Exam.Code:0925
Sub. Code: 33592

2076

B. E. (Information Technology)

Seventh Semester

PCIT-702: Compiler Design

Time allowed: 3 Hours **Max. Marks: 50**

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.

x-x-x

1.	(a) (b) (c) (d) (e)	Define Symbol Table? Explain backpatching with suitable example What is LALR parser? Define type checking and give an example of a type error. What is a control flow graph (CFG)?	[2X5]
		UNIT - I	
2.	(a) (b)	Design a lexical analyzer for C keywords. How does a cross-compiler differ from a native compiler? Give an example.	[5] [5]
3.	(a) (b)	Eliminate Left Recursion for the grammar A→ Ac|Aad|bd Consider the grammar E -> E + E | E * E | (E) | id. Show the sequence of moves made by the shift-reduce parser on the input id1 + id2 * id3 and determine whether the given string is accepted by the parser or not.	[5] [5]
4.	(a) (b)	Explain the different field of Activation Record with an example. Discuss the phases of a compiler in detail and explain the sequence of steps followed by compiler for the expression M= P + R * S	[5] [5]
		UNIT - II	
5.	(a) (b)	Compare local vs. global optimization techniques. What are machine-independent vs. machine-dependent optimizations?	[5] [5]
6.		Discuss representations of three address code(quadruples, triples and Indirect triples) in intermediate code generation	[10]
7.		Explain the role of basic blocks in control flow analysis.	[10]

x-x-x