

**Pseudocode Questions file 5**  
**Dated 22-10-2025**

**Q1. What will be the output of the following Pseudocode?**

**Decrementing Inner loop**

```
val = 0
FOR i = 5 DOWNTO 1
    FOR j = i DOWNTO 1
        val = val + 1
    END FOR
END FOR
PRINT val
```

**Q2. What will be the output of the following Pseudocode?**

**Nested Loops with Continue**

```
count = 0
FOR i = 1 TO 4
    FOR j = 1 TO 4
        IF (i = j) THEN
            CONTINUE
        END IF
        count = count + 1
    END FOR
END FOR
PRINT count
```

**Q3. What will be the output of the following Pseudocode?**

**Breaking from Inner Loop**

```
total = 0
FOR i = 1 TO 5
    FOR j = 1 TO 5
        IF j = 3 THEN
            BREAK
        END IF
        total = total + 1
    END FOR
END FOR
PRINT total
```

Q4. What will be the output of the following pseudocode?

**Complex loop condition**

```
x = 0
FOR i = 2 TO 5
  FOR j = 1 TO i
    FOR k = 1 TO j
      x = x + 1
    END FOR
  END FOR
END FOR
PRINT x
```

Q5. What will be the output of the following pseudocode?

**Pattern Tracing**

```
sum = 0
FOR i = 1 TO 3
  FOR j = 1 TO 3
    IF (i + j) MOD 2 = 0 THEN
      sum = sum + 1
    END IF
  END FOR
END FOR
PRINT sum
```

Q6. What will be the output of the following pseudocode?

Variable modifications inside loop

```
x = 1
FOR i = 1 TO 4
  FOR j = 1 TO i
    x = x + i * j
  END FOR
END FOR
PRINT x
```

**Q7. What will be the output of the following pseudocode?**

**Dynamic Loop Bound**

```
count = 0
FOR i = 1 TO 4
  FOR j = i TO (i * 2)
    count = count + j
  END FOR
END FOR
PRINT count
```

**Q8. What will be the output of the following Pseudocode?**

**Nested Loop with condition based on Indices**

```
res = 0
FOR i = 1 TO 5
  FOR j = 1 TO 5
    IF (i * j) MOD (i + j) = 0 THEN
      res = res + 1
    END IF
  END FOR
END FOR
PRINT res
```

**Q9. What will be the output of the following pseudocode?**

**Inner Loop affects outer variable**

```
total = 0
FOR i = 1 TO 3
  FOR j = 1 TO 3
    i = i + 1
    total = total + i + j
  END FOR
END FOR
PRINT total
```

Q10. What will be the output of the following pseudocode?

#### Triple nested loop with conditional skip

```
cnt = 0
FOR i = 1 TO 3
  FOR j = 1 TO 3
    FOR k = 1 TO 3
      IF (i + j + k) MOD 2 = 0 THEN
        CONTINUE
      END IF
      cnt = cnt + 1
    END FOR
  END FOR
END FOR
PRINT cnt
```

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

#### Loop with Break and Continue Mixed

```
num = 0
FOR i = 1 TO 5
  FOR j = 1 TO 5
    IF (j MOD 2 = 0) THEN
      CONTINUE
    END IF
    IF (i + j > 7) THEN
      BREAK
    END IF
    num = num + 1
  END FOR
END FOR
PRINT num
```

Q12. What will be the output of the following Pseudocode?

#### Non-Uniform Loop Increments

```
sum = 0
FOR i = 1 TO 5 STEP 2
  FOR j = i TO 5 STEP 2
    sum = sum + i * j
  END FOR
END FOR
PRINT sum
```

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

**Exponential Growth inside loop**

```
val = 1
FOR i = 1 TO 4
  FOR j = i TO 1
    val = val * 3
  END FOR
END FOR
PRINT val
```

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

```
total = 0
FOR i = 1 TO 4
  limit = i + 1
  FOR j = 1 TO limit
    total = total + (i * j)
    limit = limit - 1
  END FOR
END FOR
PRINT total
```

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

**Breaking outer loop from inner loop**

```
count = 0
FOR i = 1 TO 5
  FOR j = 1 TO 5
    IF (i * j) > 12 THEN
      BREAK OUTER
    END IF
    count = count + 1
  END FOR
END FOR
PRINT count
```