Mathematics

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|  | Fundametals of Mathematics |  |
| Sequence and series |  |
| Quadratic expressions and equations |  |
|  | Trigonometric functions and equations |  |
| Straight line |  |
| SOT |  |
|  | Circles |  |
| Complex Numbers |  |
|  | Permutations and combinations |  |
| Binomial theorem |  |
| Statistics |  |
|  | Parabola |  |
| Ellipse |  |
| Hyperbola |  |
|  | Functions |  |
| Inverse trigonometric functions |  |
|  | Limits and continuity |  |
| Differentiability and method of differentiation |  |
|  | Applications of deravatives |  |
| Matrices |  |
| Determinants |  |
|  | Integration (Indefinate and definate) |  |
| Applications of integration  (Area under curve & diff equation |  |
|  | Vectors |  |
| 3D-Coordinate geometry |  |
| Probability |  |

Chemistry

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| --- | --- |
|  | Some basic concept of Chemistry |
| Atomic structure |
|  | Periodic table |
| Chemical bonding |
|  | Redox & equivalent Concept |
| Gaseous state |
|  | Thermodynamics and thermochemistry |
| Equilibrium |
| Chemical kinetics |
| s-Block |
| p-Block (13 & 14 groups) |
|  | Hydrogen |
| IUPAC nomenclature |
| General organic chemistry |
| Isomerism |
| Aromatic compound |
|  | Stereoisomerism |
| Hydrocarbon |
| Alkul Halide & Aryl Halides & GR |
|  | Alcohol, Ether and Phenol |
| Aldehyde & Ketone |
| Carboxylic acid & its deravatives |
| Amines |
|  | Biomolecule, polymer & POC |
| Chemical kinetics |
| Electrochemistry |
|  | Liquid solution |
| p-Block (Group 15 & 18) |
| Transition elements |
|  | Qualitative analysis |
| Solid state |
| Surface chemistry |
| Metallurgy |
| Chemistry in everyday life |
| Environmental chemistry |

Physics

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|  | Mathematical tools |
| Rectilinear motion |
| Projectile motion |
| Relative motion |
|  | Newton’s laws of motion |
| Friction |
| Work, power and energy |
| Circular motion |
|  | Center of mass |
| Rigid body dynamics |
|  | Fluid mechanics |
| Properties of matter |
| Simple harmonic motion |
|  | String and sound waves |
| KTG and Thermodynamics |
|  | Electrostatics |
| Gravitation |
| Capacitance |
|  | Current electricity |
| Heat transfer |
| Thermal expansion and calorimetry |
| Magnetic effects of Current |
| Magnetism and terristrial magnetism |
|  | Electromagnetic induction |
| Alternating current |
|  | Ray optics and optical instruments |
| Wave optics |
| Electromagnetic waves |
|  | Atomic physics |
| Nuclear physics |
| Unit dimension and error analysis and experiments |
| Semiconductor and logic gates and combinational |