QP CODE	2080558370

Reg.No: | | | | | | | | | | |

DMI-ST. EUGENE UNIVERSITY
DEGREE EXAMINATION – DECEMBER – 2022

SEM: VIII **055CS83 SYSTEM SOFTWARE AND COMPILER DESIGN**

Time: 3 Hours Max. Marks: 100

Answer any Five questions (5 x 20 = 100 Marks)

1. a) Discuss in details about language processors in details. (10 Marks)
   b) Elaborate with neat diagram about language processing system. (10 Marks)

2. a) Discuss in details about transition table. (10 Marks)
   b) Construct an NFA for r=(a|b) *abb and Construct an NFA for r=(a|b) *ac. (10 Marks)

3. a) Discuss in details about left recursion. (10 Marks)
   b) Elaborate with an example Top-down parsing. (10 Marks)

4. a) Describe in details overview of intermediate code generations. (10 Marks)
   b) Discuss in detail about Directed acyclic graph for the expression. (10 Marks)

   ```
   a + a * (b - c) + (b - c) * d
   ```

5. a) Describe in details about the DAG representation of basics blocks. (10 Marks)
   b) Discuss in details about Peephole Optimization with its characteristics. (10 Marks)

6. a) Discuss in detail with neat diagram about structure or phase of a compiler. (10 Marks)
   b) Describe in details about lexical analysis with appropriate example. (10 Marks)

7. a) Describe in details about data types and its categories. (10 Marks)
   b) Discuss in details about error recovery with its various strategies. (10 Marks)