

14 chapters · 7 units · 80 marks theory + 20 internal = 100

The 14 chapters, unit by unit

UNIT (MARKS)	CHAPTERS – AND WHAT EACH ONE IS ABOUT
1. Number Systems 6 marks	1. Real Numbers – Fundamental Theorem of Arithmetic; proving $\sqrt{2}$, $\sqrt{3}$, $\sqrt{5}$ irrational
2. Algebra 20 marks – biggest	2. Polynomials – zeroes, and zeroes vs coefficients 3. Pair of Linear Equations – graph, substitution, elimination 4. Quadratic Equations – factorisation, formula, discriminant 5. Arithmetic Progressions – n -th term and sum of n terms
3. Coordinate Geometry 6 marks	6. Coordinate Geometry – distance formula and section formula
4. Geometry 15 marks	7. Triangles – similarity, BPT, similarity criteria 8. Circles – tangents and the two tangent theorems
5. Trigonometry 12 marks	9. Introduction to Trigonometry – ratios, standard angles, identities 10. Some Applications of Trigonometry – heights and distances
6. Mensuration 10 marks	11. Areas Related to Circles – sectors and segments 12. Surface Areas and Volumes – combinations of solids
7. Statistics & Probability 11 marks	13. Statistics – mean, median, mode of grouped data 14. Probability – classical definition, simple events

Fourteen, not fifteen

Plenty of older lists online still show **15** chapters with **Constructions** in them. Constructions was removed in the rationalised NCERT syllabus and is **not examinable**. If your list has it, drop it and renumber.

A sensible order

Start: Real Numbers, Coordinate Geometry – self-contained, quick marks.

Then: the four Algebra chapters as one block (20 marks).

Give more time: Trigonometry, Triangles, Circles.

Finish: Statistics and Probability.

Chapter names students mix up – and what they actually are

WHAT PEOPLE CALL IT	THE REAL CHAPTER, AND WHY THE DIFFERENCE MATTERS
"Heights and Distances"	10. Some Applications of Trigonometry. Heights and distances is the <i>topic</i> ; searching the old name misses the NCERT exercises.
"Circles" for anything round	8. Circles is tangent theorems (Geometry, proofs); 11. Areas Related to Circles is sectors and segments (Mensuration, numericals).
"Coordinate Geometry"	Both unit 3 and chapter 6 – one chapter is a whole unit, so its 6 marks are unshared.

Key takeaways

- **14 chapters, 7 units, 80 marks** – that is the whole theory paper, plus 20 internal.
- **Algebra (20) and Geometry (15) are 35 of 80** – nearly half the paper between two units.
- **Constructions is gone.** Any list showing 15 chapters is out of date.
- **No chapter is optional** – even 6-mark units carry guaranteed questions.
- **Order is a tool, not a rule** – secure the easy marks early, then attack the heavy units.

Chapter 1 · Real Numbers — **HCF × LCM = product of the two numbers****WORKED EXAMPLE · 3 MARKS**

Find the HCF and LCM of 96 and 404 by prime factorisation, and verify $\text{HCF} \times \text{LCM} = 96 \times 404$.

Step 1 – factorise. $96 = 2 \times 2 \times 2 \times 2 \times 2 \times 3 = 2^5 \times 3$. $404 = 2 \times 2 \times 101 = 2^2 \times 101$ (101 is prime).

Step 2 – HCF = product of the *lowest* power of each common prime = $2^2 = 4$.

Step 3 – LCM = product of the *highest* power of every prime = $2^5 \times 3 \times 101 = 32 \times 303 = 9696$.

Step 4 – verify. $\text{HCF} \times \text{LCM} = 4 \times 9696 = 38784$, and $96 \times 404 = 38784$. **Equal – verified.**

Check: the identity only works for *two* numbers. For three it fails, and that is the trap CBSE sets.

SPOT THE CHAPTER

Half of exam speed is knowing instantly which chapter a question came from.

THE QUESTION SAYS...

CHAPTER · UNIT

"nature of the roots" / "discriminant"

4. Quadratic Equations · Algebra

"angle of elevation is 30° , find the height"

10. Applications of Trigonometry · Trigonometry

"divides the line segment in ratio 2 : 3"

6. Coordinate Geometry · Coord. Geometry

"tangent from an external point"

8. Circles · Geometry

"a cone mounted on a hemisphere"

12. Surface Areas and Volumes · Mensuration

"the 15th term" / "sum of first n terms"

5. Arithmetic Progressions · Algebra

WHICH CHAPTERS UNLOCK OTHERS

Study these **before** the ones that lean on them, or you will relearn the same idea twice.

Polynomials → **Quadratic Equations** (zeroes are roots) · **Intro to Trigonometry** → **Applications** (ratios first, then heights) ·

Triangles → **Circles** (similarity and congruence carry the proofs) · **Areas Related to Circles** → **Surface Areas and Volumes** (πr^2 before combined solids).

NOW TRY THIS ONE

Find the HCF and LCM of **510** and **92**, and verify the product rule.

Answer: $510 = 2 \times 3 \times 5 \times 17$, $92 = 2^2 \times 23 \Rightarrow \text{HCF} = 2$, $\text{LCM} = 23460$. Check $2 \times 23460 = 46920 = 510 \times 92$.

THREE MISTAKES THIS MAP PREVENTS

- 1. Studying a 15-chapter list.** Constructions is not examinable – time spent on it is time taken from the 80 marks that are.
- 2. Saving the 6-mark units for last.** Number Systems and Coordinate Geometry are 12 marks between them and are the fastest to secure – late is wasted.
- 3. Treating "done the chapter" as done.** Reading a chapter and scoring in it are different things; the gap only shows up when you are tested on it.

Know the chapters. Now practise them properly.

- **Chapter 1 is free** on examfront – start Real Numbers today, no payment.
- **Mistake identification** tells you *why* a mark was lost, not just that it was.
- **Anytime tests** on any chapter, the moment you finish studying it.
- **Weekly tests** keep every chapter you have covered from going stale.
- **Full mock tests** before the boards – the whole 80-mark paper, timed.

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