Data Structures(3130702)

1) Definition of data structures , types of data structure[(s2024)Q.1 (a),
2) (w2023)Q.1 (a), (s2023)Q.1 (a), Q.1(a)w2019]
3) time complexity[Q.5(a)s2023,Q.1(b)w2022,Q.1(a)w2021,Q.1(c)w2019]
4) Tower of Hanoi[Q.2(a)s2024,Q.3(c)w2023,Q.1(b)s2023,Q.4(b)w2022,Q.3(b)s2021]
5) circular queue[Q.3(b)w2022,Q.3(a)s2021,Q.2(c)w2021,Q.4(b)w2020,Q.2(c)s2020,Q.2(c)w2019]
6) priority queue[Q.3(b)s2024,Q.5(c)s2023,Q.4(a)w2022Q.3(b)s2021,Q.1(c)w2021,Q.3(c)w2020]
7) primitive and non-primitive data structures[Q.2(b)w2023,Q.5(c)s2023,Q.2(b)w2023,Q.1(a)s2021,Q.1(c)w2021,Q.1(b)w2020
8)]
9) *sparse matrix[Q.4(a)s2024,Q.3(c)w2023,Q.5(c)s2023,Q.2(a)w2022,Q.1(c)w2021,Q.4(b)w2019]
10) Stack[Q.2(c)s2024,(Q.1(c),Q.2(c),Q.3(a)w2023),Q.2(c)s2023,Q.1(c)w2022,Q.2(c)s2021,(Q.1(c)Q.2(c)w2021),(Q.3(a)Q.4(a)w2020)Q.2(a,b)s2020]
11) Queue[Q.2(c)s2024,Q.2(c)w2023,(Q.1(c)Q.3(c)s2023),Q.3(b)w2022,Q.2(c)s2021,Q.3(c)w2021,Q.1(c)w2020,Q.2(a)s2020,Q.2(b)w2019]
12) Linked list[Q.4(c)s2024,Q.2(a)w2023,Q.3(a,b)w2023,Q.4(b)s2023,Q.4(a)w2022,Q.3(c)s2021,Q.3w2021,Q.1(a)w2020,Q.2(c)s2020]
13) Binary tree traversal[Q.3(a)s2024,Q.4(c)s2024,Q.4(c)s2024,Q.4(b)w2023,Q.4(a)w2023,Q.2(a,c)s2023,Q.2(c)w2022,Q.4(a)w2021,Q.4(b)s2021]
14) AVL trees[Q.4(b)s2024,Q.4(a)w2023,Q.2(b)s2023,Q.2(c)w2022,Q.4(b)w2021]
15) krushkal's and prim's algorithm[Q.3(c)s2024,Q.4(c)w2023,Q.4(c)s2023,Q.3(c)w2022,Q.5(a)w2021,Q.4(c)s2021]
16) Breadth First Search, Depth First Search[Q.3(b)s2024,Q.4(c)w2023,Q.4(c)w2022,Q.4(b)w2021,Q.4(b)s2021,Q.6(b)w2020Q.3(c)s2020]
17) HASHING[Q.2(b)s2024,Q.5(c)s2024,Q.5(a)w2023,Q.3(b)s2023,Q.5(c)s2023,Q.5(a)w2022,Q.7(b)w2020]
18) Collision Resolution[Q.5(c)w2023,Q.5(c)s2023,Q.3(c)s2023,Q.5(c)w2022,Q.5(b)s2021,Q.4(c)s2020]
19) Definition of fields, records and files[Q.5(a)s2024,Q.4(a)s2023,Q.5(c)w2022,Q.5(a)w2021]
20) File Organization[Q.5(a)s2024,Q.5(b)w2023,Q.5(a)s2021,Q.7(c)w2020,Q.4(b)s2020]
21) Bubble Sort[Q.5(b)S2024,Q.5(B)W2023,Q.3(A)W2022,Q.2(C)W2020,Q.5(A)W2019]
22) Quick Sort[Q.5(C)W2023,Q.5(B)W2022,Q.5(C)W2021,Q.5(B)S2020]
23) Merge Sort[Q.1(b)S2024,Q.5(B)W2022,Q.2(B)W2020,Q.5(B)W2019]
24) Differentiate Sequential Search and Binary Search [Q.5(B)W2023,Q.5(B)W2021,Q.5(B)S2020]
25) Binary Search[Q.5(B)W2023,Q.5(B)S2023,Q.3(A)S2023,Q.2(B)W2022,Q.5(B)W2021,Q.1(B)S2021,Q.2(A)W2020,Q.5(B)S2020]

Ch 1

(s2024)Q.1 (a) Explain data structure. Enlist and explain the importance of data structure.

(w2023)Q.1 (a) Define data structure. Enlist and explain types of data structure.

(s2023)Q.1 (a) What is DS? Explain data structure and its types.

(s2020)Q.1 (a) Differentiate between data types and data structures.

(w2023)Q.2 (b) Differentiate primitive and non-primitive data structures.

(s2023)Q.5 (c) Explain following: (i) Recursion (ii) Nonprimitive data structures (iii) Hashing (iv) Non-linear data structures (v) sparse matrix (vi) Priority queue (vii) Collision

(w2022)Q.1 (a) Differentiate primitive and non-primitive data structures