

Quiz 9

Ground truth

Actual	Predicted
N	N
P	P
P	N
P	P
N	P
N	N
N	P
P	N
P	P
P	P

1)

A/P	C ₁	-C ₁	
C ₁	4	2	6
-C ₁	2	2	4
	6	4	10

confusion Matrix

2)

$$\text{accuracy} = \frac{(4+2)}{10} = 0.6\%$$

3)

$$P = \text{Precision} = \frac{TP}{TP + FP} = \frac{4}{4+2} = \frac{4}{6}$$

$$R = \text{Recall} = \frac{TP}{TP + FN} = \frac{4}{4+2} = \frac{4}{6}$$

4)

$$\text{Sensitivity (Recall)} = \frac{TP}{P} = \frac{4}{6}$$

$$\text{Specificity} = \frac{TN}{N} = \frac{2}{4}$$

5)

F1-Score (balanced F-measure)

$$F_1 = \frac{2PR}{P+R} = \frac{2 \times 0.67\% \times 0.67\%}{0.67\% + 0.67\%} = 0.67\%$$