Here are the questions from [3.2 State space models - Quiz]

1. Which of the following is an example of a motion model?
Optional Answers:
   1. A statistical model of how the number of Covid-19 cases in a population evolve over time.
   2. A probability distribution describing the expected radar returns from a leading vehicle at a given position.
   3. The probability distribution of the position of a vehicle based on measurements from a Lidar.

2. Assuming we are interested in estimating the position a vehicle, which of the following is an example of a measurement model?
Optional Answers:
   1. A statistical model of how the detection of a vehicle in an image (pixel coordinates) relates to the 3D position of the vehicle.
   2. A model converting the observations of the radar in polar coordinates the Cartesian coordinates.
   3. The distribution of thermal noise in a radar receiver.

3. An important benefit with having both a measurement and a motion model is that past data can provide information about the current state.
Optional Answers:
   1. True
   2. False

Thank You