Machine Learning - Answer Key

Multiple Choice Questions - Answers

Q: The process of learning from examples and generalizing to unseen cases is called _____.
A: B. Concept learning

Q: The Find-S algorithm is used to _____.
A: B. Find the maximally specific hypothesis

Q: In concept learning, the space of all hypotheses consistent with the training data is called the _____.
A: B. Version space

Q: Decision trees are most appropriate for _____.
A: B. Problems with discrete, categorical outcomes

Q: Big Data is that which
A: B. is huge in volume, yet growing exponentially with time

Q: The algorithm that searches the hypothesis space to find the most specific hypothesis consistent with positive examples is _____.
A: C. Find-S Algorithm

Q: The inductive bias in decision tree learning is that _____.
A: A. Simpler trees are preferred over complex ones

Q: The process of removing inconsistent hypotheses from the version space is known as _____.
A: B. Candidate Elimination

Q: A key limitation of the Find-S algorithm is that it _____.
A: A. Fails to guarantee finding the target concept

Q: Inductive bias in machine learning refers to _____.
A: A. The set of assumptions a learner makes to generalize

Fill in the Blanks - Answers

Q: The Find-S algorithm is used to find the _____ hypothesis that is consistent with all

positive examples.
A: Maximally specific

Q: In decision tree learning, the search strategy employed is known as _____.
A: Greedy search

Q: In concept learning, the process of narrowing down the set of hypotheses by eliminating those inconsistent with examples is called _____.
A: Version space

Q: _____ is the assumption made by a learning algorithm to generalize beyond the observed data.
A: Inductive bias

Q: A decision tree is most appropriate for problems where the target output is _____.
A: Categorical

Q: The initial hypothesis in the Find-S algorithm is set to the _____ hypothesis.
A: Most specific

Q: The _____ algorithm is used to systematically eliminate hypotheses that do not fit the training data.
A: Candidate Elimination

Q: In decision tree learning, _____ refers to the preference for simpler hypotheses over complex ones.
A: Occam's Razor

Q: The process of learning a decision tree from labeled examples is called _____ learning.
A: Supervised