

## Final Assessment

Course code: CSE112

Course Title: Computer Fundamentals

Time: 4.00 Hours

1.

a. Suppose you are a programmer and know about data types in programming Now you can explain all the data types in c programming in your own word and Is it possible to add two numbers without mentioning the data type in C programming? If possible or not, explain it with proper example.

b. Write the basic differences between variable and data types in C.

2. Write the proper c programs to evaluate the value of the Volume of cube with flowchart. [where Volume =  $a^3$ ]

3. Write an algorithm and proper c programs, you can take two integer operands and one operator from the user, performs the operation and then prints the result. (Consider the operators +, -, \*, /, % and use switch statement).

4. Explain the phrase, Garbage in and Garbage out in programming. Suppose you are a programmer, now read an integer value N. then, read these N values and Display a message for each value saying if this value is odd, even, positive or negative. In case of zero (0), although the correct description would be "EVEN NULL", because by definition zero is even, your program must print only "NULL", without quotes.

Sample Input	Sample Output
4	Even and NEGATIVE
-8	Odd and POSITIVE
3	NULL
0	NULL
8	EVEN and POSITIVE

5.a. What is the difference between While loop and do while loop? Draw the flowchart to find the smallest number among three numbers.

b. Write a C program to display rhombus star pattern of n rows using for loop.

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Best of Luck