9. Analyze $(B \Rightarrow \bar{A})$

$B \Rightarrow \bar{A}$ is equivalent to $\bar{B} + \bar{A}$ being true.

So, $\bar{B} + \bar{A} = T$

Now, Simplify the expression:

$$\underbrace{(A+\bar{B})(\bar{A}+A\bar{B})}_{\text{Term 1}} + \underbrace{\bar{A}B(A+B)}_{\text{Term 2}}$$

Term 1:

$$(A+\bar{B})(\bar{A}+A\bar{B}) = A\cdot\bar{A} + A\cdot A\bar{B} + \bar{B}\cdot\bar{A} + \bar{B}\cdot A\bar{B}$$

$A\cdot\bar{A} = F$ ($\because$ A and $\bar{A}$ cannot both be true)

$A\cdot A\bar{B} = A\bar{B}$

$\bar{B}\cdot\bar{A} = \bar{A}\bar{B}$

$\bar{B}\cdot A\bar{B} = F$ ($\because$ $\bar{B}\cdot\bar{B}$ is false)

So,

$$A\bar{B} + \bar{A}\bar{B} = \bar{B}(A+\bar{A}) = \bar{B}\cdot 1 = \bar{B}$$

Term 2:

$\bar{A}B(A+B)$

$$\bar{A}B(A+B) = \bar{A}BA + \bar{A}BB$$

$\bar{A}BA$ = false

$\bar{A}B\cdot B = \bar{A}B$

So, $\bar{A}B$

$\because$ $\bar{B}+\bar{A}$ = True $\Leftrightarrow B \Rightarrow \bar{A}$ shows that the expression $\bar{B}+\bar{A}B$ is always true.

Thus, $B \Rightarrow \bar{A}$ is true, therefore $(A+\bar{B})(\bar{A}+A\bar{B}) + \bar{A}B(A+B)$ is also true & both are equivalent.