III/IV B.Tech (Regular / Supplementary) DEGREE EXAMINATION

· ·		III/IV B.Tech (Regular / Supplementary) DEGREE EXAMINAT	Idilo	Techn	ology
	Janu:	ary, 2022	Com	niler D	esign
		Semester	Maxim	ximum: 30 mane	
		Three Hours	(10X	1 = 101	Marks)
A	nswei	r Question No.1 compulsorily.	(4X	10=40	Marks)
A	nswei	- ONE question from each unit.	(, , ,	CO1	
	1. a)	Define Alphabet.		CO1	
	b)			CO1	
	c)	$(R^*)^* =$		CO2	
	d)	What is ambiguous grammar? Define PDA.		CO ₂	
	e) f)	Define Compiler.		CO3	
	g)	What is handle.		CO3	
	h)	What is the role of the syntax analysis?		CO4	
	i)	What are the different types of intermediate representations?		CO4	
	j)	Define Basic Block.		CO4	
	37	Unit -I		a 01	53.6
2.	a)	Design a DFA which accepts the strings with a substring as aab.		CO1	5M
	b)	State pumping lemma for Regular Languages. Explain with example.		CO1	5M
	. 15	(OR)			
3.	a)	Convert following NFA into DFA.	1	CO1	5M
		0.1			
		$\ddot{\wedge}$	I are taken of		Light of
	Alberta State				
1			包含	601	
	- b)	Explain closure properties of Regular Languages.		COI	,5M
1	۵,	Unit –II	000	COO	53.4
4.	a)	Consider the following grammar	CO2	CO2	5M
		$S \rightarrow A1B$			
		$A \rightarrow 0A \mid \epsilon$			
		$B \rightarrow 0B \mid 1B \mid \epsilon$			
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	b)	$B \rightarrow 0B \mid 1B \mid \epsilon$		CO2	5M
	b)	$B \rightarrow 0B \mid 1B \mid \in$ Give leftmost and rightmost derivations of the following string 00101 Convert the following grammar in to Chomsky Normal Form (CNF).		CO2	5M
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