```
import tensorflow as tf
from tensorflow.keras.datasets import mnist
import matplotlib.pyplot as plt
from sklearn.decomposition import PCA
(train_images,_),(_,_)=mnist.load_data()
num_samples=train_images.shape[0]
flat_images=train_images.reshape((num_samples,-1))
flat_images=flat_images/255.0
n_components=2
pca=PCA(n_components=n_components)
reduced_features=pca.fit_transform(flat_images)
plt.figure(figsize=(8,6))
plt.scatter(reduced_features[:,0],reduced_features[:,1],c='black',marker='.')
plt.title('MNIST dataset -scatter plot(PCA)')
plt.xlabel('Principal component 1')
plt.ylabel('Principal component 2')
plt.show()
```