

Subject Code: PC501IT		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. V-SEM Assignment -III				
Subject: AT (PC501IT)		Marks: 10 M		
S.No.	Questions	Marks	BL	CO
1	What is the purpose of normalization? Construct the CNF and GNF for the following grammar and explain the steps. S→aAa bBb € A→C a B→C b C→CDE € D→A B ab	2 M	L2	CO3
2	Find the context free languages for the following grammars. 1. S→aSbS bSaS ε 2. S→aSb ab 3. S→aSb aAb, A→bAa, A→ba	2 M	L4	CO3
3	Convert following CFG to equivalent Chomsky Normal Form(CNF). S ->AACD ACD AAC CD AC C A-> aAb ab C-> aC a D-> aDa bDb aa bb	3M	L4	CO3
4	Derive the string"00101" for left most derivation (LMD) and right most derivation (RMD) using context free grammar (CFG) S->A1B A->0A ε B->0B 1B ε	3 M	L4	CO3