Student No. 1705060

Verifying Student No. 1705081

Chapter 1

Section 1

Exercise No. 30

a. $(q \rightarrow \neg p) \vee (\neg p \rightarrow \neg q)$
There are two cases TRUTH AND FALSE for p and q. So, there will be $2^2 = 4$ number of rows.

b. $(p \vee \neg t) \wedge (p \vee \neg s)$

There are two cases TRUTH AND FALSE for p , t and s. So, there will be $2^3 = 8$ number of rows.

c. $(p \rightarrow r) \vee (\neg s \rightarrow \neg t) \vee (\neg u \rightarrow v)$
There are two cases TRUTH AND FALSE for p , r , s , t, u and v. So, there will be $2^6 = 64$ number of rows.

d. $(p \wedge r \wedge s) \vee (q \wedge t) \vee (r \wedge \neg t)$
There are two cases TRUTH AND FALSE for p, q, r, s and t. So, there will be $2^5 = 32$ number of rows.