

Unit 3: Probability Theory Quiz

Question 1

Inherent stochasticity in the system being modeled, incomplete observability, and incomplete modeling are all sources of _____.

- A. Bayesian probability
- B. error
- C. variance
- D. uncertainty

Question 2

Probability distributions for continuous variables are called _____.

- A. Probability Density Functions
- B. Marginal Probability Functions
- C. Joint Probability Distributions
- D. Continuous Probability Distributions

Question 3

Fill in the Blank: The mean, variance, and standard deviation are given by the following three parameters: ____, ____, and ____.

Question 4

For discrete variables, which function below would give the expectation value?

- A. $\mathbb{E}[f(x)] = \sum_x P(x)f(x)$
- B. $\mathbb{E}[f(x)] = \int p(x)f(x)dx$

Question 5

The most commonly found probability distribution in nature is the _____ distribution.

- A. Laplace
- B. Gaussian (normal)
- C. Exponential
- D. Bernoulli