Practice Midterm Exam

Due No due date **Points** 100 **Questions** 33 **Time Limit** 80 Minutes
Allowed Attempts Unlimited

Instructions

Please answer the following questions.

Take the Quiz Again

Attempt History

	Attempt	Time	Score
KEPT	Attempt 2	16 minutes	56 out of 100 *
LATEST	Attempt 2	16 minutes	56 out of 100 *
	Attempt 1	80 minutes	49 out of 100 *

* Some questions not yet graded

Score for this attempt: **56** out of 100 *
Submitted Oct 10 at 9:01pm
This attempt took 16 minutes.

Question 1 — 1 / 1 pts

An SD card is

Correct!

- (•) secondary memory
- ( ) primary memory
- ( ) volatile memory
- ( ) a processor

Question 2

1 / 1 pts

RAM is

- nonvolatile memory
- none of these
- Correct! volatile memory
- secondary memory

Question 3

1 / 1 pts

A double

- Correct! can be divided by zero
- cannot store values with a fractional part
- is less accurate than a float
- none of these

Question 4

1 / 1 pts

The char 'A'

- is the value 63 in the ASCII table
- Correct! is the value 65 in the ASCII table
- is the value 64 in the ASCII table

- is the value 97 in the ASCII table

Question 5

1 / 1 pts

A nanosecond is (the x^y means x to the y power)

Correct!

- 10^-30 seconds
- 10^-20 seconds
- 10^-40 seconds
- 10^-10 seconds

Question 6

1 / 1 pts

The code: **#define ADD(a,b) a+b**

- is a syntax error
- defines a constant
- none of these

Correct!

- defines a macro

Question 7

1 / 1 pts

Which operator is a non-short-circuiting logical?

- <=

==

||

Correct! |

Question 8

0 / 1 pts

Which choice has operators in order of precedence from highest to lowest?

You Answered ++ % - || <= +=

+= || <= - % ++

Correct Answer ++ % - <= || +=

+= <= || - % ++

Question 9

1 / 1 pts

In the expression: **5 + 7 * 3 - 10 / 5 % 4**, which operation is performed first?

5 % 4

5 + 7

3 - 10

Correct! 7 * 3

Question 10

1 / 1 pts

Which library contains useful math functions?

- math.c
- none of these

Correct!

- float.c
- stdio.c

Question 11

1 / 1 pts

In the following code, x is

```
int func(int x, int y){
    ...
}
```

- a parameter

Correct!

- an output argument
- none of these
- an actual argument

Question 12

1 / 1 pts

What data types can be returned from a function?

- char
- double

int

Correct!

all of these

Question 13

1 / 1 pts

The following code

```
if(-1)
   printf("Yes");
else
   printf("No");
```

none of these

prints No

Correct!

prints Yes

has a syntax error

Question 14

0 / 1 pts

Selection statements are for

none of these

You Answered

iteration

data

Correct Answer

branching

Question 15

1 / 1 pts

Which loop is typically used when you know the number of iterations before the loop body is executed?

- while
- nested
- do-while
- for

Correct!

Question 16

1 / 1 pts

Removing all breaks from a switch-case with a default will result in

- only default is executed
- only one case being executed
- all cases and default being executed

Correct!

- all cases being executed

Question 17

1 / 1 pts

The loop **for(i=0; ; i++)**

- has a syntax error
- none of these

Correct!

- (●) is okay if the loop body has a break
- ( ) is always an infinite loop

Question 18

1 / 1 pts

The loop below is

```
while(i < x){
   printf("i", i++);
   printf("i", i--);
}
```

- ( ) will execute the loop body zero times
- ( ) will execute the loop body 2x times
- ( ) will execute the loop body x times

Correct!

- (●) infinite

Question 19

1 / 1 pts

The code below is

```
int n = 3;

if(windy == 1)
   n--;

if(cold == 1)
   n--;

if(rain == 1)
   n--;
```

```
if(n == 3)
   printf("Yup");
else
  printf("Nope");
```

Correct!

- (●) flag controlled
- ( ) none of these
- ( ) sentinel controlled
- ( ) index controlled

Question 20

1 / 1 pts

Curley braces are always required for loops and selection statements.

- ( ) True

Correct!

- (●) False

Question 21

2 / 2 pts

What value is printed

func(5, 6, 3);

if func is defined as follows?

```
void func(int a, int b, int c) {
   printf("%d",  (a + b * b / c));
}
```

Correct!

17

Correct Answers 17

Question 22

0 / 2 pts

What is printed by the following code?

```
int main(){
   int a=1, b=2;
   func(a, b, a, b);
}

void func(int a, int b, int c, int d){
   a += c + b * d;
   printf("%d %d %d %d", a, b);
   return;
}
```

You Answered 6 2 2 6422048

Correct Answers 6

Question 23

4 / 4 pts

What is printed by the following code?

```
int main(){
   int a=3, b=4;
   func(b, a);
}

void func(int a, int b){
   if(a%2 == 0 && b%2 == 0)
      printf("True");
   else
      printf("False");
```

```
    return;
}
```

- True
- False

Correct!

