

THE COMPLETE STRATEGY GUIDE

VITEEE Preparation Handbook

Preparation tips, best books, high-weightage topics, must-know formulas and a subject-wise strategy to help you crack the VIT Engineering Entrance Examination with confidence.

[Exam Pattern & Marking](#)

[Chapter-Wise Weightage](#)

[Formula Sheet](#)

[Book List](#)

125

QUESTIONS

500

TOTAL MARKS

2.5 hrs

DURATION

5

SECTIONS

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How to use this handbook: Skim Chapters 1–3 to understand the exam structure, spend most of your time in Chapters 4–6 to prioritise topics, use Chapter 7 to pick your books, and keep Chapters 8–10 handy for quick revision in the final weeks before VITEEE.

When is the Right Time to Start Preparing for VITEEE?

Cracking VITEEE requires more than hard work — it needs a strategic study plan that balances concept-building, mock tests and revision. There is no single "perfect date" for everyone, but starting early is always the smarter move.

For many students aiming to pursue engineering in India, cracking VITEEE is a major goal. The academics, placements, campus life and reputation of VIT make it one of the most sought-after private engineering institutes in the country — which is exactly why competition for a good rank is so high.

The Ideal Starting Point: Beginning of Class 11

The best time to start preparing for VITEEE is at the very beginning of Class 11. This gives students two full years to build strong fundamentals in Physics, Chemistry and Mathematics — since the VITEEE syllabus draws from both Class 11 and Class 12 concepts. Students who wait until Class 12 to begin are forced to rush through two years of content at once, which often leads to stress and shallow understanding of key topics.

Class 11 Starters	Class 12 Starters	Late Starters
Two full years to build fundamentals, revise calmly, and attempt mocks without pressure.	Still achievable — but demands intense consistency and a tightly time-boxed plan.	Focus on high-weightage chapters first (see Chapters 4–6) to maximise score per hour studied.

Starting Late? Here's How to Catch Up in Class 12

If you're in Class 12 and haven't started yet, don't panic — consistency matters more than a head start. Set a firm goal of finishing the entire VITEEE syllabus at least three months before your exam date. This buffer is essential: it gives you enough runway for full revision cycles and multiple mock tests before the actual exam.

Golden Rule: Whatever your start date, work backwards from the exam day and block out a fixed 3-month "revision-only" window at the end. Syllabus completion should never spill into this window.

Why Starting Early Actually Matters

- **Deeper conceptual clarity** — two years lets you understand the "why," not just memorise the "how."
- **Room for multiple revision cycles** — spaced repetition dramatically improves recall under exam pressure.
- **Time for mock tests** — the single best predictor of VITEEE performance is mock test practice under timed conditions.
- **Lower stress** — a rushed timeline compounds anxiety, which hurts accuracy far more than raw knowledge gaps.

VITEEE Exam Pattern & Marking Scheme

Before you build a strategy, you need to know exactly what you're up against. Here's a full breakdown of the VITEEE exam format.

Exam Pattern at a Glance

Particulars	Details
Exam Mode	Online Computer-Based Test (CBT)
Medium	English only
Duration	2.5 hours (150 minutes), no sectional time limit
Total Questions	125
Total Marks	500
Marking Scheme	+4 for correct, −1 for wrong, 0 for unattempted

Section-Wise Question Split

Subject	Total Questions
Maths / Biology	40
Physics	35
Chemistry	35
Aptitude	10
English	5
Total	125

What the Negative Marking Means for Your Strategy

With the current −1 mark for a wrong answer and 0 for an unattempted one, blind guessing is a losing strategy over 125 questions. A useful rule of thumb: only attempt a question if you can eliminate at least two of the incorrect options — this shifts the odds meaningfully in your favour before you guess.

Expected Value of a Guess (2 options eliminated)

$EV = (1/2 \times 4) + (1/2 \times -1) = +1.5 \text{ marks}$ — worth attempting.

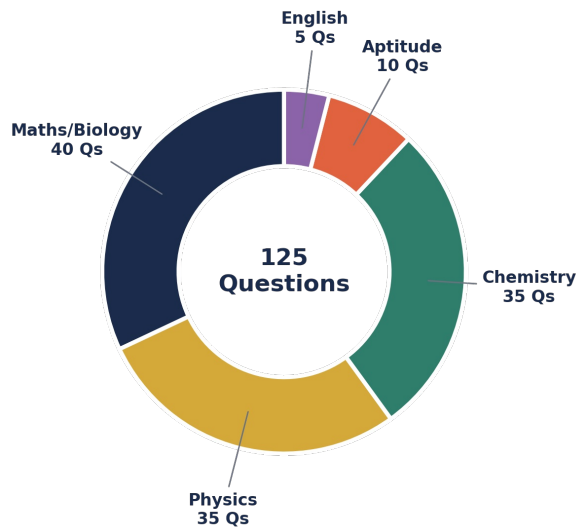
$EV \text{ with zero elimination} = (1/4 \times 4) + (3/4 \times -1) = +0.25 \text{ marks}$ — marginal, avoid under time pressure.

