L. J Institutes of Engineering and Technology
Remedial MSE List of Questions

SEM: 7
Subject Name: Compiler Design
Subject Code: 3170701

1.	Explain the phases of compiler with an example**.**
2.	Define following terms: i. Compiler ii. Interpreter iii. Assembler iv. Regular Expression v. Token vi. Lexeme vii. Pattern
3.	Write a brief note on input buffering techniques**.**
4.	Construct NFA for following Regular Expression using Thomson's Construction. Apply subset construction method to convert into DFA. (a | b)*abb
5.	Construct DFA for the following regular expression using syntax tree with firspos, laspos and followpos function. (a* | b*)* #
6.	Construct DFA for the following regular expression using syntax tree with firspos, laspos and followpos function. (a | b)* a #
7.	Construct DFA for the following regular expression using syntax tree with firspos, laspos and followpos function. (a | b)* a b b #
8.	Construct LL(1) parsing table for the following Grammar: E → TE' E'→ + TE' | ^ T → FT' T'→ *FT' | ^ F → (E) | id
9.	Check the given grammar is LL(1) or not S → aBDh B → cC C → bC | € D → EF E → g | € F → f | €
10.	Write down C program for Recursive Descend Parser for **:** S → ABC B→ 1B | Λ A→ 0A1 | Λ C→1C0 | Λ
11.	Compute the operator precedence matrix and precedence function table for the following grammar E→ E+T|T T→ T*F|F F→ (E) | id
12.	Apply shift reduce parser for parsing following string using unambiguous grammar. id + id * id

13.	Construct the SLR parsing table for S → AA A → aA | b
14.	Construct the SLR parsing table for E → E+T | T T → TF | F F → F* | a | b
15.	Show that following grammar is not a CLR (1) grammar. S → AaAb | BbBa A → ^ B →^
16.	Construct the CLR parsing table for S → AA A → aA | b
17.	Check that following grammar is LALR or not. S →L=R S →R L→*R L→ id R → L
18.	Write a syntax directed definition for desk calculator. Using this definition draw annotated parse tree for 5*6+7;.
19.	Write syntax directed definition with inherited attributes for type declaration for list of identifiers. Show annotated parse tree for the sentence int id1,id2,id3.
20.	Differentiate Synthesized and Inherited attributes.
21.	Explain: Error Recovery Strategies in Compiler in brief.
22.	Translate the arithmetic expression a*-(b+c) into 1. Syntax tree 2. Postfix notation 3. Three address code.
23.	Write the quadruples, triple and indirect triple for the expression: - (a * b) + (c + d) - (a + b + c + d)
24.	Discuss various Storage allocation strategies in detail.
25.	Explain various parameter passing methods.