

Exam.	New Back (2066 & Later Batch)		
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. a) Categorise programming languages on the basis of their uses and applications. Among them which programming language is C programming? [4]
- b) List and define different steps to solve the problem in computer system. [4]
2. a) Differentiate between declaration and definition. Explain structure of C program with an appropriate example. [4]
- b) Write syntax, example and use of following: [1×4]
 - i) printf()
 - ii) scanf()
 - iii) getch()
 - iv) getch()
3. Write the difference between do and do..... while loop and write the program "to find whether a year is leap or not". [3+7]
4. What is recursive function? How does it work? Find out sum of digit of number until the number becomes one digit number. [891>18>9]. [2+2+4]
5. a) Write a program to read a string and rewrite its characters in alphabetical order. [4]
- b) A multinational company has hired 3 sales persons for marketing/selling its 3 different products in Kathmandu. Each sales person sells each of these products. Write a program to read number of each product sold by all sales-persons. Calculate total sells of each item and the total sells of each sales-person. Use arrays. [6]
6. a) Explain about "Arrays within structures" along with programming example. [4]
- b) Write the program "to understand how structure members are sent to a function". [4]
7. Write down advantages of pointer. Write a program using pointer to swap the value of two variables where the swapping operation is performed in separate function. [2+6]
8. Write a C program to store employee details in a text file. Read data from the text file, sort them in ascending order of salary and store the sorted record to a binary file. Display the details and rank of employee given by the user. [8]
9. a) What do you mean by formatted and unformatted input/output statements in Fortran and also give suitable example which explain the concept of Formatted I/O. [8]
- b) Write the program to convert a binary number to a decimal number using Fortran programming language. [4]