

**Pseudocode Questions file 6**

**Dated 23-10-2025**

**Q1. What will be the output of the following pseudocode for input a =30, b =60, c =90?**

```
Integer a, b, c, sum
Read a, b, c
Set sum = a + b + c
if ((sum EQUALS 180) and (a NOT EQUALS 0) and (b NOT EQUALS 0) and
(c NOT EQUALS 0))
    Print " Success"
otherwise
    Print "Fail"
End if
```

**Q2. Determine the output:**

```
BEGIN
    a = 8
    b = 2
    c = 5
    IF ((a / b) + c == 9) AND ((a % c) < b)
        IF (a - c == b * b)
            PRINT "P"
        ELSE
            PRINT "Q"
        END IF
    ELSE
        IF (a + b + c) % 2 == 1
            PRINT "R"
        ELSE
            PRINT "S"
        END IF
    END IF
END
```

- A) P   B) Q   C) R   D) S

**Q3. Determine the output:**

```
BEGIN
    x = 3
    y = 4
    z = 2
    result = 0
    FOR i = 1 TO z
        result = result + (x * i) - (y // i)
    END FOR
    PRINT result
END
```

- A) 1   B) 2   C) 3   D) 4

**Q4. Determine the output:**

```
BEGIN
    a = 5
    b = 10
    c = 20
    IF ((b - a) * 2 == a) OR ((c / b) == 2)
        IF (c % a == 0)
            PRINT "Yes"
        ELSE
            PRINT "No"
        END IF
    ELSE
        PRINT "Maybe"
    END IF
END
```

- A) Yes   B) No   C) Maybe   D) ERROR

**Q5. Determine the output:**

```
BEGIN
    x = 7
    y = 2
    z = 3
    IF ((x * y) % z == 2) AND ((x + y + z) % 4 == 0)
        IF (x - y == z * y)
            PRINT "Right"
        ELSE
            PRINT "Wrong"
        END IF
    ELSE
        PRINT "None"
    END IF
END
```

- A) Right   B) Wrong   C) None   D) ERROR

**Q6. Determine the output:**

```
BEGIN
    a = 5
    b = 3
    c = a ^ b << 1 & 7
    d = ~c | a
    PRINT d
END
```

- A) -3   B) -1   C) -2   D) -4

**Q7. What will be the output?**

```
int main()
{
    int a = 10, b = 5;
    int result = (a > b) && (b > 0);
    printf("%d", result);
    return 0;
}
```

- A) 10
- B) 5
- C) 0
- D) 1

**Q8. What will be the total size?**

```
int main() {
    char text[20] = "Hello";
    printf("%d", sizeof(text));
    return 0;
}
```

- A) 20
- B) 5
- C) 6
- D) 21

**Q9. What will be the output?**

```
int main()
{
    short s = 100;
    int i = 200;
    float f = s + i;
    printf("%.1f", f);
    return 0;
}
```

- A) 300
- B) 300.0
- C) 300.0
- D) 30.0

**Q10. What will be the output?**

```
int main()
{
    int m = 25, n = 15;
    int result = (m > n) ? m - n : n - m;
    printf("%d", result);
    return 0;
}
```

- A) 40
- B) 10
- C) 25
- D) 15

**Q11. What will be the output of the following pseudocode?**

```
Integer p, q, r  
Set p =7, q =4, r = 5  
if ((p+r) < (q-p) || r<p)  
    r = q&p  
    r = (r+3)&p  
End if  
Print p+q+r
```

**Q12. What will be the output of the following pseudocode for a =4, b = 6?**

```
Integer fun (Integer a, Integer b)  
a = a<<(a-2)  
b = b>>(b-5)  
a = a+1  
b = b+1  
return a+b  
End function fun()
```

**Q13. What will be the output of the following pseudocode?**

```
Integer p, q, r  
Set p =8, q =6, r = 5  
for (each r from 5 to 8)  
    p = (6&3) +r  
    if(4<q)  
        p = 3 + r  
        q = q+ q  
    end if  
end for  
print p+q
```

**Q14. What will be the output of the following pseudocode?**

```
Integer a, b, c  
Set a = 6, b = 4, c = 6  
for (each c from 3 to 7)  
    if ((b + a + c) > (c + b))  
        Continue  
    End if  
    b = 5 + c  
    a = a + a  
end for  
print a+b
```

**Q15. What will be the output of the following pseudocode?**

```
Integer x, y  
Set x = 15, y = 12  
y = x - 1  
do{  
    Print x  
    x = y + (x - 2)  
}  
while(x < 40)  
end do while
```

**Q24. What will be the output for this search algorithm?**

```
int exponential_search(int arr[], int n, int target)
{
    if(arr[0] == target) return 0;
    int i = 1;
    while(i < n && arr[i] <= target)
        i *= 2; // Then binary search would be called
    return i/2; // Simplified to return the bound
}
int main()
{
    int sorted_data[] = {1, 3, 5, 7, 9, 11, 13, 15, 17, 19};
    printf("%d", exponential_search(sorted_data, 10, 13));
    return 0;
}
```

- A) 4
- B) 8
- C) 8
- D) 6

**Q25. What potential issue exists in this memory reallocation?**

```
int main()
{
    int original = (int)malloc(5 * sizeof(int));
    int expanded = (int)realloc(original, 10 * sizeof(int));
}
```

- A) No issue
- B) Memory leak if realloc fails
- C) Double free
- D) Proper handling

