D–4012

Sub. Code
51711

DISTANCE EDUCATION

DIPLOMA IN COMPUTER APPLICATIONS EXAMINATION,
MAY 2024.

First Semester

PRINCIPLES OF INFORMATION TECHNOLOGY

(CBCS 2020 – 21 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

PART A — ($10 \times 2 = 20$ marks)

Answer ALL questions.

1. What is meant by information system?

2. Expand and write a note on the term WASS.

3. State the uses of cache memory.

4. Define the term processor.

5. Write a short note on the term database.

6. What do you mean by system software?

7. Write the meaning of the term firewall.

8. What is meant by intranet?

9. Write the basic working principle of modem.

10. What do you mean by the term digital signal?

PART B — ($5 \times 5 = 25$ marks)

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

11. (a) With examples, explain how IT supports business sectors.

Or

(b) Explain with suitable example for IT in Engineering.

12. (a) What do you meant by primary memory? Explain in detail.

Or

(b) Discuss in detail about computer registers.

13. (a) Demonstrate the concepts of licensed and free domain software.

Or

(b) Explain the features of spread sheet.

14. (a) List down the advantage and disadvantage of LAN.

Or

(b) List down the advantage of WAN.

15. (a) Write some useful features of ISDN services.

Or

(b) Illustrate the concept of client server operation.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Explain in detail about IT in education and training with suitable examples.

17. Describe the evolution of computers in generations.

18. Discuss in detail about the functions of an operating systems.

19. What is computer network? Explain any three types of computer network.

20. Explain in detail about the elements of digital communication.

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D–4013

Sub. Code
51712/22412

DISTANCE EDUCATION

COMMON FOR DIPLOMA IN COMPUTER APPLICATIONS AND CERTIFICATE PROGRAM IN WEB DESIGNING EXAMINATION, MAY 2024.

First Semester

OPEN SOURCE SOFTWARE

(CBCS 2020 – 21 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. What is mean by open source software?
2. Where is Linux operating system used?
3. What are the Linux Directory Commands?
4. Define Database.
5. How do you insert data into MySQL?
6. Define Constant.
7. What is PHP?
8. What is mean by error handling?
9. Write the syntax of exit control loop in PHP.
10. How do you use templates in PHP?

PART B — ($5 \times 5 = 25$ marks)

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

11. (a) Explain the advantages of open source software.

Or

(b) What is the need of open source software? Explain.

12. (a) State and explain the advantages of Linux.

Or

(b) Wire a short note on user mode.

13. (a) Write any five commands in MySql.

Or

(b) Explain My-SQL 'select' clause with an example.

14. (a) Illustrate the concept of working with meta data.

Or

(b) Explain how to generate the output summary with an example?

15. (a) Explain data types in PHP.

Or

(b) Write a PHP program to find the sum of series.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Discuss about various applications of open source software.

17. Narrate the scheduling working concept in Linux.

18. Explain about date and time functions in My-SQL.

19. Demonstrate the defining and accessing of function in PHP.

20. Describe about Arrays and its types with example.

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D–4014

Sub. Code
51713

DISTANCE EDUCATION

DIPLOMA IN COMPUTER APPLICATIONS
EXAMINATION, MAY 2024.

First Semester

OFFICE AUTOMATION

(CBCS 2020 – 21 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

PART A — ($10 \times 2 = 20$ marks)

Answer ALL the questions.

1. List any two advantages of MS Word.

2. Write the short cut keys for line spacing.

3. Write the description with example for function MAX and SQRT.

4. How can you split a column into 2 or more columns?

5. How many report formats are available in Excel?

6. List out the major features of Power Point.

7. Write note on slideshow sorter.

8. What is a table?

9. What is macro?

10. How to create a field name in Access?

PART B — (5 × 5 = 25 marks)

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

11. (a) Explain the different types of views in MS word.

Or

(b) Discuss the various menus available in MS-Word.

12. (a) Discuss the steps to create a Query in MS-Excel.

Or

(b) Write a note on editing a worksheet.

13. (a) How do you work with text in MS PowerPoint? Explain.

