BITSAT Cutoffs — Last 3 Years Trend (Out of 390)

Compiled by **Kunal Sir**

Cutoffs are increasing again. In 2026, **47 out of 48 programmes across Pilani, Goa, and Hyderabad went up**. Do not plan your preparation around 2025 numbers alone — look at the 3-year trend below and keep a **+10 to +15 mark buffer** above the 2026 cutoff as your target score in mocks.

Branch / Programme	Pilani 24	Pilani 25	Pilani 26	Goa 25 → 26	Hyd 25 → 26
4-YEAR B.E. PROGRAMMES (DIRECT ENTRY)					
B.E. Computer Science (CSE)	327	304	**308** (+4)	274 → **274**	270 → **272** (+2)
B.E. Mathematics & Computing (MnC)	318	295	**299** (+4)	268 → **270** (+2)	266 → **268** (+2)
B.E. Electronics & Comm. (ECE)	314	285	**289** (+4)	255 → **261** (+6)	256 → **261** (+5)
B.E. Electrical & Electronics (EEE)	292	260	**266** (+6)	243 → **253** (+10)	239 → **251** (+12)
B.E. Electronics & Instrum. (E&I)	282	250	**261** (+11)	234 → **250** (+16)	232 → **249** (+17)
B.E. Mechanical Engineering	266	235	**239** (+4)	223 → **233** (+10)	214 → **228** (+14)
B.E. Chemical Engineering	247	210	**226** (+16)	206 → **223** (+17)	205 → **223** (+18)
B.E. Civil Engineering	238	206	**222** (+16)	—	203 → **220** (+17)
5-YEAR M.SC. DUAL DEGREE PROGRAMMES (B.E. BRANCH ALLOTTED AFTER 1ST YEAR)					
M.Sc. Economics	271	251	**256** (+5)	237 → **246** (+9)	231 → **244** (+13)
M.Sc. Semiconductor & Nanoscience	—	239	**246** (+7)	225 → **241** (+16)	225 → **241** (+16)
M.Sc. Mathematics	256	229	**241** (+12)	216 → **233** (+17)	212 → **230** (+18)
M.Sc. Physics	254	223	**235** (+12)	212 → **231** (+19)	209 → **229** (+20)
M.Sc. Chemistry / Biological Sci.	241 / 236	212 / 208	**227 / 218**	205 → **223 / 217**	203 → **223 / 217**

What Score Should You Target in Mocks?

- **Pilani CSE / MnC:** Target **315+** | • **Goa / Hyd CSE & Pilani ECE:** Target **285–295+**
- **Electronics (ECE / EEE / E&I across campuses):** Target **260–275+** | • **Safe Entry into BITS:** Target **235+**

Why Cutoffs Are Increasing (And What Students Miss)

Compiled by **Kunal Sir**

Many students look at the cutoff table and ask two questions: "*Why did cutoffs drop in 2025 and jump back up in 2026?*" and "*Why did branches like E&I, Chemical, and M.Sc. Dual Degrees jump by +15 to +20 marks in a single year?*" Let's understand what actually happens behind these numbers.

1. Why 2025 Dropped — And Why 2026 Shot Back Up

In 2024, Pilani CSE was 327 and even the lowest branch at Pilani was 236. In 2025, students walked into the exam believing old YouTube advice that "*BITSAT is just easy NCERT formula plugging.*" Instead, the 2025 paper asked tricky Organic Chemistry, Salt Analysis, Newman projections, and heavy Logical Reasoning puzzles. Students panicked, accuracy dropped, and cutoffs fell by 20 marks.

By 2026, students knew the new pattern. They prepared Logical Reasoning and covered the deleted JEE Main chapters beforehand — so **47 out of 48 cutoffs went straight back up**. Expect cutoffs to climb further as more students prepare specifically for BITSAT.

2. Best of Two Sessions + Zero Normalization

Unlike JEE Main, **there is no percentile normalization in BITSAT**. Your raw score out of 390 is final. And if you appear in both Session 1 and Session 2, **BITS counts the higher of your two scores**.

In our data of 941 students who took both sessions in 2026, the median score in Session 1 (mid-April, right on top of JEE Main) was just **148** because students had not touched the deleted syllabus. By Session 2, **78% of students improved their score with a median jump of +26 marks** once they finished the removed chapters and practiced 130-question speed mocks. That second-session jump is what drives final cutoffs up.

3. Why M.Sc. Dual Degrees Jumped by +12 to +20 Marks

Notice that M.Sc. Physics and M.Sc. Mathematics at Goa and Hyderabad jumped by **+17 to +20 marks** in 2026. Why? Because students scoring between **225 and 255** now understand how the 5-year Dual Degree system at BITS works:

How the 5-Year M.Sc. Dual Degree Works at BITS

- **Same 1st-Year Syllabus:** Every student entering BITS (whether B.E. CSE or M.Sc. Chemistry) studies the exact same common courses in Year 1.
- **Your 1st-Year CGPA Decides Your B.E. Branch:** At the end of Year 1, BITS allots a 4-year B.E. degree to every M.Sc. student based purely on their 1st-year CGPA.
- **Real Allotment Numbers:** Around **8.3+ CGPA gets B.E. CSE or MnC**, and **7.5 to 8.2 CGPA gets ECE, EEE, or E&I**. Over **55% of Dual Degree students land Computer Science or Electronics** alongside their M.Sc. degree!

