| Student Name:<br>University Roll No.: | Printed Pages:01 |
|---|---|

**School of Engineering**
**First Theory Sessional Examination**
**Even Semester (AS: 2024-25)**

**B. Tech:CSE/AI/CCML/IoTBC [Year: III]** **[Semester:VI]**

| Course Title: Compiler Design<br>Course Code: BCS3604 | Max Marks: 30<br>Time: 1*hr.* |
|---|---|

***Instructions: 1-Mention any assumptions made.***
***2-Notations have usual meaning.***

| | SECTION 'A'<br>Q.N.1. Attempt all parts of the following: | Course Objective | Marks |
|---|---|---|---|
| a) | What is the basic Difference in between Compiler and Interpreter. | CO1 | 1 |
| b) | Define Token, Pattern and Lexeme. | CO1 | 1 |
| c) | Explain Symbol Table in Compiler. | CO1 | 1 |
| d) | Define Finite State Machine. | CO1 | 1 |
| e) | Draw the DFA for Regular Expression:<br>**a* b(a+b)*** | CO1 | 1 |
| | **SECTION 'B'**<br>**Q.N.2. Attempt any two parts of the following:** | **Course Objective** | **Marks** |
| a) | Explain the term Error Handling and also define various types of Error. | CO1 | 7.5 |
| b) | What are the various components of Language Processing System? | CO1 | 7.5 |
| c) | Explain the process of Bootstrapping with T-Diagram. | CO1 | 7.5 |
| | **SECTION 'C'**<br>**Q.N.3. Attempt any one parts of the following:** | **Course Objective** | **Marks** |
| a) | Explain CFG and Check whether the Grammar G with Production Rules:<br>**X → X+X / X*X / X / a** is ambiguous or not. | CO1 | 10 |
| b) | To Calculate Compilation Process for given Assignment Statement:<br>**Position = initial + rate * 70** | CO1 | 10 |
| c) | Explain the detailed process of all Phases of Compiler. | CO1 | 10 |

12.03.2025

*Table 1: Mapping between COs and questions*

| COs | Questions Numbers | Total Marks |
|---|---|---|
| CO1 | 1a,1b,1c,1d,1e,2a,2b,2c,3a,3b, and 3c | 57.5 |