📘 MACHINE LEARNING – UNIT 1

🔥 COMPLETE PYQ ANALYSIS (2020–2025)

🎯 RGPV Exam Trend Analysis

Maine RGPV Machine Learning PYQs ka pattern analyze kiya based on:

- Previous year papers
- Repeated theoretical topics
- RGPV question style
- Unit-wise frequency
- Common examiner pattern

🔥 UNIT 1 TOPICS

1. Introduction to Machine Learning
2. Learning Paradigms
3. Perspectives and Issues
4. Concept Learning
5. Version Space
6. Hypothesis Spaces
7. PAC Learning
8. VC Dimension

📅 YEAR-WISE PYQ ANALYSIS

🔥 2025 PAPER

✅ Asked Questions

Q1

Explain PAC Learning.

⭐ MOST IMPORTANT

Q2

Explain supervised and unsupervised learning with examples.

⭐ REPEATED

Q3

Explain VC Dimension.

⭐ HIGHLY REPEATED

🔥 2024 PAPER

✅ Asked Questions

Q1

Explain concept learning with hypothesis.

⭐ VERY IMPORTANT

Q2

Explain Version Space.

⭐ MOST REPEATED

Q3

Differentiate finite and infinite hypothesis spaces.

⭐ IMPORTANT

🔥 2023 PAPER

✅ Asked Questions

Q1

Explain Machine Learning and its applications.

⭐ REPEATED

Q2

Explain PAC Learning with example.

⭐ MOST REPEATED

Q3

Explain various learning paradigms.

⭐ HIGH CHANCE

🔥 2022 PAPER

✅ Asked Questions

Q1

Explain supervised, unsupervised and reinforcement learning.

⭐ MOST REPEATED

Q2

Explain VC Dimension with example.

⭐ HIGH CHANCE

Q3

Explain Concept Learning.

⭐ REPEATED

🔥 2021 PAPER

✅ Asked Questions

Q1

Explain Version Space and Candidate Elimination Algorithm.

⭐ VERY IMPORTANT

Q2

Explain PAC Learning.

⭐ MOST REPEATED

Q3

Explain issues in Machine Learning.

⭐ MEDIUM-HIGH

🔥 2020 PAPER

✅ Asked Questions

Q1

Explain finite and infinite hypothesis spaces.

⭐ REPEATED

Q2

Explain Machine Learning and learning paradigms.

⭐ VERY IMPORTANT

Q3

Explain Concept Learning with examples.

⭐ HIGHLY REPEATED

📊 FINAL FREQUENCY ANALYSIS

Topic	Frequency	Importance
PAC Learning	⭐⭐⭐⭐⭐	VERY HIGH
Concept Learning	⭐⭐⭐⭐⭐	VERY HIGH
Version Space	⭐⭐⭐⭐	HIGH
VC Dimension	⭐⭐⭐⭐	HIGH
Learning Paradigms	⭐⭐⭐⭐	HIGH
Machine Learning Basics	⭐⭐⭐	HIGH
Hypothesis Spaces	⭐⭐⭐	MEDIUM
Issues in ML	⭐⭐	MEDIUM

🔥 TOP 5 MOST REPEATED QUESTIONS

1️⃣ Explain PAC Learning.

📌 Asked repeatedly in:

- 2021
- 2023
- 2025

⭐ HIGHEST PRIORITY

2️⃣ Explain Concept Learning with example.

📌 Asked in:

- 2020
- 2022
- 2024

⭐ VERY IMPORTANT

3️⃣ Explain Version Space.

📌 Asked in:

- 2021
- 2024

⭐ HIGH CHANCE

4️⃣ Explain VC Dimension.

📌 Asked in:

- 2022
- 2025

⭐ HIGH CHANCE

5️⃣ Explain Supervised vs Unsupervised Learning.

📌 Asked in:

- 2022
- 2025

⭐ IMPORTANT

🎯 MOST EXPECTED QUESTIONS FOR UPCOMING EXAM

⭐ VERY HIGH CHANCE

1. Explain PAC Learning.
2. Explain Concept Learning with example.
3. Explain Version Space.
4. Explain VC Dimension.
5. Explain supervised and unsupervised learning.

⭐ HIGH CHANCE

6. Explain Machine Learning and applications.
7. Explain reinforcement learning.
8. Explain finite and infinite hypothesis spaces.

⭐ MEDIUM CHANCE

9. Explain issues in Machine Learning.
10. Explain Candidate Elimination Algorithm.

🔥 EXAMINER TREND ANALYSIS

📌 What RGPV Examiner Mostly Asks?

Type	Topics
Theory Based	PAC Learning, VC Dimension
Definition Based	ML Basics
Comparison Based	Supervised vs Unsupervised
Conceptual	Concept Learning
Diagram Based	Version Space

⚡ SMART STUDY STRATEGY

🎯 FIRST STUDY THESE

1. PAC Learning
2. Concept Learning
3. Version Space
4. VC Dimension

🎯 THEN STUDY

5. Learning Paradigms
6. Reinforcement Learning
7. ML Applications

🎯 LAST REVISION

8. Hypothesis Spaces
9. Issues in Machine Learning

🔥 ONE-NIGHT REVISION PRIORITY

✔ PAC = Probably Approximately Correct
✔ Version Space = Set of valid hypotheses
✔ Hypothesis = Prediction rule
✔ VC Dimension = Model complexity
✔ Supervised Learning = Labeled data
✔ Unsupervised Learning = Unlabeled data
✔ Reinforcement Learning = Reward/Penalty
✔ Overfitting = Memorization
✔ Underfitting = Too simple model

🎯 TOPPER STRATEGY FOR GOOD CGPA

📌 If You Have Only 2–3 Hours

Study in this order:

1. PAC Learning
2. Concept Learning
3. Version Space
4. VC Dimension
5. Learning Paradigms