



Sleepy Classes IAS
Awakening Toppers

GENERAL STUDIES

**SELF STUDY PLANNER &
PROGRESS TRACKER**

SCIENCE & TECH



AIR-06
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Science & Technology

Sr. No.	TOPICS	SUB-TOPICS	TASK STATUS
DAY 1	Chemistry	Elements and Molecules	<input type="checkbox"/>
		States of Matters	<input type="checkbox"/>
		Atomic structure	<input type="checkbox"/>
		Chemical bonding	<input type="checkbox"/>
		Metals and non-metals	<input type="checkbox"/>
		Metallurgy	<input type="checkbox"/>
		Acid and base	<input type="checkbox"/>
		Applications of electro-chemistry	<input type="checkbox"/>
		(Battery and Charging devices)	<input type="checkbox"/>
		Properties of solution	<input type="checkbox"/>
		Chemicals in everyday life	<input type="checkbox"/>
		Polymers and Biopolymers	<input type="checkbox"/>
		Chemistry of Pharmaceuticals	<input type="checkbox"/>
		Carbon and its allotropes	<input type="checkbox"/>
		Hydrocarbons and their derivatives	<input type="checkbox"/>
		Biomolecules	<input type="checkbox"/>
Vitamins and Enzymes	<input type="checkbox"/>		

DAY 2	Physics	Properties of fundamental particles	<input type="checkbox"/>
		Fundamental forces	<input type="checkbox"/>
		Energy and its various types	<input type="checkbox"/>
		Optics	<input type="checkbox"/>
		Electromagnetic spectrum	<input type="checkbox"/>
		Laws and theories in physics, Relativity	<input type="checkbox"/>
		Electromagnetism	<input type="checkbox"/>
		Heat and thermodynamics	<input type="checkbox"/>
		Waves	<input type="checkbox"/>
		Mechanical	<input type="checkbox"/>
		Electromagnetic waves	<input type="checkbox"/>
		Universe	<input type="checkbox"/>
		Planets, stars, and galaxies	<input type="checkbox"/>
		Big-bang theory and singularity	<input type="checkbox"/>
		Dark matter and energy	<input type="checkbox"/>
		Black holes	<input type="checkbox"/>
		Neutrino Observatory	<input type="checkbox"/>
		Gravitational Waves	<input type="checkbox"/>
Sunspot	<input type="checkbox"/>		

		Magnetars and Neutron stars	<input type="checkbox"/>
		Sub-atomic particles	<input type="checkbox"/>
DAY 3	Biology	Chemical Building Blocks of Life	<input type="checkbox"/>
		History of Origin of Life	<input type="checkbox"/>
		Diversity of Living Things	<input type="checkbox"/>
		Classification and Domains of Life	<input type="checkbox"/>
		Viruses	<input type="checkbox"/>
		Prokaryotes	<input type="checkbox"/>
		of Life	<input type="checkbox"/>
		Eukaryotes	<input type="checkbox"/>
		Things	<input type="checkbox"/>
		Protists	<input type="checkbox"/>
		Plants	<input type="checkbox"/>
		Fungi	<input type="checkbox"/>
		Animals	<input type="checkbox"/>
DAY 4	Evolution	Evolution of Life	<input type="checkbox"/>
		Human Evolution	<input type="checkbox"/>
		Inheritance	<input type="checkbox"/>
		DNA and RNA	<input type="checkbox"/>

	Genetics	Gene Expression	<input type="checkbox"/>
		Gene Regulation	<input type="checkbox"/>
		Mutation	<input type="checkbox"/>
DAY 5	Cells	Cell Structure	<input type="checkbox"/>
		Membranes	<input type="checkbox"/>
		Cell-Cell Interactions	<input type="checkbox"/>
		Respiration	<input type="checkbox"/>
		Energy and Metabolism	<input type="checkbox"/>
		Cells Division	<input type="checkbox"/>
		Tissues	<input type="checkbox"/>
		Epithelial tissue	<input type="checkbox"/>
		Connective tissue	<input type="checkbox"/>
		Muscle tissue	<input type="checkbox"/>
		Nervous	<input type="checkbox"/>
		Myocardial	<input type="checkbox"/>
		Hepatic	<input type="checkbox"/>
Respiratory system	<input type="checkbox"/>		
Circulatory system	<input type="checkbox"/>		

