

QUESTION 9 (25 MARKS)

A: People with high blood pressure

B: High level of cholesterol

(a) People with high blood pressure and high level of cholesterol = 10

(b) $P(\text{High BP}) = \frac{15}{40} = \frac{3}{8}$

(c) $P(\text{High level of cholesterol}) = \frac{25}{40} = \frac{5}{8}$

(d) $P(\text{High BP and high level of cholesterol}) = \frac{10}{40} = \frac{1}{4}$

(e) $P(\text{High BP or high level of cholesterol}) = \frac{30}{40} = \frac{3}{4}$

(f) $P(A \text{ or } B) = \frac{3}{4}$

$$P(A) + P(B) - P(A \text{ and } B) = \frac{3}{8} + \frac{5}{8} - \frac{1}{4} = \frac{3}{4}$$

