

CS 4100/5100 – Quiz 4
10/03/2013

1- Which of the following is the product rule? _____.

A- $(a \wedge b) = P(a|b)P(b)$

B- $(a \vee b) = P(a|b)P(b)$

C- $(a \wedge b) = P(a)$

D- $(a \wedge b) = P(b)$

2- In probability theory a random variable's value is _____.

A- fixed

B- determined by the outcome of an experiment

C- a probability

D- the sum of all possible outcomes times their probabilities

3- Bayes rule can be easily derived from the product rule: _____

A – True B- False

4- Posterior probability is always _____ .

A- the probability of seeing the observed evidence

B- the probability after some evidence has been taken into account.

C- the probability before taking the evidence into account

D- one minus the prior probability

5- Bayes rule allows us to predict unknown outcomes using _____.

A- known data B- a heuristic C- a cost function D- unknown events

6- Prior probability is always _____.

A- the probability of seeing the observed evidence

B- one minus the posterior probability

C- taken from a uniform distribution

D- the probability before some evidence is taken into account.

7- The basic axiom of probability says that every possible event has a probability between 0 and 1: _____.

A – True B- False

8- Can a probability density function take values greater than 1? _____.

A – Yes B- No