```python
import pandas as pd
from sklearn.preprocessing import LabelEncoder
from sklearn.naive_bayes import CategoricalNB


df = pd.read_csv('/content/drive/MyDrive/Datasets/PlayTennis.csv' )


le = LabelEncoder()
df = df.apply(le.fit_transform)


X = df.drop('Play Tennis', axis=1)
y = df['Play Tennis']


model = CategoricalNB()
model.fit(X, y)



y_pred = model.predict(X)
y_pred_labels = le.inverse_transform(y_pred)
y_labels = le.inverse_transform(y)
accuracy = (y_pred == y).mean() * 100
misclassification_rate = 100 - accuracy
misclassification_count = len(y) - sum(y_pred == y)
print("Predicted:", y_pred_labels)
print("Expected: ", y_labels)

print(f"P(A) : {model.class_log_prior_}\n")
print(f"P(X/A) : {model.feature_log_prob_}\n")
print(f"P(X) : {model.class_count_}\n")
print(f"Expected : No \n")
print(f"Misclassification Count={misclassification_count}")
print(f"Misclassification Rate={misclassification_rate}%")
print(f"Accuracy={accuracy}%")
```