JEE Main PYQ Practice Guide

How to use previous-year questions the smart way — plus a starter set of exam-style practice problems with full solutions, and where to get every official PYQ for free.

Why PYQs Are Your #1 Resource

If you do only one thing for JEE prep, make it solving previous-year questions. PYQs show you the exact difficulty, the recurring patterns, and the way examiners twist concepts. Most toppers solve 8–10 years of PYQs at least twice before the exam.

The EduStation PYQ Method

1. **Finish the chapter first** — theory + basic problems — before touching its PYQs.
2. **Solve chapter-wise, timed** — 3 min/question average. Mark anything you can't crack in 5 min.
3. **Make an error log** — every wrong question goes in a notebook with the reason (concept gap / silly / time).
4. **Re-solve the error log weekly** — this is where ranks are made.
5. **Full mocks last** — once chapters are done, switch to full-length PYQ papers under exam conditions.

Where to Get Authentic PYQs — Free

You don't need to pay for question papers. NTA releases every official paper and answer key. Always prefer official sources — they're accurate and free:

Official JEE Main site	jeemain.nta.nic.in — question papers & official answer keys after each session
NTA main portal	nta.ac.in — archives of past papers
Your scorecard	Download your own response sheet — review every question you attempted

Note: We don't redistribute copyrighted question-bank compilations. Use the official papers above, or a legally purchased book like Arihant/MTG/Disha PYQ collections.

Starter Practice Set — 12 Exam-Style Questions

These are **original problems written in JEE Main style** by EduStation — a quick warm-up across all three subjects. Try each yourself before reading the solution. (g = 10 m/s² where needed.)

PHYSICS

Q1. A ball is thrown vertically upward with speed 20 m/s. What is the maximum height it reaches?

Solution: At max height v = 0. Using $v^2 = u^2 - 2gh \rightarrow 0 = 20^2 - 2(10)h \rightarrow h = 400/20 =$ **20 m**.

Q2. A 2 kg block on a frictionless surface is pushed by a constant 10 N force. Find its acceleration.

Solution: $a = F/m = 10/2 =$ **5 m/s²**.

Q3. A particle moves in a circle of radius 2 m at constant speed 4 m/s. Find its centripetal acceleration.

Solution: $a_c = v^2/r = 4^2/2 = 16/2 =$ **8 m/s²**.

Q4. A resistor of 10 Ω carries a current of 2 A. What power does it dissipate?

Solution: $P = I^2 R = 2^2 \times 10 = 4 \times 10 =$ **40 W**.

Q5. Find the energy (in eV) of a photon of wavelength 500 nm.

Solution: $E(eV) = 1240/\lambda(nm) = 1240/500 =$ **2.48 eV**.

CHEMISTRY

Q6. How many moles are present in 8 g of O_2 (molar mass = 32 g/mol)?

Solution: $n = mass/M = 8/32 =$ **0.25 mol**.

Q7. What is the pH of a 0.01 M HCl solution?

Solution: HCl is a strong acid, $[H^+] = 0.01 = 10^{-2}$ M. $pH = -\log(10^{-2}) =$ **2**.

Q8. A first-order reaction has a half-life of 10 minutes. Find the rate constant k.

Solution: $k = 0.693/t_{½} = 0.693/10 =$ **0.0693 min⁻¹**.

Q9. Calculate the molarity of a solution containing 0.5 mol of solute in 250 mL of solution.

Solution: M = moles/volume(L) = 0.5/0.25 = **2 M**.

MATHEMATICS

Q10. Find the roots of $x^2 - 5x + 6 = 0$.

Solution: Factorise: $(x - 2)(x - 3) = 0 \rightarrow x =$ **2 or 3**.

Q11. Find the sum of the first 10 terms of the AP: 2, 5, 8, ...

Solution: $a = 2, d = 3, n = 10$. $S_n = (n/2)[2a + (n-1)d] = 5[4 + 27] = 5 \times 31 =$ **155**.

Q12. Find the distance between the points (1, 2) and (4, 6).

Solution: $d = \sqrt{((4-1)^2 + (6-2)^2)} = \sqrt{(9 + 16)} = \sqrt{25} = \mathbf{5\ units}$.

Want harder, exam-level problems and full PYQ walkthroughs?
I break down real JEE questions step-by-step on my YouTube channel. Search **EduStation** on YouTube and check the JEE strategy playlist.