

Self-Assessment #10

Due Sep 1 at 11:59pm**Points** 25**Questions** 10**Available** Aug 27 at 12am - Sep 1 at 11:59pm 6 days**Time Limit** 60 Minutes**Allowed Attempts** 2

Instructions

This self-assessment will test your understanding and knowledge of some of the main concepts covered in the textbook reading for this module. You have **1 hour** to complete this self-assessment, so please allow sufficient time to complete it without interruption. Note that you have **two attempts** at this self-assessment.

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Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	37 minutes	20 out of 25

ⓘ Answers will be shown after your last attempt

Score for this attempt: **20** out of 25

Submitted Sep 1 at 9:26am

This attempt took 37 minutes.

Question 1

2.5 / 2.5 pts

Decision analysis supports all but one of the following goals. Which goal is not supported?

- ☒ Help ensure selection of good outcomes.

- ☐ Analyze decision problems logically.
- ☐ Help make good decisions.
- ☐ Incorporate problem uncertainty.

Question 2**2.5 / 2.5 pts**

A payoff matrix depicts versus with payoffs for each intersection cell.

- ☐ decision alternatives; potential outcomes.
- ☐ decision criteria; states of nature.
- ☐ decision criteria; potential outcomes.
- ☒ decision alternatives; states of nature.

Question 3**2.5 / 2.5 pts**

The decision rule which determines the maximum payoff for each alternative and then selects the alternative associated with the largest payoff is the:

- ☐ minimin decision rule.
- ☐ minimax regret decision rule.
- ☒ maximax decision rule.

☐ maximin decision rule.

Question 4**2.5 / 2.5 pts**

The decision rule which determines the minimum payoff for each alternative and then selects the alternative associated with the largest minimum payoff is the:

- ☒ maximin decision rule.
- ☐ minimax regret decision rule.
- ☐ minimin decision rule.
- ☐ maximax decision rule.

Question 5**2.5 / 2.5 pts**

Every nonprobabilistic method has a weakness for decision making. Which of the following is incorrect regarding a method and its weakness?

- ☐ The minimax regret method can lead to inconsistent decisions.
- ☐ The maximin method ignores potentially large payoffs.
- ☒ All of these are correct.
- ☐ The maximax method ignores potentially large losses.

Question 6**2.5 / 2.5 pts**

The decision rule which selects the alternative associated with the smallest maximum opportunity loss is the:

- ☐ maximax decision rule.
- ☐ maximin decision rule.
- ☐ minimin decision rule.
- ☒ minimax regret decision rule.

Incorrect**Question 7****0 / 2.5 pts**

Probabilistic decision rules can be used if the states of nature in a decision problem can be assigned probabilities that represent their likelihood of occurrence. Which of the following is not true regarding the probabilities employed?

- ☐ The probabilities can be assigned subjectively.
- ☐ The probabilities must always be unbiased.
- ☐ The probabilities are always obtained from historical data.
- ☒ Subjective probabilities obtained can be accurate and unbiased.

Question 8**2.5 / 2.5 pts**

A "risk averse" decision maker assigns the [blank] relative utility to any payoff but has a(n) [blank] marginal utility for increased payoffs.

- ☐ smallest; increasing
- ☒ largest; diminishing
- ☐ smallest; diminishing
- ☐ largest; increasing

Incorrect**Question 9****0 / 2.5 pts**

Which are characteristics of decision-making under uncertainty?

- ☐ all process parameters have known values
- ☐ some process parameters have known values
- ☒ decision-makers must rely on probabilities in evaluating outcomes
- ☐ the probability of possible future events is unknown

Question 10**2.5 / 2.5 pts**

The difference between expected payoff under certainty and expected payoff

under risk is:

- ☐ EMV
- ☐ expected regret value
- ☐ none of the above
- ☒ EVPI

Quiz Score: **20** out of 25