D–7087

Sub. Code
22211

DISTANCE EDUCATION

CERTIFICATE COURSE IN C PROGRAMMING
EXAMINATION, DECEMBER 2020.

PRINCIPLES OF PROGRAMMING

(CBCS 2020-21 Academic Year onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Write the properties of RAM.

2. Write any two compiler names.

3. What are the drawbacks of First-generation computers?

4. List out the symbols used in Flowchart.

5. Define Rapid Application Development.

6. Define Algorithms.

7. Write any two names of database software.

8. What do you mean by system design?

9. Mention the uses of Spreadsheets.

10. What are the functions of Operating Systems?

PART B — (5 × 5 = 25 marks)

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

11. (a) Expound the history of modern computers.

Or

(b) Describe in detail the applications of computer.

12. (a) Write short note on the merits of procedural languages.

Or

(b) What are the advantages over machine and high-level languages?

13. (a) Write the differences between compilers and interpreters.

Or

(b) How does data structures effectively used in modern programming?

14. (a) How programs are developed?

Or

(b) How the results of the programs are tested during the system development?

15. (a) What do you mean by system software? Describe it.

Or

(b) Describe the basic uses of word processing software and presentation graphics software.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain in detail the different types of computers.

17. Describe about Object Oriented Programming paradigm.

18. Write brief note on block structured programming method with an example.

19. Explain in detail about the various phases of Software development life cycle.

20. Illustrate the uses of communication software.

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22212

DISTANCE EDUCATION

Certificate Programme in C Programming

DEC – 2020 Examinations

(CBCS-2020-21 Academic year onwards)

22212- Programming in C

Time : Three hours Maximum : 75 marks

Part- A (10X2=20 marks)

Answer all the questions.

1. What are escape sequences?
2. What are tokens?
3. Write the syntax for switch case statement.
4. Describe the formatted I/O operations.
5. What do you mean by dynamic array? Give example.
6. What is recursion?
7. Describe the structure with an example.
8. How do you access the structure members?
9. What is the use of & operator?
10. Mention the procedures to open and read a file.

Part B (5 x 5 = 25)

Answer all the questions choosing either (a) or (b)

11. (a) Describe the structure of 'C' program with suitable example.

(or)

11. (b) Explain various operators available in C.

12. (a) Write a program to find the sum of digits using conditional statement.

(or)

12. (b) Illustrate nested if-else statement with a program.

13. (a) Write a C program to find the factorial for 'n' numbers using array.

(or)

13. (b)Explain the declaration of function and function prototypes.

14. (a)Write a C program to create structure for the employ details.

(or)

14. (b) Explain the concepts of pointers and structures with sample program.

15. (a) Describe the ways to open and close the files in C with sample program.

(or)

15. (b) Specify how to update a file? Give a sample C program.

Part C (3 x 10 = 30)

Answer any three questions

16. Explain the following in detail
    (i) Keywords (ii) Variables (iii) Character set.
17. Using switch-case write a C program to display the days of a week.
18. Elucidate various categories of functions with examples.
19. Write a C program to print the 'n' numbers in reverse order using pointers.
20. Write a program to process the student file and find the sum and average of marks for each student in a file.

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22213

DISTANCE EDUCATION

Certificate Programme in C Programming

DEC 2020 - Examinations

(CBCS-2020-21 Academic year onwards)

22213- Data Structure and Algorithms

Time : Three hours Maximum : 75 marks

Part- A (10X2=20 marks)

Answer all the questions.

1. What are the main objectives of Data structure?
2. Define Index in Array.
3. State the two difference between arrays and linked lists
4. List the applications of queues linked lists
5. Define a Deque
6. What is Circular queue?
7. State the difference between queues and linked lists.
8. Define root with example.
9. Define hashing function.
10. Define searching

Part B (5X5=25)

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

11 a. Describe the concepts of Algorithm Analysis and Algorithm Complexity

(or)

11.b .Write a note on Space Complexity.

12 a. Distinguish stack and queue

(or)

12.b .List and explain various applications of Stack.

13a. Explain the different operations on stack.

(or)

13.b Write a note on Merging List.

14a. Discuss various basic Operations of Linked List

(or)

14.b. Explain any one Binary Tree operations

15a. Explain any two mode of Binary tree traversal with example.

(or)

15.b .Give an account on optimal binary search trees.

Part C **(3X10=30)**

Answer any THREE questions

16. What is Data Structure? Explain various types of Data Structure in detail.
17. Describe the concept of Array with an example.
18. Briefly explain the various operations on Queue.
19. Illustrate the operations on double linked linear list with algorithm
20. Briefly explain linear searching algorithm