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Courses » Computer Aided Power System Analysis

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Unit 10 - Week 9

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Course outline

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Assignment 9

Assignment 9

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment. **Due on 2019-04-03, 23:59 IST.**

1) A power system engineer made following statements regarding Chi-square distribution. **2 points**
Which of the given options is true regarding these statements?

- For a given value of degree of freedom (k), as α decreases, the value of $C(k, \alpha)$ increases.
- For a given value of α , as degree of freedom increases, the value of $C(k, \alpha)$ increases.

- Only statement 1) is correct
 Only statement 2) is correct
 Both statements 1) and 2) are correct.
 Both statements 1) and 2) are wrong

No, the answer is incorrect.

Score: 0

Accepted Answers:

Both statements 1) and 2) are correct.

2) A power system engineer made following statements regarding state estimation. Which of **2 points**
the given options is true regarding these statements?

- Statement A: The estimated errors are independent to each other.
Statement B: Any estimated state is dependent only one particular measurement.

- Both statements A and B are correct
 Both statements A and B are wrong
 Only statement B is correct
 Only statement A is correct

No, the answer is incorrect.

Score: 0

Accepted Answers:

Both statements A and B are wrong

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- Both statements A and B are correct
- Both statements A and B are wrong
- Only statement B is correct
- Only statement A is correct

No, the answer is incorrect.

Score: 0

Accepted Answers:

Only statement A is correct

4) A power system engineer made following observations regarding state estimation. Which **2 points** of the given options is true regarding these observations?

Observation A: The measurement errors are assumed to be independent from each other.

Observation B: The error co-variance matrix is a diagonal matrix.

- Observations A and B are independent, there is no relation between these observations.
- Observation B follows from observation A
- Observation A follows from observation B
- Both observations A and B are wrong

No, the answer is incorrect.

Score: 0

Accepted Answers:

Observation B follows from observation A

5) In a state estimation problem, errors are assumed to Gaussian with zero mean. **2 points** Accordingly, a power system engineer made following observations. Which of the given options is true regarding these observations?

Observation A: Expected values of the estimated errors are zero.

Observation B: Expected values of the estimated measurements are equal to the corresponding obtained measured values.

- Observations A and B are independent, there is no relation between these observations.
- Observation A follows from observation B
- Observation B follows from observation A
- Both observations A and B are wrong

No, the answer is incorrect.

Score: 0

Accepted Answers:

Observation B follows from observation A

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