Total No. of Questions: 3



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Faculty of Engineering Mid Sem-I Examination February-2024 CS3CO27 Compiler Design

Programme: B.Tech Duration: 1.5 Hrs.

Branch/Specialization: CSE Maximum Marks: 30

BL2 CO2 PO2

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1

(MCC)	(s) should be written in full instead of only a, b, sary. Notations and symbols have their usual meaning	c or d. As g. Marks			s0
Q.1	 i. Which of the following technique is used for building cross compilers for other machines? a) Canadian Cross b) Mexican Cross c) X-cross 	1	BLO	COI POI	
	d) Brazilian Cross ii. Which of the following component important for semantic analysis?	is 1	BL0	CO1 PO1	
	a) Yacc b)Lex c)Symbol Table d)Type Checking iii. YACC builds up a) SLR parsing table b) Canonical LR parsing table	1	BLO	CO2 POI	
	c) LALR parsing table d) None of the mentioned iv. Which is the most powerful parser? a) SLR	1	BL	CO2 PO1	

v. How many derivation trees are there? S->bA S->aB

b) LALR c) Canonical LR d) Operator-precedence

B->b A->aS B->bS

A->bAA B->aBB a) 1

b) 2

A->a

c) 3

d) 4

Describe its methodologies. 1. What is a parser and its various parsing techniques? 1. Check whether the given grammar is ambiguous or not- R			Aur I		the state of		25.6		
the same string? a) Unambiguous b) Regular c) Ambiguous d) All of the above Q.2 i. Write down the role of lexical analyzer. iii. Explain the cross compiler and boot strap compiler. iii. Explain the concept of front end and back end phases in the context of compiler design. Q.3 i. What is a parser and its various parsing Describe its methodologies. Q.3 i. What is a parser and its various parsing techniques? ii. Check whether the given grammar is ambiguous or not- $R \rightarrow R + R / R . R / R^* / a / b$ iii. Calculate the first and follow functions for the given grammar- $S \rightarrow ACB / CbB / Ba$ $A \rightarrow da / BC$ $B \rightarrow g / \in$ $C \rightarrow h / \in$ iv. Compare the Recursive Predictive Descent Parser and the Non-Recursive Predictive	POI	CO2 I	B1.0	1	e parse trees for	ar gives mul			
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