

2024

COMPUTER SCIENCE

(Discipline Specific Core)

Paper Name: Introduction to C Programming

Paper Code: BCA-DSC-143

Full Marks: 45

Time: Two Hours

(The figures in the margin indicate full marks for the questions)

Answer in English

1. Answer the following questions as directed 1x4=4

- (a) All keywords in C are in _____. [Choose the correct option]
- i. Upper Case Letters
 - ii. Lower Case Letters
 - iii. Camel Case Letters
 - iv. Both (i) and (ii).
- (b) The statements in the statement block are encapsulated within a _____. [fill in the blank]
- (c) In C, an array subscript starts from _____. [fill in the blank]
- (d) _____ is a variable that represents the location of a data. [fill in the blank]

2. Answer the following questions: 2x3=6

- (a) What is the significance of the following declaration?
Int * P(int a)
- (b) Differentiate between call by value and call by reference.
- (c) Explain any two operators used in C language.

3. Answer the following questions (any three) 5x3=15

- (a) List the conditional branching statements in “C”. Explain any one with an example.
- (b) What is a pointer? Explain how the pointer variable is declared and initialized.
- (c) Explain the basic structure of a “C program”.
- (d) Compare between interpreter and compiler.
- (e) Write a C-program to generate the following series:
0, 1, 1, 2, 3, 5, 8, 13,, upto 20th terms.

4. Answer the following questions (any two) 10x2=20

- (a) Define structure. How does it differ from an array? Describe array of structure with an example.
- (b) What is file? Describe the use of `getc()` and `putc()` functions.
Write a C program to copy the contents of one file to another.
- (c) Explain the switch statement with syntax and example.
- (d) List the differences between while loop and do-while loop.
Write a C program to find sum of Natural Numbers from 1 to N using for loop.
