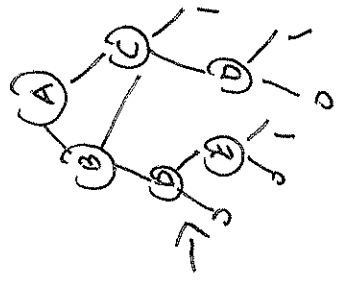
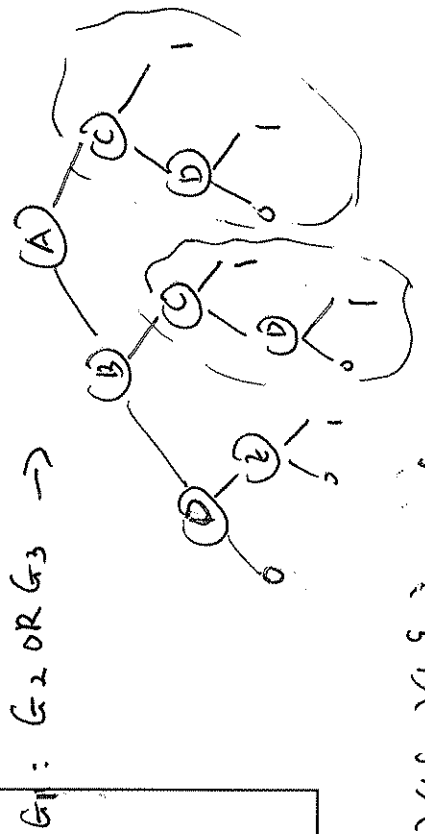
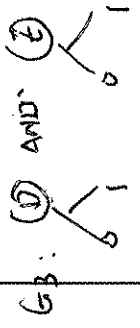
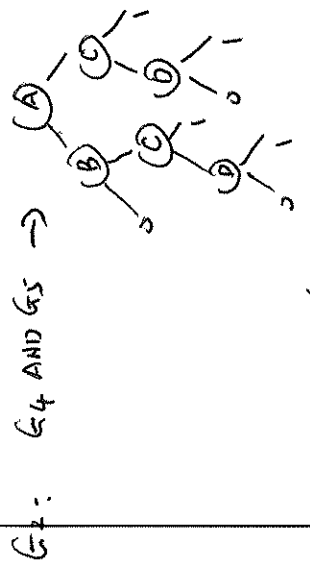
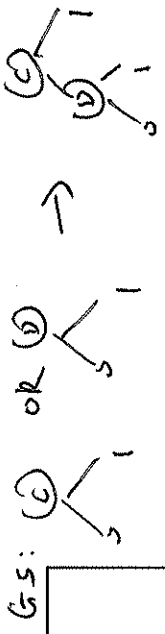
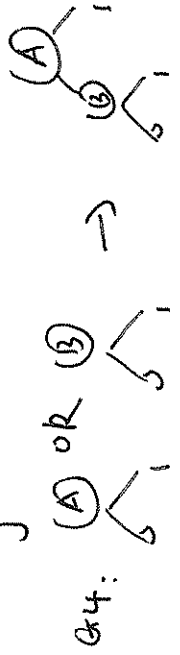


### Example 3

using  $A < B < C < D < E$

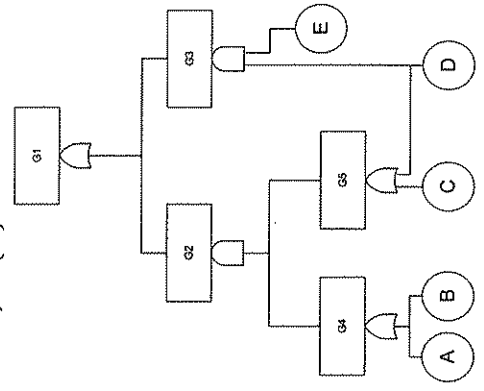


### Hands-On Problem (2)

- For the fault tree called example FT2 in L#10, generate the BDD and calculate the probability of occurrence for the top event in the fault tree.
- Assume that the probability of occurrence for each of the basic events is:

$\Pr\{A\} = 0.05, \Pr\{B\} = 0.10, \Pr\{C\} = 0.15,$

$\Pr\{D\} = 0.20, \Pr\{E\} = 0.25$



Dr. Xing

$$R_{sys} = (1 - P_A)(1 - P_B)(1 - P_D) + (1 - P_A)(1 - P_B) \cdot P_D \cdot (1 - P_C) + (1 - P_A) \cdot P_D \cdot (1 - P_C) + P_A \cdot (1 - P_C) \cdot P_D$$

$$= 0.91085$$

$$U_{sys} = 1 - R_{sys} = 0.08915$$