



# MARWADI UNIVERSITY

## **Faculty of TECHNOLOGY**

## **COMPUTER ENGINEERING/INFORMATION TECHNOLOGY**

[B.TECH.] **SEM: 6 SUMMAR:2019** 

**Subject: - Compiler Design (01CE0601)** Date :- 08/04/2019 **Total Marks:-100** Time: - 03:00 hours

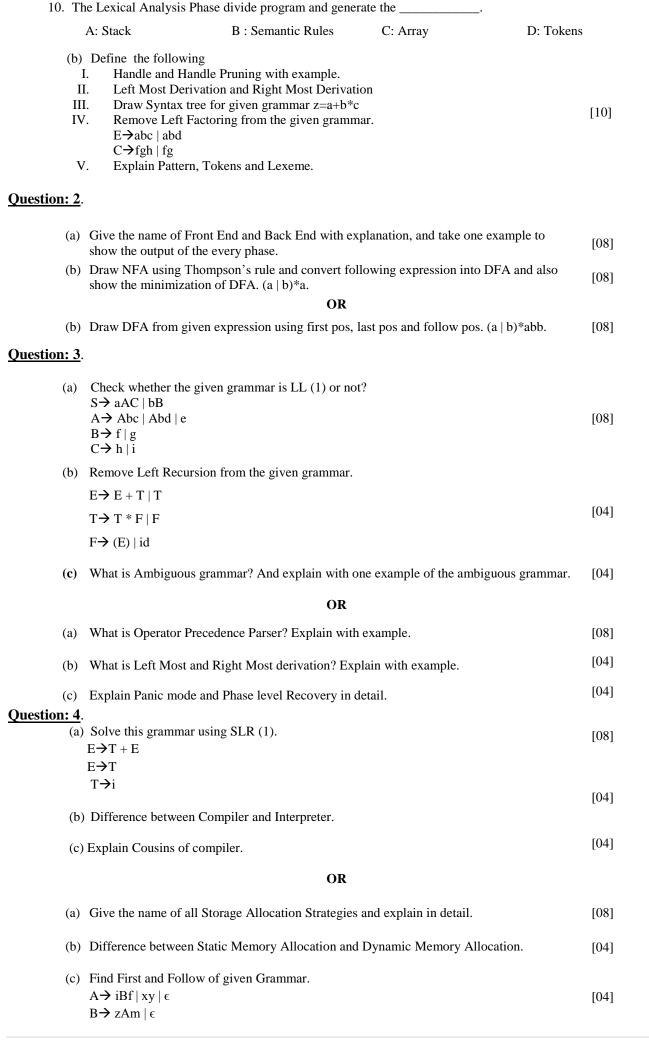
#### **Instructions:**

- 1. All Questions are Compulsory.
- 2. Make suitable assumptions wherever necessary.

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3	. Figures to the right ind	icate full marks.	·		
Question	<u>: 1.</u>				
(a) Answ	er below the given MCQs				[10]
1.	Which one is not under cousins of compiler?				
	A: Pre-processor	B : Assembler	C: Loaders and Linkers	D: Activa Record	tion
2.	Syntax tree generated by th	e	Phase of compi	ler.	
	A: Lexical Analyzer		C: Code G	enerator	
	B: Syntax Analyzer		D: Code O	ptimizer	
3 takes entire program as an input.					
	A: Compiler	B : Interpreter	C: A and E	3	D: None of these
4.	Quadruple Table contain ho	ow many Colum?			
	A: 3		C:1		
	B: 4		D:2		
5.	Which of the following is not include in the front end?				
	A: Lexical Analzer	B : Target Code Generation	C: Semant	ic Analyzer	D: Intermediate Code Generation
6.	$S \rightarrow aBCde  B \rightarrow f \mid g  G$	C→ h			
	According to given gramma		_	he Left Most I	
	A: afCde	B: aBCdg	C: aBhde		D: None of these
7.	Which of the following is not present in the Activation Record?				
	A: Temporaries	B : OptionalAcces Links	s C: Semant	ic Link	D: Optional Control Links
8.	Which one is Top down Pa	rsing?			
	A: Shift Reduce Parser	B : Predictive Pars	sing C: SLR		D: LALR
9.	A grammar that produces more than one parse tree for some sentence is called				
	A: Ambiguous	B : Unambiguous	C: can be A	A or B	D:None of these

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# Question: 5.

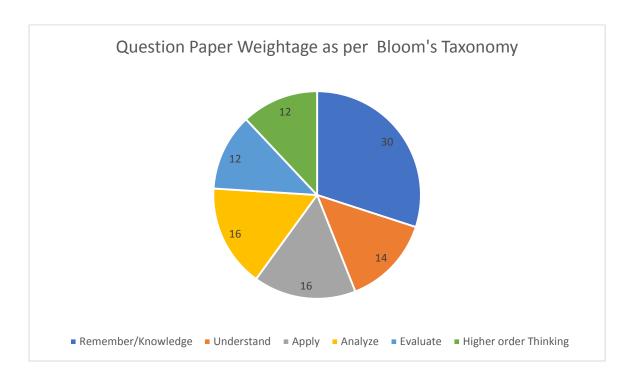
(a)	Explain Code Optimization technique in detail with example.	
(b)	Explain Top Down and Bottom Up parsing in Brief.	
(c)	What is Peephole Optimization and explain it.	[04]
	OR	
(a)	For the given example solve with every technique of the three address code generation. $z := x * - y + x * - y$ .	[08]
(b)	Explain what is DAG? Draw DAG for $[(a*b) + (a*b)] - [(c*d) + (c*d)]$ .	[04]
(c)	Draw Transition diagram for relational operator.	[04]
Question: 6.		
(a)	What is Activation Record? Explain in brief.	[08]
(b)	Give name of Parameter Passing Technique, and explain any 2.	[04]
(c)	(c) What is Symbol Table? Why we use Symbol Table.	
	OR	
(a)	Write the Issues in Design of Code Generator.	[08]
(b)	Explain Global Data Flow Analysis.	[04]
(c)	Draw RE to Epsilon NFA using Thompson's Method. a ( a   b)*	[04]
	Rest of Luck	

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Que. Paper weight-age as per Bloom's Taxonomy

No.	Que. Level	% of weight-age		
		% of weight -age	Que. No.	
1	Remember/Knowledge	30	1(b), 2(a), 6(a), 6(a-or), 5(c-or), 5(c)	
2	Understand	14	1(a), 3(c-or), 4(c-or), 6(b), 6(b-or), 4(a-or)	
3	Apply	16	3(b), 3(b-or) 3(c), 3(a-or), , 5(a-or), 5(a)	
4	Analyze	16	2(b), 2(b-or), 4(b), 4(b-or)	
5	Evaluate	12	3(a), 5(b), 5(b-or), 6(c-or)	
6	Higher order Thinking	12	4(a), 4(c), 6(c)	

# **GRAPH:**



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