Answer no: 8

Given that,

$P(A) = ?$ $(A) = \{a, b, c, d\}$

$P(A) = \{a\}, \{b\}, \{c\}, \{d\}, \{a, b\}, \{a, c\}, \{a, d\}, \{b, c\}, \{b, d\}, \{c, d\}, \{a, b, c\}, \{a, b, d\}, \{a, c, d\}, \{b, c, d\}, \{a, b, c, d\}, \emptyset$

Total elements 16 because $2^4 = 16$.

Answer no: 2

$A = \{1, 2, \ldots 10\}$

$B = \{10, 11, \ldots 20\}$

$C = \{2, 4, 6 \ldots 20\}$

(a) $(A \cup C) = \{1, 2, \ldots 10\} \cup \{2, 4, 6 \ldots 20\}$

$= \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20\}$