Student Name: 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	Max Marks: 30
Course Code: BCS3604	Time: 1 hr.

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

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

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