

**M.Tech.**  
**COMPILER DESIGN**  
**SUBJECT CODE : CS - 506**  
**Paper ID : [E0686]**

[Note : Please fill subject code and paper ID on OMR]

**Time : 03 Hours**

**Maximum Marks : 100**

**Instruction to Candidates:**

- 1) Attempt any **Five** questions.
- 2) **All** questions carry equal marks.

- Q1)** What is a Compiler? How tools can help in compiler construction? Discuss the tools available for this purpose?
- Q2)** What is a Context Free Grammar? How does it define a language? How is it different from regular expressions?
- Q3)** Write notes on
- (a) Syntax and Semantics of a programming language.
  - (b) Intermediate code generation.
- Q4)** What is a Lexical Analyzer? What is its role in program construction?
- Q5)** Differentiate between weakly typed and strongly typed languages. How a compiler handles typing checking and type conversions?
- Q6)** Discuss the process of code generation? Also elaborate on the problems faced in this process?
- Q7)** Discuss the techniques that can be used to reduce the size or running time of a program?
- Q8)** What is an error? What are the different types of errors? How a compiler handles errors in various phases.

