

$$15) \overline{C(A+B)} = \overline{(CA+CB)}$$

$$= \overline{CA} + \overline{CB}$$

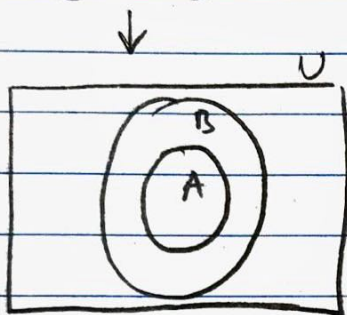
$$= \bar{C} + \bar{A} + \bar{C} + \bar{B}$$

$$= \bar{C}(\bar{A} + \bar{B}) \quad ; \quad (\bar{A} + \bar{B}) = \bar{A}\bar{B}$$

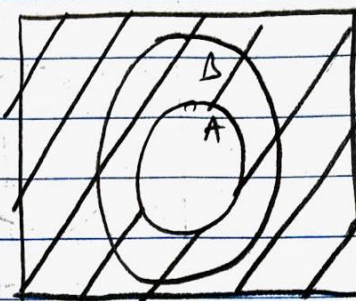
$$\Rightarrow \bar{C}(\bar{A}\bar{B})$$

$$\therefore \overline{C(A+B)} = \bar{C}(\bar{A}\bar{B})$$

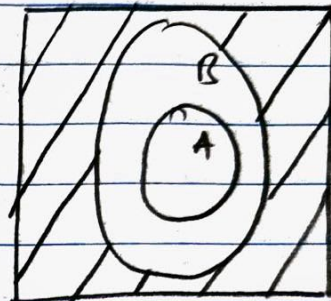
$$16) (A \Rightarrow B)$$



$$\bar{A} =$$



$$\bar{B} =$$



for every True value of A
B is True

But for every false value of A
B is not necessarily True

Similarly,

for every True value of B
A is true

But for every false value of B
A is not necessarily false.

$$\therefore (A \Rightarrow B) \equiv (\bar{B} \Rightarrow \bar{A})$$