🧲 PHYSICS — Electrostatics (Electric Field Lines + Flux)

(10 questions)

1. State any two properties of electric field lines.
2. Draw (mentally) the field lines around a positive charge — how do they look?
3. Field lines between two like charges: do they attract or repel each other?
4. Electric field lines never cross because _____.
5. Define electric flux.
6. Write the formula for electric flux.
7. If θ = 90°, what is the value of electric flux?
8. If electric field is doubled, what happens to electric flux (for same surface & angle)?
9. Is electric flux a scalar or vector quantity?
10. What is the SI unit of electric flux?

🧪 CHEMISTRY — Solid State (Unit Cells + Packing)

(10 questions)

1. Name the three types of unit cells.
2. What is the coordination number in FCC?
3. What is the edge length formula for SC?
4. What is the relation between a and r for BCC?
5. In FCC, the atoms touch along which direction?
6. Define packing efficiency.
7. Which has highest packing efficiency: SC, BCC, or FCC?
8. What is the coordination number in SC?
9. What is the coordination number in BCC?
10. Define edge length.

📐 MATHS — Relations & Functions (Part 2)

(10 questions)

1. Define an equivalence relation.
2. What three properties make a relation equivalent?
3. Give one example of an equivalence relation.

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4. Is the relation “aRb if a – b = 0” reflexive?
5. Is the relation “aRb if a divides b” symmetric?
6. Define a function.
7. What is the difference between domain and codomain?
8. Is the relation {(1,2), (1,3)} a function? Why?
9. What test is used to check if a graph is a function?
10. Give one example of a function from real life.

🔁 MIXED REVISION (Day 1 + Day 3 Concepts)

(5 questions)

1. Write Coulomb’s law formula.
2. What is the difference between conductor & insulator?
3. Define crystal lattice.
4. What is the domain of a relation?
5. Electric field due to a point charge varies as _____.