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BCA(N)–101

(Introduction to Programing Using C)

1st Semester Examination, Session December 2024

Time : 2:00 Hrs.   Max. Marks : 70

Note :– This paper is of Seventy (70) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. *Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.*

Section–A

(Long Answer Type Questions)   2×19=38

Note :– Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

1. What do you mean by function and function call ? List and explain the categories of user defined functions. Explain the difference between user defined and library functions.

2. Explain the different types of loops in C with syntax.

3. What is structure ? Explain C syntax of structure declaration with example.

4. What is a pointer ? Discuss pointer arithmetic with suitable code,

5. What is dynamic memory allocation ? Mention the limitation of static memory allocation also. Explain mallo () and calloc() function .

Section–B

(Short Answer Type Questions)   4×8=32

Note :– Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. How to declare variable ? Explain with the help of example.

2. Compare external and automatic storage class variables.

3. Why we use string library ? Explain any four string manipulation function.

4. What is Null Pointer ?

5. Write a C program which takes as input **p** (principal amount), **t** (time), **r** (rate). Compute the simple interest and display the result.

6. Mention the difference between "call by value" and "call by reference".

7. What is an Algorithm ? Write an algorithm to find the largest of 3 numbers.

8. Write short notes on any *two* of the following :

   (a) Standard I/O function

   (b) String manipulation functions

   (c) Mathematical functions

   (d) Dynamic memory allocation function

   (e) Array.

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