4. Two Non-Negotiable Admission Rules

- **Board Marks Eligibility:** Even if you score 330 in BITSAT, BITS will not admit you unless you have **75% aggregate in Class 12 PCM** and at least **60% in each of Physics, Chemistry, and Maths**.
- **Scholarships (1 in 4 Students Gets a Fee Waiver):** Top rankers and students with family income below ₹15–20 Lakh/year qualify for **100%, 80%, 50%, or 25% tuition waivers** under Institute Merit and Merit-Cum-Need (MCN) scholarships.

Removed Topics = BITSAT Marks (Do Not Leave Any)

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Important: Do Not Leave Any of These Topics for BITSAT

Everything in BITSAT overlaps with JEE Main except one block: **the chapters and topics that JEE Main removed**. BITS never removed them. Every single BITSAT paper asks **12 to 15 questions (36 to 45 marks)** from this removed block alone. Make sure you do not leave any of these — most of them are direct formula or NCERT-based questions.

Biggest Mistake: Waiting Till After JEE Main April

When You Do Them	What You Are Doing	What a Removed Topic Costs You
Now (Weekend Slot)	Regular prep — 3 hrs on Sat/Sun.	**A few hours.** Done once from NCERT + PYQs, it stays done.
During Full Mocks	Giving 3-hr JEE Main full tests.	An hour stolen from a 3-hour mock. Now it costs Mains marks.
After JEE Main April	Session 1 sits right next to Mains.	**Time you do not have — 40 marks lost in Session 1.**

Mathematics — Removed Topics & Type of Questions Asked

Do not leave any of these 5 removed Maths portions. Across 39 shifts (2024–2026), they gave **115+ questions** and take half the time of lengthy Calculus questions.

Removed Chapter / Topic	39-Shift Qs	What Type of Questions Are Asked in BITSAT & How to Prepare
Linear Programming (LPP) Full Chapter Removed	**46** 🔥	* **3 to 4 questions in almost every shift** (1,036 students reported LPP in our shift survey — highest of any topic). * **Type of questions asked:** Finding maximum/minimum of Z = ax + by at corner points, checking when a feasible region is **unbounded** or has **no feasible solution**, and properties of convex sets. Takes 2 hours total.
Planes in 3D Geometry Removed from 3D	**35+** 🔥	* JEE Main only asks Lines in Space now, but **BITSAT asks 2 questions from Planes in almost every paper**. * **Type of questions asked:** Ratio in which plane ax + by + cz + d = 0 divides segment PQ (use $-L(P)/L(Q)$ directly), intersection of a line and a plane, family of planes ($P_1 + \lambda P_2 = 0$), and image/foot of perpendicular in a plane.
Solution of Triangles (SOT) Removed from Trig	**13** 🔥	* **Type of questions asked:** Direct Sine Rule, Cosine Rule, Napier's Analogy, $r = \Delta/s$, $R = abc/4\Delta$, and $\sin(B-C)/\sin(B+C)$. Substitute a 90°–60°–30° triangle ($a = 2$, $b = \sqrt{3}$, $c = 1$) in symmetric options to solve in 20 seconds.
Mathematical Reasoning & Induction Full Chapters Removed	**12** 🔥	* **Type of questions asked:** Tautology vs contradiction, negation of $p \rightarrow q$ (which is $p \wedge \sim q$), and contrapositive ($\sim q \rightarrow \sim p$). Convert $p \rightarrow q$ into Venn diagram $P' \cup Q$ and solve in 30 seconds.
Box Product, Conic Tangents & AGP Trimmed Portions	**22** 🔥	* **Vectors:** Volume of parallelepiped [a b c] (box product), coplanarity of 4 vectors, and $a \times (b \times c)$. * **Conics & Algebra:** Condition of tangency ($c^2 = a^2m^2 + b^2$), director circle, AGP sum, and cube roots of unity ($1, \omega, \omega^2$).

Chemistry — Removed NCERT Chapters (Do Not Leave Any of These)

JEE Main deleted 8 chapters from Chemistry. In BITSAT, these chapters give **8 to 10 questions per shift (24 to 30 marks)**. Do not read thick reference books — **read NCERT line by line and solve past questions**.