Don't Sleep on Aptitude & English

Unlike most engineering entrance exams, VITEEE dedicates 15 questions to Aptitude and English — and these are usually easier and more direct than the core science questions. Many students under-prepare here, which makes this section a genuine rank-booster if you invest even a small amount of focused practice.

Subject-Wise Question Distribution

Visualising how the 125 questions are split across subjects helps you allocate study hours proportionally — and spot where the biggest score gains are hiding.



Reading the Split

- **Maths/Biology (40 Qs, 32%)** — the single largest section. Engineering aspirants should treat Maths as their highest-leverage subject.
- **Physics (35 Qs, 28%)** — formula-heavy and concept-driven; consistent scorer with the right practice.
- **Chemistry (35 Qs, 28%)** — largely NCERT-based and highly scorable with disciplined reading.
- **Aptitude (10 Qs, 8%)** — quick, logic-based questions; low prep cost, high return.
- **English (5 Qs, 4%)** — grammar and comprehension basics; a few hours of practice covers this fully.

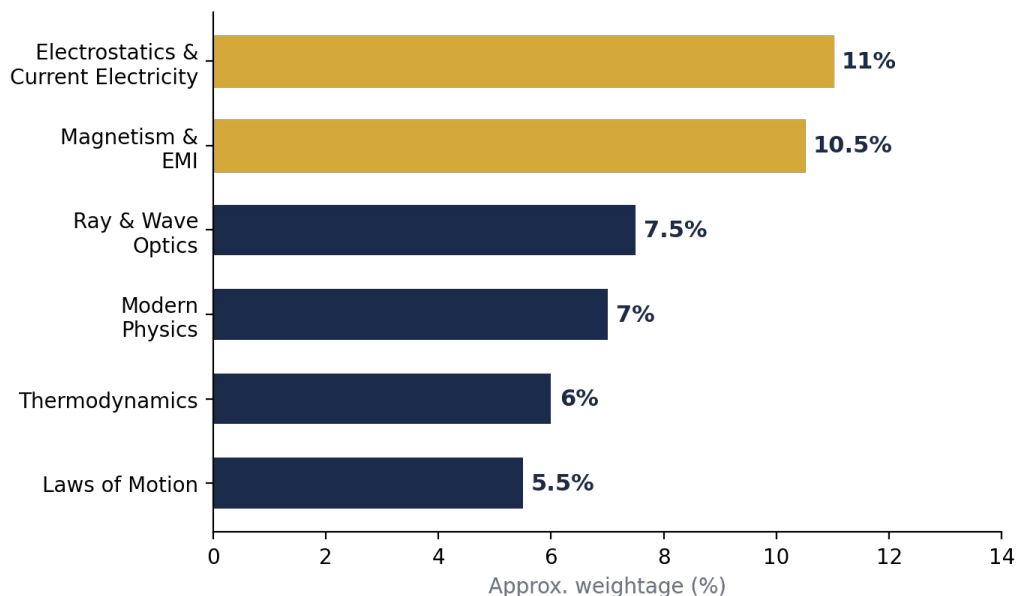
Suggested Weekly Study Hour Allocation

Subject	Suggested Weekly Share	Why
Mathematics / Biology	35%	Highest question count; toughest section by exam trend
Physics	28%	Formula-based, needs regular numerical practice
Chemistry	27%	High scoring potential with NCERT mastery
Aptitude & English	10%	Low volume, but easy marks — don't skip entirely

This is a guideline — adjust based on your personal strengths and weaknesses identified through mock test analysis.

High-Weightage Topics — Physics

Physics questions in VITEEE are formula-heavy and reward students who've built a note of quick-reference formulas for revision. Modern Physics questions tend to be the trickiest.



