

Q32. The contra positive of statement 'If Chandigarh is capital of Punjab, then Chandigarh is in India' is

(a) If Chandigarh is not in India, then Chandigarh is not the capital of Punjab

(b) If Chandigarh is in India, then Chandigarh is Capital of Punjab

(c) If Chandigarh is not capital of Punjab, then Chandigarh is not capital of India

(d) If Chandigarh is capital of Punjab, then Chandigarh is not is India

**Sol:** (a) Let p: Chandigarh is capital of Punjab.

and q: Chandigarh is in India.

$\sim p$ : Chandigarh is not capital of Punjab.

$\sim q$ : Chandigarh is not in India.

Contra positive of the statement  $p \rightarrow q$

if ( $\sim q$ ), then ( $\sim p$ ).

It Chandigarh is not in India, then Chandigarh is not the capital of Punjab.