Removed Chapter / Topic	39-Shift Qs	What Type of Questions Are Asked in BITSAT & How to Prepare
s-Block Elements & Hydrogen Full Chapters Removed	**43** 🔥	* **Type of questions asked:** Thermal stability & solubility order of Group 1 & 2 carbonates, bicarbonates, hydroxides, and sulphates; anomalous behaviour of Li and Be; LiCl solubility in organic solvents; flame test colours; temporary vs permanent hardness of water (Calgon's method); ortho vs para H_2; and volume strength of H_2O_2.
p-Block (Groups 13 to 18 Compounds) Reactions Removed	**26** 🔥	* **Type of questions asked:** JEE Main only kept periodic trends, but BITSAT asks **structures and basicity of oxyacids of P, S, and Cl** (H_3PO_2, H_3PO_3, $H_4P_2O_7$), hydrolysis of XeF_2, XeF_4, XeF_6, diborane (B_2H_6 3c-2e bonds), and borax bead test.
Solid State & Surface Chemistry Full Chapters Removed	**25** 🔥	* **Solid State:** FCC/BCC/SC packing fraction, density $\rho = ZM/(N_A a^3)$, tetrahedral (2N) & octahedral (N) voids, Schottky vs Frenkel defects, and Na_2O (antifluorite) / CaF_2 (fluorite) structures. * **Surface Chemistry:** Hardy-Schulze rule for coagulation, Freundlich isotherm, and Gold number.
States of Matter (Gaseous State) Full Chapter Removed	**16** 🔥	* **Type of questions asked:** Direct formula questions on ratio of $u_{rms} : u_{avg} : u_{mp}$, Graham's law of diffusion, Dalton's partial pressure, compressibility factor Z, and van der Waals constants a and b ($T_c = 8a / 27Rb$).
Polymers, Everyday Life, Metallurgy & Env. 4 Full Chapters	**24** 🔥	* **Polymers:** Monomers of Nylon-6,6, Dacron, Bakelite, Neoprene, Buna-S; biodegradable polymers (PHBV, Nylon-2-nylon-6); PDI = M_w/M_n. **Metallurgy:** Chief ores, Froth floatation, Mond's process (Ni), Van Arkel (Ti, Zr). **Everyday Chem:** Analgesics, tranquilizers, antiseptics, artificial sweeteners, BOD & smog.

How to Cover Removed Chemistry Chapters Without Wasting Time

Do not buy or read thick reference books for these 8 deleted chapters. Every single question in BITSAT from s-Block, Hydrogen, Solid State, Surface Chemistry, Polymers, and Everyday Life comes straight from **NCERT tables, highlighted boxes, and summary points**. Read NCERT line by line and solve 30–40 past questions per chapter.

Physics — Removed Sub-Topics Inside Existing Chapters (Do Not Leave Any)

In Physics, whole chapters were not deleted, so students often do not even realise which sub-topics inside Semiconductors, Waves, SHM, Current Electricity, and Thermodynamics were removed from JEE Main. In BITSAT, these deleted sub-topics gave **74+ direct formula questions across 39 shifts**.

Removed Physics Topic	39-Shift Qs	What Type of Questions Are Asked in BITSAT & How to Prepare
1. Junction Transistors & Communication Removed from Modern	22 🔥	* **Junction Transistors:** Emitter current $I_E = I_B + I_C$, current gains $\alpha = I_C/I_E$ and $\beta = I_C/I_B$, relation $\beta = \alpha/(1-\alpha)$, and CE amplifier voltage/power gain. * **Communication Systems:** AM modulation index $\mu = A_m/A_c$, sideband frequencies ($f_c \pm f_m$), bandwidth = $2f_m$, total power $P_t = P_c(1 + \mu^2/2)$, and TV tower range $d = \sqrt{(2Rh)}$.
2. Doppler Effect & Damped / Forced SHM Removed from Waves/SHM	18 🔥	* **Doppler Effect in Sound:** Apparent frequency $f' = f[(v \pm v_0)/(v \mp v_s)]$, wind effect, and beats heard with a reflecting wall. * **Damped SHM (asked in 4 of 9 shifts in 2026):** Damping force $F = -bv$, amplitude decay $A(t) = A_0e^{-bt/2m}$, and energy decay $E(t) = E_0e^{-bt/m}$ (when amplitude halves, energy becomes 1/4th).
3. Potentiometer & Carbon Colour Code Removed from Current	11 🔥	* **Potentiometer:** Potential gradient $k = V/L$, comparing two cells $E_1/E_2 = l_1/l_2$, and finding internal resistance of a cell $r = R(l_1/l_2 - 1)$. * **Carbon Resistor Colour Code:** BB ROY of Great Britain has a Very Good Wife (0 to 9) + Gold (±5%) and Silver (±10%) tolerance bands.
4. Cyclotron & Earth's Magnetism Removed from Magnetism	11 🔥	* **Cyclotron:** Radius $r = mv/qB$, cyclotron frequency $f = qB/(2\pi m)$ (independent of speed), and maximum kinetic energy $K = q^2B^2R^2/(2m)$. * **Earth's Magnetism & Hysteresis:** Horizontal & vertical components $B_H = B \cos \delta$, $B_V = B \sin \delta$, $\tan \delta = B_V/B_H$, Curie's Law ($\chi \propto 1/T$), and soft iron vs steel hysteresis loop.
5. Carnot Engine, Cooling Law & Radioactivity Removed from Thermo/Modern	12 🔥	* **Carnot Engine & Newton's Cooling:** Efficiency $\eta = 1 - T_{sink}/T_{source} = W/Q_1$, refrigerator COP $\beta = T_2/(T_1 - T_2)$, and average form of Newton's cooling law $(T_1 - T_2)/t = K[(T_1 + T_2)/2 - T_0]$. * **Radioactive Decay Law:** $N = N_0(1/2)^{t/T}$, activity $A = \lambda N$, half-life $T_{1/2} = 0.693/\lambda$, and Davisson-Germer wavelength $\lambda = 12.27/\sqrt{V}$ Å.

