

1. Find the truth table of:

a.  $p \wedge q \wedge r$

b.  $\neg p \vee (q \vee r)$

c.  $p \wedge \neg(r \vee \neg q)$

d.  $(p \vee q) \wedge \neg q \wedge r$

2. Find the truth table of:

a.  $p \wedge q \Rightarrow r$

b.  $\neg p \vee q \Rightarrow r$

c.  $p \Rightarrow \neg q \vee r$

d.  $p \Leftrightarrow r \wedge q$

3. Use truth table to check whether the following logicals are equivalence

a.  $p \Rightarrow q \vee r ; \neg q \Rightarrow \neg p \vee r$

b.  $p \vee q ; p \vee r \vee q$

c.  $p \wedge q \wedge \neg r ; \neg(\neg p \vee \neg q) \wedge r$

d.  $\neg p \Rightarrow q \vee r ; \neg(p \Rightarrow p) \wedge r$