

Course > Week 7: Machine Learning 3 > Week 7 Quiz: Machine Learning 3 > Week 7 Quiz

Week 7 Quiz

☐ Bookmark this page

Q1

10.0/10.0 points (graded)

In association rules, if an itemset is frequent, then all its supersets are frequent.

True

False

Submit

You have used 1 of 1 attempt

Q2

10.0/10.0 points (graded) Check all that apply.

- The bottleneck in finding strong association rules is in finding frequent itemsets.
- Deriving association rules from frequent itemsets does not require scanning the dataset.
- The search space of frequent itemsets is a lattice of size 2^(number of transactions).
- ▼ The search space of frequent itemsets is a lattice of size 2^(number of items).



Q3

10.0/10.0 points (graded)

Because it is not possible to do a systematic search of association rules involving numerical variables, the problem of mining quantitative association rules can be regarded as an optimization problem.

● True ✔	•
O False	
Submit	You have used 1 of 1 attempt

Q4

10.0/10.0 points (graded)

False

	${f 2}\%{f milk}$	$\overline{2\%\mathbf{milk}}$	\sum lines
whole milk	400	200	600
whole milk	350	50	400
\sum columns	750	250	1000

Consider the table above summarizing a larger transaction dataset with only two items. Let **2%milk** refer to the transactions containing 2% milk, and let **2%milk** refer to the transactions without 2% milk. Similarly, **whole milk** refers to the transactions containing whole milk, while **whole milk** refers to the transactions without whole milk. Suppose we are interested in the rule **whole milk** \rightarrow **2%milk**. Is this rule strong? Assume a MinSup=30% and a MinConf=60%.

● True			

You have used 1 of 1 attempt

Q5

10.0/10.0 points (graded)

Consider the same table above. What kind of relationship exists between the items whole milk and 2% milk?

(Hint: Use the interest measure)

- Independent
- Negatively correlated
- Positively correlated



Submit

You have used 1 of 1 attempt

Q6

10.0/10.0 points (graded)

Check all that apply.

- "Training" a given neural network means learning the weights in the network.
- "Backpropagation" means propagating the errors forward.



Submit

You have used 1 of 1 attempt

10.0/10.0 points (graded)

Neural networks can solve both linear and non-linear classification problems.

● True ✔

False

Submit You have used 1 of 1 attempt

Q8

10.0/10.0 points (graded) Check all that apply.

- A neural network can overfit the training data if the network is too simple; that is, if it has a very small number of units.
- A neural network can overfit the training data if the network is too complex; that is, if it has a very large number of units.
- Overfitting in neural networks can be reduced by using cross-validation to choose the number of neurons.



Submit

You have used 1 of 2 attempts

Q9

10.0/10.0 points (graded)

Under the assumption that the data is generated from one or several normal distributions, check all that apply.

- The basic K-means algorithm requires setting up the parameter K (number of clusters) apriori.
- We can set K to optimally cluster the data by starting with a small number of clusters, and then iteratively splitting them until all clusters fit normal distributions.



Submit

You have used 1 of 1 attempt

Q10

10.0/10.0 points (graded) Check all that apply.

- A clustering is good if it has a high intra-cluster similarity and a low inter-cluster similarity.
- A clustering is good if it has a low intra-cluster similarity and a high inter-cluster similarity.

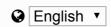


Submit

You have used 1 of 1 attempt

© All Rights Reserved





© 2012–2017 edX Inc. All rights reserved except where noted. EdX, Open edX and the edX and Open edX logos are registered trademarks or trademarks of edX Inc. | 粤ICP备17044299号-2