Physics Deleted Sub-Topics Tip: Revise these 5 formula blocks once — they give 2 to 3 direct plug-and-play questions per paper!

Practice Physics on Crucible ↗

Physics (Part 1) — Must Do Topics & Expert Suggestions

Compiled by **Kunal Sir**

Physics has **30 questions (90 marks)**. Below are the **Top 5 Physics Chapters** based on 569 recalled questions across 39 shifts (2024–2026). Topics marked with 🔥 are Must-Do priorities — finish their formulas and PYQs before touching anything else.

Chapter	Topic	Last 3 Yrs	Expert Suggestions
1. Units, Dimensions & Errors	Dimensions of Quantities 🔥 Errors of Measurement 🔥 Vernier Calipers & Screw Gauge	**65**	* **#1 highest weightage chapter in BITSAT Physics** — almost every shift asks 1–2 questions. Can master in very less time. * Dimensional combinations like E/B (velocity), Planck/G/c, and percentage error are frequently asked concepts. * Revise zero error in Vernier calipers and Screw gauge once.
2. Electrostatics & Capacitance	Electric Field, Flux & Gauss Law 🔥 Electric Potential & Dipole 🔥 Capacitors with Dielectric 🔥 Charging/Discharging of C	**64**	* Electric field lines, Coulomb's law, dipole torque/potential, and Gauss Law are repetitively asked in the last 3 years. * Capacitors with dielectric slabs inserted (battery connected vs disconnected) and RC circuit time constants are high-scoring topics.
3. Laws of Motion & Friction	Equilibrium of Forces & FBD 🔥 Frictional Force & Inclines 🔥 Two-Block & Spring-Pulley Setups	**52**	* Don't worry about 4–5 pulley type JEE Advanced problems — they are irrelevant for BITSAT. * Conceptual clarity is important for frictional force, block on rough vs smooth incline, and apparent weight in a lift.
4. Semiconductors [Reduced in JEE]	Logic Gates & Truth Tables 🔥 Zener Diode Voltage Regulator 🔥 Junction Transistors [Removed] 🔥 Intrinsic/Extrinsic Carrier Conc.	**45**	* Weightage increased drastically in 2025 & 2026 (2–3 questions in many shifts). * **Logic Gates is must do even if you are planning to leave this chapter.** * Do not skip Junction Transistors (α, β relations and CE amplifier gain) even though removed from JEE Main.
5. Kinematics (Motion in 1D & 2D)	Projectile Motion 🔥 Graphs of Motion in 1D 🔥 River-Boat & Rain-Umbrella 🔥 Uniform Circular Motion	**40**	* Projectile motion (range, max height, complementary angles) has the highest weightage and should be given top priority. * Practice different types of motion graphs (v-t, a-t, v-x). Students get confused here and miss out on easy questions.

Physics Target (First 5 Chapters): These 5 chapters alone give **10 to 12 questions (30–36 marks)** per paper!

Practice Physics on Crucible ↗

Physics (Part 2) — Must Do Topics & Expert Suggestions

Compiled by **Kunal Sir**

Below are Chapters 6 to 10 in Physics priority order. Notice how many questions come from **removed JEE Main sub-topics** inside Modern Physics, Thermodynamics, Waves, and Current Electricity.

Chapter	Topic	Last 3 Yrs	Expert Suggestions
6. Rotational Motion & COM	Moment of Inertia of Rigid Bodies 🔥 Angular Momentum Conservation 🔥 Rolling Without Slipping 🔥 COM of Standard Bodies	**36**	* Students find this to be one of the hardest chapters in Physics. Very few questions come on collisions in rotation — skip if needed. * Memorize Moment of Inertia, solid hemisphere COM (3R/8), and pure rolling acceleration on an incline.
7. Modern Physics (Dual Nature, Atoms, Nuclei)	Photoelectric Effect & Matter Waves 🔥 Bohr's Model & Atomic Spectrum 🔥 Radioactivity [Removed] 🔥 Nuclear Binding Energy	**35**	* Photoelectric Effect and de Broglie wavelength ($\lambda = h/\sqrt{(2mqV)}$) dominate this block with easy graphical and ratio questions. * Radioactivity is removed from JEE Main syllabus but asked directly in BITSAT — practice half-life $N = N_0(1/2)^n$.
8. Magnetic Effects, Magnetism & EMI/AC	Magnetic Field (Wire, Loop, Arc) 🔥 Charged Particle / Cyclotron [Removed] 🔥 LCR Phasor, Power Factor & EMI 🔥 Earth's Magnetism [Removed]	**42**	* Formula-based questions on magnetic field of straight wire + circular loop, magnetic moment, and cyclotron radius $r = mv/qB$ are sufficient. * In AC & EMI, focus on Lenz's law, motional EMF (Bvl), LCR resonance, power factor $\cos\phi$, and transformers.
9. Thermodynamics, KTG, Waves & SHM	Thermodynamic Processes & Graphs 🔥 Carnot Engine & Cooling Law [Removed] 🔥 Organ Pipes & Doppler Effect [Removed] 🔥 SHM Energy & Damped SHM [Removed] 🔥	**69**	* **Thermo & KTG (25 Qs):** First Law, P-V graphs, degree of freedom, and Carnot engine efficiency $\eta = 1 - T_2/T_1$. * **Waves (25 Qs) & SHM (19 Qs):** Organ pipes, beats, Doppler effect, and Damped SHM amplitude/energy decay.
10. Current Elec., WPE, Gravitation & Optics	Meter Bridge & Potentiometer [Removed] 🔥 Work-Energy Theorem & Power 🔥 Variation of g & Escape Velocity 🔥 YDSE, Polarization & Lens Formula 🔥	**96**	* **Current Electricity (25 Qs):** Resistor ladders, bulb power rating, Meter bridge, and Potentiometer balancing length. * **WPE (25 Qs), Gravitation (24 Qs) & Optics (22 Qs):** Variable force work, satellite energy, YDSE with polarisers, and Brewster angle.

Physics Preparation Checklist: 20-min Formula Card revision → Topic Tests → Revise "My Mistakes" section.

Practice Physics on Crucible ↗

Chemistry (Part 1) — Must Do Topics & Expert Suggestions

Compiled by **Kunal Sir**

Chemistry has **30 questions (90 marks)** and should be completed in **22 to 25 minutes**. Below are the **Top 5 Chemistry Blocks** from 609 recalled questions across 39 shifts (2024–2026).

Chapter	Topic	Last 3 Yrs	Expert Suggestions
1. GOC & Stereochemistry	Newman & Sawhorse Projections 🔥 Aromaticity & Acidity/Basicity Order 🔥 Carbocation Stability & Rearrangement 🔥 Geometrical & Optical Isomerism 🔥	**74**	* **#1 block in Chemistry (48 Qs in Isomerism + 26 in GOC).** We cannot ignore any topic here as it forms the base for all of Organic Chemistry. * Practice direct meso / optical inactivity checks in Newman and Sawhorse projections without wasting time converting to Fischer.
2. Chemical Kinetics	Integrated Rate Laws (1st Order) 🔥 Order from Graphs & Half-Life 🔥 Arrhenius Equation & Activation Energy 🔥	**55**	* **Most scoring chapter in Physical Chemistry.** Do not spend a lot of time on parallel and sequential first-order reactions. * For concentration drops like 8 M → 1 M, count halvings (8 → 4 → 2 → 1 = 3 half-lives) in 5 seconds instead of using log tables.
3. Named Organic Reactions & Tests	Aldol, Cannizzaro & Haloform 🔥 Reimer-Tiemann & Carbylamine 🔥 Ozonolysis & Alkene/Aromatic Rxns 🔥 Distinction Tests (Aldehydes/Amines) 🔥	**43**	* Stick strictly to NCERT reactions and don't overspend time on random mechanisms in reference books. * Tests for Aldehydes, Ketones, Phenols, and Amines (Tollens, Fehling, Iodoform, Hinsberg, Carbylamine) are easy kills for free marks.
4. s-Block & Hydrogen [Removed in JEE]	Carbonate, Hydroxide & Sulphate Trends 🔥 Anomalous Behaviour of Li & Be 🔥 Hardness of Water & H_2O_2 Strength 🔥	**43**	* Removed from JEE Main, but **one of the highest weightage Inorganic blocks in BITSAT** (2 questions per shift). * Read NCERT line by line: LiCl solubility in organic solvents, flame colours, Calgon's method, and ortho/para H_2.
5. Coordination Compounds	VBT, Hybridization & Spin-Only μ 🔥 Crystal Field Theory (CFT) Splitting 🔥 Geometrical & Optical Isomerism 🔥 Biological Complexes (Hb, Vit B_{12})	**41**	* Crystal Field Theory and Valence Bond Theory are the most important topics from which 50–60% of questions are framed. * Remember Fe oxidation state in deoxyhemoglobin (+2) vs methemoglobin (+3), and Porphyrin / Chlorin / Corrin rings.

Chemistry Rule: Never do 50-50 guesswork on unfamiliar reagents or facts. Know it = mark in 20s; don't know = skip!

Practice Chemistry on Crucible ↗

Chemistry (Part 2) — Must Do Topics & Expert Suggestions

Compiled by **Kunal Sir**

Below are Chapters 6 to 10 in Chemistry priority order. Pay special attention to **Practical Chemistry (Salt Analysis)**, **Biomolecules & Polymers**, and **Solid State & Surface Chemistry** — students who skip these lose 25+ easy marks.

Chapter	Topic	Last 3 Yrs	Expert Suggestions
6. Biomolecules & Polymers [Removed]	Amino Acids (pI), Proteins & Glucose 🔥 Nucleic Acids (DNA/RNA) & Vitamins 🔥 Monomers, Biodegradable & PDI 🔥	**45**	* 31 Qs from Biomolecules + 14 from Polymers. Direct NCERT questions on reducing sugars, amino acid isoelectric point (pI), and vitamins. * In Polymers, memorize monomers of Nylon-6,6, Dacron, Bakelite, Buna-N/S, PHBV, and PDI = M_w/M_n.
7. Electrochemistry & Solutions	Nernst Equation & Electrode Potential 🔥 Faraday's Laws & Conductance 🔥 Colligative Properties & van't Hoff i 🔥	**48**	* **Electrochemistry (30 Qs):** Focus on Faraday deposition (w = ZIt), Nernst equation at 298 K, and Kohlrausch law. * **Solutions (18 Qs):** Colligative properties (ΔT_b, ΔT_f, osmotic pressure $\pi = iCRT$) and abnormal molar mass dominate.
8. Practical Chemistry (Salt Analysis)	Preliminary Tests (Flame, Borax Bead) 🔥 Dil. vs Conc. H_2SO_4 Gas Evolution 🔥 Wet Tests for Cations (Pb^{2+}, Co^{2+}, NH_4^+) 🔥	**30**	* Weightage jumped sharply in 2025 & 2026 (1–2 questions per shift). * Must know: Nessler's reagent ($K_2[HgI_4]$), PbI_2 yellow ppt, Co^{2+} blue-to-pink on dilution, and $K_4[Fe(CN)_6]$ + dil. H_2SO_4 → HCN gas.
9. p-Block [Reduced] & d/f-Block Elements	Oxyacids of P, S, Cl & XeF_n [Removed] 🔥 Diborane, Borax & Group Trends 🔥 $KMnO_4$, $K_2Cr_2O_7$ & Lanthanoid Contraction 🔥	**42**	* **p-Block (26 Qs):** Do not stop at periodic trends — cover structures of oxyacids, XeF_4/XeF_6 hydrolysis, and B_2H_6 from NCERT. * **d & f Block (16 Qs):** Oxidising reactions of $KMnO_4$ and $K_2Cr_2O_7$, magnetic moment, and colour of transition ions.
10. Bonding, Thermo, Eqm, Mole & Solid/Surface	VSEPR Lone Pairs & MOT Bond Order 🔥 Enthalpy, ΔG, K_p/K_c, pH & K_{sp} 🔥 Crystal Packing & Hardy-Schulze [Removed] 🔥	**111**	* **Chemical Bonding (20 Qs):** Do every topic from this chapter regardless of weightage. * **Thermo (22 Qs), Eqm (24 Qs), Mole (20 Qs) & Solid/Surface (25 Qs):** Focus on standard formulas — do not waste days on tough Ionic Eqm.

Inorganic & Deleted Chapters Tip: Read NCERT tables once a week — they give the fastest marks in the exam!

Practice Chemistry on Crucible ↗

Mathematics (Part 1) — Must Do Topics & Expert Suggestions

Compiled by **Kunal Sir**

Mathematics has **40 questions (120 marks = 31% of the paper)**, and tie-breaking in BITSAT uses your Maths score first. Below are the **Top 5 Maths Chapters** from 533 recalled questions across 39 shifts — finish these fast-scoring chapters in Round 1!

Chapter	Topic	Last 3 Yrs	Expert Suggestions
1. Probability	Classical Probability (Dice/Cards) 🔥 Conditional Prob. & Bayes Theorem 🔥 PMF Distribution ΣP(X=x)=1 🔥 Binomial & Poisson Distribution [Removed] 🔥	**64**	* **#1 highest weightage chapter in BITSAT Maths (2–3 questions per shift).** Questions are much shorter than JEE Main. * Besides Bayes Theorem and dice/card problems, remember Poisson distribution (Mean = Variance = λ) and $P(X=k) = e^{-\lambda}\lambda^k/k!$.
2. Three Dimensional Geometry	Plane in Space & Line-Plane [Removed] 🔥 Shortest Distance Between Skew Lines 🔥 Image & Foot of Perpendicular 🔥 Family of Planes $P_1 + \lambda P_2 = 0$ 🔥	**52**	* One of the most important chapters for BITSAT. **Plane is removed from JEE Main syllabus, but BITSAT asks Planes heavily** in every shift. * Practice ratio –L(P)/L(Q) in which a plane divides segment PQ, angle between line & plane, and image of a point in a plane.
3. Definite & Indefinite Integration	King's Property ∫f(x) = ∫f(a+b–x) 🔥 Modulus, GIF & Leibnitz Rule 🔥 Integration by Substitution 🔥 Area Bounded by Two Curves 🔥	**48**	* **Examiner is your friend in Indefinite Integration:** look at repeated terms in the options to take a hint for substitution (substitute repeated term = t). * Don't overspend time on Indefinite — Definite Integration properties and standard Area formulas (parabola-line $8a^2/3m^3$) are much more scoring.
4. Linear Programming (LPP) [Removed in JEE]	Corner-Point Max / Min of Z = ax + by 🔥 Unbounded Feasible Region Condition 🔥 No-Feasible-Solution Condition 🔥 Convex Sets & Word Problems	**46**	* **Must Do — do not leave this chapter!** 1,036 students explicitly named LPP in our shift survey (3–4 questions in almost every paper). * Takes 2 hours total to master and gives 9–12 guaranteed marks in under 3 minutes in Round 1.
5. Statistics	Variance & SD of Transformed Data 🔥 Mean Deviation About Mean / Median 🔥 Missing Frequency Observations 🔥	**40**	* Majority of questions are based on mean, variance, and mean deviation. If you know shortcut formulas, you can score 100% here. * **Shortcut:** Mean deviation of the first 2n natural numbers about their mean is always n / 2 (e.g. for first 100 natural numbers, MD = 25 in 3 seconds!).

Biggest Maths Secret: Probability + 3D Planes + LPP + Statistics give **7 to 8 fast questions every shift**!

Practice Maths on Crucible ↗

Mathematics (Part 2) — Must Do Topics & Expert Suggestions

Compiled by **Kunal Sir**

Below are Chapters 6 to 10 in Mathematics priority order. Remember: in Coordinate Geometry, Limits, and Trigonometry, **direct properties and value-plugging beat 2-page derivations every time**.

Chapter	Topic	Last 3 Yrs	Expert Suggestions
6. Differential Equations	Linear Differential Equation (LDE) 🔥 Equations Reducible to LDE (Bernoulli) 🔥 Variable Separable & Homogeneous 🔥	**36**	* Linear Differential Equation ($dy/dx + Py = Q$, I.F. = $e^{\int P\,dx}$) is the main highlight of the last 3 years. * Questions look tricky at first glance but can be solved quickly by standard substitution.
7. Straight Lines, Circles & Conic Sections	Centres of Triangle (Ortho/Circum/Incentre) 🔥 Eccentricity & Focal Chord Properties 🔥 Tangent & Normal Conditions [Removed] 🔥 Chord with Given Middle Point ($T = S_1$)	**60**	* 31 Qs in Conics + 29 in Straight Lines & Circles. Many questions are based on direct properties — remember properties instead of solving from basics. * Do not skip Tangent, Normal, and Director Circle equations (removed from JEE Main, asked in BITSAT).
8. Matrices & Determinants	Adjoint & Inverse Properties 🔥 System of Linear Equations (Cramer) 🔥 Matrix Powers & Cayley-Hamilton 🔥	**24**	* System of linear equations (condition for unique, infinite, or no solution) and Adjoint properties ($|adj\ A| = |A|^{n-1}$, $|adj(adj\ A)| = |A|^{(n-1)^2}$) are Must Do.
9. Limits, Continuity, Diff., AOD & Functions	1^∞ Form & L'Hôpital's Rule 🔥 Maxima/Minima & Monotonicity 🔥 Equivalence Relations, Domain & Range 🔥	**62**	* **Limits & C&D (20 Qs):** Make L'Hôpital's rule and series expansions your best friends. * **AOD (22 Qs) & Functions (20 Qs):** Focus on Maxima/Minima, tangent/normal subtangent, reflexive/symmetric/transitive relations, and functional equations.
10. Algebra (Seq, Quad, Binomial), Trig & Vectors	AP/GP/AGP, Roots & Binomial Term 🔥 Solution of Triangles (SOT) [Removed] 🔥 Scalar/Vector Triple Product [Removed] 🔥 ITF Domain, Range & Simplification 🔥	**95**	* **Algebra (51 Qs):** Relation between roots, general term of Binomial expansion, AM-GM inequality, AGP sum, and cube roots of unity ($1, \omega, \omega^2$). * **Trig & ITF (25 Qs) + Vectors (19 Qs):** Do not miss SOT and Box Product [a b c]. Always check domain and range in the last step of Inverse Trigonometry — examiner will try to trick you!

Round-1 Maths Strategy: Never spend 4 minutes in an ego fight in Round 1 — mark and come back in Round 2!

Practice Maths on Crucible ↗

English & Logical Reasoning — 90 Marks Priority Guide

Compiled by **Kunal Sir**

30 Questions = 90 Marks (Equal to Full Physics or Full Chemistry!)

English Proficiency (10 questions, 30 marks) and Logical Reasoning (20 questions, 60 marks) are not in JEE Main at all. Students who start BITSAT prep in April almost always start with Physics and never touch this section. Yet **moving from 45/90 to 75/90 here (+30 marks) takes just 10–15 practice sets**.

Section	Topic	Last 3 Yrs	Expert Suggestions
Logical Reasoning (20 Qs · 60 Marks)	Non-Verbal LR: Paper Folding, Mirror/Water Image & Cube Counting 🔥	**51**	* 4 to 5 questions come in every shift (including 3D wedge folding and painted/hatched cube counting). * **Speed tip:** Never rotate the whole 3D figure in your head — track **one asymmetric corner or notch** across the fold to eliminate 3 options in 15 seconds.
	Puzzles, Seating Arrangement, Syllogisms & Data Sufficiency 🔥	**47**	* Weightage jumped from 12% in 2025 to **30% of LR in 2026** (4–5 questions per paper). * Use Venn diagrams for Syllogisms and solve 10–15 practice sets of linear/ranking puzzles — you will reach your ceiling very quickly.
	Number Series & Alphabet Series 🔥	**35**	* 3 to 4 questions per shift. **Strict 45-Second Rule:** Every shift has 1 weird number series. Check 1st difference, 2nd difference, and alternating ratio for 45 seconds. If it doesn't click, **skip it immediately** — do not let ego waste 5 minutes!
	Analogy, Odd One Out & Coding-Decoding (Letter Weights / Binary) 🔥	**46**	* Write **E J O T Y (5, 10, 15, 20, 25)** and A=1… Z=26 on your scratchpad before the exam starts. * Watch out for word-sum × word-length coding (e.g. BUSINESS = 880) and binary coding (00101 = 5).
English Proficiency (10 Qs · 30 Marks)	Vocabulary: Synonyms, Antonyms, One-Word Substitution & Idioms 🔥	**58**	* 4 to 5 questions per paper. Focus on vocabulary and root words (e.g. *-cide*: Sororicide, Fratricide, Regicide; *mal-, bene-, omni-*) — that is where repeatable marks are. * When a word is asked inside a sentence, use the positive/negative tone of the sentence to eliminate options.
	Sentence Rearrangement (PQRS), Error Spotting & Short Passage	**27**	* 4 to 5 questions per paper. In PQRS sentence rearrangement, never read the full paragraph 4 times — match the mandatory opening/closing pair across the 4 options in 20 seconds.

English & LR Rule: Finish all 30 questions in **25 to 28 minutes** so you save 65+ minutes for Mathematics!

Practice English & LR on Crucible ↗

How to Attempt the Paper & Preparation Checklist

Compiled by **Kunal Sir**

Content is the smaller half of BITSAT. The bigger half is how you attempt the paper under time pressure. **BITSAT is not a harder paper than JEE Main — it is a faster one.**

Paper	Questions	Time	Time Per Question	What Happens in the Exam Hall
JEE Main	75	180 min	~144 seconds	You can spend 3–4 minutes thinking through a tough step.
BITSAT	**130** (+12 Bonus)	180 min	**~83 seconds**	Every "*paper easy tha but attempt nahi hua*" story is this number, not difficulty.

1. First-Round Time Management (Squeeze Time for Round 2)

Follow a strict first-round clock in every mock: **Chemistry: 25 minutes** · **English & LR: 25–28 minutes** · **Physics: 40–42 minutes** · **Maths: 65–70 minutes**. That leaves **20 minutes for Round 2**. If you spend 55 minutes on Physics and 40 minutes on Chemistry like JEE Main, you will leave 10 easy formula questions at the end of Maths completely unread.

2. 2 Round Method — Don't Solve Like Q1, Q2, Q3...

Round 1: Read 3 questions at a go and pick the one you can start immediately. Solve only what is instantly yours. **No second attempt in Round 1** — the moment you decide to "try a little more" on a stuck question, Round 1 is ruined. Note doable skipped question numbers on your scratchpad. **Round 2:** Come back to your marked questions in the last 20 minutes.

3. Examiner Is Your Friend — And Be Logical, Not Emotional

The paper-setter leaves hints inside the options (repeated terms in Integration, dimensional checks in Physics, special triangles in Trigonometry). At the same time, never get emotional about your favourite subject: **the most expensive sentence in any exam hall is "*mujhe toh yeh aata hai.*"** If a question takes more than 3 minutes, or if a weird out-of-syllabus bio/college fact appears, skip it in 5 seconds.

4. What Not To Do: Bonus Round Has No Back Button

Finish all 130 questions before time and you unlock **12 bonus questions** (3 each from Physics, Chemistry, Maths, and LR — taking maximum marks to 426). **But once you enter the bonus section, you cannot go back and edit your original 130 questions.** Do not blindly guess 20 questions at 108 attempts just to unlock bonus — you will lose 15 marks in negatives. Only go for the bonus round if you have reached **118+ genuine attempts on your own with 12–15 minutes left**, and guess only when your mock accuracy on 2-option elimination is above 75%.

Preparation Checklist (Follow Before Every Mock Test)

1. Quick revision from old notes / Formula Cards in max 25–30 min (oral revision of methods — lectures are not a Netflix show!).

2. Cover Removed Topics & Must-Do Topic Tests under timed pressure — do not wait for 100% syllabus completion to start testing.

3. Revise Mistakes in the "My Mistakes" section before attempting your next test — we retain for a long time through questions, not theory.

4. Don't focus on your score for the first 3 Full Tests — sit for the full 3 hours whatever happens; your real potential score starts coming from the 4th test!