

CCA - 1 - Div C, Nov 2, 2022
Time: 130p - 215p

----- Solve all 4 pbs ----

1. Given the following code snippet -

```
int x = -10;
```

1. Declare 2 int pointer variables named pX1 and pX2
2. Make both pX1 and pX2 point to x
3. Use pX1, add (+10) to x
4. Use pX2, add (-20) to x
5. What would the value of x now?

- [] Explain your answer in 2-3 sentences with a focus on pointers

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2. Omitting #include <stdio.h> and continuing to use printf()/scanf() and other stdio functions is not recommended in a C Program -

- [] Write a paragraph supporting the above argument, 5-8 lines

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3. Write a code snippet that uses the ternary operator to evaluate the following condition -
Age >= 65 should return 1 Age >= 18 should return 2, all else should return 3

- e.g

```
int age = xxxx;  
int ageCode = (<<<<< YOUR ANSWER HERE >>>>>);  
printf("Age = %d is Age Code = %d\n", age, ageCode)
```

- [] You can use multiple ternary expressions within the same statement

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4. Given the following C program -

```
void funcA(int a) {  
    funcB(a);  
}  
  
void funcB(int b) {  
    funcC(b);  
}  
  
void funcC(int c) {  
    int l;  
  
    l = c;  
  
    return;  
}
```

```
int main(void) {  
    funcA(10);  
}
```

- If the debugger is stopped at the line "l = c;" inside funcC() -
- [] Draw the chain of call stacks.
 - [] For every frame on the call stack, show the variable usage
 - [] In 1 para, explain your understanding of the function calls mechanism in C