DAY 6	Organ system and Human physiology	Skeletal and Muscular Systems	<input type="checkbox"/>
		Reproduction	<input type="checkbox"/>
		Excretion, Osmoregulation and Thermoregulation	<input type="checkbox"/>
		The Digestive System	<input type="checkbox"/>
		Immune system	<input type="checkbox"/>
	Nutrition	Classification by Source of Energy and Carbon	<input type="checkbox"/>
		Plant Nutrition	<input type="checkbox"/>
		Animal Nutrition	<input type="checkbox"/>
		Human Diet	<input type="checkbox"/>
	DAY 7	Plant physiology	Photosynthesis
Respiration			<input type="checkbox"/>
Plant-water balance			<input type="checkbox"/>
Reproduction			<input type="checkbox"/>
Economic Zoology		Microbes in Human Welfare	<input type="checkbox"/>
		Beneficial animals	<input type="checkbox"/>
		Beneficial insects	<input type="checkbox"/>
Economic botany		Family of angiosperms	<input type="checkbox"/>
		Tissue culture	<input type="checkbox"/>
		Grafting	<input type="checkbox"/>

		Horticulture	<input type="checkbox"/>
DAY 8	Imaging techniques	CT scan	<input type="checkbox"/>
		Magnetic resonance imaging	<input type="checkbox"/>
		Positron emission tomography (PET)	<input type="checkbox"/>
	Biological fuel generation	Generation and significance of fossils fuels	<input type="checkbox"/>
		Biofuels from biomass	<input type="checkbox"/>
		Biodiesel	<input type="checkbox"/>
		Natural gas and petroleum	<input type="checkbox"/>
		Hydrogen	<input type="checkbox"/>
	DAY 9	Biotechnology	Genetic Engineering, Process, and Application
Genomics			<input type="checkbox"/>
Proteomics			<input type="checkbox"/>
RNA Types & Technology			<input type="checkbox"/>
Genome sequencing and Its Applications			<input type="checkbox"/>
Application of biotechnology in Environment		Bio composting	<input type="checkbox"/>
		Bioremediation	<input type="checkbox"/>
		Microbial remediation	<input type="checkbox"/>
		Carbon capture Technology	<input type="checkbox"/>
		Transgenic plants	<input type="checkbox"/>

DAY 10	Plant biotechnology	Methods and application of Plant biotechnology	<input type="checkbox"/>
		Animal biotechnology	<input type="checkbox"/>
		Transgenic animals	<input type="checkbox"/>
		Methods and application of Animal biotechnology	<input type="checkbox"/>
	Application of Biotechnology in Food and beverage industry	Bioprocessing	<input type="checkbox"/>
		Bioreactors	<input type="checkbox"/>
		Manipulation of Enzymes	<input type="checkbox"/>
		Food processing	<input type="checkbox"/>
		Single cell protein	<input type="checkbox"/>
		Food fortification	<input type="checkbox"/>
	Application of Biotechnology in Agriculture	GM technology	<input type="checkbox"/>
		GM crops	<input type="checkbox"/>
		Pest Resistant Plants	<input type="checkbox"/>
		Gene Editing	<input type="checkbox"/>
		Gene therapy	<input type="checkbox"/>
		Molecular Diagnosis	<input type="checkbox"/>
		PCR	<input type="checkbox"/>
		ELISA	<input type="checkbox"/>
		Antibody–Antigen interactions and	<input type="checkbox"/>