Chapter Priority List

Priority	Chapters	Notes
Highest	Electrostatics & Current Electricity, Magnetism & EMI	~10-12% each; formula-intensive, practice numericals daily
High	Ray & Wave Optics	Diagram-based; draw ray diagrams while revising
Moderate	Modern Physics	Conceptually tricky — questions often twist standard formulas
Moderate	Thermodynamics, Laws of Motion, Circular Motion	Steady scorers with clear fundamentals

Preparation Tip

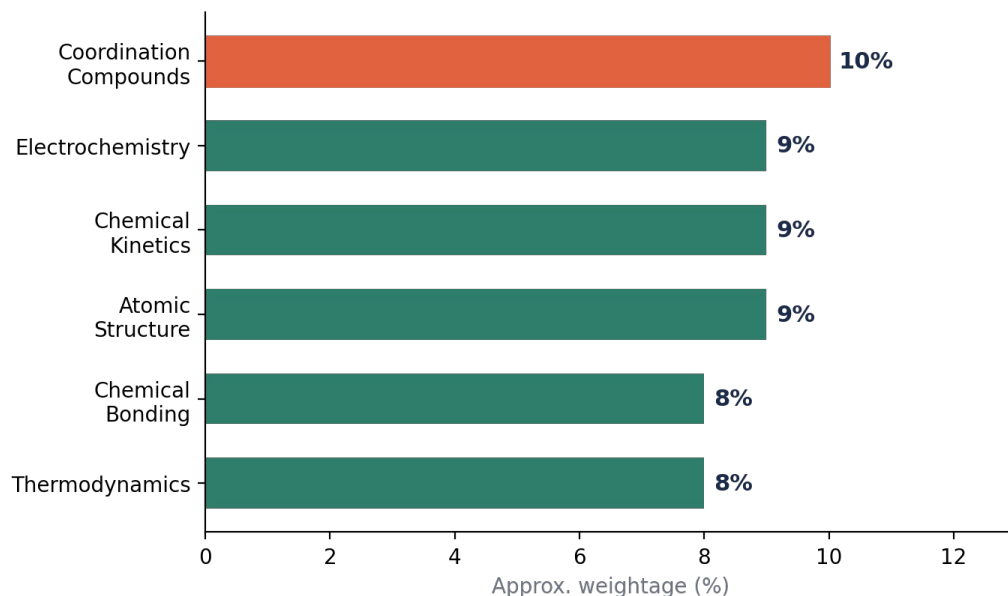
Keep a single-page "formula card" per chapter for quick last-week revision. Solve NCERT examples first, then move to a reference book for tougher numericals (see Chapter 7 for book recommendations).

Common Mistake to Avoid

Many students memorise formulas without understanding derivations. VITEEE occasionally rearranges a standard formula into an unfamiliar form — if you understand the derivation, you can rebuild the formula on the spot instead of freezing.

High-Weightage Topics — Chemistry

Chemistry in VITEEE is largely NCERT-based, making it one of the most scorable sections when read carefully — line by line, not just skimmed.



Chapter Priority List

Priority	Chapters	Notes
Highest	Coordination Compounds	Focus on nomenclature, isomerism, and bonding theories
High	Electrochemistry, Chemical Kinetics	Numerical + conceptual mix; practice standard problem types
High	Atomic Structure, Chemical Bonding	Foundational Class 11 topics — get these rock solid early
Moderate	Thermodynamics, Biomolecules & Polymers, p- & d-Block Elements	Mostly factual recall — reward direct NCERT reading

Subject-Wise Split: Organic vs Inorganic vs Physical

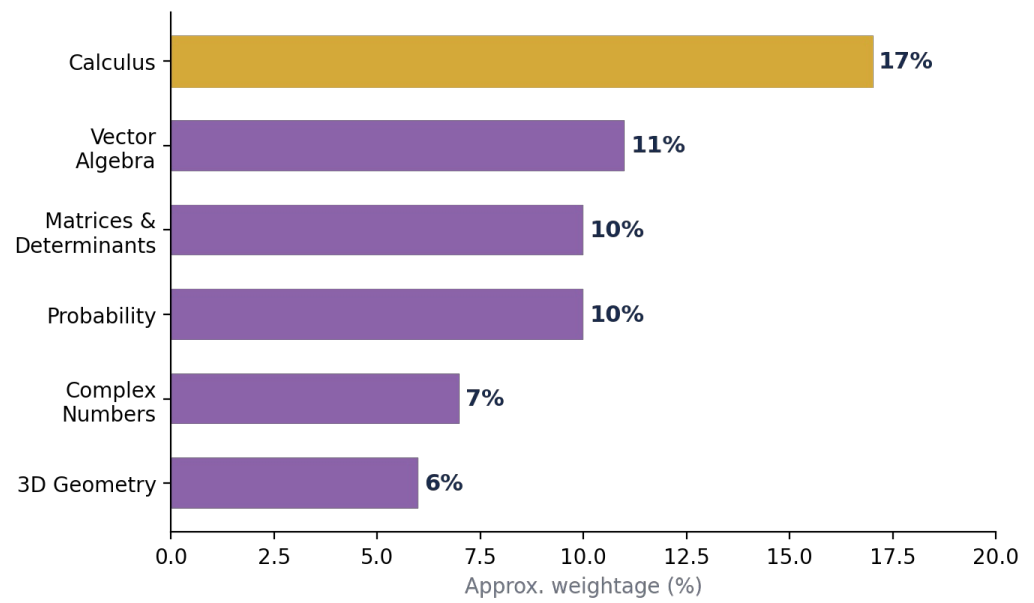
Organic Chemistry: Pay special attention to Class 12 organic reactions and named reactions — questions (rate laws, electrochemical cells, these come up often and are easy marks on thermodynamics) until they become fast, mechanisms are clear.

