

# Infosys Pseudocode Practice Questions

## 30 Multiple Choice Questions with Solutions

### Questions

1. Consider the following recursive function used in an Infosys assessment. What will be the output for input values  $x = 4$  and  $y = 3$ ?

```
calculateSum(Integer x, Integer y)
    if(y EQUALS 0)
        return 0
    if(y mod 2 EQUALS 0)
        return calculateSum(x + x, y/2)
    return calculateSum(x + x, y/2) + x
End function
```

- a. 16
- b. 12
- c. 8
- d. 20

2. In an Infosys coding round, the following function was given. What would be its output for parameters  $a = 3$  and  $b = 4$ ?

```
recursiveCompute(Integer a, Integer b)
    if(b EQUALS 1)
        return a
    else
        return a + recursiveCompute(a, b-1)
End function
```

- a. 12
- b. 9
- c. 15

d. 6

3. A candidate was asked to analyze this code snippet in an Infosys interview. What will be the output if  $x = 5$  and  $y = 3$ ?

```
processValues(Integer x, Integer y)
    Integer result = 0
    while(x > 0)
        if(y mod 2 EQUALS 1)
            result = result + x
        x = x - 1
        y = y + 1
    End while
    return result
End function
```

- a. 9
- b. 13
- c. 10
- d. 12

4. During an Infosys online assessment, the following code was presented. What will be printed if initial value of  $n = 16$ ?

```
Integer findPattern(Integer n)
    if(n <= 1)
        return 1
    if(n mod 2 EQUALS 0)
        return findPattern(n/2)
    else
        return findPattern(3*n + 1)
End function
```

- a. 4
- b. 1
- c. 2
- d. 8

5. In an Infosys technical round, candidates were given this code. What's the output for  $a = 7$ ?

```

Integer mysterySequence(Integer a)
    Integer count = 0
    while(a NOT EQUALS 1)
        if(a mod 2 EQUALS 0)
            a = a/2
        else
            a = 3*a + 1
        count = count + 1
    End while
    return count
End function

```

- a. 16
- b. 17
- c. 15
- d. 14

6. The following bit manipulation code appeared in an Infosys test. What's the output for n = 42?

```

Integer countBits(Integer n)
    Integer count = 0
    while(n > 0)
        count = count + (n mod 2)
        n = n/2
    End while
    return count
End function

```

- a. 3
- b. 4
- c. 5
- d. 6

7. An Infosys interviewer asked about this pattern-generating code. What's printed for n = 4?

```

void printPattern(Integer n)
    for i = 1 to n
        for j = 1 to i
            print "*"
        End for
        print newline
    End for
End function

```

- a. 4 stars in a line
- b. 4 stars in a column
- c. 10 stars in a triangle
- d. 6 stars in a triangle

8. This array manipulation code was part of an Infosys assessment. What's the result for arr = [1,2,3,4,5]?

```
Integer arrayOperation(Array arr)
    Integer sum = 0
    for i = 0 to length(arr)-1
        if(i mod 2 EQUALS 0)
            sum = sum + arr[i]
    End for
    return sum
End function
```

- a. 15
- b. 6
- c. 9
- d. 12

9. During an Infosys coding test, this function was given. What's returned for str = "INFOSYS"?

```
Integer analyzeString(String str)
    Integer vowels = 0
    for each char in str
        if char in ['A','E','I','O','U']
            vowels = vowels + 1
    End for
    return vowels
End function
```

- a. 2
- b. 3
- c. 1
- d. 4

10. Candidates faced this logical operation code in an Infosys exam. What's the output for a = 15, b = 12?

```
Integer computeLogic(Integer a, Integer b)
    return (a AND b) + (a OR b)
End function
```

- a. 27

- b. 23
- c. 25
- d. 24

11. What will be the output of this Infosys assessment code for  $x = 8$ ?

```
Integer computeSequence(Integer x)
    if(x <= 1)
        return x
    return computeSequence(x-1) + computeSequence(x-2)
End function
```

- a. 21
- b. 34
- c. 13
- d. 55

12. This pattern matching code appeared in an Infosys test. What's the output for  $n = 3$ ?

```
Integer createPattern(Integer n)
    Integer result = 0
    for i = 1 to n
        for j = 1 to i
            result = result + i
        End for
    End for
    return result
End function
```

- a. 10
- b. 9
- c. 14
- d. 12

13. An Infosys interviewer presented this recursive code. What's the output for  $n = 5$ ?

```
Integer specialSum(Integer n)
    if(n <= 0)
        return 0
    return n + specialSum(n-2)
End function
```

- a. 9
- b. 15

- c. 6
- d. 12

14. This bit manipulation question appeared in an Infosys test. What's returned for  $x = 36$ ?

```
Integer findRightmostBit(Integer x)
    Integer position = 1
    while(x > 0)
        if(x mod 2 EQUALS 1)
            return position
        position = position + 1
        x = x/2
    End while
    return 0
End function
```

- a. 3
- b. 2
- c. 4
- d. 5

15. During an Infosys coding round, this array processing code was given. What's the output for  $\text{arr} = [2,4,6,8,10]$ ?

```
Integer processArray(Array arr)
    Integer result = 0
    for i = 0 to length(arr)-1
        if(arr[i] mod 4 EQUALS 0)
            result = result + 1
    End for
    return result
End function
```

