

## Quiz 5

Total points 85/100

The respondent's email (**irfan.ahmed@stonybrook.edu**) was recorded on submission of this form.

✓ K-means algorithm is guaranteed to converge

15/15

☒ True



☐ False

✓ The objective function of PCA is to minimize the sum of squared reconstruction errors.

10/10

☒ True



☐ False

✓ EM is not a coordinate descent algorithm

15/15

☐ True

☒ False



✓ EM is guaranteed to converged to a global solution

15/15

☐ True

☒ False



✓ The GMM algorithm described in class is an EM algorithm

15/15

☒ True

☐ False



✗ The K-means algorithm described in class is an EM algorithm

0/15

☒ True

☐ False



Correct answer

☒ False

✓ If we want to use PCA to reduce the dimension of the data to k dimensions, we should project the data to the k eigenvectors with the largest eigen values

15/15

☒ True

☐ False

