SEDF101

Reg. No. | | | | | | | | |

I Semester B.C.A. (Odd) Degree Examination, May/June - 2022

COMPUTER SCIENCE

Digital Fluency

(NEP Scheme)

Time : 1½ Hours **Maximum Marks : 30**

Instructions to Candidates:

Answer all Parts.

PART - A

Answer any **Five** questions. Each question carries **2** marks. **(5×2=10)**

1. Define operating system. Give any two examples.
2. Name different office automation tools.
3. What is the purpose of spread sheet?
4. Define the terms.
   a) Gateway.
   b) IOT.
5. What is malware? Mention any two malwares.
6. What is an antivirus?
7. Define the terms :
   a) Database.
   b) DBMS.
8. What is meant by digital foot print?

[P.T.O.

PART - B

Answer any **Four** questions. Each question carries **5** marks. **(4×5=20)**

9. Explain different office automation tools.

10. a) Differentiate between HTTP and HTTPs. **(2)**

b) Write a note on types of networks. **(3)**

11. Write a note on hackers and crackers.

12. Write a note on any two types of networking devices.

a) MODEM.

b) Ethernet card.

c) Hub.

13. Discuss various E-learning platforms.

14. Mention the steps to create google questionnaires.

DCCA103

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I Semester B.C.A. Degree Examination, May/June - 2022

COMPUTER SCIENCE

Data Structure

(NEP Scheme 2021)

Paper : CA-C3T

Time : 2½ Hours **Maximum Marks : 60**

Instructions to Candidates : Answer all Sections.

SECTION - A

I. Answer any Four questions. Each question carries Two marks. **(4×2=8)**

1) Define Abstract Data Type.

2) What is sparse matrix?

3) Define Linked list.

4) Define

   a) Directed graph

   b) Weighted graph.

5) Define Binary Search.

6) Define Hashing.

SECTION - B

II Answer any Four questions. Each question carries Five marks. **(4×5=20)**

7) Explain traversal of singly linked list

8) Explain circular queue with example.

9) Write an algorithm for inserting values in circular queue.

10) Define Binary search Tree. Give example.

11) Explain Linear Search algorithm

12) Explain Topological sorting.

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SECTION - C

III. Answer any Four questions. Each question carries Eight marks (4×8=32)

13) a) Explain the different types of data Structures. (4)

b) Write a note on Asymptotic notations. (4)

14) a) Evaluate Postfix expression. Show step clearly 6, 5, 3, +, * , 12, 3, /, - (4)

b) Write algorithms for

i) Push

ii) Pop operations for stack (4)

15) What is Recursion ? Write an algorithm for tower of Hanoi Problem. (8)

16) Write short notes on : (8)

a) Lexicographic Search Trees

b) B - Trees.

17) a) Define Sorting (2)

b) Write a C Program to sort an array using insertion sort technique. (6)

18) Explain hashing techniques and techniques for collision resolution. (8)