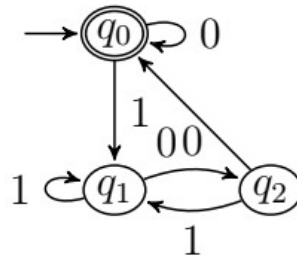**Corrigé type**

Exercice 1 (7 points = 3,5 + 3,5)

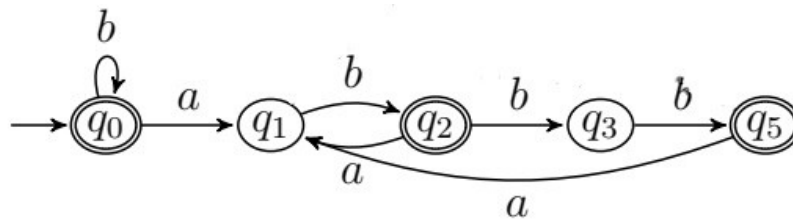**Solution**

1)- $S \rightarrow A0$
       $A \rightarrow B0$
       $B \rightarrow B0 \mid B1 \mid \varepsilon$

2)

Exercice 2 (7 points)

Solution

Exercice 3 (6 points = 3+3)

Solution

1- $L(G) = \{a^n \, b \, a^m \mid n, m \geq = 1\}$

2-
       $S \rightarrow 0S \mid 0B$
       $B \rightarrow 1X$
       $X \rightarrow 0X \mid 0$