

BCA/D-14

PROGRAMMING IN 'C'

PAPER- BCA-116

Note: Question number 1 is compulsory. In addition to compulsory question, student will have to attempt four more questions selecting one question from each unit.

1. Compulsory question:

- (i) What is purpose of assignment statement? Give example.
- (ii) Write short note on importance of 'C' language.
- (iii) What is the use of getchar () and putchar () functions. Give examples.
- (iv) Write short note on type casting and conversion with examples.
- (v) How does one can interchange two numbers in 'C' language? Explain.
- (vi) How 'for' statement is implemented in 'C' language? Give syntax and example.
- (vii) Which statements are used for jumps in loops? Write their syntax.
- (viii) What are the key features of 'extern' storage class?

Unit-1

- 2. (a) What are the rules for writing constants and identifiers in 'C' language? Give three examples for valid constants/ identifiers and three examples for invalid constants/ identifiers.
(b) What is the purpose of % d, % of, %c format specifiers? Give examples.
- 3. Discuss the following:
 - (a) Structure of 'C' program
 - (b) Symbolic constant
 - (c) Unformatted input/ output functions.

Unit-II

- 4. (a) What is arithmetic expression? How is arithmetic expression evaluated in 'C' language?
(b) Explain various types of operators, their hierarchy and associativity in 'C' language.
- 5. What are the key differences between if- else, nested-if, else-if ladder and switch statement?

Explain with examples.

Unit-III

- 6 (a) Why recursion is required? Write a program to generate Fibonacci series using recursion in 'C' language.

(b) Write a program to find sum of 'N' natural numbers using while statement in 'C' language.

7.(a) What is the purpose of using functions? Explain various parameter passing techniques using functions in 'C' language.

(b) Differentiate between while and do-while statement in 'C' language by writing any program of your choice.

Unit-iv

8. Explain the purpose of 'auto', 'register' and 'static' storage classes in 'C' language. Discuss their scope, storage and lifetime also with examples.

9. (a) Write a program in 'C' language to implement linear searching.

(b) Write short note on string handling functions in 'C' language.