

Question 1

Flag questionMark 0.00 out of 1.00Incorrect

Is there a difference between the transition probabilities of an MDP and a POMDP?

Select one:

☒ True ✖

☐ False

The correct answer is 'False'.

Question 2

Flag questionMark 1.00 out of 1.00Correct

If the observation function in a POMDP gives you as observation always the exact state, is the POMDP identical to an MDP?

Select one:

☒ True ✔

☐ False

The correct answer is 'True'.

Question 3

Flag questionMark 1.00 out of 1.00Correct

In MDPs, the policy is a mapping from states to actions. Is this true for POMDPs?

Select one:

☐ True

☒ False ✔

The correct answer is 'False'.

Question 4

Flag questionMark 1.00 out of 1.00Correct

Which of these (you can choose multiple) is a sufficient statistic for optimal decision making in a POMDP?

☒ a. History of actions and observations ✔

☐ b. History of actions

☒ c. Probability distribution over states ✔

☐ d. Previous state

Your answer is correct.

The correct answers are:  
History of actions and observations,  
Probability distribution over states

Question 5

Flag questionMark 1.00 out of 1.00Correct

What are potential differences (choose 0 - 2) of using a POMDP model compared to using an MDP model for decision making?

☒ a. Policies can gather information and thus increase chances of getting reward later ✔

☐ b. The policy does not yield negative rewards

Your answer is correct.

The correct answer is:  
Policies can gather information and thus increase chances of getting reward later

Question 6

Flag questionMark 1.00 out of 1.00Correct

On what does the dimensionality of a belief depend (choose 0 - 3)?

☐ a. Number of actions

☐ b. Number of observations

☒ c. Number of states ✔

Your answer is correct.

The correct answer is:  
Number of states

Question 7

Flag questionMark 1.00 out of 1.00Correct

QMDP provides a lower bound for the POMDP value function

Select one:

☐ True

☒ False ✔

QMDP provides an \*upper bound\* for the POMDP value function

The correct answer is 'False'.

Question 8

Flag questionMark 0.00 out of 1.00Incorrect

What do we need to compute the next belief?

☐ a. Reward, action, observation

☒ b. Current belief, action ✖

☒ c. Current belief, action, observation ✔

Your answer is incorrect.

The correct answer is:  
Current belief, action, observation

Question 9

Flag questionMark 1.00 out of 1.00Correct

MCTS can be used in POMDP problems

Select one:

☒ True ✔

☐ False

MCTS has been used in POMDP problems. For example, the POMCP algorithm relies on MCTS.

The correct answer is 'True'.

Question 10

Flag questionMark 1.00 out of 1.00Correct

In a POMDP, compared to an MDP, it is always easier to create a full search tree to find the best action

Select one:

☐ True

☒ False ✔

Usually, in a POMDP, compared to an MDP, a full search tree is larger due to the observations

The correct answer is 'False'.

Finish review



**Tuki / Support**  
**Opiskelijoille / Students**

- MyCourses instructions for students
- email: mycourses(at)aalto.fi

**Opettajille / Teachers**

- MyCourses help
- MyTeaching Support form

**Palvelusta**

- MyCourses rekisteriseloste
- Tietosuojailmoitus
- Palvelukuvaus
- Saavutettavuusseloste

**About service**

- MyCourses protection of privacy
- Privacy notice
- Service description
- Accessibility summary

**Service**

- MyCourses registerbeskrivning
- Dataskyddsmeddelande
- Beskrivning av tjänsten
- Sammanfattning av tillgängligheten

