**Tutorial 8**

**Part 1: Basic Probability**

1)

2) From the product rule we can derive Bayes rule:

3) In order to compute we need to first compute and separately, so:

4) The easiest way would be:

**Part 2: Bayesian Networks**

1) The diagram would be:

2) The probability would be:

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**Part 3: Extract Inference in Bayesian Networks**

We will have to find out separately:

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Where the normalisation factor is computed from:

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