

Time: 30 Minutes	Paper Math 8 (T-6)	Total Marks: 25
2nd Month, 2nd Week, 6th Day	Revision Test (2nd Week)	

Q.1. Choose the correct options. ($1 \times 13 = 13$) درست جواب کا انتخاب کریں۔

(i) $(A \cup B)^c = ?$

(a) $(A \cap B)^c$	(b) $A^c \cap B^c$	(c) $A^c \cup B^c$	(d) $(A \cup B)^c$
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(ii) According to D Morgan law. $A^c \cap B^c = ?$ ڈی مارگن کے قانون کے مطابق:

(a) $A^c \cup B^c$	(b) $(A \cap B)^c$	(c) $(A \cup B)^c$	(d) $A^c \cap B^c$
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(iii) If $U = \{0,1,2,3,\dots,10\}$ and $C = \{0,3,6,9\}$ then $C^c = ?$

اگر $U = \{0,1,2,3,\dots,10\}$ اور $C = \{0,3,6,9\}$ ہو تو C^c معلوم کریں۔

(a) $\{1,2,4,5,7,8,10\}$	(b) $\{2,4,6,8,10\}$	(c) $\{1,3,5,7,9\}$	(d) $\{1,3,4,5,6\}$
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(iv) If $C = \{3,6,9,12,15\}$ and $D = \{1,3,5,7,9\}$ then find $C \cap D = ?$

اگر $C = \{3,6,9,12,15\}$ اور $D = \{1,3,5,7,9\}$ ہو تو $C \cap D$ معلوم کریں۔

(a) $\{3,9\}$	(b) $\{1,3,5,9\}$	(c) $\{2,4,6,8\}$	(d) $\{1,3,5,7\}$
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(v) $A = \{1,3,4,5,6\}$ and $B = \{2,4,6,8\}$ $A - B = ?$

(a) $\{1,3,5,6,8\}$	(b) $\{2,4,6,8\}$	(c) $\{1,3,5,7\}$	(d) $\{1,2,4,5,6\}$
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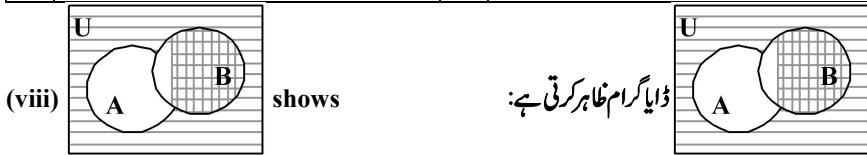
(vi) How can we write Distributive law of union over intersection.

ہم یونین کی قانون تقاطع کیسے لکھ سکتے ہیں۔

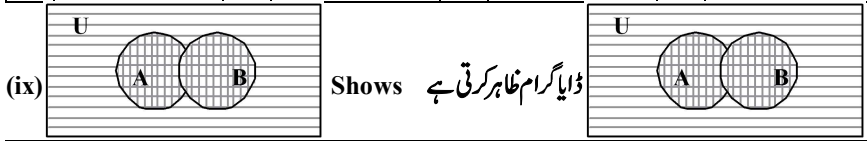
(a) $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$	(b) $A \cap (B \cap C) = (A \cap B) \cap (A \cap C)$
(c) $A \cup (B \cup C) = (A \cup B) \cup C$	(d) $A \cup (B \cup C) = (A \cap B) \cup (A \cap C)$

(vii) Write associative law of union. یونین کی خاصیت تلازم کا قانون لکھیں۔

(a) $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$	(b) $A \cap (B \cap C) = (A \cap B) \cap (A \cap C)$
(c) $A \cup B = (B \cup A)$	(d) $A \cup (B \cup C) = (A \cup B) \cup C$



(a) A'	(b) $(A \cup B)'$	(c) $A' \cap B'$	(d) $(A \cap B)'$
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(a) A'	(b) $(A' \cap B)'$	(c) B'	(d) $(A' \cup B)'$
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(x) If $U = \{1,2,3,\dots,10\}$ and $A = \{2,4,6,\dots,10\}$ and $B = \{1,3,5,\dots,9\}$ then $(A - B)$ is equal to:

اگر $U = \{1,2,3,\dots,10\}$ اور $A = \{2,4,6,\dots,10\}$ اور $B = \{1,3,5,\dots,9\}$ ہو تو $(A - B)$ برابر ہوتا ہے

(a) U'	(b) B	(c) A	(d) ϕ
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(xi) If $U = \{1,2,3,\dots,10\}$ and $B = \{2,4,6,8\}$ Then B^c is equal to:

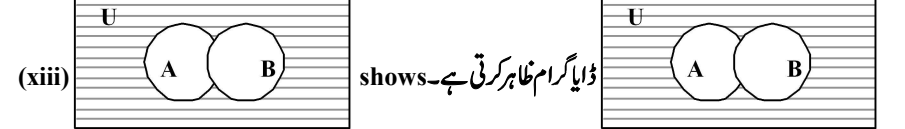
اگر $U = \{1,2,3,\dots,10\}$ اور $B = \{2,4,6,8\}$ ہو تو B^c برابر ہوتا ہے۔

(a) $\{1,3,5,7,9\}$	(b) $\{1,2,4,6,8\}$	(c) $\{2,4,5,7\}$	(d) $\{5,7,9,10\}$
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(xii) If $A = \{1,2,3,4,5,6,7,8,9,10\}$ and $B = \{1,3,5,7,9\}$ then $A \cup B$ is equal to:

اگر $A = \{1,2,3,4,5,6,7,8,9,10\}$ اور $B = \{1,3,5,7,9\}$ ہو تو $A \cup B$ برابر ہوتا ہے۔

(a) $\{2,4,6,8,10\}$	(b) $\{1,3,5,7,9\}$	(c) $\{1,2,3,\dots,10\}$	(d) $\{2,3,5,7,9\}$
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(a) $(A \cap B)'$	(b) $(A' \cup B)'$	(c) $A \cap B$	(d) $A \cup B$
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☆ Answer the following short question ($2 \times 4 = 8$) درج ذیل سوالات کے جوابات دیں۔

(1) Find the intersection if $A = \{0, \pm 1, \pm 2, \pm 3\}$, $B = \{0, 1, 2, 3\}$ تقاطع معلوم کریں۔

(2) If $U = \{0, 1, 2, 3, \dots, 10\}$ and $D = \{5, 6, 7, 8, 9, 10\}$ and $E = \{1, 3, 5, 7, 9\}$ Then find (i) D^c (ii) E^c

اگر $U = \{0, 1, 2, 3, \dots, 10\}$ اور $D = \{5, 6, 7, 8, 9, 10\}$ اور $E = \{1, 3, 5, 7, 9\}$ ہو تو معلوم کریں۔

(3) Verify commutative law of Union of sets through venn diagrams.

(i) $C = \{x / x \in \mathbb{N} \wedge 8 \leq x \leq 18\}$ (ii) $D = \{y / y \in \mathbb{N} \wedge 9 \leq y \leq 19\}$

دین اشکال کے ذریعے خاصیت مبادلہ کے قانون کو ثابت کریں۔

(4) If $A = \{1, 2, 3, 4, 5, 6, 7, 8\}$ and $B = \{1, 3, 5, 7, 9\}$ then find (i) $A - B$ (ii) $B - A$

اگر $A = \{1, 2, 3, 4, 5, 6, 7, 8\}$ اور $B = \{1, 3, 5, 7, 9\}$ ہو تو معلوم کریں۔

Q.No.3 Verify De Morgan law of $U = \{1, 2, 3, \dots, 15\}$ $A = \{1, 3, 5, 7, 9, 11, 13\}$ and

$B = \{2, 4, 6, 8, 10, 12, 14\}$ verify through Venn - Diagrams also ($1 \times 4 = 4$)

ڈی مارگن کے قانون کو ثابت کریں اگر $U = \{1, 2, 3, \dots, 15\}$ اور $A = \{1, 3, 5, 7, 9, 11, 13\}$ اور $B =$

$\{2, 4, 6, 8, 10, 12, 14\}$ ہو تو دین اشکال سے بھی ثابت کریں۔