

06 TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2068 Shrawan

Exam.	New Back (2066 Batch & Later)		
Level	BE	Full Marks	80
Programme	All (Except B.Arch.)	Pass Marks	32
Year / Part	I / I	Time	3 hrs.

Subject: - Computer Programming

- ✓ 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. Define algorithm. Write an algorithm for finding largest and smallest values from a list. [2+6]
2. Draw a flowchart and algorithm to find roots of a quadratic equation ($ax^2 + bx + c = 0$). Include all three conditions of the determinant. [10]
3. Write a program to read values from user and find sum until user types 0, also display sum and average. [8]
4. Why programmers prefer using user defined functions? What is merits and demerits of using functions in program? Differentiate actual and formal parameters used in functions. [3+2+3]
5. Write a program to take a list of values from user into an array. Pass the list to a function which sorts the values in ascending order. Display the sorted list from main program. [3+5]
6. Write a program to represent complex number by a structure with real and imaginary as members. Take 2 complex numbers as input from user into structure variables. Pass the complex numbers to a function which calculates sum and returns it. Display the sum from another function display(). [10]
7. What is the role of pointers in passing parameters to functions by reference? Give example, how 2 dimensional array can be accessed by a pointer. [4+4]
8. What do you mean by opening a data file? How is this accomplished? Explain fscanf, fprintf, fread, fwrite functions. [1+3+4]
9. Explain the structure of a FORTAN program. Differentiate between arithmetic and logical if statement. [2+2]
10. Write a program in FORTAN to read two matrices from user, find their sum and display the sum. [8]