DAY 11	Biotechnology and medicine	detections	<input type="checkbox"/>
		Embryo transfer technology	<input type="checkbox"/>
		Stem cells and their engineering	<input type="checkbox"/>
		Biopharmaceuticals/therapeutic	<input type="checkbox"/>
		proteins	<input type="checkbox"/>
		Brain fingerprinting technology	<input type="checkbox"/>
		Bioethics and Biopiracy	<input type="checkbox"/>
		Biosafety protocols	<input type="checkbox"/>
		IPR in Biotechnology	<input type="checkbox"/>
		Recent trends in biotechnology and applied biotechnology	<input type="checkbox"/>
			<input type="checkbox"/>
HUMAN HEALTH & DISEASES			
DAY 12	Human Diseases	Common diseases in human and their causative agents	<input type="checkbox"/>
		Diseases due to nutrient deficiency	<input type="checkbox"/>
		Molecular biology and human disease	<input type="checkbox"/>
		Chromosomal inheritance and disease	<input type="checkbox"/>
		Extra chromosomal inheritance and disease	<input type="checkbox"/>
		Vector borne diseases	<input type="checkbox"/>
		Water borne diseases	<input type="checkbox"/>

		Lifestyle diseases	<input type="checkbox"/>
		Immunity and its types	<input type="checkbox"/>
		Vaccination and Immunisation	<input type="checkbox"/>
		Vaccination program of India	<input type="checkbox"/>
DAY 13	Medicines	Antibiotics	<input type="checkbox"/>
		Antiviral and antifungal drugs	<input type="checkbox"/>
		Monoclonal antibodies therapy	<input type="checkbox"/>
		Antimicrobial drug resistance	<input type="checkbox"/>
		Drug formulations	<input type="checkbox"/>
		Drug pricing in India	<input type="checkbox"/>
		Pharmacogenetics	<input type="checkbox"/>
DAY 14	DEFENCE TECHNOLOGY	Cyber warfare, and preparedness	<input type="checkbox"/>
		Drone technology	<input type="checkbox"/>
		Unmanned Aerial Vehicle	<input type="checkbox"/>
		Stealth technology	<input type="checkbox"/>
		Advanced Defence Equipment	<input type="checkbox"/>
		Air Defence system	<input type="checkbox"/>
		3-D printing missiles	<input type="checkbox"/>
		Lethal Autonomous Weapons	<input type="checkbox"/>

		Hypersonic technology	<input type="checkbox"/>
		Hypersonic glide vehicles	<input type="checkbox"/>
		Hypersonic cruise missiles	<input type="checkbox"/>
DAY 15	Weapon System	Classical weapons	<input type="checkbox"/>
		Weapon of mass destruction	<input type="checkbox"/>
		Fission and fusion bombs	<input type="checkbox"/>
		Chemical Weapons	<input type="checkbox"/>
		Biological Weapons	<input type="checkbox"/>
		Directed Energy Weapons	<input type="checkbox"/>
	Defence Reforms	CDS	<input type="checkbox"/>
		Various committees and recommendations	<input type="checkbox"/>
		Domains of Warfare	<input type="checkbox"/>
	Defence Platforms	Submarine	<input type="checkbox"/>
		Aircraft carrier	<input type="checkbox"/>
		Combat aircraft	<input type="checkbox"/>
		Defence Organizations and laboratories	<input type="checkbox"/>
		Defence Exercises	<input type="checkbox"/>
		Types of nuclear reactions	<input type="checkbox"/>
		Nuclear Energy and its application	<input type="checkbox"/>

