**Supremum and infimum**

**LATEST SUBMISSION GRADE**

100%

**1.Question 1**

**Let (*A*, *B*) be the object concept of “cola” and (*C*, *D*) be the object concept of “champagne”. Which objects are in the extent of (*A*, *B*) ∨ (*C*, *D*)?**

**A close up of a map

Description automatically generated**

champagne

**Correct**

Every object is always in the extent of the supremum of its object concept and any other concept.

wine

mineral water

**Correct**

The supremum of the two object concepts covers all the objects that have all the attributes shared by cola and champagne. In other words, it covers all the sparkling beverages, and mineral water is one of them.

coffee

herb tea

cola

**Correct**

Every object is always in the extent of the supremum of its object concept and any other concept.

**1 / 1 point**

**2.Question 2**

**Let (*A*, *B*) = ({champagne}*''*, {champagne}*'*), (*C*, *D*) = ({mineral water}*''*, {mineral water}*'*), and (*E*, *F*) = ({caffeinic}*'*, {caffeinic}*''*). Which attributes are in the intent of ((*A*, *B*) ∨ (*C*, *D*)) ∧ (*E*, *F*)?**

**A close up of a map

Description automatically generated**

nonalcoholic

**Correct**

The resulting concept is the concept of cola, and cola is nonalcoholic.

hot

sparkling

**Correct**

The resulting concept is the concept of cola, and cola is sparkling.

beverage

**Correct**

Every concept of this lattice has "beverage" in its intent.

alcoholic

caffeinic

**Correct**

The intent of the infimum of an attribute concept and another concept always includes this attribute.

**1 / 1 point**

**3.Question 3**

**Let (*A*, *B*) = ({champagne}*''*, {champagne}*'*), (*C*, *D*) = ({mineral water}*''*, {mineral water}*'*), and (*E*, *F*) = ({caffeinic}*'*, {caffeinic}*''*). Is the following statement true?**

**A close up of a map

Description automatically generated**

**((*A*, *B*) ∨ (*C*, *D*)) ∧ (*E*, *F*) = (*A*, *B*) ∨ ((*C*, *D*) ∧ (*E*, *F*))**

Yes

No

**Correct**