WALCHAND COLLEGE OF ENGINEERING
(Government Aided Autonomous Institute)
Visharambag, Sangli – 416415
Second Year B.Tech. Computer Science & Engineering
MSE, ODD SEMESTER, AY 2023-24
Data Structures (6CS202)

MSE

PRN: _____

& Date: Saturday, 23/09/2023   Time: 3.00 pm to 4.30 pm

Max Marks	30

IMP: Verify that you have received question papers with correct course code, branch etc.

ext on the right of marks indicates course outcomes (Only for faculty use)   Marks

1 A) Differentiate between Algorithm and Pseudocode. Write Pseudocode to sort N number of elements.   6   CO2

B) Analyze the time complexity of recursive function for the problem Tower of Hanoi.   4   CO3

2 A) Illustrate Insert operation algorithm on Doubly Linked List.   6   CO1

B) Write an algorithm to reverse a given Linked List.   4   CO2

3 A) After performing the following set of operations on Double Ended Queue, what will be the contents of Double Ended Queue?   CO1

InsertFront (10);
InsertFront (20);
InsertRear (30);
DeleteFront ();
InsertRear (40);
InsertRear (10);
DeleteRear ();
InsertRear (25);
Display ();   2

B) Convert the following infix expression to a postfix expression.   4   CO2
$(A + (B / C - (D \wedge E / F) * G) * H)$ 4   CO1

C) Describe types of Queues in detail.

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