DAY 16

NUCLEAR ENERGY

Civil and military applications of Nuclear Energy	<input type="checkbox"/>
Nuclear Fuels and Centrifugation	<input type="checkbox"/>
Nuclear Reactor	<input type="checkbox"/>
Nuclear Policy of India	<input type="checkbox"/>
Nuclear Radiation and Its impact	<input type="checkbox"/>
Radioactive Waste	<input type="checkbox"/>
Nuclear & Radiological Disasters	<input type="checkbox"/>
Institutions involved in Nuclear Energy Development	<input type="checkbox"/>
Department of Atomic Energy	<input type="checkbox"/>
Atomic Energy Regulatory Board	<input type="checkbox"/>
Bhabha Atomic Research Centre	<input type="checkbox"/>
Indira Gandhi Centre for Atomic Research	<input type="checkbox"/>
Generation of computers	<input type="checkbox"/>
Computer terminologies	<input type="checkbox"/>
Supercomputer and its applications	<input type="checkbox"/>
Cloud computing	<input type="checkbox"/>
Components of IT	<input type="checkbox"/>
IT enabled services	<input type="checkbox"/>
Application of IT	<input type="checkbox"/>

DAY 17

ELECTRONICS &
TELECOMMUNICATIONS

Cathode ray	<input type="checkbox"/>
LCD	<input type="checkbox"/>
LED	<input type="checkbox"/>
Plasma Monitors	<input type="checkbox"/>
OLED	<input type="checkbox"/>
AMOLED	<input type="checkbox"/>
Mobile Generations	<input type="checkbox"/>
Smartphone	<input type="checkbox"/>
Net Neutrality	<input type="checkbox"/>
Internet of Things	<input type="checkbox"/>
Big Data Initiative and Privacy	<input type="checkbox"/>
Cyber-crime and Security	<input type="checkbox"/>
Government Initiatives	<input type="checkbox"/>
Basics of Nano Science and Nano Technology	<input type="checkbox"/>
Nanomaterial	<input type="checkbox"/>
Applications of Nano Technology	<input type="checkbox"/>
Nano medicine	<input type="checkbox"/>
Semiconductors and computing	<input type="checkbox"/>
Food	<input type="checkbox"/>

DAY 18	NANO SCIENCE & NANO TECHNOLOGIES	Textiles	<input type="checkbox"/>
		Sustainable energy	<input type="checkbox"/>
		Environment	<input type="checkbox"/>
		Transport	<input type="checkbox"/>
		Space	<input type="checkbox"/>
		Agriculture	<input type="checkbox"/>
		Impacts of Nano Technology	<input type="checkbox"/>
		Adverse Health and Environmental	<input type="checkbox"/>
		Social and Ethical Impacts	<input type="checkbox"/>
		Nano Science & Nano technology in India	<input type="checkbox"/>
DAY 19	ROBOTICS & AI	Robotics	<input type="checkbox"/>
		Machine vs Computer vs Robots	<input type="checkbox"/>
		Parts of a Robot	<input type="checkbox"/>
		Classification of Robots	<input type="checkbox"/>
		Advantages and Disadvantages of Robot	<input type="checkbox"/>
		Applications of Robotics in Agriculture, industry, defence, etc.	<input type="checkbox"/>
		AI	<input type="checkbox"/>
		Neural networks	<input type="checkbox"/>
		Machine Learning and Deep learning	<input type="checkbox"/>

DAY 20		Application of AI	<input type="checkbox"/>
		Artificial Intelligence and Robotics	<input type="checkbox"/>
	IPR	IPR	<input type="checkbox"/>
		International Agreements and Institution on IPR	<input type="checkbox"/>
		IPR Regime in India	<input type="checkbox"/>
		National Intellectual Property Rights Policy	<input type="checkbox"/>
	INSTITUTIONS & POLICY	Institutions & Policy	<input type="checkbox"/>
		India's policy in the field of the science and technology	<input type="checkbox"/>
		Various policies for S&T	<input type="checkbox"/>
		Institutional structure	<input type="checkbox"/>
		Department of Science & Technology	<input type="checkbox"/>
		CSIR	<input type="checkbox"/>
		Science and Engineering Research Board	<input type="checkbox"/>
		Technology Development Board	<input type="checkbox"/>
		National Accreditation Board For Testing And Calibration Laboratories	<input type="checkbox"/>
Science and technology as a source of Human Resource Development		<input type="checkbox"/>	
Awards related to Science		<input type="checkbox"/>	
India and global collaboration in science projects	<input type="checkbox"/>		
Technology Vision Document 2035	<input type="checkbox"/>		

