



NP – 271

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I Semester B.A./B.Sc. Examination, January/February 2025
(NEP) (Repeaters)
COMPUTER SCIENCE
Problem Solving Techniques

Time : 2½ Hours

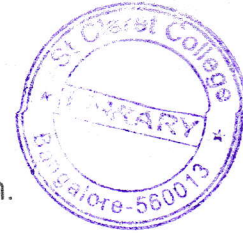
Max. Marks : 60

Instruction : Answer **all** the Parts.

PART – A

I. Answer **any four** questions. **Each** question carries **2** marks. (4×2=8)

- 1) Define divide and conquer technique.
- 2) What is an identifier ?
- 3) What is pointer ? Give syntax of pointer declaration.
- 4) What are the command line arguments ?
- 5) What is histogram ?
- 6) Mention the application of pattern searching.



PART – B

II. Answer **any four** questions. **Each** question carries **5** marks. (4×5=20)

- 7) Mention the characteristics of an Algorithm.
- 8) Explain arithmetic and relational operator with suitable example.
- 9) Explain switch statement with example.
- 10) Write an algorithm to find GCD of two integer.
- 11) Define Array. Explain advantages and disadvantages of array.
- 12) Write an algorithm to search an element using linear search.

P.T.O.



PART – C

III. Answer **any four** questions. **Each** question carries **8** marks.

(4×8=32)

- 13) Explain different design approaches to solve problem. 8
 - 14) a) What is data type ? Explain different data type in C. 5
b) Write difference between array and structure. 3
 - 15) Define string. Explain different types of string handling function. 8
 - 16) What is a hash collision ? Write an algorithm to search an element using hash search. 8
 - 17) What is sorting ? Write a C program to sort 'N' number using Bubble Sort. 8
 - 18) Write an algorithm to find the Kth smallest element in an array. 8
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