D–7025	Sub. Code
	51711

DISTANCE EDUCATION

DIPLOMA IN COMPUTER APPLICATIONS EXAMINATION, DECEMBER 2022.

First Semester

PRINCIPLES OF INFORMATION TECHNOLOGY

(CBCS 2020-2021 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define the term Computer.

2. What is called GPS?

3. Name the different types of computer memory.

4. List down the five types of Application software.

5. What is called communication software?

6. What are the functions of OS?

7. Differentiate between LAN and WAN.

8. What is called digital signal?

9. Expand the term URL.

10. What is meant by messaging?

PART B — (5 × 5 = 25 marks)

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

11. (a) Write short notes on Information systems.

Or

(b) Explain the application of IT in Entertainment and Arts.

12. (a) Describe the various types of computers.

Or

(b) Explain the applications of computers.

13. (a) Write short notes on Presentation graphics software.

Or

(b) Explain about system software.

14. (a) Explain star topology with neat sketch.

Or

(b) Brief on Modems and communication software.

15. (a) Explain the steps in connecting to Internet.

Or

(b) Explain about Internet search engines.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. How IT is used in Education and training? Explain.

17. Discuss the History of Computers.

18. Explain the features of spreadsheet software.

19. Differentiate between Bus and Ring topology.

20. Discuss on:

    (a) E-mail communication

    (b) Domain Name System.

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D–7026

Sub. Code
51712/22412

DISTANCE EDUCATION

COMMON FOR DIPLOMA IN COMPUTER APPLICATIONS AND CERTIFICATE PROGRAMME IN WEB DESIGNING EXAMINATION, DECEMBER 2022.

First Semester

OPEN SOURCE SOFTWARE

(CBCS 2020-2021 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is Open Source software?
2. List out the names of any four open source software.
3. What is the need for Dual Mode?
4. What is personality in Linux?
5. List the names of default databases available in MySql application.
6. What are the uses of MySql web namespace?
7. What rules are present in PHP to declare a variable?
8. What is an indexed array in PHP?
9. List the uses of LDAP.
10. What is E_PARSE in error handling?

PART B — (5 × 5 = 25 marks)

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

11. (a) Compare and contrast open source and commercial software.

Or

(b) Explain the need for open source software.

12. (a) Brief on Linux Operating system.

Or

(b) Explain briefly about the Cloning concept in Linux operating system.

13. (a) Discuss in detail about Date and Time function in MySql.

Or

(b) "Working with meta data" — Explain.

14. (a) Give a brief introduction about PHP.

Or

(b) Write a PHP program to create Student database using MySql.

15. (a) Explain the connectivity concept in PHP.

Or

(b) What is template in PHP? Explain how to use the templates.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the advantages of Open Source software advantages.

17. Explain in detail about the 'process' concept in Linux operating System.

18. Make a detailed notes on String operations on MySql.

19. Discuss in detail about file handling and data storage in PHP.

20. Write a PHP program to demonstrate debugging and error handling.

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D–7027	Sub. Code
	51713

DISTANCE EDUCATION

DIPLOMA IN COMPUTER APPLICATIONS
EXAMINATION, DECEMBER 2022.

First Semester

OFFICE AUTOMATION

(CBCS 2020-21 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is a Formatting in Word?

2. What are lists in MS Word?

3. Define the term worksheet and workbook.

4. Why is Autocorrect is important?

5. How do AND functions work in Excel?

6. What is Autofill feature in Excel?

7. Which shortcut key is used to start and exit from the slideshow?

8. Is it possible to convert a presentation into a video? If yes, how?

9. Mention the way to link the explicit data into Access database?

10. List the different types of views in MS PowerPoint?

PART B — (5 × 5 = 25 marks)

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

11. (a) Illuminate the main features of Ms-Word.

Or

(b) Differentiate between footnotes and endnotes.

12. (a) What are the different components of Spreadsheet?

Or

(b) Discuss the various mathematical and statistical functions in MS Excel with examples.

13. (a) Discuss the various slide layouts in Power Point.

Or

(b) What are design templates? How many types of design templates are there?

14. (a) Illuminate Video and Audio effects and colour schemes.

Or

(b) What are the different types of queries in Ms Access?

15. (a) How do you create multiple subforms in Ms Access?

Or

(b) What are the various control types in Microsoft Access?

