

## Task 10 –notes

Bayes' Theorem states that the conditional probability of an event, based on the occurrence of another event, is equal to the likelihood of the second event given the first event multiplied by the probability of the first event.

Bayes' Theorem calculates the conditional probability of an event, based on the values of specific related known probabilities.

$$P(A|B) = \frac{P(B|A) P(A)}{P(B)}$$

Sensitivity:-is the actual positive rate or the probability that a person tests

Specificity:-is the true negative rate or the probability that a person tests negative

Prevalence:-is the probability of having the disease

Bayes theorem is used to find the reverse probabilities if we know the conditional probability of an event.