1.
(1). See the net file attached

(2).
To satisfy the constraints, the probabilities constraints are
P(D) >= 0.008942
False positive: P(Test = positive | Disease = false) <= 0.002219

2.
(1).
Given that LightSensor = On, SoundSensor = Off, we can get the following by entering the query mode and set LighrSensor and SoundSensor initialized:
Battery: OK
DogBarking:No
DogBowelTrouble: Yes
DogOutside: Yes
ExpectingGuests: No
HearableBarking: No
FamilyHome: No
OutdoorLight: On
LightSensorHealth: OK
SoundSensorHealth: OK

(2). Given FamilyHome = Yes, ExpectingGuests = No, we can get the sensor situation by entering the query mode and set FamilyHome and ExpectingGuests initialized.
LightSensor: Off
SoundSensor: Off
Battery: OK
LightSensorHealth: OK
SoundSensorHealth: OK

(3). Z = {Battery, HearableBarking}.
The path LightSensor->Battery->SoundSensor is blocked by Battery.

The path LightSensor->OutdoorLight->FamilyHome->DogOutside->HearableBarking->SoundSensor is blocked by HearableBarking.

(4). It's a multiply-connected network.