BRAC UNIVERSITY
Department of Computer Science and Engineering

Examination: Midterm
Duration: 80 minutes

Set - A

Semester: Summer 2024
Full Marks: 40

CSE 420: Compiler Design

Figures in the right margin indicate marks.

Answer all the questions

COs	Questions	Marks
CO2	1. Construct the DFA from the following RE using **Direct Method** (a | ε) (a | b | c) (b | c)*	15
CO3	2. Consider the following *SLR Grammar*. Draw **LR(0) automaton** and construct **SLR parse table** 1. $T \rightarrow B\ C$ 2. $B \rightarrow \textbf{int}$ 3. $B \rightarrow \textbf{float}$ 4. $C \rightarrow ε$ 5. $C \rightarrow [\ \textbf{num}\ ]\ C$	10
CO3	3. Consider the **SLR parse table** from **Question 2**. Show the parsing simulation using **stack** for the input string, *int [num][num][num]*	10
CO1	4. Explain the interaction between **Lexical analyzer** and **Parser**	5