Bachelor Level / First Year/ First Semester/ Science

## Tribhuvan University

## Institute of Science and Technology

2081

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Full Marks: 60

Pass Marks: 24 Computer Science and Information Technology (CSC115) Time: 3 hours. (C Programming) (NEW COURSE) Candidates are required to give their answers in their own words as for as practicable. The figures in the margin indicate full marks. Section A  $[2 \times 10 = 20]$ Attempt any TWO questions. [2+8]1. List different types of operators and explain any four of them. 2. What are the characteristics of array? Write a program to input age of 500 persons and display the following [2+8]a) Average age b) Age between 25 to 30 3. Differentiate between library function and user defined function. Write a program to swap two values using call by reference concept. [2+8]Section B [8×5=40] Attempt any EIGHT questions Explain the basic structure of C Programming. [5] 5 Describe different formatted input and output functions. Why do we use them? [4+1]6. Write a program to display first 50 prime numbers. [5] 7. Write a program to display the following series up to 25 terms but do not print the 7<sup>th</sup> term. 2×3, 3×5, 4×7, 5×9... 8. Demonstrate the use of recursive function with a suitable example. [5] 9. Create a structure called STUDENT with data members SID, name, address, CGPA. Write a program to initialize the value of 100 students and display the information of those students whose address is "KTM" and CGPA is between 3.5 to 4. [5] 10. Explain different file opening modes. 11. Write a program to draw two shapes of your choice using graphics function. [5] 12. Write short notes on:  $[2 \times 2.5 = 5]$ a) Global variable

b) Debugging