Ch-1'1

$(11*\frac{1}{5C}+9*\frac{1}{5}+016)\%50 = 36$

Prob-36;

(a) $(p \vee q) \vee r$ Truth Table, p OR q OR r

p	q	r	(p ∨ q)	(p ∨ q) ∨ r
T	T	T	T	T
T	T	F	T	T
T	F	T	T	T
T	F	F	T	T
F	T	T	T	T
F	T	F	T	T
F	F	T	F	T
F	F	F	F	F

(b) $(p \vee q) \wedge r$ (p OR q) AND r.

p	q	r	p ∨ q	(p ∨ q) ∧ r
T	T	T	T	T
T	T	F	T	F
T	F	T	T	T
T	F	F	T	F
F	T	T	T	T
F	T	F	T	F
F	F	T	F	F
F	F	F.	F.	F.

(c) $(p \wedge q) \vee r$ (p AND q) OR r.

p	q	r	p ∧ q	(p ∧ q) ∨ r
T	T	T	T	T
T	T	F	T	T
T	F	T	F	T
T	F	F.	F	F
F	T	T	F	T
F	T	F	F	F
F	F	T	F	T
F	F	F.	F.	F.

(d) $(p \wedge q) \wedge r$ (p AND q) AND r

p	q	r	$(p \wedge q)$	$(p \wedge q) \wedge r$
T	T	T	T	T
T	T	F	T	F
T	F	T	F	F
T	F	F	F	F
F	T	T	F	F
F	T	F	F	F
F	F	T	F	F
F	F	F	F	F

(e) $(p \vee q) \wedge \neg r$ (p OR q) AND (NOT r)

p	q	r	$\neg r$	$p \vee q$	$(p \vee q) \wedge \neg r$
T	T	T	F	T	F
T	T	F	T	T	T
T	F	T	F	T	F
T	F	F	T	T	T
F	T	T	F	T	F
F	T	F	T	T	T
F	F	T	F	F	F
F	F	F	T	F	F

(f) $(p \wedge q) \vee \neg r$. (p AND q) OR (NOT r)

p	q	r	$\neg r$	$p \wedge q$	$(p \wedge q) \vee \neg r$
T	T	T	F	T	T
T	T	F	T	T	T
T	F	T	F	F	F
T	F	F	T	F	T
F	T	T	F	F	F
F	T	F	T	F	T
F	F	T	F	F	F
F	F	F	T	F	T