Subject Code: AY:2024-25



## MATRUSRI ENGINEERING COLLEGE (An Autonomous Institution) 16-1-486, Saidabad, Hyderabad-500059 (Approved by AICTE, Affiliated to Osmania University)



## **Department of Information Technology**

## B.E. VI-SEM Assignment -I

B.E. VI-SEW Assignment -1					
Subject: DAA (PC602IT)		Marks: <b>10 M</b>			
S.No.	Questions		Marks	BL	СО
1	Prove that $4.2^3 + 2n^2 = O(n^3)$		2 M	L2	CO1
2	Prove that 3 <sup>n</sup> !=O(2 <sup>n</sup> )		2 M	L2	CO1
3	What is space complexity? Write an algorithm for adding n natural numbers		3M	L2	CO1
	and find the space required by that alg	orithm.			
4	Give short notes on Asymptotic notation		3 M	L1	CO1