

(FOR THE CANDIDATES ADMITTED
DURING THE ACADEMIC YEAR 2021 ONLY)

(NO OF PAGES: 2)

21UCS205

REG.NO

NGM COLLEGE (AUTONOMOUS) POLLACHI

END-OF-SEMESTER EXAMINATIONS: JULY- 2022

B. Sc-Computer Science (Aided & SF)

MAXIMUM MARKS: 70

II SEMESTER

TIME: 3 HOURS

PART III

DATA AND FILE STRUCTURES

SECTION – A

(10 X1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS

MULTIPLE CHOICE QUESTIONS

(K1)

1. It is called as LIFO list
a) Queue b) Stack c) Array d) File
2. A matrix with many zero elements is called_____
a) Unit matrix b) Square matrix c) Sparse matrix d) Null matrix
3. A search that involves both addition and deletion operation is called_____
a) Binary b) Sequential c) Random d) Fibonacci
4. Which of the following is an internal sorting method?
a) Quick b) 2 way c) Disk d) Tap
5. A query used to retrieve a set of records from table_____
a) Simple query b) Range query c) Set query d) single query

ANSWER THE FOLLOWING IN ONE OR TWO SENTENCES

(K2)

6. Define Array.
7. What is meant by Garbage collection?
8. Define Graph.
9. What is meant by Heap?
10. Define query.

(CONTD....2)

SECTION – B**(5 X 4 = 20 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)**

11. a) Explain ordered list with example.
(OR)
b) Explain stack operation.
12. a) Explain single linked list.
(OR)
b) Write a note on dynamic storage management.
13. a) Write a note on binary tree.
(OR)
b) How do you represent graph?
14. a) Explain sequential search with example.
(OR)
b) Explain 2 way merge sort.
15. a) Explain the types of storage device.
(OR)
b) Explain hashed indexes.

SECTION - C**(4 X 10 = 40 MARKS)****ANSWER ANY FOUR OUT OF SIX QUESTIONS.****(16TH QUESTION IS COMPULSORY AND ANSWER ANY THREE
QUESTIONS FROM Q.NO: 17 TO 21)****(K4) OR (K5)**

16. Discuss the array representations in detail.
17. Explain queue operations with suitable example.
18. Explain polynomial addition with suitable example.
19. Explain Binary Tree representation of Tree.
20. Explain Heap sort with suitable example.
21. Write in detail about Random organization of file.