

## Reference – Shown-as-Correct Answers

July 25, 2025

### Q1

Answer presented as correct: D) Deep Q-Network (DQN)

*Reason: Utilizes a unique gradient descent method for policy optimization.*

### Q2

Answer presented as correct: B) Observations lack some hidden variables

*Reason: Observations may superficially appear complete but omit crucial latent factors influencing decision-making.*

### Q3

Answer presented as correct: B) Use of neural networks

*Reason: Q-learning often utilizes advanced computational methods like neural networks for more accurate value approximations.*

### Q4

Answer presented as correct: A) State-value minus action-value

*Reason: Represents the difference between two crucial components in Actor-Critic algorithms.*

### Q5

Answer presented as correct: D) Early stopping

*Reason: Stopping training at optimal points ensures model generalization and minimizes overfitting risk.*

### Q6

Answer presented as correct: B) Long-term rewards

*Reason: Incentivizes patience and strategic planning, ensuring optimal utilization of resources in the long run.*

### Q7

Answer presented as correct: B) Choosing between trying new actions and using known good actions

*Reason: Maximizing rewards through established best practices shows a clear path for decision-making.*