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explicate in detail about Mail-merge with example

17. Enlighten the concept of Freezing Panes and Macros in MS Excel.

18. Describe the various types of Charts in Excel with examples.

19. Explain in detail about various types of queries in MS Access with examples.

20. Discuss the major MS Access objects in details.

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D–7028	Sub. Code
	51721

DISTANCE EDUCATION

DIPLOMA IN COMPUTER APPLICATIONS EXAMINATION,
DECEMBER 2022.

Second Semester

DIGITAL LOGIC FUNDAMENTALS

(CBCS 2020-21 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Is 0 a real number?

2. What is decimal number system? Write its elements

3. What is the binary equivalent of the decimal number 97?

4. Who invented boolean logic?

5. Give an example for boolean expression.

6. What is meant by product of sum?

7. Why full adder is used?

8. Where is decoder used?

9. How many types of sequential circuits are there?

10. How data is actually represented in memory?

PART B — (5 × 5 = 25 marks)

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

11. (a) Explain the use of complements.

Or

(b) Explain about binary arithmetic through examples.

12. (a) Can boolean algebra deal with any number system? Justify.

Or

(b) What is hello in binary? Explain.

13. (a) Write short notes on sum of products method with an example.

Or

(b) Explain the following, (i) AK map (ii) How many minterms arc needed for 4 Variable?

14. (a) List out the difference between half adder and full adder.

Or

(b) What is shift register? Discuss about its types.

15. (a) What is a memory unit? Discuss about its functions.

Or

(b) What are 1's and 2's complement? Explain with an example.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Discuss in detail about conversion from decimal to binary, octal and hexadecimal number systems and vice versa.

17. What is Demorgan's theorem? Explain in detail about various operations with truth tables.

18. What is Quine-Mccluskey method? Discuss about its procedure with an example.

19. Elaborate on demultiplexers with a neat structure.

20. Discuss in detail the following, (a) BCD Counter (b) Error detection codes.

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D–7029	Sub. Code
	51722

DISTANCE EDUCATION

DIPLOMA IN COMPUTER APPLICATIONS
EXAMINATION, DECEMBER 2022.

Second 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 is called token?

2. Write down the arithmetic operators in C.

3. What is the purpose of GOTO statement?

4. Define the term array.

5. How will you declare a string variable?

6. Write down the syntax of defining a function.

7. What do you mean by function call?

8. What is the difference between structure and union?

9. How will you access the address of a variable through pointer?

10. Write the command to open a file.

PART B — (5 × 5 = 25 marks)

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

11. (a) Describe the C character set.

Or

(b) List and Explain the arithmetic operators in C.

12. (a) Write about Decision making statements.

Or

(b) Differentiate between while statement and do statement.

13. (a) Write short notes on dynamic arrays.

Or

(b) Explain the components of user defined functions.

14. (a) Explain recursion with example.

Or

(b) Explain arrays within structures with an example.

15. (a) How will you declare and initialize pointer variables? Explain with syntax.

Or

(b) Explain the various I/O operations on files.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. List and explain the basic data types in C.

17. Explain the looping statements with syntax and example.

18. Explain the syntax of multidimensional array with a sample code.

19. Write a C program to implement structures within structures.

20. Explain the command to define, open and close a data file in C.

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D–7030	Sub. Code
	51723

DISTANCE EDUCATION

DIPLOMA IN COMPUTER APPLICATIONS
EXAMINATION, DECEMBER 2022.

Second Semester

DATA STRUCTURES AND ALGORITHMS

(CBCS 2020-21 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What do you mean by the term algorithm?

2. Define the Space complexity of an algorithm.

3. How to initialize a two dimensional array?

4. Differentiate between infix and postfix notations.

5. Define the term Priority queue.

6. Differentiate between single and double linked list.

7. What is the advantage of linked list?

8. Define the term Full binary tree

9. Define the term hash function.

10. What is meant by Interval Search?

PART B — (5 × 5 = 25 marks)

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

11. (a) Discuss on the categories of an algorithm.

Or

(b) Write an algorithm to find simple interest. (SI = PNR/l00)

12. (a) Discuss traversal operation in an array with illustrations.

Or

(b) What is sparse matrix? Give an example.

13. (a) Describe pop operation in stack.

Or

(b) What are the ways to represent a queue? Explain.

14. (a) Explain how to insert an element in double linked list.

Or

(b) Explain how to delete an element from a single linked list.

15. (a) How does hashing in data structure work? Discuss.

Or

(b) Discuss on the post order traversal in binary search tree.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Write and explain the procedures to insert and delete an element from two dimensional array.

17. Explain about operations on queue.

18. Illustrate traversal operation in single and double linked list with suitable examples.

19. Discuss in detail about operations in binary tree.

20. Detail on linear search technique.

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