Enrollment No: _____ Exam Seat No:_____

C.U.SHAH UNIVERSITY

Summer Examination-2017

Subject Name: Language Processor Designing
Subject Code: 5TE02LPD1 Branch: M.Tech (CE)

Semester: 2 Date: 06/05/2017 Time: 02:00 To 05:00 Marks: 70

Instructions:

(1) Use of Programmable calculator and any other electronic instrument is prohibited.
(2) Instructions written on main answer book are strictly to be obeyed.
(3) Draw neat diagrams and figures (if necessary) at right places.
(4) Assume suitable data if needed.

SECTION – I

Q-1 Attempt the Following questions (07)

a. Define: Predictive Parser.
b. Define: Cross-Compiler.
c. Define: Macros.
d. List various types of Editors.
e. Define: Deterministic Automata.
f. Define : Context Free Grammar
g. What is Lex and YACC?

Q-2 Attempt all questions (14)

a. Explain Two Pass assemblers.
b. What is Symbol Table? Explain

OR

Q-2 Attempt all questions (14)

a. Explain Relocation Process.
b. Explain Various Loading Types.

Q-3 Attempt all questions (14)

a. Describe the lexical, syntactic and semantic phases of compiler.
b. What is Error in compiler? Explain various error recovery strategies of parser

OR

Q-3 Attempt all questions (14)

a. What are the major points of differences between Interpreter and Compiler?
b. Construct NFA for following regular expression and convert it into DFA

$$a^{+}\, b^{*}(\, c \mid d \mid e)\, a^{*}\, \#$$

SECTION – II

Q-4 **Attempt the Following questions** **(07)**

a. Define: Lexemes.

b. Define: Loader.

c. Define: Parsing.

d. Define: Peephole Optimization.

e. Justify Role of Lexical Analyzer.

f. What is DAG?

g. What is Ambiguity in grammar?

Q-5 **Attempt all questions** **(14)**

a. What is Activation Record? Explain

b. Explain macro expansion

OR

Q-5 **Attempt all questions** **(14)**

a. Explain different kind of Procedure calls.

b. How to optimize code in compiling process? Explain the process.

Q-6 **Attempt all questions** **(14)**

a. Check whether the given grammar is LL (1) or not.

E →T’
E→ TE’| ε
T→VT’
T’ →/VT’ | ε
V→ <id>

b. Explain overlays with suitable example.

OR

Q-6 **Attempt all Questions** **(14)**

a. Explain various storage allocation strategies

b. Describe Design issues in code generator.