CONTEMPORARY ISSUES

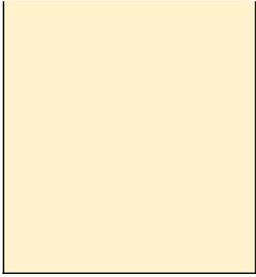
DAY 21	SPACE	Modified Newtonian Dynamics (MOND)	<input type="checkbox"/>
		PRATUSH - India's Moon based Telescope	<input type="checkbox"/>
		Soft Landing on Moon	<input type="checkbox"/>
		India's First Indigenous Space Mission	<input type="checkbox"/>
		NISAR Mission	<input type="checkbox"/>
		Another eye in sky, on ground: India is now part of world's largest radio telescope project	<input type="checkbox"/>
		ISRO to launch XPoSat and 10 other payloads	<input type="checkbox"/>
		Japan' Slim lander on Moon	<input type="checkbox"/>
		Indian researchers detect X-Ray Polarization in Extragalactic black hole	<input type="checkbox"/>
		Aditya L1 Mission	<input type="checkbox"/>
		Applications of NavIC	<input type="checkbox"/>
DAY 22	SPACE	Chandrayaan-3: Mission to Moon	<input type="checkbox"/>
		Peace & security in outer space	<input type="checkbox"/>
		Indian Space Policy - 2023	<input type="checkbox"/>
		EOS-06 satellite: Application and Technological Edge	<input type="checkbox"/>
		ISRO launches new rocket SSLV-D2	<input type="checkbox"/>
		NASA's Artemis mission	<input type="checkbox"/>
		The search for Dark Matter- LUXZEPLIN (LZ)	<input type="checkbox"/>

		International Liquid-Mirror Telescope Cassie	<input type="checkbox"/>
		POEM-3 Mission and Space Debris	<input type="checkbox"/>
		LIGO Project	<input type="checkbox"/>
DAY 23	IT, TELECOM & ELECTRONICS	The Dark Web	<input type="checkbox"/>
		Europe's AI Convention	<input type="checkbox"/>
		US-UK Partnership on AI	<input type="checkbox"/>
		Cyber Slavery	<input type="checkbox"/>
		Digital Divide And India	<input type="checkbox"/>
		World's first AI Law	<input type="checkbox"/>
		End-to-End Encryption	<input type="checkbox"/>
		Threats to Net neutrality in India	<input type="checkbox"/>
DAY 24		IndiaAI 2023	<input type="checkbox"/>
		Personalised Adaptive Learning (PAL) with AI	<input type="checkbox"/>
		Dark Pattrens	<input type="checkbox"/>
		Gaps in AePS abused by cybercriminals	<input type="checkbox"/>
		Generative artificial intelligence (GAI)	<input type="checkbox"/>
		"Organoid Intelligence" - Revolutionary Biocomputers	<input type="checkbox"/>
		Bluebugging and hacking Bluetoothenabled devices	<input type="checkbox"/>
		5G Technology launched in its full pace in India	<input type="checkbox"/>

		Facial Recognition Technology	<input type="checkbox"/>
		Deepfakes: Challenges and Mitigation	<input type="checkbox"/>
DAY 25	DEFENCE	China's Offensive Air Capabilities along LAC	<input type="checkbox"/>
		LVM3 Commercialisation	<input type="checkbox"/>
		Development of Electric Propulsion System For Indian Warships	<input type="checkbox"/>
		Kavach system	<input type="checkbox"/>
		Exercise TARKASH: Chemical and biological warfare	<input type="checkbox"/>
		Interpol launches Metaverse for global law enforcement	<input type="checkbox"/>
		NANO-SCIENCE & NANOTECHNOLOGY	<input type="checkbox"/>
		National Quantum Mission (NQM)	<input type="checkbox"/>
		Nanoparticle and Cancer treatment	<input type="checkbox"/>
		Room temperature superconductivity	<input type="checkbox"/>
		Quantum Computing: New era computers	<input type="checkbox"/>
		Graphene: Application and Properties	<input type="checkbox"/>
		Nano Urea	<input type="checkbox"/>
		Brainware	<input type="checkbox"/>
		Carbon Nanoflorets	<input type="checkbox"/>
			ROBOTICS
HAL to provide MRO for MQ-9B drone engines in India	<input type="checkbox"/>		

