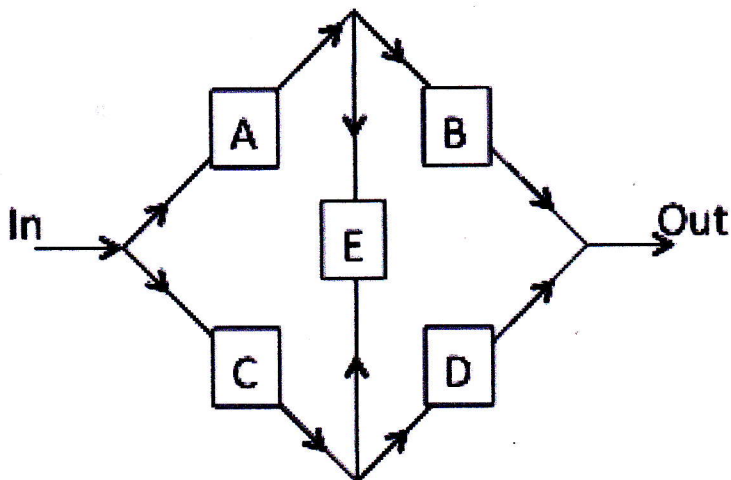3. For the system shown below where each labeled box indicates a valve that is normally open:

   (a) Draw a fault tree for the top event "no flow out of the system."
   (b) Find the minimal cutsets.
   (c) Find the exact top event probability using the basic event probabilities given. Note that you can solve this either by expanding the probability of the union of the minimal cutsets OR by drawing the BDD.

*Note: Flow can go either direction through Leg E, but only one direction in all other legs.

Valve	POF
A	0.01
B	0.05
C	0.02
D	0.005
E	0.04