

I Semester BCA Examination (NEP - SCHEME)

**Subject: COMPUTER SCIENCE**

**PAPER: PROBLEM SOLVING TECHNIQUE**

**MODEL PAPER -2**

Time: 2 hours

Max. Marks: 60

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***Instruction: Answer any FOUR questions from each part***

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**PART- A**

**I. ANSWER ANY 4 QUESTIONS**

*Each question carries 2 marks*

**4 x 2 = 8**

1. What is the role of algorithm in computing?
2. What are formatted input/output statement?
3. How do you initialize a multidimensional array?
4. Define Pointer with an example.
5. What do you mean by keyword searching ?
6. Explain text line adjustment with an example.

**PART-B**

**II. ANSWER ANY 4 QUESTIONS**

*Each question carries 5 marks*

**4 x 5 = 20**

7. Write an algorithm to generate Fibonacci sequence.
8. Explain different forms of looping statements in C.
9. Differentiate between Call by Value and Call by reference.
10. Write an algorithm to find the maximum number in a set.
11. Write a C program to remove duplicate element in a single dimensional array.
12. Write a note on Pattern searching.

## **PART-C**

### **III. ANSWER ANY 4 QUESTIONS**

***Each question carries 8 marks***

***4 x 8 = 32***

13. A) Explain the characteristics of algorithm  
B) Explain any three identifiers (5+3)
14. A) Explain unformatted input/output functions  
B) Explain type conversions (5+3)
15. A) Explain categories of functions  
B) Explain function prototype with an example (5+3)
16. A) Write a program to reverse the array elements  
B) Explain pseudo random number generation function (5+3)
17. A) Explain how do you merge two arrays with an example.  
B) Explain selection sorting techniques for 38, 47, 24,17 (4+4)
18. A) Explain Hash searching technique  
B) Explain text processing (5+3)