Physical Chemistry: Practice calculation-based mechanical routines.

NCERT-first rule: Since most Chemistry questions are directly rooted in NCERT text, re-read your NCERT chapters at least twice before touching reference books — every line can become a question.

High-Weightage Topics — Mathematics

Mathematics carries the highest question count in VITEEE and, based on past paper trends, also tends to include the toughest questions of the paper.



Chapter Priority List

Priority	Chapters	Notes
Highest	Calculus (Limits, Differentiation, Integration)	~17% weightage — the single biggest topic in the whole paper
High	Vector Algebra	Formula-based and quick to solve once practiced
High	Matrices & Determinants, Probability	Rule-based chapters — high accuracy achievable with practice
Moderate	Complex Numbers, 3D Geometry, Sequences & Series	Score-boosters — considered the easiest sub-topics in Maths

Build a Strong Foundation First

Start with the basic concepts before jumping into problem sets — build a solid foundation in coordinate geometry, algebra, calculus and trigonometry, since later topics depend heavily on these fundamentals.

Speed Matters More in Maths Than Anywhere Else

Learn and practise shortcut techniques for calculus and algebra — with 40 questions in this section alone, shaving even 20–30 seconds off each question adds several extra minutes for double-checking or attempting harder problems elsewhere.

Best Books for VITEEE Preparation

NCERT textbooks (Class 11 & 12) should always be your primary source — the VITEEE syllabus closely mirrors NCERT content. Use the reference books below to sharpen problem-solving speed and cover tougher question types.

Physics

Book	Author / Publisher	Best For
Concepts of Physics (Vol 1 & 2)	H.C. Verma	Building conceptual clarity and problem-solving
Fundamentals of Physics	Halliday, Resnick & Walker	Strong theory with applied numericals
Objective Physics	D.C. Pandey / Arihant	MCQ practice in exam format

Chemistry

Book	Author / Publisher	Best For
NCERT Chemistry (11 & 12)	NCERT	Primary source — read line by line
Organic Chemistry	O.P. Tandon	Reaction mechanisms & named reactions
Physical Chemistry	R.C. Mukherjee	Numerical & calculation-based problems
Concise Inorganic Chemistry	J.D. Lee	Deeper inorganic concepts

Mathematics

Book	Author / Publisher	Best For
NCERT Mathematics (11 & 12)	NCERT	Core concepts & formula base
Objective Mathematics (Part I & II)	R.D. Sharma	MCQ-style practice across chapters
Degree Level Differential Calculus	A. Das Gupta	Advanced calculus practice

Aptitude & English

Book	Author / Publisher	Best For
A Modern Approach to Logical Reasoning	R.S. Aggarwal	Aptitude & reasoning practice
High School English Grammar & Composition	Wren & Martin	Grammar fundamentals
Objective English for Competitions	R.S. Aggarwal	Comprehension & usage practice

Don't over-collect books. Pick one primary reference per subject and finish it thoroughly, rather than skimming five books halfway. Depth beats breadth in the last few months before the exam.

Must-Know Formula Sheet

A quick-glance formula sheet for the final weeks of revision. Keep this page bookmarked for last-minute recall.

