

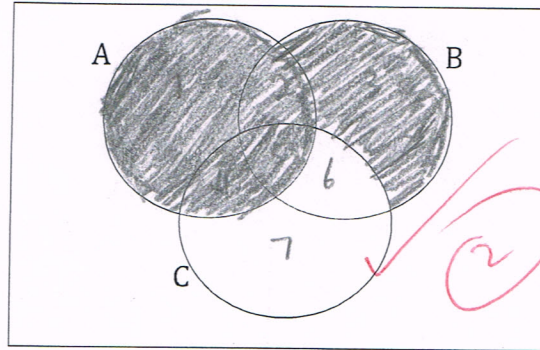
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INSTRUCTION:

Answer all the questions. Show your working. It may help you to get marks.

Question 1 (CLO1, C2)

Shade in the set $A \cup (B \cap C')$



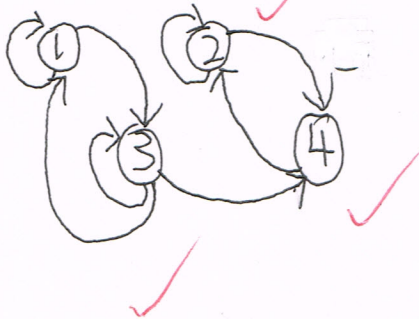
[2 marks]
 $A \cup (B \cap C')$
 1 2 3 4 5 6 7
 1 2 3 4 5 6 7
 $A \cup (B \cap C')$
 1 2 3 4 5 6 7
 1 2 3 4 5 6 7

Question 2 (CLO1, C2)

(a) Given the relation $R = \{(1,1), (2,2), (3,3), (2,4), (4,2), (3,4), (3,1), (1,3)\}$ on the set $A = \{1, 2, 3, 4\}$.

(i) Draw the digraph on the given relation R .

[2 marks]



(ii) Determine whether R is reflexive, R is symmetric, and R is transitive. Explain your answers.

- R is not reflexive because $4 \not R 4$.

[6 marks]

- R is not symmetric because whenever $3 R 4$, but $4 \not R 3$.

- R is not transitive because whenever $1 R 3$, $3 R 4$ but $1 \not R 4$.

6

8/10

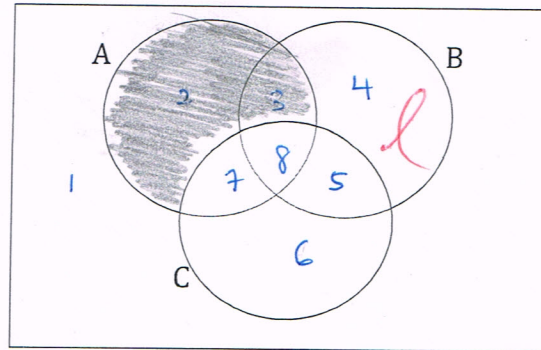
INSTRUCTION:

Answer all the questions. Show your working. It may help you to get marks.

Question 1 (CLO1, C2) ← intersect (common)

Shade in the set $A \cup (B \cap C')$

[2 marks]



$$C' = 1, 2, \textcircled{3}, \textcircled{4}$$

$$B = \textcircled{3}, \textcircled{4}, 7, 8$$

$$B \cap C' = 3, 4$$

$$A = 2, 3, 7, 8$$

$$U \text{ take all} = A \cup (B \cap C')$$

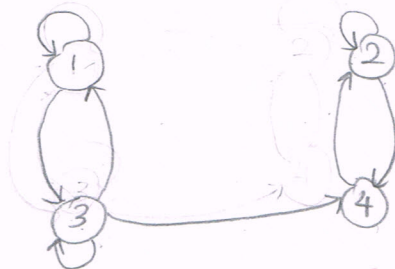
$$\text{Shade} = 2, 3, 7, 8, 4$$

Question 2 (CLO1, C2)

(a) Given the relation $R = \{(1,1), (2,2), (3,3), (2,4), (4,2), (3,4), (3,1), (1,3)\}$ on the set $A = \{1, 2, 3, 4\}$.

(i) Draw the digraph on the given relation R.

[2 marks]



(ii) Determine whether R is reflexive, R is symmetric, and R is transitive. Explain your answers.

1) Reflexive

[6 marks]

R is not reflexive because $1R1, 2R2, 3R3$ but $4 \not R 4$.

2) Symmetric

R is not symmetric because $1R3, 3R1, 4R2, 2R4, 3R4$ but $4 \not R 3$.

3) Transitive.

R is not transitive because $1R3, 3R4$, but $1 \not R 4$.

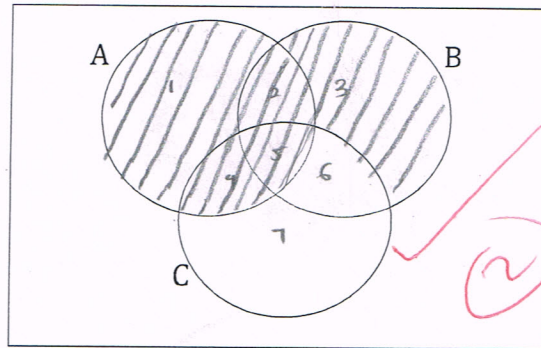
9
60

INSTRUCTION:

Answer all the questions. Show your working. It may help you to get marks.

Question 1 (CLO1, C2)

Shade in the set $A \cup (B \cap C')$



[2 marks]

$$A \cup (B \cap C')$$

$$B \cap C' = \{2, 3, 5, 6\} \cap \{1, 2, 3\}$$

$$B \cap C' = \{2, 3\}$$

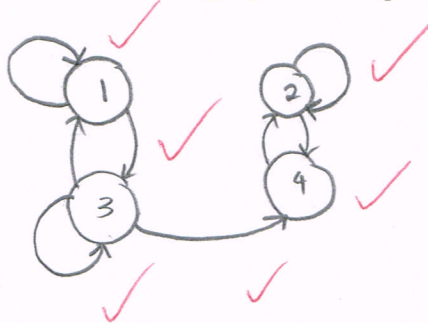
$$A \cup (B \cap C') = \{1, 2, 4, 5\} \cup \{2, 3\} = \{1, 2, 3, 4, 5\}$$

Question 2 (CLO1, C2)

(a) Given the relation $R = \{(1,1), (2,2), (3,3), (2,4), (4,2), (3,4), (3,1), (1,3)\}$ on the set $A = \{1, 2, 3, 4\}$.

(i) Draw the digraph on the given relation R.

[2 marks]



(ii) Determine whether R is reflexive, R is symmetric, and R is transitive. Explain your answers.

Reflexive :

- R is not reflexive because $4 \not R 4$

- R is reflexive because $1R1, 2R2$ and $3R3$.

Symmetric :

- R is not symmetric because $3R4$ but $4 \not R 3$.

- R is symmetric because $1R3$ and $3R1, 2R4$ and $4R2$.

Transitive :

- R is not transitive because $1R3, 3R4$ but $1 \not R 4$.

[6 marks]

Quiz 1

5/10

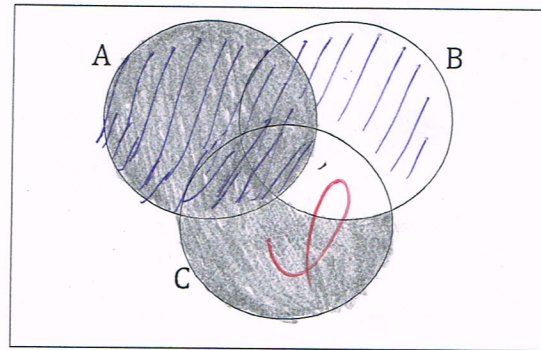
INSTRUCTION:

Answer all the questions. Show your working. It may help you to get marks.

Question 1 (CLO1, C2)

Shade in the set $A \cup (B \cap C')$

[2 marks]



$$C' = \{1, 2, \textcircled{3}, \textcircled{4}\}$$

$$B = \{\textcircled{3}, \textcircled{4}, 5, 8\}$$

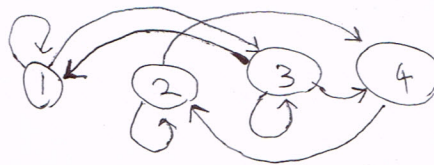
$$B \cap C' = \{3, 4\}$$

Question 2 (CLO1, C2)

(a) Given the relation $R = \{(1,1), (2,2), (3,3), (2,4), (4,2), (3,4), (3,1), (1,3)\}$ on the set $A = \{1, 2, 3, 4\}$.

(i) Draw the digraph on the given relation R.

[2 marks]



(ii) Determine whether R is reflexive, R is symmetric, and R is transitive. Explain your answers.

[6 marks]

R is not symmetric because

$3R4$ but $4 \not R 3$

R is irreflexive because $4 \not R 4$

R is symmetric because all elements is a sub belong in the set A.

R is not a transitive because $a R b, b R c$ but $a \not R c$

$3R4, 4R2$ but $3 \not R 2$

3

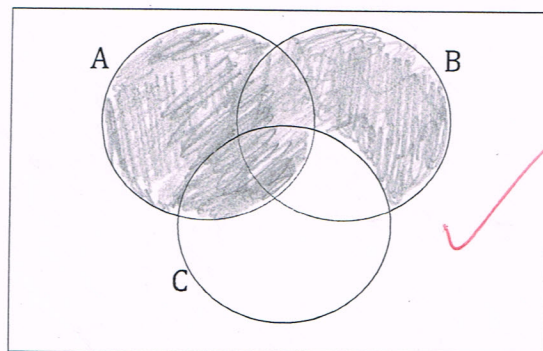
Felester (05DDT17F2039)

INSTRUCTION:

Answer all the questions. Show your working. It may help you to get marks.

Question 1 (CLO1, C2)

Shade in the set $A \cup (B \cap C')$

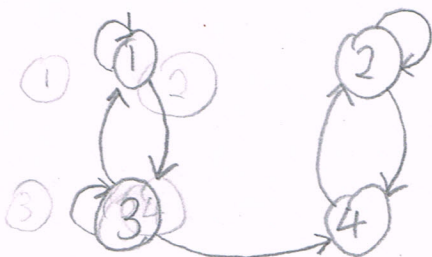


[2 marks]

Question 2 (CLO1, C2)

(a) Given the relation $R = \{(1,1), (2,2), (3,3), (2,4), (4,2), (3,4), (3,1), (1,3)\}$ on the set $A = \{1, 2, 3, 4\}$.

(i) Draw the digraph on the given relation R .



[2 marks]

(ii) Determine whether R is reflexive, R is symmetric, and R is transitive. Explain your answers.

[6 marks]

- ① R is symmetric because $(1R3), (3R1)$ and $(2R4), (4R2)$
- ② R is not symmetric because $3R4$ but $4 \not R 3$.
- ③ R is reflexive because $(1,1), (2,2)$ and $(3,3)$.
- ④ R is not irreflexive because

R is not reflexive because

R is not symmetric because

Name: Maximilian
05DDT17F2042

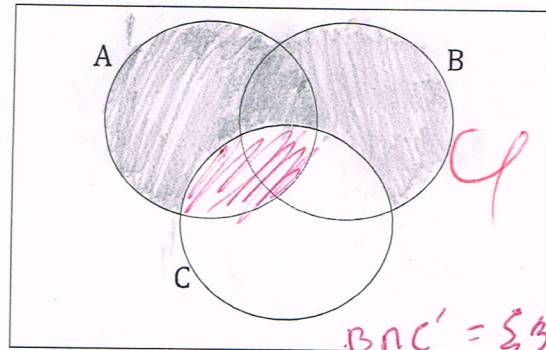
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INSTRUCTION:

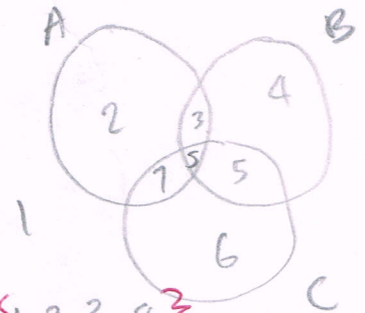
Answer all the questions. Show your working. It may help you to get marks.

Question 1 (CLO1, C2)

Shade in the set $A \cup (B \cap C')$



[2 marks]



$$A = \{2, 3, 7, 8\}$$

$$B \cap C' = \{3, 4\}$$

$$A \cup (B \cap C') = \{2, 3, 4, 7, 8\}$$

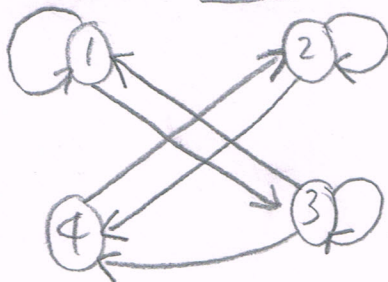
$$C' = \{1, 2, 3, 4\}$$

$$B = \{3, 4, 5, 8\}$$

Question 2 (CLO1, C2)

(a) Given the relation $R = \{(1, 1), (2, 2), (3, 3), (2, 4), (4, 2), (3, 4), (3, 1), (1, 3)\}$ on the set $A = \{1, 2, 3, 4\}$.

(i) Draw the digraph on the given relation R.



[2 marks]

(ii) Determine whether R is reflexive, R is symmetric, and R is transitive. Explain your answers.

① R is not reflexive because $4 \not R 4$

[6 marks]

② R is not symmetric because $4 \not R 3$

③ R is not transitive because $1 R 3, 3 R 1, 2 R 4, 4 R 2, 4 R 3$ but $3 \not R 2$

Ayredale Syera

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INSTRUCTION:

Quiz 1

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Answer all the questions. Show your working. It may help you to get marks.

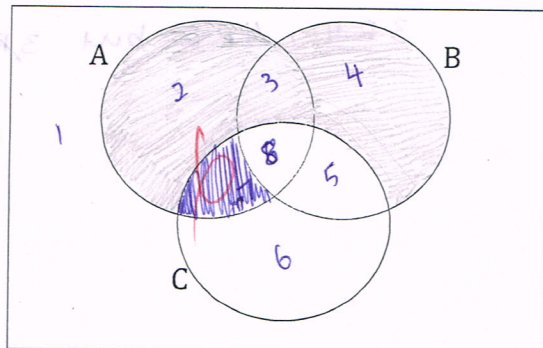
Question 1 (CLO1, C2)

Shade in the set $A \cup (B \cap C')$

intersect - common element

[2 marks]

$\cup$ - union
(take all)



$$C' = \{1, 2, 3, 4\}$$

$$B = \{3, 4, 5, 8\}$$

$$B \cap C' = \{3, 4\}$$

$$A = \{2, 3, 7, 8\}$$

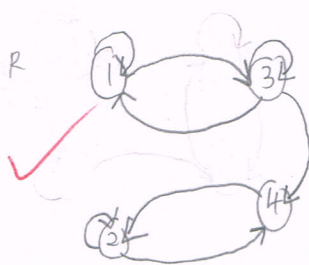
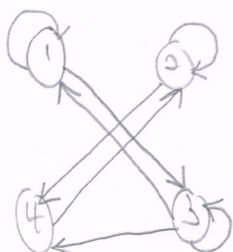
$$A \cup (B \cap C') = \{2, 3, 4, 7, 8\}$$

Question 2 (CLO1, C2)

(a) Given the relation $R = \{(1,1), (2,2), (3,3), (2,4), (4,2), (3,4), (3,1), (1,3)\}$ on the set $A = \{1, 2, 3, 4\}$.

(i) Draw the digraph on the given relation R.

[2 marks]



(ii) Determine whether R is reflexive, R is symmetric, and R is transitive. Explain your answers.

[6 marks]

- R is ^{not} reflexive because $3R4$ but $4 \not R 3$.

- R is asymmetric because whenever $1R1, 2R2, 3R3, 2R4, 4R2, 3R1, 1R3$ but $3R4 \wedge 4 \not R 3$.

- R is not transitive because whenever aRa, bRa then cRa . R is not transitive because

INSTRUCTION:

$$A = \{1, 2\} \quad B = \{3, 4, 5\} \\ C = \{6, 7, 8\}$$

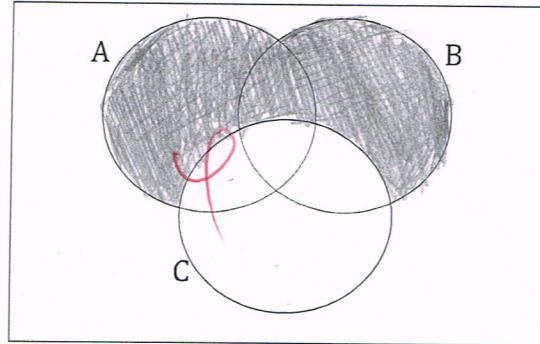
Answer all the questions. Show your working. It may help you to get marks.

Question 1 (CLO1, C2)

Shade in the set $A \cup (B \cap C')$

$$A \cup (B \cap C') = \{1, 2\} \cup \{3, 4, 5\} \\ = \{1, 2, 3, 4, 5\}$$

[2 marks]

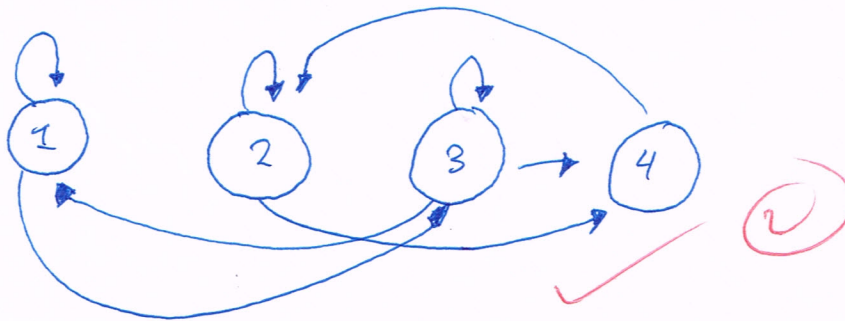


Question 2 (CLO1, C2)

(a) Given the relation $R = \{(1,1), (2,2), (3,3), (2,4), (4,2), (3,4), (3,1), (1,3)\}$ on the set $A = \{1, 2, 3, 4\}$.

(i) Draw the digraph on the given relation R .

[2 marks]

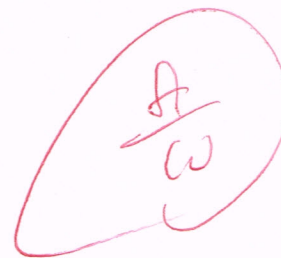


(ii) Determine whether R is reflexive, R is symmetric, and R is transitive. Explain your answers.

R is ^{not} reflexive because $1 \in A, 2 \in A, 3 \in A$ but not $4 \in A$ [6 marks]

R is not symmetric because $3 R 4$ but $4 \not R 3$

R is ^{not} transitive because $3 R 4$ but $4 R 3$
 $1 \in 3, 2 \in 4, 3 \in 4$ but $1 \notin 2$

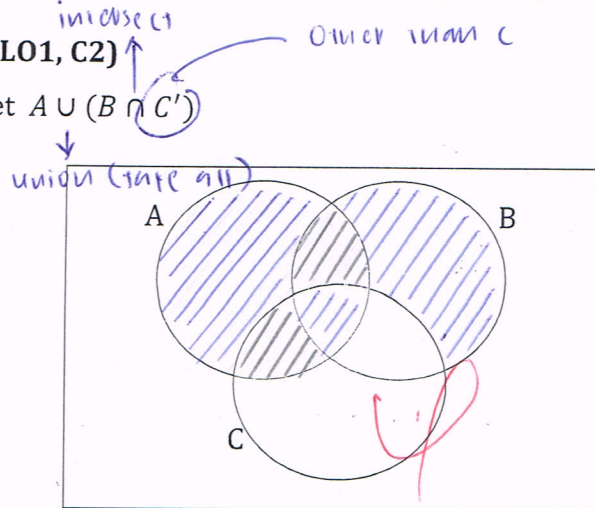


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Question 1 (CLO1, C2)

Shade in the set $A \cup (B \cap C')$

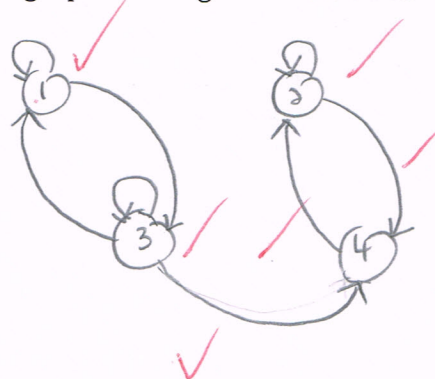


[2 marks]

Question 2 (CLO1, C2)

(a) Given the relation $R = \{(1,1), (2,2), (3,3), (2,4), (4,2), (3,4), (3,1), (1,3)\}$ on the set $A = \{1, 2, 3, 4\}$.

(i) Draw the digraph on the given relation R .



[2 marks]

① R is not reflexive because $(4,4) \notin R$

② R is not symmetric because $3R4$ but $4 \not R 3$.

③ R is not transitive because $(3,4)$ in R but $(3,3)$ not in R .

(ii) Determine whether R is reflexive, R is symmetric, and R is transitive. Explain your answers.

① R is not reflexive because there are only $1R1, 2R2, 3R3$ but $4 \not R 4$. [6 marks]

② R is not symmetric because whenever $1R3, 3R1, 2R4, 4R2, 3R4$ but $4 \not R 3$.

③ R is not transitive because whenever $1R3, 3R1, 3R4$