D–7013	Sub. Code
	22211

DISTANCE EDUCATION

CERTIFICATE PROGRAM EXAMINATION,
DECEMBER 2022.

C Programming

PRINCIPLES OF PROGRAMMING

(CBCS 2020-2021 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is the need of computer?

2. What is volatile memory?

3. Define the term program.

4. Comment on machine language.

5. What is the role of complier?

6. Define flowchart.

7. List out any two database software.

8. What is mean by system software?

9. Define Word processing.

10. List the drawback of second generation computer.

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Write about various applications of computer.

Or

(b) Explain about ROM and its types.

12. (a) Write a short note on procedural language.

Or

(b) How high level language is differing from assembly language? Explain.

13. (a) Discuss about modular programming.

Or

(b) Illustrate the concept of Rapid Application Development.

14. (a) How to define a problem? Explain.

Or

(b) Explain communication software with an example.

15. (a) Explain the five types of application software.

Or

(b) Write about object oriented programming concepts.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Discuss about various types of computer.

17. Write a brief note on data structure and algorithm.

18. Explain about software development life cycle.

19. What is Operating System? Explain the various functions of Operating System.

20. Explain about generation of computers.

———————

D–7014	Sub. Code
	22212

DISTANCE EDUCATION

CERTIFICATE PROGRAMME EXAMINATION,
DECEMBER 2022.

C Programming

PROGRAMMING IN C

(CBCS 2020-2021 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Mention the importance of C language.

2. Define constant.

3. Write the syntax of ‘if” statement.

4. Define goto statement.

5. What is an array?

6. How can you read a string through keyboard? -

7. Define function.

8. Compare structure and union.

9. What is pointer variable?

10. Define file.

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Explain the structure of C program.

Or

(b) What are the data types supported by C language? Explain.

12. (a) Explain about switch statement.

Or

(b) Write a program to check whether the given year is leap year or not.

13. (a) How to initialize the one dimensional array? Explain with suitable example.

Or

(b) Write a program to print the array elements in reverse order.

14. (a) Write a factorial value program using recursive function.

Or

(b) List and explain the importance of function.

15. (a) How to access the structure member? Explain with example.

Or

(b) How to define, open and close a file? Explain.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain while and do-while statements with an example.

17. Describe the two dimensional array with an example program.

18. Define string. Explain string handling functions in C.

19. How to access a variable through pointer? Explain with example program.

20. Discuss about types of user defined function.

———————

D–7015	Sub. Code
	22213

DISTANCE EDUCATION

CERTIFICATE PROGRAMME EXAMINATION,
DECEMBER 2022.

C Programming

DATA STRUCTURE AND ALGORITHMS

(CBCS 2020-2021 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is data structure?

2. Differentiate linear and non-linear data structure.

3. How to declare the array?

4. How array is differing from variable?

5. Define circular queue.

6. How the single linked can be represented?

7. What is the need for the header?

8. Define the term tree.

9. Write the applications of binary tree.

10. What is the need of hashing techniques?

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) How data structures are classified? Explain.

Or

(b) Write a note on space complexity.

12. (a) Explain the characteristics of an array.

Or

(b) What are the operations of the stack? Explain.

13. (a) Explain about traversing a linked list.

Or

(b) Write an algorithm to search an element in binary search tree.

14. (a) Explain the various types of binary tree.

Or

(b) Write about linear representation using array in binary tree.

15. (a) List and explain the operations of the queue.

Or

(b) How the queue is implemented by linked list? Explain.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain two dimensional arrays and its representation.

17. Explain how to evaluate arithmetic expression using stack.

18. Describe the insertion and deletion operation in single linked list.

19. Describe the binary tree traversal.

20. Write a brief note on types of searching.

———————