



TG EAPCET (TS EAMCET) Maths High-Weightage Chapters Chapter Guide

A Simple, Student-Friendly Breakdown of the Last 5 Years

Easy-to-Read Exam Analysis for Students

Focusing on the Topics That Bring the Most Marks

Target: Maths Section (80 Total Marks)

1. Introduction to the Maths Exam

The TG EAPCET exam has a total of 160 questions. Out of these, exactly **80 questions are from Mathematics alone**. This means Maths makes up half of your entire exam score!

When we look at the question papers from the last 5 years, we see a very clear trend. You do not need to study every single page of your textbook equally to get a great rank. In fact, more than 60% of all the math questions come from just three big topics: **Calculus, Algebra, and Coordinate Geometry**.



Good News About the Exam

There is **no negative marking** in TG EAPCET! This means you should try to answer every question. Your main challenge is time: you have 80 math questions to solve, which gives you a little over 1 minute for each problem.

How the Math Syllabus is Distributed

Your intermediate math books are split into four main parts:

- **Maths 1A & 2A:** Covers chapters like Algebra, Trigonometry, Vectors, and Probability.
- **Maths 1B & 2B:** Covers Geometry, Shapes (Conics), and Calculus.

2. The Big 3 Math Groups

If you are short on time or want to start with the most important topics, master these three groups first. They bring in the maximum number of marks.

Math Group Name	Average Number of Questions	Marks Percentage	Importance Level
Calculus (Integration, Derivatives, Limits)	19 Questions	23.75%	★★★★ Must Study First
Algebra (Matrices, Functions, Equations)	18 Questions	22.50%	★★★★ Must Study First
Coordinate Geometry (Lines, Circles, Shapes)	17 Questions	21.25%	★★★★ Must Study First
Vectors & 3D Space	9 Questions	11.25%	★★★ High Marks, Easy Wins
Trigonometry	9 Questions	11.25%	★★ Medium Importance
Probability & Basic Statistics	8 Questions	10.00%	★ Study Later

Important Tip About Trigonometry

Many students spend months trying to memorize hundreds of formulas for Trigonometry. However, looking at the past papers, standalone trigonometry questions are actually quite low. Instead, those formulas are used *inside* Calculus and Geometry questions. So, learn the basic formulas, but don't get stuck there!

3. Chapter-by-Chapter Marks Breakdown

Here is the exact list of chapters, how many questions usually come from them, and the specific topics you should focus on.

Chapter Name	Expected Questions	Marks Weight	What to Focus On
Indefinite & Definite Integrals	7 Qs	8.75%	Properties of integration, substitution method, and finding area under curves.
Circles & System of Circles	6 Qs	7.50%	Equations of tangents and normals, finding the radical axis, and common tangents.
Straight Lines & Pair of Lines	5 Qs	6.25%	Finding distance, intersection points, and angles between lines.
Matrices & Determinants	4 Qs	5.00%	Cramer's Rule, finding the inverse of a matrix, and basic properties. (Very easy to score here!)
Quadratic Equations & Theory of Equations	4 Qs	5.00%	Finding roots of equations, relationship between roots and coefficients.
Permutations & Combinations	4 Qs	5.00%	Arranging items, finding the "dictionary rank" of words, and simple selection problems.
Product of Vectors	4 Qs	5.00%	Dot product, Cross product, finding shortest distance, and simple work/torque questions.
Conic Sections (Parabola, Ellipse, Hyperbola)	4 Qs	5.00%	Standard equations, finding eccentricity, and basic tangent conditions.
Differential Equations	4 Qs	5.00%	Finding order and degree, variable separable method, and linear differential equations.
Differentiation & Continuity	4 Qs	5.00%	Simple differentiation formulas, parametric forms, and checking if a function is continuous.

Chapter Name	Expected Questions	Marks Weight	What to Focus On
Functions & Complex Numbers	6 Qs	7.50%	Finding domain and range, types of functions, De Moivre's theorem, and properties of complex numbers.
Properties of Triangles & Trig Ratios	5 Qs	6.25%	Triangle properties, general solutions of trigonometric equations.
Probability & Random Variables	5 Qs	6.25%	Conditional probability, Bayes' Theorem, and finding mean and variance.
Direction Cosines & 3D Lines/Planes	3 Qs	3.75%	Angles between lines in 3D, straight lines in space.
All Other Small Chapters Combined	12 Qs	15.00%	Limits, Binomial theorem coefficients, Partial fractions, Vector addition, Locus, Mean Deviation.
TOTAL MATH EXAM	80 Qs	100.00%	The full map of your math test paper.

4. Simple Tips to Score High Marks

Tip 1: Grab the Easy Wins First

Do not start your preparation with the hardest chapters. Start with **Matrices, Quadratic Equations, and Vectors**. Together, these simple chapters give you around 12 questions. The formulas are easy to remember, and the questions are usually straightforward.

Tip 2: Connect the Chapters

Study **Straight Lines and Circles** together. The concepts are very similar, and mastering them completely will instantly secure around 11 marks for you.

Tip 3: The 2-Minute Time Rule

During the actual exam, never spend more than 2 minutes on a single question. If you get stuck on a long calculus problem, make your best guess, mark it to review later, and move on. It is much better to answer 3 easy matrix questions than to waste 10 minutes getting stuck on one integration question.



Practice Tip

When you practice sample question papers at home, try to complete the math section within 70 to 75 minutes. This will give you plenty of extra time to handle Physics and Chemistry during the real test day!