5. Negation of the statement:

$\sqrt{5}$ is an integer of 5 is irrational is:

(a) $\sqrt{5}$ is not an integer or 5 is not irrational

(b) $\sqrt{5}$ is not an integer and 5 is not irrational

(c) $\sqrt{5}$ is irrational or 5 is an integer.

(d) $\sqrt{5}$ is an integer and 5 is irrational

5. **(b)** Let p and q the statements such that $p = \sqrt{5}$ is an integer $q = 5$ is an irrational number.

Then, negation of the given statement

$\sqrt{5}$ is not an integer and 5 is not an irrational Number

$\sim (p \vee q) = \sim p \wedge \sim q$