Congratulations! You passed!

Grade received 92.85%
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To pass 80% or higher

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1. What type of algorithms does PyMC3 support? **1 / 1 point**

- ○ MCMC
- ○ Variational Inference
- ◉ Both

Correct

2. We can mix Deterministic and Probabilistic variables in PyMC3. **1 / 1 point**

- ◉ True
- ○ False

Correct

3. HDI and HPD are the same. **1 / 1 point**

- ○ True
- ◉ False

Correct
HPD is the HDI for the posterior

4. HPD is used for making decisions from the posterior distribution **1 / 1 point**

- (●) True
- ( ) False

Correct

5. ROPE is a subjective but informed interval to help make decisions from the posterior distribution **1 / 1 point**

- (●) True
- ( ) False

Correct

6. In order to confirm our hypothesis that we have the right estimate for our parameter, we want our ROPE and the HPD to have **0 / 1 point**

- ( ) complete overlap
- ( ) partial overlap
- (●) no overlap

Incorrect
No overlap indicates that our hypothesis cannot be supported.

7. A reference value can be used to indicate the direction of bias in our posterior distribution **1 / 1 point**

- (●) True

- ○ False

✓ **Correct**

8. According to the Central Limit Theorem, the mean of the sample means tends to the true population mean as the number of samples increase **1 / 1 point**

- ◉ True
- ○ False

✓ **Correct**

9. Many real-world phenomena are averages of various factors, hence it is reasonable to use a Gaussian distribution to model them **1 / 1 point**

- ◉ True
- ○ False

✓ **Correct**

10. What type of distribution is better suited to modeling positive values? **1 / 1 point**

- ○ Normal
- ◉ Half-normal

✓ **Correct**

11. Posterior predictive checks can be used to verify that the inferred distribution reflects the observed data. **1 / 1 point**

- ◉ True
- ○ False

Correct

12. Which distribution is better suited to model data that has a lot of outliers? **1 / 1 point**

- Gaussian distribution
- Student's t-distribution

Correct

13. Hierarchical models are beneficial in modeling data from groups where there might be limited data in certain groups **1 / 1 point**

- True
- False

Correct

14. Hierarchical models share information through hyperpriors **1 / 1 point**

- True
- False

Correct