CS2050 – C Programming Quiz 3 FALL 2016

There are 10 questions on this quiz. DO NOT PUT YOUR ANSWERS ON THIS SHEET – RECORD THEM ON THE ANSWER SHEET ONLY. Use the code below to answer the next several questions.

1. #include <stdio.h>
2. int fred(int n1, int n2);
3. int main() {
4. int n1, n2;
5. printf("Enter two positive integers: ");
6. scanf("%d %d", &n1, &n2);
7. printf("Result of %d and %d is %d.", n1, n2, fred(n1,n2));
8. return 0;
9. }
10. int fred(int n1, int n2) {
11. if (n2!=0)
12. return fred(n2, n1%n2);
13. else
14. return n1;
15. }
16. T / F Recursion is not used in this code.
17. If I enter the numbers 76 for n1 and 30 for n2 what will the printf() on line “g.” display?
18. What mathematical algorithm is this code written to solve (prime numbers, odd / even numbers, maximum number, etc.)?
19. A) What, exactly, is the “base case” condition in this code? B) which line of code has the “base case” condition?
20. When it comes to recursion vs. iteration  
    a) both do not involve repetition b) both require a termination test  
    c) iteration can occur infinitely, recursion can not d) none of these are true
21. T / F Recursion normally occurs within a function so the overhead of repeated function calls and extra memory assignment is omitted.
22. When discussing the use of “enum” types in C programming we learned that a data type has two properties:  
    a) a domain and a set of operations b) concrete and abstract   
    c) paired integer types d) none of these are true
23. typedef enum { Fred, Holly, Tom, Julie } nameT;
24. nameT yyy;
25. cyyy = RightFrom(Tom);
26. printf(“%d”, yyy);
27. nameT RightFrom(nameT xxx)
28. {
29. return ( ( xxx + 2 ) % 4 );
30. }
31. What is the numerical value of “Tom”?
32. On what line of code is memory allocated for a nameT?

CS2050 – C Programming Quiz 3 NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Fall 2016 LAB SECTION \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ANSWERS

1. T / F

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. A) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

B) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. T / F

7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_