Or

(b) How to protect a presentation by setting up a password on it?

14. (a) How can you build a relationship between the different databases in Access? Discuss it.

Or

(b) Explain the procedure to export data in Excel format.

15. (a) List out the various forms available in MS-Access.

Or

(b) How to enter data, edit data and delete data in Access? Discuss it.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the different options available in Edit Menu in MS Word.

17. Explain the various charting facilities available in MS-Excel.

18. What are the Mathematical Functions available in Excel? Explain any five.

19. How will you enhance and Present a PowerPoint presentation? Discuss in detail.

20. Describe the various objects in MS-ACCESS.

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D–4015

Sub. Code
51722

DISTANCE EDUCATION

DIPLOMA IN COMPUTER APPLICATIONS
EXAMINATION, MAY 2024.

Second Semester

PROGRAMMING IN C

(CBCS 2020 – 21 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

PART A — ($10 \times 2 = 20$ marks)

Answer ALL questions.

1. List out the rules for defining variables.
2. What are called symbolic constants?
3. Write down the syntax of reading a character from standard input device.
4. State the difference between while and do loops.
5. How will you define one-dimensional array? Give example.
6. What do you mean by function prototype?
7. Define recursion.
8. Give the syntax to declare a structure variable.
9. Mention the use of pointers.
10. List out the basic operations on files.

PART B — ($5 \times 5 = 25$ marks)

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

11. (a) Describe the basic structure of a C program.

Or

(b) Explain the precedence of arithmetic operators and evaluation of expressions.

12. (a) Explain formatted I/O statements in C.

Or

(b) Illustrate else if ladder with syntax and example.

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

Or

(b) List and explain any five string handling functions in C.

14. (a) Explain the concept of nesting of functions with pseudo code.

Or

(b) Illustrate array within structures with a sample program.

15. (a) Explain the syntax to initialize a pointer variable and access the data through pointers.

Or

(b) Give syntex for various modes of opening a file and reading data from it.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Describe the various types of Operators in C.

17. Explain the looping statements with syntax and example.

18. Write a C program to perform Matrix multiplication.

19. Write a C program using recursion to find the factorial of a given number.

20. Illustrate structures within structures with suitable example.

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D–4016

Sub. Code
51723

DISTANCE EDUCATION

DIPLOMA IN COMPUTER APPLICATIONS
EXAMINATION, MAY 2024.

Second Semester

DATA STRUCTURE AND ALGORITHMS

(CBCS 2020 – 21 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

PART A — ($10 \times 2 = 20$ marks)

Answer ALL questions.

1. Why do we need data structure?
2. Differentiate between linear and non-linear data structures.
3. List out the differences between array and structure.
4. What is meant by searching?
5. Differentiate between Stack and Queue data structures.
6. Convert the following infix expression to postfix expression using Stack. a+b*c+(d+e+f)/g.
7. What are the advantages of Linked List over arrays?
8. What are the operations performed in list?
9. Define the term binary search tree.
10. What do you mean by level of the tree?

PART B — ($5 \times 5 = 25$ marks)

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

11. (a) What is meant by algorithm? Discuss the different steps in the development of an algorithm.

Or

(b) Write short notes on efficiency of an algorithm.

12. (a) How do you initialize an Array? List the characteristics of an Array.

Or

(b) Explain linear search algorithm with an example and also find its time complexity.

13. (a) Explain briefly about different ways of implementating Stack data structure.

Or

(b) Write a function to examine whether the stack is full( ) or empty( ).

14. (a) Explain header linked list with an example.

Or

(b) Briefly explain the different representation of linked list.

15. (a) What are the different types of Binary tree? Explain with suitable example.

Or

(b) What is traversing? Write recursive procedure for in-order traversal of a binary tree.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Discuss in detail about the time and space complexity of algorithms.

17. Describe in detail about multi-dimensional array.

18. What are the limitations of queue? Explain the algorithms for various operations on queue.

19. Differentiate between singly linked and doubly linked list. How do you insert and delete a node form doubly linked list? Explain.

20. When do you perform rehashing? Illustrate with an example.

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