?

Integer a=5, b=4, c=3

a = b + c

c = a - b

c = c + a

b = b + c

Print a, b, c

☒ 31

☐ 25

☐ 35

☐ 42

5. What will be the output of the following pseudocode for a = 1, b = 1?

Integer funn (Integer a, Integer b)

a = b - ((a+b+a) - (a-b-a))

b = a - ((a+b+a)-(a-b-a))

return 100 + a + b

End function funn()

☐ 109

☒ 99

☐ 105

☐ 110

6. 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

7. 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

☒ 9

☐ 3

☐ 2

☐ 1

8. 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

☒ PASS

9. 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

10. Consider the following pseudocode:

What would be the output of this program if the input is 9?

START

Integer NumHours, Regular, Overtime, PayAmount, RegPay, OverPay

GET NumHours

SET Regular = 8

```
SET RegPay = 10
SET OverPay = 5
SET Overtime = NumHours - Regular
IF(Overtime>0)
    THEN
SET PayAmount = (Regular * RegPay) + (Overtime * OverPay)
    ELSE
SET PayAmount = NumHours * RegPay
END IF
Print 'The amount to be paid is: ', PayAmount
END
```

- ☐ The amount to be paid is: 90
- ☐ The amount to be paid is: 95
- ☐ The amount to be paid is: 80
- ☒ The amount to be paid is: 85

11. 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

12. 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

13. 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

14. What is the output for the following code?

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

- ☐ 1
- ☐ 14
- ☐ 15
- ☒ 16

15. What will be the output of this code?

```
i = 1
repeat until i+7<=8 {
    i = i + 1
}
print(i+6)
```

☒ 8

☐ 1 1 1 1 1 1 1

☐ 9

☐ 1

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?

input n = 1234

integer q, r and rn

set q = n and rn = 0

while(q>0)

 r = q mod 10

 rn = rn + r ^ 3

 q = q/10

end while loop

print rn

☒ 100

☐ 36

☐ 321

☐ 10

18. What will be the output of the following code, for a = 8 & b = 9?

Function(input a, input b)

 If(a < b)

 return function(b, a)

 elseif(b != 0)

 return (a + function(a,b-1))

 else

 return 0

☐ 75

☐ 68

☐ 70

☒ 72