```
import math
import random
data = [
    [5.1,3.5,1.4,0.2,0],
    [4.9,3.0,1.4,0.2,0],
    [6.0,2.2,4.0,1.0,1],
    [5.5,2.3,4.0,1.3,1],
    [6.5,3.0,5.2,2.0,2],
    [6.2,3.4,5.4,2.3,2]
]
random.shuffle(data)
train = data[:4]
test = data[4:]

k = 3

def euclidean_distance(x1, x2):
    return math.sqrt(sum((x1[i]-x2[i])**2 for i in range(len(x1)-1)))

def knn_predict(train, test_point, k):
    distances = [(euclidean_distance(test_point, tr), tr[-1]) for tr in train]
    distances.sort(key=lambda x: x[0])
    neighbors = distances[:k]
    votes = {}
    for _, label in neighbors:
        votes[label] = votes.get(label, 0) + 1
    return max(votes, key=votes.get)

predictions = [knn_predict(train, t, k) for t in test]
actual = [t[-1] for t in test]
```

```
print("Predicted labels:", predictions)

print("Actual labels   :", actual)

accuracy = sum([predictions[i]==actual[i] for i in range(len(actual))])/len(actual)

print("Accuracy:", accuracy)
```

OUTPUT: