Lesson 6 Quiz

4 questions

1  
point

1. Which of the following is true about spatial association mining? Select all that apply.

A rule is called a spatial association as long as its confidence is no less than the given confidence threshold.

In the progressive refinement framework, the result associations will be the refinement of the rough patterns obtained in the first step.

There is no difference between mining spatial associations and mining classic association rules.

A rule is called a spatial association if its support is no less than the given support threshold and its confidence is no less than the given confidence threshold.

1  
point

2. Consider a spatial database that consists of 1000 records. If an item A appears 200 times in the database and the rule “if A, then B” appears 100 times, what are the support and confidence for the rule “if A, then B”?

support: 10%; confidence: 50%

support: 20%; confidence: 50%

support: 20%; confidence: 20%

support: 20%; confidence: 10%

1  
point

3. For a frequent trajectory pattern, we require that the consecutive places in the trajectory pattern have a time gap no larger than the time constraint. Given a time constraint of 30 min and a support threshold of 5%, which of the following are valid frequent trajectory patterns?

Railway Station —15min→ Castle Square —15min→ Museum [Support: 3%]

Railway Station —15min→ Castle Square —45min→ Museum [Support: 6%]

Railway Station —15min→ Castle Square —2h15min→ Museum [Support: 7%]

Railway Station —10min→ Middle Bridge —10min → Campus [Support: 7%]

1  
point

4. For mining semantics-rich movement patterns, which of the following statements are true about the top-down mining approach Splitter? Select all that apply.

When grouping the places in the first step, the places having the same semantic category should be put into the same group.

The final movement patterns reflect only people’s spatial transitions from one region to another.

The coarse patterns generated by the first step mainly reflect people’s semantics-level transitions.

The top-down mining approach can effectively reduce the search space of movement patterns.

Correct

1 / 1 points

5. For a frequent trajectory pattern, we require that the consecutive places in the trajectory pattern have a time gap no larger than the time constraint. Given a time constraint of 30 min and a support threshold of 8%, which of the following are valid frequent trajectory patterns?

Railway Station —45min→ Castle Square —15min→ Museum [Support: 15%]

Railway Station —20min→ Middle Bridge —10min → Campus [Support: 8%]

Railway Station —35min→ Castle Square —15min→ Museum [Support: 3%]

Railway Station —55min→ Castle Square —15min→ Museum [Support: 10%]

6. For mining semantics-rich movement patterns, which of the following statements are true about the top-down mining approach Splitter? Select all that apply.

The top-down mining approach can effectively reduce the search space of movement patterns.

The final movement patterns reflect only people’s spatial transitions from one region to another.

Given a support threshold d, the support of any result movement patterns must be no less than d.

In this approach, similar places should be put into the same group to collectively meet the support threshold.

Correct

1 / 1 points

7. Which of the following is true about spatial association mining?

There is no difference between mining spatial associations and mining classic association rules.

A rule is called a spatial association as long as its confidence is no less than the given confidence threshold.

For mining spatial associations, the hierarchy of spatial relationship can be used to speed up the mining process.

A rule is called a spatial association as long as its support is no less than the given support threshold.

8. Which of the following is true about spatial association mining? Select all that apply.

A rule is called a spatial association as long as its support is no less than the given support threshold.

The progressive refinement framework can reduce the search space of spatial associations.

The progressive refinement framework is mainly for visualization purposes.

A rule is called a spatial association if its support is no less than the given support threshold and its confidence is no less than the given confidence threshold.

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