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Total No. of Questions : 08

M.Tech. (CSE Engg.)/(E-Security) (Sem.–2)
COMPILER DESIGN
Subject Code : CS-506
M.Code : 35407

Time : 3 Hrs.   Max. Marks : 100

INSTRUCTIONS TO CANDIDATES :
1. Attempt any FIVE questions out of EIGHT question.
2. Each question carries TWENTY marks.

Q1. Define translation. Explain the phases of compilation with suitable examples.

Q2. What is the role of the lexical analyser? Explain the process of tokenization. List the issues in lexical analysis.

Q3. Given that CFG G = {S, {S, U, V, W}, {a, b, c, d}, P} with P as given below :

S → UVW

U → (S) | aSb | d

V → aV | ε

W → cW | ε

a) Construct a table-based LL(1) predictive parser for G.

b) Give the parsing actions for the input string "(dc)ac".

Q4. What are syntax-directed definitions? Give a syntax-directed definition for constructing a syntax tree for an expression containing operators + and -.

Q5. Write a short note on type systems. Write a syntax directed translation for type checking of expressions.

Q6. Explain the storage allocation strategies used in run time memory.

Q7. Write and explain a translation scheme for generating intermediate code for declarative statements.

Q8. What are various approaches to code generation? Explain the issues in the design of a code generator.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.