Assignment 8

The due date for submitting this assignment has passed. Due on 2020-03-25, 23:59 IST. As per our records you have not submitted this assignment.

1) A function prototype is used for

   a) Declaring the function logic
   b) Calling the function from the main body
   c) Telling the compiler, the kind of arguments used in the function
   d) Telling the user for proper use of syntax while calling the function

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   c) Telling the compiler, the kind of arguments used in the function

2) What is the default return type if it is not specified in function definition?

   a) void
   b) integer
   c) double
   d) float

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   b) integer
3) What is the error in the following program?

```c
#include<stdio.h>
int f(int a)
{
    a > 20? return(10): return(20);
}

int main()
{
    int b;
    b = f(20);
    printf("%d\n", b);
    return 0;
}
```

- a) Error: 'return' statement cannot be used with conditional operators
- b) Error: Prototype declaration
- c) Error: Two return statements cannot be used in any function
- d) No error

No, the answer is incorrect.
Score: 0

Accepted Answers:

a) Error: 'return' statement cannot be used with conditional operators
How many times ‘Hi’ will be printed in the program given below

```c
#include<stdio.h>
int i;
int fun();

int main()
{
   while(i)
   {
      fun();
      main();
   }
   printf("Hello\n");
   return 0;
}
int fun()
{
   printf("Hi");
}
```

- a) Only once
- b) Zero times
- c) Infinite times
- d) Compilation error

No, the answer is incorrect.
Score: 0
Accepted Answers:
- b) Zero times

5) 1 point
What is the output of the C code given below
#include <stdio.h>
float func(float age[]);

int main()
{
    float result, age[] = {23.4, 55, 22.6, 3, 40.5, 18};
    result = func(age);
    printf("%0.2f", result);
    return 0;
}

float func(float age[])
{
    int i;
    float result, sum = 0.0;
    for (i = 0; i < 6; ++i) {
        sum += age[i];
    }
    result = (sum / 6);
    return result;
}

a) 27.08  
b) 27.083334  
c) Compiler error as result is declared twice  
d) Error: Invalid prototype declaration

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
a) 27.08
6) What will be the output?
#include <stdio.h>
int main(
{
int i;
for (i=0; i<5; i++)
{
    int i = 10;
    printf("%d ", i);
    i++;
}
return 0;
}

- a) 10 11 12 13 14
- b) 0 1 2 3 4
- c) 10 10 10 10 10
- d) Compilation Error

No, the answer is incorrect.
Score: 0
Accepted Answers:
  c) 10 10 10 10 10

7)
How many times the function factorial will be executed?

```c
#include<stdio.h>
int factorial(int);
int main()
{
    int n=10;
    long int f;
    f = factorial(n);
    printf("%d! = %ld\n", n, f);
    return 0;
}

int factorial(int n)
{
    if (n == 0)
        return 1;
    else
        return(n * factorial(n-1));
}
```

Hint

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 11

8)
What will be the output?
#include <stdio.h>
void swap(int a, int b)
{
    int temp;
    temp = a;
    a = b;
    b = temp;
}

int main()
{
    int num1 = 10, num2 = 20;

    printf("Before swapping num1 = %d num2 = %d\n", num1, num2);
    swap(num1, num2);
    printf("After swapping num1 = %d num2 = %d \n", num1, num2);
    return 0;
}

○ a) Before swapping num1 = 10 num2 = 20
   After swapping num1 = 10 num2 = 20
○ b) Before swapping num1 = 10 num2 = 20
   After swapping num1 = 20 num2 = 10
○ c) Before swapping num1 = 10 num2 = 20
   After swapping num1 = 20 num2 = 20
○ d) Before swapping num1 = 10 num2 = 20
   After swapping num1 = 10 num2 = 10

No, the answer is incorrect.
Score: 0
Accepted Answers:
   a) Before swapping num1 = 10 num2 = 20
      After swapping num1 = 10 num2 = 20

9) 1 point
Consider the following C function definition:

```c
int func(int a, int b, int c)
{
    if ((a > = b) && (c < b)) return b;
    else if (a > = b) return func(a,c,b);
    else return func(b,a,c);
}
```

The function `func()`:

- (a) Finds the maximum of `a`, `b`, and `c`
- (b) Finds the minimum of `a`, `b` and `c`
- (c) Finds the middle number of `a`, `b`, `c`
- (d) None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:

(c) Finds the middle number of `a`, `b`, `c`

Consider the following C function definition.

```c
int f(int j)
{
    static int i = 50;
    int k;
    if (i == j)
    {
        printf("something");
        k = f(i);
        return 0;
    }
    else return 0;
}
```

Which one of the following is TRUE?

- (a) The function returns 0 for all values of `j`.
- (b) The function prints the string `something` for all values of `j`.
- (c) The function returns 0 when `j = 50`.
- (d) The function will exhaust the runtime stack or run into an infinite loop when `j = 50`

No, the answer is incorrect.
Score: 0
Accepted Answers:
(d) The function will exhaust the runtime stack or run into an infinite loop when $j = 50$