

# SML

## Practice

Q1. Compute the FDA matrix for 3 category case with the following data matrices.

$$X_1 = \begin{pmatrix} 1 & 0 & 0 \\ -1 & 0 & 1 \end{pmatrix}$$

$$X_2 = \begin{pmatrix} 1 & -1 & 1 \\ 1 & -1 & 0 \end{pmatrix}$$

$$X_3 = \begin{pmatrix} 1 & 0 & 1 \\ -1 & -1 & 0 \end{pmatrix}$$

Q2. Find the MAP estimate for multi-variate Bernoulli distribution.