

If the probability of X to fail in the examination is 0.3 and that for Y is 0.2, then the probability that either X or Y failing in the examination is _____.

Solution:

Here $P(X) = 0.3$; $P(Y) = 0.2$

Now $P(X \cup Y) = P(X) + P(Y) - P(X \cap Y)$

For independent events $P(X \cap Y) = P(X) * P(Y)$

Thus required probability = $0.3 + 0.2 - 0.06 = 0.44$