Recitation #3 – Worksheet

Regular Expressions

1. Write a regular expression for:
   a. All strings of 0’s and 1’s.
   b. All strings of 0’s and 1’s with at least 2 consecutive 0’s.
   c. All strings of 0’s and 1’s beginning with 1 and not having two consecutive 0’s.

2. Express in words what the following regular expressions mean:
   a. $(0|1)^*011$
   b. $0^*1^*2^*$
   c. $^[aeiou]^*$

3. Find all strings in $(a|b)^*b(a|ab)^*$ of length less than four.
DFAs

4. Make a DFA that accepts the strings in the language denoted by regular expression 
   \[ ab^* a \]

5. Write the regular expression for the following automata: