

CANDIDATE

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TEST

Quiz 2

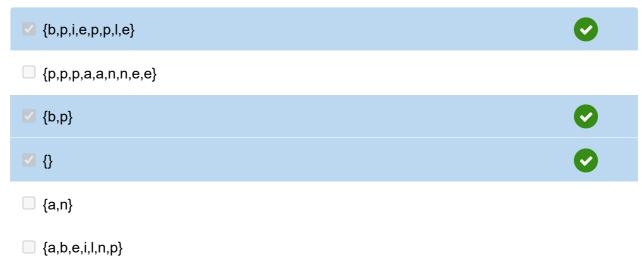
Subject code	
Evaluation type	
Test opening time	21.02.2024 07:00
End time	28.02.2024 07:00
Grade deadline	
PDF created	13.08.2024 06:32

Question	Status	Marks	Question type
1.1	Correct	1/1	Multiple Response
1.2	Correct	1/1	Multiple Response
1.3	Correct	1/1	Numeric Entry
1.4	Correct	1/1	Multiple Response
1.5	Correct	1/1	Multiple Response
2.1	Correct	1/1	True / False
2.2	Correct	1/1	True / False
2.3	Correct	1/1	Multiple Response
2.4	Correct	1/1	Multiple Choice
2.5	Correct	1/1	True / False

1.1 Let A be the set $\{b,a,n,a,n,a\}$ and B be the set $\{p,i,n,e,a,p,p,l,e\}$.

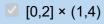
Which of the following are subsets of A⊕B?

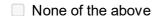
Select all that apply



1.2 Which of the following sets have exactly 6 elements? (Intervals are over \mathbb{N}) Select all that apply

- $[0,1] \times (1,6)$
- $(0,1) \times [1,6]$
- (0,2] × [1,4)





1.3 Let $\Sigma = \{a,b\}$. Let $w \in \Sigma^*$ be the word abb, and let $v \in \Sigma^*$ be the word ba

What is length(vwv): 7



1.4 Let $\Sigma = \{c,u,p\}$ and $\Psi = \{s,a,u,c,e,r\}$

Which of the following words are in $\Sigma^* \setminus \Psi^*?$

Select all that apply

ppp



- ccc
- saucer





- Ωλ
- eee

1.5 Which of the following statements are true for all sets A, B, C? Select all that apply

 \square (A \cup B)\C = (A\C) \cup (B\C)



- $(C/A)^c = (C^c) / (A^c)$
- \triangle (AUB) \triangle A = AU(B \triangle A)



- \Box C\(A \cup B) = (C\A) \cup (C\B)
- $(A \oplus B)^c = (A^c) \oplus (B^c)$

2.1 True or false:

For all sets A and B, $A \cap B = A \cup B$ if and only if A = B

False



2.2 True or false:

For all sets A,B,C:

 $A\times(B\cap C) = (A\times B)\cap (A\times C)$

False



2.3 Which of the following sets has cardinality less than or equal to 6? **Select all that appy:**



Quiz 2

2.4 Suppose A={0,1,2}

For how many sets $B \subseteq \mathbb{N}$ is it the case that $A \times B = B \times A$? **Select one alternative:**

- 0
- 0 1







None of the above

2.5 Let $\Sigma = \{0,1\}$.

True or false:

For all languages $X \subseteq \Sigma^*$: $(XX)^* = (X^*)(X^*)$





True