DAY 26		New Autonomous Flying Wing Technology Demonstrator	<input type="checkbox"/>
	NUCLEAR ENERGY	Role of Nuclear Technology in Global Food Safety	<input type="checkbox"/>
		50 years of Pokhran-I	<input type="checkbox"/>
		India's beaches and a nuclear-powered future	<input type="checkbox"/>
		Nuclear Power and Waste Management: Issues and Challenges	<input type="checkbox"/>
		Radiocarbon dating	<input type="checkbox"/>
		Breakthrough in nuclear fusion energy	<input type="checkbox"/>
		MIRV Technology: Application and Challenges	<input type="checkbox"/>
DAY 27	BIOTECHNOLOGY	The evolution of Neuroscience	<input type="checkbox"/>
		10,000 genome' project completed	<input type="checkbox"/>
		Navigating the Ethical Frontiers of CRISPR	<input type="checkbox"/>
		The untapped potential of stem cells	<input type="checkbox"/>
		mRNA, the Next Frontier for Personalized Medicine	<input type="checkbox"/>
		The future of healthcare is in our genes	<input type="checkbox"/>
		Population-level genome sequencing: Benefits	<input type="checkbox"/>
		India fight against cancer and Cancer care	<input type="checkbox"/>
		NICED and detection of drug-resistant H. pylori possible	<input type="checkbox"/>
		Pink Bollworm Threat for Bt Cotton	<input type="checkbox"/>
		Metagenome Sequencing	<input type="checkbox"/>

		Understanding a Human Pan-genome Map	<input type="checkbox"/>
		Mitochondrial Donation Treatment (MDT) and Inherited Diseases	<input type="checkbox"/>
		The Auto-Immune Inflammation of Blood Vessels: Vasculitis	<input type="checkbox"/>
		Side-Effects of Covid-19 Vaccine	<input type="checkbox"/>
		CAR T-Cell Therapy	<input type="checkbox"/>
		Gene Therapy for Hemophilia A	<input type="checkbox"/>
		Global Trans Fat Elimination: WHO Report	<input type="checkbox"/>
DAY 28	RENEWABLE ENERGY	Flex-fuel prototype	<input type="checkbox"/>
		Hydrogen Fuel Cell	<input type="checkbox"/>
		Electric Batteries and Electrochemical Cells	<input type="checkbox"/>
		Green Hydrogen - Substitute to Fossil Fuel	<input type="checkbox"/>
DAY 29	ACHIEVEMENTS OF INDIANS IN SCIENCE & TECHNOLOGY	Chemistry Nobel 2023	<input type="checkbox"/>
		Nobel Prize in Medicine 2023	<input type="checkbox"/>
		Nobel Prize in Physics 2023	<input type="checkbox"/>
		Shrinivas R Kulkarni Awarded Shaw Prize	<input type="checkbox"/>
		Blavatnik Awards in UK:	<input type="checkbox"/>
		Rahul R Nair - Physical Sciences & Engineering for developing novel membranes based on twodimensional (2D) materials	<input type="checkbox"/>
		Mehul Malik - Techniques that harness high-dimensional entanglement, a complex quantum physics phenomenon	<input type="checkbox"/>



Tanmay Bharat - Developing cutting-edge techniques in electron cryotomography (cryo-ET) to create atomic-level pictures of cell-surface molecules produced by microscopic bacteria and archaea.	<input type="checkbox"/>
Subra Suresh - National Medal of Science	<input type="checkbox"/>