- a. 2
- b. 3
- c. 1
- d. 4

16. What will be the output of this string manipulation code from an Infosys assessment for  $\text{str} = \text{"PROGRAM"}$ ?

```

Integer analyzePattern(String str)
    Integer count = 0
    for i = 0 to length(str)-1
        if str[i] EQUALS str[length(str)-1-i]
            count = count + 1
    End for
    return count
End function

```

- a. 1
- b. 2
- c. 3
- d. 4

17. This mathematical sequence appeared in an Infosys test. What's the output for n = 6?

```

Integer generateSequence(Integer n)
    if(n <= 2)
        return 1
    return generateSequence(n-1) + generateSequence(n-3)
End function

```

- a. 5
- b. 4
- c. 6
- d. 7

18. An Infosys interviewer asked about this array transformation code. What's returned for arr = [1,3,5,7,9]?

```

Integer transformArray(Array arr)
    Integer sum = 0
    for i = 1 to length(arr)-2
        sum = sum + arr[i]
    End for
    return sum
End function

```

- a. 15
- b. 25
- c. 8
- d. 12

19. What will be the output of this logical operation code from an Infosys test for a = 6, b = 9?

```
Integer logicalCompute(Integer a, Integer b)
    return (a XOR b) + (NOT(a AND b))
End function
```

- a. 15
- b. 13
- c. 14
- d. 16

20. During an Infosys assessment, this pattern recognition code was given. What's the output for n = 4?

```
Integer recognizePattern(Integer n)
    Integer result = 0
    for i = 1 to n
        if(n mod i EQUALS 0)
            result = result + i
    End for
    return result
End function
```

- a. 7
- b. 8
- c. 9
- d. 10

21. This recursive pattern appeared in an Infosys coding test. What's returned for n = 5?

```
Integer computePattern(Integer n)
    if(n <= 1)
        return 1
    if(n mod 2 EQUALS 0)
        return n + computePattern(n-2)
    return computePattern(n-1)
End function
```

- a. 6
- b. 8
- c. 10
- d. 12

22. An Infosys interviewer presented this string counting code. What's the output for str = "INFOSYS2024"?

```

Integer countSpecial(String str)
    Integer count = 0
    for each char in str
        if char is digit OR char in ['A','E','I','O','U']
            count = count + 1
    End for
    return count
End function

```

- a. 5
- b. 6
- c. 7
- d. 8

23. What will be the output of this array processing code from an Infosys test for arr = [2,3,4,5,6]?

```

Integer processElements(Array arr)
    Integer product = 1
    for i = 0 to length(arr)-1
        if(arr[i] mod 2 EQUALS 0)
            product = product * arr[i]
    End for
    return product
End function

```

- a. 48
- b. 24
- c. 36
- d. 12

24. During an Infosys coding round, this mathematical sequence was given. What's returned for n = 7?

```

Integer sequenceSum(Integer n)
    if(n <= 0)
        return 0
    return n*n + sequenceSum(n-2)
End function

```

- a. 84
- b. 77
- c. 91
- d. 105

25. This bit counting code appeared in an Infosys assessment. What's the output for n = 15?

```

Integer countSetBits(Integer n)
    Integer count = 0
    while(n > 0)
        n = n AND (n-1)
        count = count + 1
    End while
    return count
End function

```

- a. 3
- b. 4
- c. 5
- d. 6

26. An Infosys interviewer asked about this array manipulation code. What's returned for arr = [1,2,3,2,1]?

```

Boolean checkArray(Array arr)
    for i = 0 to length(arr)/2
        if arr[i] NOT EQUALS arr[length(arr)-1-i]
            return false
    End for
    return true
End function

```

- a. true
- b. false
- c. 1
- d. 0

27. What will be the output of this pattern generation code from an Infosys test for n = 3?

```

Integer generateValue(Integer n)
    Integer result = 0
    for i = 1 to n
        for j = i to n
            result = result + i*j
    End for
    End for
    return result
End function

```

- a. 23
- b. 25

c. 27

d. 29

28. During an Infosys assessment, this string manipulation code was given. What's the output for str = "TESTING"?

```
String transformString(String str)
    String result = ""
    for i = 0 to length(str)-1
        if i mod 2 EQUALS 0
            result = result + str[i]
    End for
    return result
End function
```

a. "TEST"

b. "TSIG"

c. "TING"

d. "ESTN"

29. This mathematical computation appeared in an Infosys coding test. What's returned for a = 4, b = 3?

```
Integer computeValue(Integer a, Integer b)
    Integer result = 1
    while(b > 0)
        if(b mod 2 EQUALS 1)
            result = result * a
        a = a * a
        b = b/2
    End while
    return result
End function
```

a. 64

b. 81

c. 16

d. 32

30. An Infosys interviewer presented this array processing code. What's the output for arr = [4,2,7,1,9]?

```
Integer analyzeArray(Array arr)
    Integer max_diff = 0
    for i = 0 to length(arr)-2
        if abs(arr[i] - arr[i+1]) > max_diff
            max_diff = abs(arr[i] - arr[i+1])
    End for
    return max_diff
End function
```

- a. 5
- b. 6
- c. 7
- d. 8