**D–7111**

| Sub. Code |
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| 22211 |

DISTANCE EDUCATION

CERTIFICATE PROGRAMME IN 'C' PROGRAMMING
EXAMINATION - MAY 2021

PRINCIPLES OF PROGRAMMING

(CBCS 2020 – 2021 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. What is computer?

2. Why do you need computer?

3. List out any four input devices.

4. Mention the purposes of speech recognition software.

5. Write the functions of CRT.

6. Specify the types of color printers.

7. Define memory.

8. What is buffer?

9. List out any two secondary storage devices.

10. What is an operating system?

SECTION B — (5 × 5 = 25 marks)

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

11. (a) What are the fundamental characteristics of a computer?

Or

(b) Describe the various types of computer.

12. (a) Write a short note on OCR.

Or

(b) Explicate the different types of screens.

13. (a) Write the differences between ink-jet printer and laser printer.

Or

(b) Explicate the various functions of main memory.

14. (a) Write a short note on Cache memory.

Or

(b) What is USB flash drive? How to perform with USB flash drive?

15. (a) Elaborate the functions of hard disks.

Or

(b) Explain the features of spread sheets.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Describe the various applications of computer.

17. Illustrate the functions of any two output devices.

18. Write the short notes on (a) PROM (b) EPROM (c) EEPROM

19. Elaborate the different types of application software.

20. Explicate the functions of an operating system.

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**D–7088**

| Sub. Code |
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| 22212 |

DISTANCE EDUCATION

CERTIFICATE COURSE IN C PROGRAMMING EXAMINATION.

MAY 2021 EXAMINATION

&

MAY 2020 ARREAR EXAMINATION

First Semester

PROGRAMMING IN C

(CBCS 2020-21 Academic Year onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What are constants?

2. How many bytes a long integer and float will Occupy in memory?

3. State the use of nesting if else statement.

4. Describe the structure of while statement.

5. Define Array.

6. How do you initialize the string variable?

7. Specify the elements of user defined function.

8. What is recursion?

9. Differentiate structure and union.

10. What is pointer?

PART B — (5 × 5 = 25 marks)

Answer ALL the questions, Choosing either (a) or (b).

11. (a) Describe the various data types in C? Give examples.

Or

(b) Explain the precedence of arithmetic operators.

12. (a) Describe "for-loop" statement with an example program.

Or

(b) Write a C program to sort `n' numbers

13. (a) How do you create two dimensional arrays? Give sample program.

Or

(b) Illustrate any five string functions using examples.

14. (a) Explicate the concepts of array of structures with sample program.

Or

(b) Write a note on structures and functions.

15. (a) How do you implement the pointers? Explain with sample program

Or

(b) Write a C program to copy a file to other.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Discuss logical and Bitwise operators with suitable examples.

17. Write a C program to find Fibonacci series.

18. Write a C program to find the sum of the digits.

19. Elucidate pointers and arrays with sample program.

20. Write a menu-driven C program to access the student data file (name, address and phone number) with the following operations :

    (a) Add a record

    (b) Delete a record

    (c) Sort the names in alphabetical order.

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**D–7089**

**Sub. Code 22213**

DISTANCE EDUCATION

CERTIFICATE COURSE IN C PROGRAMMING

EXAMINATION - MAY 2021

**DATA STRUCTURE AND ALGORITHMS**

(CBCS 2020-21 Academic Year onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define algorithm.

2. What are the 2 kinds of Algorithm Efficiency Time Efficiency? How fast your algorithm runs?

3. Write any two differences between list and array.

4. List the applications of stacks.

5. Define Doubly Linked list.

6. Write the advantages of circular linked linear list.

7. What is Binary Tree?

8. Define degree of the node.

9. What do you mean by tree edge?

10. What is Searching Problem?

PART B — (5 × 5 = 25 marks)

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

11. (a) Write a note on Data Structure.

Or

(b) Write a note on representation of arrays.

12. (a) List and explain various characteristic of array.

Or

(b) Discuss the concept of one dimensional array.

13. (a) Explain any one of the applications of Queues.

Or

(b) Write an insertion algorithm for Circular Queue. Explain

14. (a) List and explain various types of Hashing Techniques.

Or

(b) Explain different operation that can be performed on Binary tree.

15. (a) Briefly explain linear searching algorithm

Or

(b) Write a note on Searching Techniques.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Illustrate the concept of Primitive Data Types.

17. Briefly explain the operations on stack with example.

18. Give algorithm and explain the traversing a linked list with neat diagram.

19. Explain Binary Search Tree with an algorithm.

20. Explain in detail binary search.

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