

---

## Machine Learning Quiz: Supervised or Unsupervised Learning

### Instructions for Students

For each scenario, choose:

**A → Supervised Learning**

**B → Unsupervised Learning**

---

#### Question 1: Telecom Churn Prediction

A telecom company wants to predict whether a customer will leave.

Dataset includes:

- Tenure
- Charges
- Usage
- Churn (Yes/No)

**Your Answer:**

A) Supervised

---

#### Question 2: Customer Segmentation

A retail company wants to group customers into similar groups based on spending behavior.

Dataset includes:

- Age
- Income
- Purchase history

No target column.

**Your Answer:**

B) Unsupervised

---

#### Question 3: House Price Prediction

A real estate company wants to predict house prices.

Dataset includes:

- Area
- Bedrooms
- Location
- Price

**Your Answer:**

A) Supervised

---

 **Question 4: Fraud Detection (Unknown Labels)** 

A bank wants to find unusual transaction patterns but has no fraud labels.

Dataset includes:

- Amount
- Location
- Time

**Your Answer:**

B) Unsupervised

---

 **Question 5: Email Spam Detection** 

Dataset includes:

- Email text
- Sender
- Spam (Yes/No)

**Your Answer:**

A) Supervised

---

 **Question 6: Market Basket Analysis** 

A supermarket wants to find which products are bought together.

Dataset includes:

- Product purchases

No target variable.

**Your Answer:**

B) Unsupervised

---

 **Question 7: Predict Employee Salary** 

Dataset includes:

- Experience
- Education
- Salary

**Your Answer:**

A) Supervised

---

 **Question 8: Group News Articles** 

A company wants to group similar news articles automatically.

No labels available.

**Your Answer:**

B) Unsupervised

---

 **Question 9: Disease Prediction** 

Dataset includes:

- Age
- Symptoms
- Disease (Yes/No)

**Your Answer:**

A) Supervised

---

 **Question 10: Customer Behavior Exploration** 

A company wants to explore patterns in customer behavior without predefined categories.

**Your Answer:**

B) Unsupervised

---

 **Question 11: Predict Exam Result** 

Dataset includes:

- Study hours
- Attendance
- Pass/Fail

**Your Answer:**

A) Supervised

---

 **Question 12: Identify Hidden Patterns in Website Usage** 

Dataset includes:

- Pages visited
- Time spent

No outcome column.

**Your Answer:**

B) Unsupervised

---