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MHT-CET LAST MINUTE PREPARATION

- ✓ Don't Study More — **Study Smart** in the Final Days
- ✓ High Weighted Topics **Revision Method**
- ✓ Common **Mistakes to AVOID** in Final days of Exam
- ✓ **80/20 RULE** would be Game Changer

For every MHT CET 2026 aspirants from Maharashtra

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MHT-CET Last-Minute Prep Guide

For 12th Std Maharashtra Students | PCM & PCB Streams

200

Total marks

150

Questions

3 hrs

Duration

None

Negative marking

About the Exam

Exam	MHT-CET (Maharashtra Health & Technical Common Entrance Test)
Purpose	Admission to Engineering, Pharmacy, and Agriculture in Maharashtra
Streams	PCM (Physics, Chemistry, Maths) PCB (Physics, Chemistry, Biology)
Difficulty	Lower than JEE Main / NEET — board-level conceptual understanding
Syllabus	80% from 12th std + 20% from 11th std Maharashtra Board / NCERT

Marks Distribution

Subject	Stream	Questions	Marks Each	Total
Physics	PCM	50	1	50
Chemistry	PCM & PCB	50	1	50
Mathematics	PCM	50	2	100
Biology	PCB	100	1	100

Key Mindset for MHT-CET

1

No negative marking — attempt every question

A random guess gives you +2 expected vs 0 for leaving blank. Never leave any question unanswered.

2

Board textbook = your best resource

Questions are mostly direct from NCERT/MH Board examples. Mastering those is more effective than coaching modules.

3

72 seconds per question on average

Budget your time: spend max 2 min per question. Mark difficult ones and move on — return in the second pass.

In-Exam Strategy

3-Pass Approach for Maximum Marks

1st Pass (0–45 min)

Easy wins only

Answer every question you can solve in under 60 seconds. Skip the rest. You bank marks fast and build confidence.

2nd Pass (45–80 min)

Moderate questions

Tackle questions needing 1–2 min. Use elimination — removing even one wrong option raises your odds from 25% to 33%.

3rd Pass (80–100 min)

Attempt everything left

Mark all remaining questions. No negative marking means intelligent guessing is always worth it.

Subject-Specific Exam Tips

P Physics

Always check answer units. Many questions trap on eV vs J, nm vs m. Eliminate options with wrong units first.

C Chemistry

For organic reactions, focus on the reagent and conditions shown. IUPAC naming and isomerism are guaranteed 2-3 marks.

M Mathematics

For integration/function questions, substitute answer options back into the original — faster than solving from scratch.

B Biology

Always read ALL options. "All of the above" and "1 and 3 only" traps are common. Precision matters in Biology MCQs.

High-Yield Topics & Daily Schedule

Focus here for maximum marks in minimum time

High-Frequency Chapters (Past Paper Analysis)

Physics

Rotational motion • Electrostatics • Current electricity • Magnetic effects • EM induction • Wave optics • Semiconductors • Oscillations & waves

Chemistry

Coordination compounds • Aldehydes & ketones • Electrochemistry • Solutions • Biomolecules • Haloalkanes • p-Block elements • Polymers

Mathematics

Integration • Differential equations • Vectors & 3D geometry • Probability • Matrices & determinants • Continuity & differentiability • Circles & conics

Biology

Genetics & Mendelian laws • Plant physiology • Human physiology • Reproduction • Biotechnology • Ecology & environment • Cell biology

Last-Week Daily Schedule

Time	Activity	Notes
5:30–7:00 AM	Morning revision	Formulas, reactions, theorems — short notes. Fresh brain = best retention.
7:00–9:00 AM	Timed mock test	Attempt 50 questions from one subject under strict exam conditions.
9:00–9:30 AM	Break + breakfast	Step away from books. Eat well — brain runs on glucose.
9:30–12:30 PM	Deep revision block	2 weak topics. NCERT examples, PYQs, and board textbook exercises.
12:30–2:00 PM	Lunch + rest	Light 20-min nap if needed. Avoid heavy study right after lunch.
2:00–4:30 PM	PYQ practice	Last 5 years MHT-CET papers for subject 2. Pattern recognition is key.
4:30–5:00 PM	Walk / refresh	15-min physical movement boosts memory consolidation significantly.
5:00–7:30 PM	Third subject revision	High-yield chapters only. Skim theory; focus on solved examples.
7:30–9:00 PM	Error log review	Go over wrong answers from today's mock. Understand the mistake — don't re-read.
9:00–10:00 PM	Light reading + sleep	Formula sheets only. No new topics. Sleep by 10:30 PM — 7–8 hrs is mandatory.

Do's & Don'ts + Day Before Exam

The final checklist every student needs

Do's & Don'ts for the Last Week

DO THIS

- ✓ Revise from NCERT + MH Board textbooks only
- ✓ Solve PYQs from last 5–7 years
- ✓ Maintain a formula & reaction cheat sheet
- ✓ Take at least one full timed mock test
- ✓ Sleep 7–8 hours every night
- ✓ Eat balanced meals and stay hydrated
- ✓ Review your error log daily
- ✓ Practice CET-style option-based answering

AVOID THIS

- ✗ Starting new, unpractised chapters now
- ✗ Studying past midnight regularly
- ✗ Comparing coverage with peers/friends
- ✗ JEE-level derivation practice (not needed)
- ✗ Cramming without understanding logic
- ✗ Skipping meals to study longer
- ✗ Leaving any questions blank in the exam
- ✗ Ignoring 11th syllabus chapters entirely

Day Before the Exam

L

Light revision only — no new topics

Only glance at formula sheets and key reactions. Your prep is complete. Trust yourself.

B

Pack your bag the night before

Hall ticket (printed), valid photo ID, pencils, pens, water bottle, watch. Check centre location and travel time.

S

Sleep by 10 PM

A rested brain outperforms a tired one every time. 8 hours of sleep is the single best last-minute strategy.

E

Eat a proper breakfast on exam day

Avoid heavy or unfamiliar food. Have your usual nutritious breakfast 1.5 hrs before the exam. Stay hydrated.

PHYSICS — Deep Dive & Formula Sheet

★ Top Chapters (★ = Very high frequency)

★ Rotational Motion	★ Electrostatics	★ Current Electricity
★ Magnetic Effects	★ EM Induction	Wave Optics
Semiconductors	Oscillations & Waves	Communication Systems
Gravitation (11th)	Laws of Motion (11th)	Thermodynamics

Essential Formulas

$v = u + at$	First equation of motion
$s = ut + \frac{1}{2} at^2$	Second equation of motion
$v^2 = u^2 + 2as$	Third equation of motion
$F = ma$	Newton's second law
$\tau = I\alpha$	Torque = Moment of inertia \times angular acceleration
$L = I\omega$	Angular momentum
$KE_{rot} = \frac{1}{2} I\omega^2$	Rotational kinetic energy
$F = kq_1q_2/r^2$	Coulomb's law ($k = 9 \times 10^9 \text{ N}\cdot\text{m}^2/\text{C}^2$)
$E = F/q = kQ/r^2$	Electric field due to point charge
$V = kQ/r$	Electric potential
$C = Q/V$; $C_{aea} = C_1 + C_2$	Capacitance; parallel combination
$1/C_{sej} = 1/C_1 + 1/C_2$	Series combination of capacitors
$V = IR$; $P = VI = I^2R$	Ohm's law; power dissipation
$R_s = R_1 + R_2$; $1/R_a = 1/R_1 + 1/R_2$	Resistor series / parallel combinations
$F = qvB \sin\theta$	Lorentz force on moving charge
$F = BIL \sin\theta$	Force on current-carrying conductor
$\epsilon = -d\Phi/dt$	Faraday's law of electromagnetic induction
$\epsilon = BLv$	EMF of rod moving in magnetic field
$1/f = (n-1)(1/R_1 - 1/R_2)$	Lens maker's equation
$n_1 \sin i = n_2 \sin r$	Snell's law of refraction
$E = hf = hc/\lambda$	Photon energy ($h = 6.63 \times 10^{-34} \text{ J}\cdot\text{s}$)
$KE_{max} = hf - \phi$	Photoelectric effect (ϕ = work function)
$T = 2\pi\sqrt{l/g}$	Simple pendulum time period

CHEMISTRY — Deep Dive & Formula Sheet

★ Top Chapters (★ = Very high frequency)

★ Coordination Compounds	★ Aldehydes & Ketones	★ Electrochemistry
★ Solutions	★ Biomolecules	Haloalkanes & Haloarenes
p-Block Elements	Surface Chemistry	Polymers
d-Block & f-Block	Amines	Carboxylic Acids

Key Formulas & Equations

$\Delta G^\circ = -nFE^\circ_{\text{cell}}$	Gibbs free energy and standard cell potential
$E^\circ_{\text{cell}} = E^\circ_{\text{cathode}} - E^\circ_{\text{anode}}$	Standard cell potential from half-cell potentials
$\log K = nE^\circ / 0.0592$	Equilibrium constant from cell potential (at 25°C)
$W = ZIt = (M/nF) \times It$	Faraday's first law of electrolysis
$\pi = iCRT$	Osmotic pressure (i = van't Hoff factor)
$\Delta T^b = iK^b \cdot m$	Elevation in boiling point
$\Delta T_e = iK_e \cdot m$	Depression in freezing point
$\Delta P / P^\circ = X_{solute}$	Raoult's law: relative lowering of vapour pressure
Rate = $k[A]^m[B]^n$	Rate law expression (m, n = reaction orders)
$t_{1/2} = 0.693 / k$	Half-life of a first-order reaction
$\ln[A]_t = \ln[A]_0 - kt$	First-order integrated rate law
$k = A \cdot e^{-E_a/RT}$	Arrhenius equation (E_a = activation energy)
$sp^3d^2 \rightarrow \text{Octahedral}$	$[\text{Co}(\text{NH}_3)_6]^{3+}$ outer orbital complex geometry
Tollens: $\text{RCHO} + \text{Ag}^+ \rightarrow \text{Ag mirror}$	Aldehydes give silver mirror; ketones do NOT
Fehling: $\text{RCHO} \rightarrow \text{Cu}_2\text{O}$ (brick red)	Aldehydes reduce Fehling solution; ketones do NOT
Iodoform: $\text{CH}_3\text{COR} \rightarrow \text{CHI}_3 + \downarrow$	Positive for methyl ketones and $\text{CH}_3\text{CHOH-}$ compounds
Lucas: ZnCl_2/HCl	3° alcohol: immediate turbidity; 2°: slow; 1°: no reaction

Key Named Reactions

Aldol condensation	$2\text{CH}_3\text{CHO} + \text{dil. NaOH} \rightarrow \text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{CHO}$ (nucleophilic addition; requires α -H)
Cannizzaro reaction	$2\text{HCHO} + \text{NaOH} \rightarrow \text{HCOONa} + \text{CH}_3\text{OH}$ (no α -H aldehydes only; disproportionation)
Reimer-Tiemann	Phenol + $\text{CHCl}_3/\text{NaOH} \rightarrow$ salicylaldehyde (electrophilic substitution, ortho -CHO)
Gabriel synthesis	Phthalimide + $\text{RX} \rightarrow$ primary amine (clean synthesis; avoids poly-substitution)

MATHEMATICS — Deep Dive & Formula Sheet

★ Top Chapters (★ = Very high frequency)

★ Integration	★ Differential Equations	★ Vectors & 3D Geometry
★ Probability	★ Matrices & Determinants	Continuity & Differentiability
Circles & Conics	Linear Programming	Applications of Derivatives
Relations & Functions	Trigonometry (11th)	Binomial Theorem (11th)

Must-Know Formulas

$\int x^n dx = x^{n+1}/(n+1) + C$	Power rule of integration ($n \neq -1$)
$\int e^x dx = e^x + C$; $\int a^x dx = a^x/\ln a + C$	Exponential integrals
$\int (1/x) dx = \ln x + C$	Logarithmic integral
$\int \sin x dx = -\cos x + C$	Trigonometric integral (sin)
$\int \cos x dx = \sin x + C$	Trigonometric integral (cos)
$\int 1/(a^2+x^2) dx = (1/a)\tan^{-1}(x/a) + C$	Inverse trigonometric integral
$\int u dv = uv - \int v du$ [ILATE rule]	Integration by parts
Separable: $\int dy/g(y) = \int f(x)dx$	Method for separable differential equations
Linear ODE: $dy/dx + Py = Q$; IF = $e^{-\int P dx}$	Integrating factor method for linear ODEs
$ a \times b = a b \sin\theta$	Magnitude of cross product
$a \cdot b = a b \cos\theta$	Dot product formula
$\cos\theta = l_1l_2+m_1m_2+n_1n_2 $	Angle between two lines (direction cosines)
$d = ax_0+by_0+cz_0-d /\sqrt{(a^2+b^2+c^2)}$	Distance from point to plane $ax+by+cz = d$
$P(A \cup B) = P(A)+P(B)-P(A \cap B)$	Addition theorem of probability
$P(A B) = P(A \cap B) / P(B)$	Conditional probability definition
$E(X) = \sum x \cdot P(X=x)$	Mean (expected value) of discrete random variable
$\text{Var}(X) = E(X^2) - [E(X)]^2$	Variance of a random variable
$P(X=r) = {}^n C_r p^r q^{n-r}$	Binomial probability distribution
$\det(A)$: cofactor expansion along row 1	3×3 determinant — memorise cofactor expansion method
$A^{-1} = \text{adj}(A) / \det(A)$	Matrix inverse formula ($\det(A) \neq 0$)
Circle: $(x-h)^2+(y-k)^2 = r^2$	Standard form of circle equation, centre (h,k)
Ellipse: $x^2/a^2+y^2/b^2=1$; $e=c/a$	Standard ellipse ($c^2 = a^2-b^2$, $e < 1$)
Parabola $y^2=4ax$: focus (a,0)	Standard parabola — directrix $x = -a$

BIOLOGY — Deep Dive & Key Points Sheet (PCB Stream)

★ Top Chapters (★ = Very high frequency)

★ Genetics & Mendelism	★ Human Physiology	★ Plant Physiology
★ Reproduction	★ Biotechnology	Ecology & Environment
Cell Biology & Division	Evolution	Microbes in Human Welfare
Animal Kingdom (11th)	Plant Kingdom (11th)	Biomolecules (11th)

Key Facts & Concepts

Law of Segregation	Alleles separate during gamete formation; F ₁ phenotypic ratio = 3:1 (dominant : recessive)
Law of Ind. Assortment	Genes on different chromosomes segregate independently; dihybrid ratio = 9:3:3:1
Incomplete dominance	F ₁ shows intermediate phenotype (e.g. red × white → pink); F ₂ ratio = 1:2:1
Co-dominance (ABO)	Both alleles expressed; I ^A and I ^B are codominant over i; produces 4 blood groups
Sex determination	XX = female, XY = male (humans); ZW = female, ZZ = male (birds)
Oogenesis vs Sperm.	Oogenesis → 1 egg + 3 polar bodies. Spermatogenesis → 4 functional sperms
Light reactions (phy.)	In thylakoid membrane; produce ATP, NADPH, O ₂ ; use Photosystems I & II
Calvin cycle (phy.)	In stroma; CO ₂ fixed by RuBisCO; produces G3P; C ₃ (3-carbon) pathway
Krebs cycle	In mitochondrial matrix; per cycle: 6CO ₂ , 8NADH, 2FADH ₂ , 2ATP produced
Electron Transport Chain	Produces ~34 ATP; H ₂ O formed at end; proton gradient drives ATP synthase (F ₀ F ₁)
Cardiac output	CO = Stroke volume × Heart rate; normal ~5 L/min at rest
Nephron function	Filtration → Reabsorption → Secretion → Excretion; loop of Henle concentrates urine
Insulin vs Glucagon	Insulin (β-cells of islets of Langerhans): lowers blood glucose. Glucagon (α-cells): raises it.
Recombinant DNA tech.	Restriction enzymes cut at palindromic sequences; vector (plasmid/phage) carries insert gene
PCR steps	Denaturation (94°C) → Annealing (55°C) → Extension (72°C, Taq polymerase)
ELISA	Enzyme-Linked Immunosorbent Assay — detects antigen using antibody-enzyme complex
Pyramid of energy	Always upright; ~10% energy transferred per trophic level (Lindeman's 10% law)
Hardy-Weinberg eq.	$p^2 + 2pq + q^2 = 1$; allele frequencies remain constant in ideal large random-mating population
Miller-Urey experiment	Simulated early Earth conditions; produced amino acids — supports chemical origin of life
EXCEPT-type MCQ tip	Read ALL options before choosing. "EXCEPT" questions reverse your logic — slow down and re-read.

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