Physics

Coulomb's Law

$$F = kQ_1Q_2/r^2$$

Lens Formula

$$1/f = 1/v - 1/u$$

Ohm's Law

$$V = IR$$

Faraday's Law (EMI)

$$EMF = -N(d\Phi/dt)$$

Kinetic Energy

$$KE = \frac{1}{2}mv^2$$

Einstein's Photoelectric Eqn

$$E = h\nu = W_0 + KE_{\max}$$

Chemistry

Ideal Gas Equation

$$PV = nRT$$

Rate Law (first order)

$$k = (2.303/t) \log([A]_0/[A])$$

Nernst Equation

$$E = E^\circ - (RT/nF) \ln Q$$

pH of a Solution

$$pH = -\log[H^+]$$

Mathematics

Quadratic Formula

$$x = (-b \pm \sqrt{b^2 - 4ac}) / 2a$$

Standard Integral

$$\int x^n dx = x^{n+1}/(n+1) + C$$

Derivative of x^n

$$d/dx(x^n) = nx^{n-1}$$

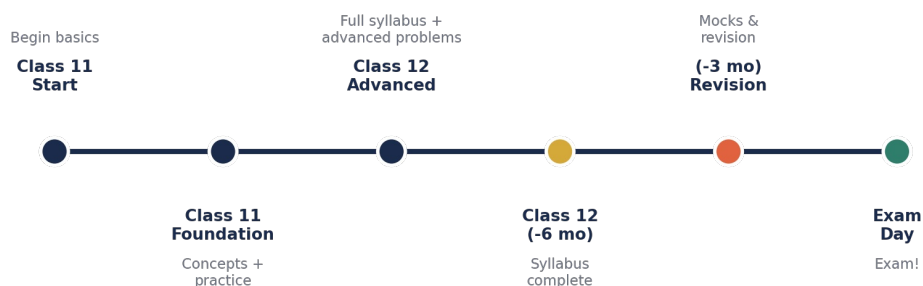
Distance Formula (3D)

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2 + (z_2 - z_1)^2}$$

Note: This sheet covers only a starting set of frequently-used formulas. Build your own chapter-wise formula notebook as you study — the act of writing them out yourself improves recall far more than reading a pre-made list.

Preparation Strategy & Timeline

Regardless of when you start, structure your preparation around these five pillars.



1. Go Beyond NCERT

VITEEE has historically leaned on NCERT topics, but recent papers have shown a shift toward tougher, trickier questions alongside negative marking. Pick one reference book per subject with clear explanations, and solve every worked example in it — not just the practice questions.

2. Build Time Management & Accuracy

With 125 questions in 150 minutes, speed matters as much as knowledge. Practice with a timer to understand your natural pace, and build conceptual clarity first — strong fundamentals make questions faster to solve, not just easier.

3. Practice Sample Papers & PYQs

Previous Year Questions (PYQs) and full sample papers are the best way to learn the exam's real pattern. They reveal which topics repeat, how complex the questions typically are, and where your own time management breaks down.

Cross-Practice Sources

BITSAT, COMEDK, MET, and SRMJEEE sample papers, plus JEE Main PYQs, are useful for extra practice beyond VITEEE's own papers.

Mock Test Cadence

Aim for at least one full-length, timed mock test per week once your syllabus is 60–70% complete.

Error Log

Maintain a running log of mistakes from every mock — revisit it weekly to close recurring gaps.

4. Stay Consistent

Studying intensely for a week and then taking a long break is a common but ineffective pattern. Instead, commit to 2–3 focused hours daily. Consistent, spaced practice keeps formulas and concepts fresh far more effectively than occasional cramming.

Final Tips & Quick-Revision Checklist

Competition for VITEEE is intense — but the right time to get serious is always right now. Use this checklist in the final stretch before your exam.

8-Point Pre-Exam Checklist

#	Checklist Item	Status
1	Full syllabus completed at least 3 months before exam date	☐
2	Chapter-wise formula notebook prepared	☐
3	At least 5 full-length mock tests attempted under timed conditions	☐
4	Error log reviewed and recurring mistakes addressed	☐
5	NCERT Chemistry & Biology re-read at least twice	☐
6	Aptitude & English sections practiced (don't skip these!)	☐
7	Negative marking strategy decided (attempt-only-if-2-options-eliminated rule)	☐
8	Exam day logistics confirmed (login details, ID proof, reporting time)	☐

Mindset for Exam Day

- **Attempt easy sections first** — Aptitude and English can build early confidence and momentum.
- **Skip and return** — if a question takes more than 60-90 seconds without progress, mark it and move on.
- **Protect your accuracy** — with negative marking active, a calm, selective approach beats rushing through every question.
- **Trust your preparation** — you've built the foundation; the exam is simply a chance to demonstrate it.

Remember: There is no single "perfect" day to start preparing for VITEEE — only a right time to get serious. Start today, stay consistent, and keep a positive mindset through to exam day.