Question 24

4 / 4 pts

What is printed by the following code?

```
int main(){
    int a=4, b=3;
    func(a, b);
}

void func(int a, int b){
    if(a%2 == 0 || b%2 == 0)
        printf("True");
    else
        printf("False");
    return;
}
```

Correct!

- True
- False

Question 25

4 / 4 pts

What is printed by the following code?

```
int main(){
    int a=4, b=5;
```

```
    func(a, b);
}

void func(int a, int b){
    if(a > b || a%b == 0 && a%2 == 0)
        printf("One");
    else if(a > b || a%b != 0 && a%2 == 0)
        printf("Two");
    else if(a < b || a%b != 0 && a%2 == 0)
        printf("Three");
    else
        printf("Zero");
    return;
}
```

Correct!

Two

Correct Answers

Two

Question 26

4 / 4 pts

What is printed by the following code?

```
int main(){
    int a=4;
    func(a, b, c, d);
}

void func(int a){
    switch(a){
        case 1:
            printf("Red ");
            break;
        case 2:
            printf("Green ");
            break;
        case 3:
            printf("Blue ");
            break;
        case 4:
```

```
        printf("Cyan ");
      default:
        printf("None");
   }
   return;
}
```

Correct!

Cyan None

Correct Answers

Cyan None

Question 27

4 / 4 pts

What value is returned from the following function to b if the function call is:

```
int main(){
   int a=5;
   int b = func(a);
}

int func(int a){
   int x = -12;    int y = 3;
   for(int i=a; i<8; i+=y){
      x += i + y;
   }
   return x;
}
```

Correct!

-4

Correct Answers

-4

Question 28

4 / 4 pts

What is printed by this loop?

```
for  (int i = 12;  i < 18;  i += 2)
     printf("%d ", i);
```

Correct!

12 14 16

Correct Answers

12 14 16

Question 29

6 / 6 pts

What is printed by ths loop?

```
for  (i = 1;  i < 4;  i+=2)
  for  (j = 0;  j <= i;  j+=3)
       printf("%d  %d  ", i, j);
```

Correct!

1 0 3 0 3 3

Correct Answers

1 0 3 0 3 3

Question 30

6 / 6 pts

What is printed by the following?

```
for(int i=1; i<3; i++)
   for(int j=1; j<3; j++) {
      if(i%2 == 0 && j%2 == 1)
         printf("E%dO%d  ", i, j);
      else
         printf("Nope  ");
   }
```

Correct!

Nope Nope E2O1 Nope

Correct Answers

Nope Nope E2O1 Nope

Question 31

Not yet graded / 10 pts

Write an empty main function.

Write a function called avg_eq() that accepts 4 doubles, a, b, c, and d and returns a 1 if the average of a, b and c is greater d, zero otherwise.

Write code in main that tests your function with these data:

(1,3,5,2)
(2,3,4,4)
(10,50,25,30)
(123,987,42, 300)

Output

(1,3,5,2) -> 1
(2,3,4,4) -> 0
(10,50,25,30) -> 0
(123,987,42,300) -> 1

Copy your code and paste it below.

Your Answer:

```
#include <stdio.h>

double avg_eq(double a, double b, double c, double d, double result);

int main() {

double a, b, c, d;
double result;

printf("Pick 1 numbers: ");
scanf("%lf %lf %lf %lf", &a, &b, &c, &d);

printf("%.0lf", avg_eq(a, b, c, d, result));

return 0;
}
```

Question 32

Not yet graded / 10 pts

Write an empty main function.

Write a function called calc_15_even() that accepts an integer n and calculates the sum of the first n integers that are divisible by 15 and even, which is returned and printed to screen in main.

Add code to your main function to test your code for n = 200 and print the sum returned.

Copy tour code and paste it below.

Your Answer:

```
#include <stdio.h>

int calc_15_even(int i, int n, int sum);

int main() {

int i, n;
int sum;

printf("pick an term: ");
scanf("%d", &n);

printf("%d", calc_15_even(i,n,sum));

return 0;
}

int calc_15_even(int i, int n, int sum) {

for (i=0; i<n; i++) {
if(i%15 && (i%2 == 0)) {
sum += i;
}
}
return sum;
}
```

Question 33

Not yet graded / 20 pts

Write an empty main function.

Write a function called pairs() that accepts integers m and n and prints all pairs from i = 0 to m and j = 0 to n, where i greater than or equal to j. Test your code with arguments m = 4 and n = 3.

Hint: Write a nested loop to print all pairs (test it) add code to print the selected pairs i greater than or equal to j (test again).

Add code to your main function to test your code.

Output

```
0 0
1 0
1 1
2 0
2 1
2 2
3 0
3 1
3 2
4 0
4 1
4 2
```

Copy and paste your code below.

Your Answer:

```
int pairs() {
int m, n;

printf("What is m?: ");
scanf("%d", &m);

printf("What is n?: ");
scanf("%d", &n);

for (int i=0; i <= m; i++) {
for (int k = 0; k < n; k++) {
if(i >= k) {
printf("%d %d\n", i, k);
}
}
```

```
}
}
```

Quiz Score: **56** out of 100