Solution:

For EC of (+2)pts, convert $p \wedge (\sim q \vee r)$ to Nand only.

Show all work and justify each step.

<u>Remember:</u>

1) Definition: $p|q = \sim (p \wedge q)$
2) Theorem: $p|p = \sim p$

$$p \wedge (\sim q \vee r) \equiv p \wedge \sim (q \wedge \sim r) \equiv p \wedge (q|\sim r) \equiv p \wedge (q|r|r) \equiv \sim\sim [p \wedge (q|r|r)]$$

$$\equiv \sim [p|(q|r|r)] \equiv p|(q|r|r)|p|(q|r|r)$$