

Great 🏆

Here is your **Day 2 – Question Review** (quick revision + key points for every subject).

✅ DAY 2 – QUESTION REVIEW

🧪 PHYSICS — Electric Field Lines & Electric Flux

✓ What you should now know clearly

- Electric field lines start from **+ charge** and end on **– charge**
- No two field lines ever **intersect**
- Field lines are **denser** where field is strong
- Flux measures **number of field lines passing through a surface**
- Gauss Law: $\Phi = \frac{Q_{\text{enclosed}}}{\epsilon_0}$

✓ High-yield concepts (mostly asked in exams)

- Behavior of field inside conductor = **0**
 - Field lines are **perpendicular** to conductor surface
 - Flux depends only on **charge enclosed**, not shape
 - If charge is outside → **flux = 0**
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🧪 CHEMISTRY — Solid State (Unit Cell, Packing, Voids)

✓ Must-understand points

- **Packing efficiency** trend:
 - Simple cubic = 52%
 - BCC = 68%
 - FCC = 74% (maximum)
- **Coordination numbers**:
 - SC = 6
 - BCC = 8
 - FCC = 12
- **Types of voids**:
 - Tetrahedral (2 per atom)
 - Octahedral (1 per atom)

✓ Formulas

- SC: ($a = 2r$)
 - BCC: ($a = \frac{4r}{\sqrt{3}}$)
 - FCC: ($a = 2\sqrt{2}r$)
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MATHS — Functions (Part 2: Types, Domain & Range)

✓ What you must understand

- Function = relation where every **input has exactly one output**
- Domain \rightarrow all valid x
- Range \rightarrow corresponding y values
- Types:
 - One-one (injective)
 - Onto (surjective)
 - Bijective = both
- Composite function ($f(g(x))$)

✓ Common exam traps

- Square root \rightarrow output ≥ 0
 - Log \rightarrow inside argument > 0
 - Division by zero not allowed
 - For inverse function:
 - Function **must be bijective**
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★ Overall Day 2 Summary

You have now covered:

Physics

\rightarrow Field Lines, Flux, Gauss Law

Chemistry

\rightarrow Packing, Voids, Coordination Number

Maths

\rightarrow Domain, Range, Type of functions

These are core, frequently repeated JEE/CUET competitive concepts.

If you want:

 **I can now give Day 2 Answer Key**

or

 **Start Day 3 Plan**