**Bachelor of Science (B.Sc.) Information Technology Semester–I (NEP) Examination**

**BIT1T01 : PROGRAMMING IN 'C'**

**Paper–1**

Time : Three Hours] [Maximum Marks : 80

N.B. :— (1) All questions are compulsory and carry equal marks.

(2) Draw neat and labelled diagram wherever necessary.

**EITHER**

1. (a) Write notes on:

(i) Iterative Structure

(ii) Selection Structure

(iii) Modular Structure. 8

(b) What is Pseudocode? Explain the importance of Pseudocode. Give an example. 8

**OR**

(c) Define Flowchart. Draw a flowchart to find the greatest among three numbers. 8

(d) Explain the process of developing an algorithm. What are the key steps involved in creating an efficient algorithm? Give an example. 8

**EITHER**

2. (a) Explain various datatypes supported in 'C' Language. 8

(b) What is Loop ? Explain For Loop and While Loop with example. 8

**OR**

(c) What is an operator? Explain different types of operator with example. 8

(d) What are Jump statements? Discuss the role of break, continue, and goto statements in controlling program flow. Give an example. 8

**EITHER**

3. (a) What is an array? Explain different types of arrays with example. 8

(b) What is recursion? Write a program to find the factorial of a number using recursion. 8

**OR**

(c) What is a function? What are different ways of calling function? Give an example. 8

(d) What is a storage class? Explain various storage classes with suitable examples. 8



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**EITHER**

4. (a) Differentiate between structure and union. 8

(b) What is a file? Give various modes to open a file with suitable examples. 8

**OR**

(c) Write notes on:

(i) Sequential access

(ii) Random access. 8

(d) What is a pointer? Explain pointer variable and address of operator in detail. 8

5. (a) Write a short note on Sequence Structure. 4

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(b) Write a program to demonstrate "Switch case" with example. 4

(c) Explain with example strupr( ) and strlwr( ) functions. 4

(d) Explain error that occur while opening and closing a file. 4



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