

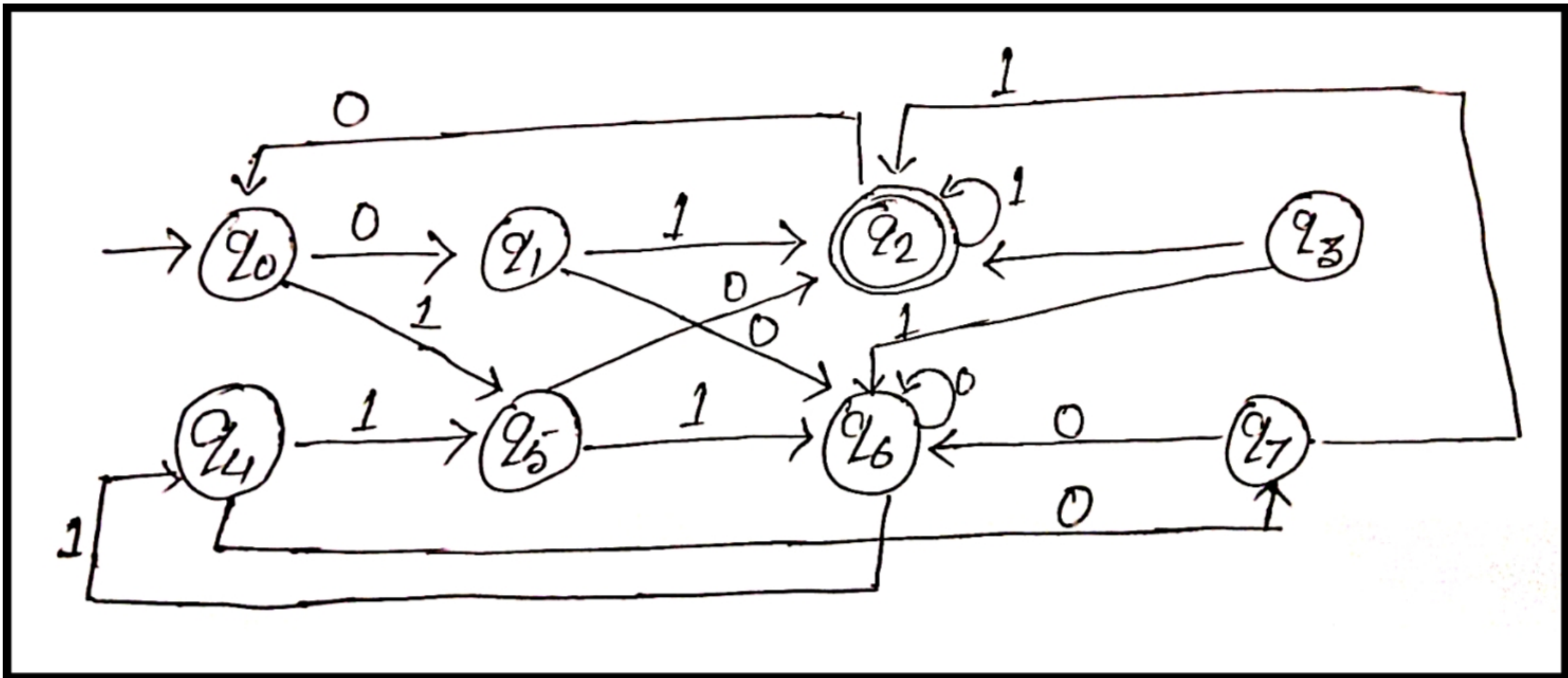
BURDWAN RAJ COLLEGE

INTERNAL EXAMINATION (6th Sem)

Paper Title - Theory Of Computation (BCA601)

• Answer any 5 questions 4 X 5 = 20

- 1. Difference between DFA and NFA.
- 2. Design Pushdown automata M to accept the language,
 $L = \{0^n 1^n \mid n \geq 1\}$
- 3. What is Null production? Give example.
- 4. Minimize the below structure-



- 5. Prove that complement of regular language is regular.
- 6. Construct DFA for the Regular Expression
 $(A+B)^*ABB$.
- 7. Convert the grammar with production,
 $S = ABa, A = aab, B = Ac$ into CNF.
- 8. Convert the below table from Moore to Mealy Machine -

Current State	a	b	output
q_0	q_3	q_2	0
q_1	q_0	q_1	1
q_2	q_2	q_0	1
q_3	q_2	q_1	0