# Quiz 2

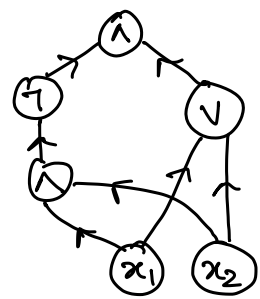
(1) Draw the truth table for the boolean function representing the following algebraic expressions.

a) $1 - xy$

b) $x^2 + y$

[2+2]

(2) Consider the following ckt:




a) What is the size?

b) What is the min. no. of bits reqd. to represent a gate in the ckt (including leaves)?

c) Redraw the ckt and assign names to the non-leaf gates.
What have you named the root?

d) Assign strings (of length calculated in (b)) to represent the gates (including leaves).

e) Let us represent $\neg \equiv 00$, $\wedge \equiv 01$, $\vee \equiv 10$.
Use this and (d) to give a string representation of the ckt.

[1+1+3+3+8]