

Q	Question description	Bad response (-2 or -1)	No response (0)	Weak response (1 or 2)	Mediocre response (3 or 4)	Exemplary response (5 or 6)	Out Of
0	Signed plagiarism form	-100	-100	0	0	0	0
Censoring is common in medical and natural sciences, particularly where measurements are done via device and the device has a lower or upper detection limit.							
Missing values are most common in surveys where a respondent can freely choose not to answer a question.							
These situations pose unique challenges to modellers who have to know when and how to adjust for such issues.							
1	Discuss a unique example of a lab experiment where censoring affected the analysis of real data.	Answer both wrong and self-contradictory or offensively wrong	Not answered or answer doesn't make sense.	Weak attempt at an explanation, or matches another student	Example explained, but not clear what the impact of censoring was	Study discussed, censoring discussed, impact discussed	5
2	Explain any two common biases that occur with soil measurement experiments.	Answer both wrong and self-contradictory or badly wrong	Not answered or answer doesn't make sense	Attempt at an explanation	General answer	Explanation and practical examples	5
3	When do you think it is necessary to impute missing values explicitly (not implicitly)?	Answer both wrong and self-contradictory or badly wrong	Not answered or answer doesn't make sense	Attempt at an explanation	General answer	Explanation and practical examples	5
Markov chain simulation methods have a random starting point and dependence between simulated vectors. They do not immediately cover the target accurately. Thus, it is important to assess convergence for any simulation process in order to be able to trust the output. It is also important to assess fit in general, to answer the question of whether the convergence was to the correct distribution.							
4	How might you assess whether your model is roughly aligned with the data generating process?	Answer both wrong and self-contradictory or badly wrong	Not answered or answer doesn't make sense	Statistic given, or rough idea presented	At least one approach properly explained	Two issues addressed or two approaches explained in reasonable detail	5
Unusual situations arise regularly in real world problems. It is important to be able to handle unorthodox situations. Suppose you are tasked with fitting a Gamma distribution to 200 real values, but you are told that the second 100 values are measured more accurately than the first 100 due to some measuring process improvement. You are asked to provide the joint mean and both variances (with uncertainty).							
5	Express the model mathematically using any clear notation.	Answer both wrong and self-contradictory or badly wrong	Not answered or answer doesn't make sense	No maths, or very sloppy	Clean mathematical expressions	Clean mathematical expressions plus notation explained	5
6	Express the model in STAN notation (in full detail)	Answer both wrong and self-contradictory or badly wrong	Not answered or answer doesn't make sense	Sloppy expressions, would not compile	Might compile	Proper comments and organised layout	5
7	How would you assess whether the variance has actually changed, using this model?	Answer both wrong and self-contradictory or badly wrong	Not answered or answer doesn't make sense	Attempt at an explanation	Key points covered	Explanation shows deep understanding	5
8	Writing quality	Text purposefully made difficult to read (e.g. allcaps)	Nothing worth reading	Readable but barely, broken sentences, sloppy, no spell check	No effort to consider reader, just did spell check to make red lines go away	Put in effort to ensure that the reader understands what they meant (e.g. reading out loud)	5
9	Citations and references (4x marks at top)	Deliberate plagiarism	No meaningful sources used	Links to sources provided and integrated into text	At least two citations per answer, references given	2+ integrated citations per answer, neat reference list +links	20
10	Penalties and bonuses (see brackets)	Obvious copying or severe plagiarism (-100)	No special effort	Clear headings, formal writing style (+2)	Short table of contents, no further wasted space (easy to navigate) (+4)	Put in effort to make it really easy to mark and interesting to read. (+6)	0
Total							60