

# The University of Burdwan

MSc 4<sup>th</sup> Semester Examination 2021

Subject: Computer Science and Application

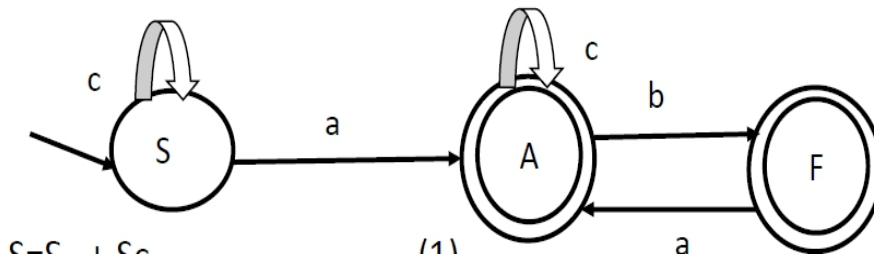
Paper: MCSA-401

Full Marks: 40 Time 2 Hours

Answer any eight questions (All questions contain equal marks)

(8 X 5 =40)

1. What shall be the task performed in the lexical and syntax analysis phases of the following expression? `position:=initial + rate * 100`
2. Draw a finite automata for a 2 bit serial adder?
3. Draw the finite automata that will accept FORTRAN identifiers
4. Deduce the regular expression of the given finite automata?



5. What is the drawback of top down parsing? Explain with an example.
6. Write the algorithm of ACTION and GOTO table in SLR parser
7. Explain the concept of dependency graph in syntax directed translation.
8. Explain the concept of shift reduce technique with example.
9. Discuss the role of symbol table in Lexical and Syntax analysis phases.
10. Explain the concept of operator precedence parser with example.