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SIDDHARTH INSTITUTE OF ENGINEERING &amp; TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech III Year I Semester Regular Examinations December-2021

COMPILER DESIGN

(Common to CSE &amp; CSIT)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

**UNIT-I**

1 What is Compiler? Discuss about the parts of the Compiler in detail. L2 12M

OR

2 a Explain Bootstrapping. L2 6M

b Write about input buffering. L3 6M

**UNIT-II**

3 Consider the grammar L6 12M

 $S \rightarrow AB|Aba$  $A \rightarrow d, E \rightarrow b$  $D \rightarrow b|E, B \rightarrow c$ 

Construct the predictive parse table and check whether the given grammar is LL(1) or not.

OR

4 a Describe the procedure of eliminating Left recursion. L1 6M

b Eliminate left recursion for the following grammar L3 6M

 $E \rightarrow E+T/T \quad T \rightarrow T * F / F \quad F \rightarrow (E) / id$ **UNIT-III**

5 a Write about handle pruning. L3 4M

b Summarize about SLR parsing. L5 8M

OR

6 a Explain syntax directed definition with simple examples? L2 6M

b Describe in detail the Translation scheme of SDD. L2 6M

**UNIT-IV**

7 Explain Representation of Three Address Codes with suitable Examples. L2 12M

OR

8 Produce quadruple, triples and indirect triples for following expression: L6 12M

 $(x+y)*(y+z)+(x+y+z)$ **UNIT-V**

9 Write about all issues in code generation. Describe it. L3 12M

OR

10 a Write about Simple code generator L3 6M

b Classify Register allocation and register assignment L4 6M

\*\*\* END \*\*\*