

(i) Printed Pages : 4]

Roll No.

(ii) Questions : 9]

Sub. Code :

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Exam. Code :

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**Bachelor of Computer Applications
1st Semester Examination**

1127

PROBLEM SOLVING THROUGH C

Paper : BCA-16-104

Time : 3 Hours]

[Max. Marks : 65

Note :- Attempt *one* question from each Unit and the entire Compulsory question. All questions carry equal marks.

Unit-I

1. (a) What do you mean by a Flow Chart ? How does it differ from a decision table ?
- (b) What are the data types in C language ? 7,6
2. (a) What are Operators ? What are the different categories of operators ?

NA-413

(1)

Turn Over

(b) Why the header file `stdio.h` is frequently used in C language ?

(c) What are type specifications in C language ? 7,3,3

Unit-II

3. (a) Differentiate between `if` and `if-else` statements.

(b) What is the purpose of `switch-case` statement ?

What is the role played by `break` statement

within a `Switch Statement` ?

7,6

4. (a) Give built-in functions in C.

(b) How do you pass arguments to the function ?

Discuss various approaches with examples.

7,6

Unit-III

5. (a) How do you declare and initialize a one

dimensional array ?

(b) Write a program in C to sort an array of

numbers.

7,6

6. (a) How do you declare a pointer variable ? How do you access values by using the pointers ?
- (b) What do you mean by Dynamic Memory Allocation ? 7,6

Unit-IV

7. (a) What is a String Variable ? How do you declare and initialize a string variable ? Give *three* build-in string functions and their use.
- (b) What are the various file opening modes ? What is the significance of each ? 7,6
8. (a) How do you define and declare a structure in a C program ? What are nested structures ?
- (b) Differentiate structures and arrays. 7,6

Compulsory Question

9. (a) What is an Arithmetic Expression ? 2
- (b) What is an Algorithm ? 2

- (c) Give *two* features of C language. 2
- (d) What are floor() and ceil() functions ? 2
- (e) What is a Pointer Variable ? 2
- (f) What is the significance of goto statement ? 2
- (g) What is stdio.h file ? 1