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Batch-5 (AI/ML)

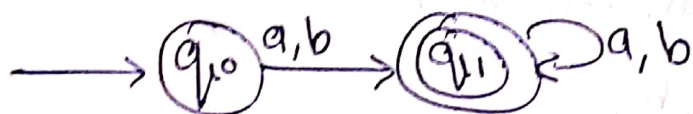
Assignment - 1

Q.1) Construct minimal DFA

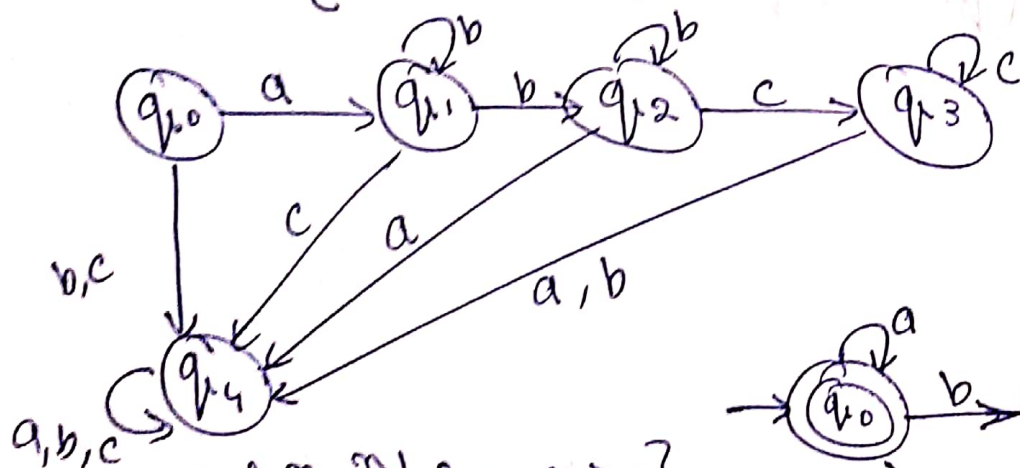
1) $a^n b^m$ where $m \geq 0, n \geq 0$



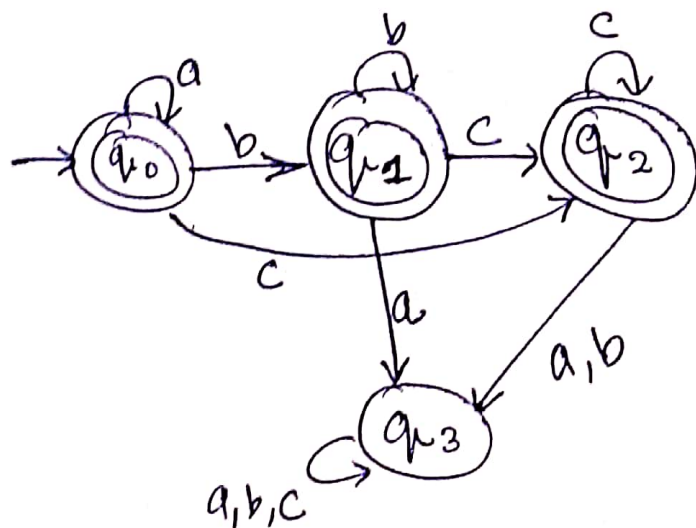
2) $a^n b^m$ where $n, m \geq 1$



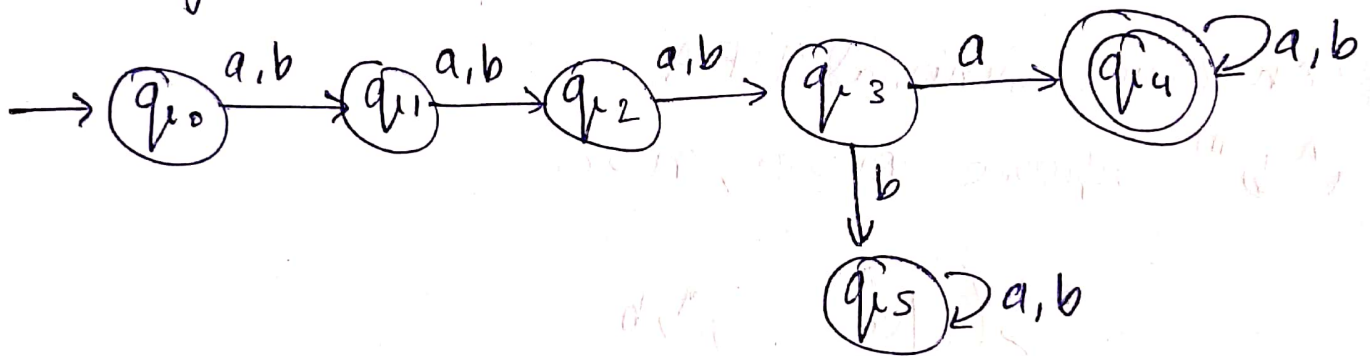
Q.2) 1) $L = \{a^l b^m c^n \mid l, m, n \geq 1\}$



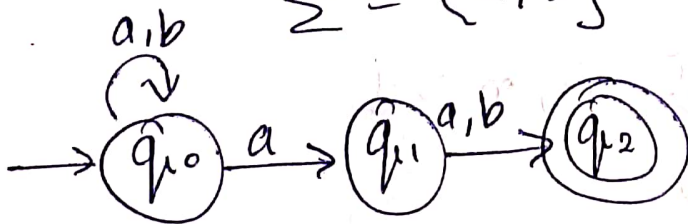
2) $L = \{a^l b^m c^n \mid l, m, n \geq 0\}$



Q.3 Construct a NFA that accepts all strings of a's & b's where each string contains "a" as the 5th symbol from LHS.
 given: $\Sigma = \{a, b\}$



Q.4 Construct NFA that accepts all strings of a's & b's in which 2nd symbol from RHS is "a".
 $\Sigma = \{a, b\}$



Q.5] Construct NFA that accepts all strings of a's & b's in which no. of 'a' is divisible by 2 & no. of b divisible by 3.

