

EXP 10:

```
from sklearn.mixture import GaussianMixture
import numpy as np
X = np.array([[1],[2],[3],[10],[11],[12]])
model = GaussianMixture(n_components=2)
model.fit(X)
labels = model.predict(X)
print("Cluster Labels:", labels)
```

The screenshot shows the IDLE Shell 3.13.7 interface. The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. The main window displays the Python interpreter's prompt (>>>) followed by the output of the script. The output shows the Python version, the file path C:\Users\spark\OneDrive\Pictures\Documents\Desktop\ITA-0612\EXP-10.py, and the resulting cluster labels: [1 1 1 0 0 0]. The status bar at the bottom right indicates Line 6 and Column 0.

```
<IDLE Shell 3.13.7>
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bcce1c3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> > RESTART: C:\Users\spark\OneDrive\Pictures\Documents\Desktop\ITA-0612\EXP-10.py
Cluster Labels: [1 1 1 0 0 0]
>>> |
```