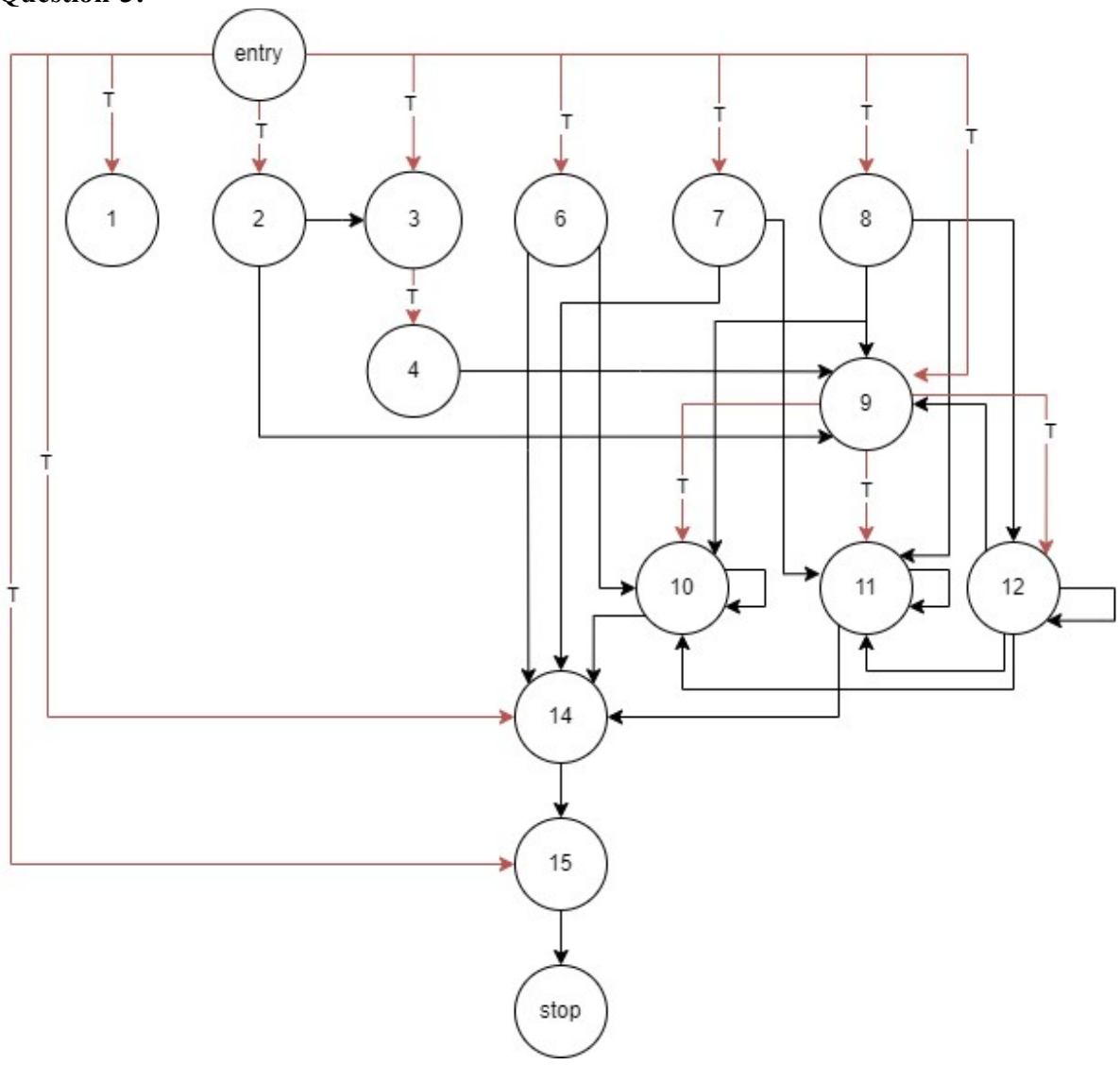
Question 1:
(2, 3), (2, 9), (4, 9), (6, 10), (6, 14), (7, 11), (7, 14), (8, 9), (8, 10), (8, 11), (8, 12), (10, 10), (10, 14), (11, 11), (11, 14), (12, 12), (12, 9), (12, 10), (12, 11), (14, 15)

Question 2:
(Line 3, Line 4), (Line 9, Line 10), (Line 9, Line 11), (Line 9, Line 12)

Question 3:



The red lines represent the control dependencies, and the black lines represent the data dependencies.

Question 4:
Line 14 and Line 8 are not directly dependent on each other. Line 8 defines the variable iter while Line 14 uses the variables sum and prod. There is no direct data flow from line 8 to 14.

Line 14 and Line 4 are not directly dependent on each other. Line 4 defines the variable n while Line 14 calculates the result using sum and prod. There is no direct data flow from line 4 to 14.

Question 5:

- Line 14: *int result = sum + prod;* This statement directly uses sum
- Line 11: *prod = prod * iter;* This statement indirectly affects sum because it modifies prod which is used in Line 14
- Line 10: *sum = sum + iter;* This statement indirectly affects sum because it modifies sum which is used in Line 14
- Line 9: *while (iter < n) {* This loop controls the execution of Lines 10 and 11 which indirectly affect sum
- Line 8: *int iter = 1;* This statement defines the variable iter which is used in the loop condition on Line 9, which in turn indirectly affects sum

The backward static slice of the code with the criteria (line 14, sum) includes Lines 14, 11, 10, 9 and 8 along with their relevant variables and control flow. These are the parts of the code that can directly or indirectly affect the value of sum at Line 14.

Question 6:

- Line 15: *return result;* Result is relevant because it's directly part of the slicing criteria
- Line 14: *int result = sum + prove;* Sum and prod is relevant because its directly used in the calculation of result
- Line 11: *prod = prod * iter;* Prod is relevant since its used in calculation of result
- Line 10: *sum = sum + iter;* Sum is used in calculation of result
- Line 9: *while (iter < n) {* Iter is used in Line 11 which is part of dynamic slice
- Line 8: *int iter = 1;* Iter is used in loop condition on Line 9, which in turn affects Line 11

The backward dynamic slice includes Line 8, 9, 10, 11, 14 and 15 along with their relevant variables and control flow. These are the parts of the code that are dynamically relevant to the slicing criteria (15, result) with the input n = 6. This slice includes the portions of the program that contribute to the computation of the result variable at Line 15.

Question 7:

Data dependencies:

- Line 2 taints n
- Line 4 depends on n but doesn't create a new taint (it overwrites n)
- Line 9 reads from n, so it's tainted
- Line 10-12 is within the while loop from using n (tainted variable), so sum, prod and iter are tainted as well.
- Line 14 is calculated from sum and prod which are now tainted, so result is tainted

Control dependencies:

- Line 3 is a conditional statement that checks n <= 5 but it doesn't create any new taint as it's a control dependency

The variables that are tainted are n, sum, prod, iter and result (tainted at lines 2, 9, 10, 11, 12, 14)