

02 TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2073 Chaitra

Exam.	Regular		
Level	BE	Full Marks	80
Programme	All (Except B.Arch.)	Pass Marks	32
Year / Part	I / I	Time	3 hrs.

Subject: - Computer Programming (CT401)

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ Attempt All questions.
- ✓ The figures in the margin indicate Full Marks.
- ✓ Assume suitable data if necessary.

1. Explain the generations of programming language. Distinguish between High level and Low level programming language. [3+3]
2. What is an algorithm and how it differs from pseudo-code? Develop algorithm and draw flowchart to find the largest of N numbers. [2+3+3]
3. a) What are identifiers? List the rules to define valid C identifiers. [2+3]
b) What is operator? Describe the conditional operator in C with syntax and example. [2+3]
4. What are the differences between global and local function, variables and data types, & (Ampersand) operator and * operators used in c-programming language? Explain with example. [4+4]
5. a) Differentiate between pass by value and pass by reference. [3]
b) Explain the significance of user defined functions with example. [5]
6. a) Write a program to read a string and check whether it consists of Alphabet or not. Use user defined function to accomplish the task. [5]
b) Explain how 2D array is passed to a function. Write a C program to display largest and smallest elements of a 2D array. [5]
7. What is nested structure? Write a program in C to read name, age and salary of 10 different employees as the three members of a structure named as "employee". Sort this data in salary basis using user defined function and display sorted data from main function. [2+8]
8. Write a program in C-programming language to compute the cosine series. (hints: $\cos(x) = 1 - x^2/2! + x^4/4! - x^6/6! + \dots$ up to n terms) [6]
9. Write a program to open file named INVENTORY and store in it for maximum 10000 data of ITEM_NAME, NUMBER, PRICE, QUANTITY. Extend the program to read this data from the above given filename and display the inventory table with the value of each item. [6]
10. a) Compare unconditional goto and computed goto in FORTRAN with syntax. [3]
b) Write a program in FORTRAN to read an array containing N elements, sort this data in ascending order and display the result. [5]
