CMR Institute of Technology, Bangalore		
Department(s): Information Science & Engineering		
Semester: 4	Section(s): A/B/C	Lectures/week: 04
Subject: Analysis & Design of Algorithm		Code: BCS401
Course Instructor(s): Prof. Dinesh Kumaar/Prof. Kavitha		
Course duration: Feb 2026 – May 2026		
Google Classroom Link: https://classroom.google.com/c/ODQzNzM0ODg1MzA0?cjc=fmvezgz7		

Assignment-1 Issue Date: 25-03-26

No	Questions-SET A	Bloom's Level	Course Outcome
1	Define algorithm Explain asymptotic notations Bigh oh, Big omega and Big theta notations.	L2	CO1
2	Design an algorithm for Quick sort. Apply quick sort on these elements. 5, 3, 1, 9, 8, 2,4, 7.	L3	CO2
3	With the algorithm derive the worst case efficiency for selection sort.	L3	CO1

S.No	Questions-SET B	Bloom's Level	Course Outcome
1	Explain the general plan for analyzing the efficiency of a recursive algorithm. Suggest a recursive algorithm to find factorial of number. Derive its efficiency.	L3	CO1
2	Explain the concept of divide and conquer. Design an algorithm for merge sort and derive its time complexity.	L3	CO2
3	With the algorithm derive the worst case efficiency for Bubble sort	L2	CO1

S.No	Questions -SET C	Bloom's Level	Course Outcome
1	With a neat diagram explain different steps in designing and analyzing algorithm.	L2	CO1
2	Explain Strassen's Matrix multiplication and derive its time complexity.	L2	CO2
3	With the algorithm derive the worst case efficiency for Insertion sort	L2	CO2