



# LORDS INSTITUTE OF ENGINEERING AND TECHNOLOGY (UGC AUTONOMOUS)

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1609233326  
Course Code: U23CS101

## B.E I- SEMESTER END EXAMINATION (Regular) -Feb-2024

### Programming for Problem Solving

(Common to CSE, CSD, Civil & Mech)

Date: 29-02-2024

Time: 3 Hours

Bloom's Taxonomy Levels (BTL)

Max. Marks: 60

1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create
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Note: Question No. 1 is compulsory  
Answer any 4 questions from Q.No.2 - Q.No.7

- |  | CO  | BTL      |
|--|-----|----------|
| 1. a. Define an algorithm and list its characteristics.                              | [2] | CO1 BTL2 |
| b. Write a C program to print 1 to 10 using do - while loop?                         | [2] | CO2 BTL2 |
| c. What are actual and formal parameters in function call?                           | [2] | CO3 BTL2 |
| d. Differentiate between recursion and iterative statement?                          | [2] | CO4 BTL4 |
| e. List the application of pointers.   | [2] | CO5 BTL2 |
| f. Write the various text file opening modes?  | [2] | CO6 BTL2 |
| 2. a. Discuss briefly about hardware components of computer.                         | [6] | CO1 BTL2 |
| b. Draw a flow chart to display largest number among 3 numbers.                      | [6] | CO1 BTL3 |
| 3. a. Explain how break and continue statements are used in C.                       | [6] | CO2 BTL4 |
| b. Illustrate how to declare and initialize 1-Dimensional array.                     | [6] | CO2 BTL3 |
| 4. a. Illustrate Linear search algorithm and explain how it works with example.      | [6] | CO3 BTL4 |
| b. Write a C program to swap two numbers using call by reference.                    | [6] | CO3 BTL3 |
| 5. a. What is the union. Explain it with a program.                                  | [6] | CO4 BTL2 |
| b. Explain about recursive function with example.                                    | [6] | CO4 BTL2 |
| 6. a. Describe how pointers are declared and initialized in C.                       | [6] | CO5 BTL4 |
| b. Describe linked list with its application.  | [6] | CO5 BTL2 |
| 7. a. Illustrate different ways to initialize and access the members of a structure. | [6] | CO4 BTL4 |
| b. Differentiate between structure and union with suitable example.                  | [6] | CO4 BTL4 |

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