

CCA - 1 Retest - Div B

8 Nov 2022

ANSWER ALL 4 QUESTIONS

Q 1 - Convert the following as directed -

- A. From Decimal to Hex - 100, 16, 129
- B. From Hex to Binary - 0xF0, 0x123, 0x98
- C. From Binary to Hex -
 00011100 (3 zeros + 3 ones + 2 zeros)
 111110011 (5 ones + 2 zeros + 2 ones)
 11111110 (7 ones + 1 zero)

Q 2 - Given the following C declarations -

```
int age = 26;  
int gradesObtained[5] = {15, 19, 10, 16, 4}; //each element is marks obtained out of 20
```

Write a code snippet

- A. The code block executes **ONLY IF the age is EQUAL OR MORE THAN 18**
- B. The code iterates over all the elements of the gradesObtainedArray
- C. The iteration code **calculates the marks obtained per cent (out of 100) and stores the value back in the same array**
- D. After the iteration is over, the code uses printf() to output all the new array values

Q 3 - Given the following C declaration -

```
int tripDays[5] = {10, 7, 5, 45, 19};
```

- A. What is the length of the array?
- B. What's the size of the array in memory?
- C. Write a **C statement that stores an address of the 3rd array element into a suitable variable type.**

Q 4 - Explain in 6-8 lines-

"Function parameters and local variables inside the function are "local" in scope. These variables are accessible only within the function and are not accessible when the function execution returns to the caller function".

- A. Write a **suitable example C code and a diagram** to illustrate your answer.