

CLASS NOTES OF 1ST MAY

VOCABULARY

1. **Exacerbating** – Making a situation worse or more intense.
2. **Dwindling** – Gradually decreasing in size, number, or strength.
3. **Rigorous** – Extremely thorough, strict, or accurate.
4. **Retribution** – Punishment inflicted as revenge for a wrong.
5. **Sagacious** – Having or showing good judgment; wise.
6. **Cataclysmic** – Involving a large-scale and violent disaster.
7. **Envisage** – To imagine or expect something in the future.
8. **Unpalatable** – Not pleasant to taste or mind; disagreeable.
9. **Serendipity** – The occurrence of happy or beneficial chance events.

10. **Repercussions** – Unintended consequences, often negative, of an action.

ARTICLE FOR READING

Leaky pipeline: on India and permanent scientific staff

A recent report analysing public funded research and development institutions in India had some pointers that should raise an alarm. In several of the 244 institutions studied, there was a decrease in the number of permanent, scientific staff in 2022-23 compared to the previous year. There were also fewer organisations in 2022-23 compared to the previous year that reported hiring permanent staff. The institutes together had 19,625 contractual staff and 12,042 permanent staff in 2022-23. Not surprisingly, the slowdown in hiring was made up by hiring scientific research personnel on short-term contracts. These contractual staff were a 14% rise over 2021-22. The very fact that contractual workers exceed permanent staff in scientific institutions is a matter of concern. This data emerges from a study commissioned by the Office of the Principal Scientific Adviser and the institutions studied, do not include the 'strategic sectors', such as defence, atomic energy and space which consume the lion's share of India's research and development expenditure. As a report of the Parliamentary Standing Committee on Science, Technology and Environment tabled in Parliament last month observed, nearly three in five of the posts sanctioned for scientific personnel at one of India's top institutes for basic science research, the Tata Institute of Fundamental Research (TIFR), are unfilled. The TIFR is primarily funded by the Department of Atomic Energy. Further, the parliamentary report found that, on average, one in four of sanctioned posts at the key atomic energy research institutions and nuclear power plants was vacant. Clearly the rot runs deep. On the one hand, the government has announced missions to develop quantum computers and develop foundational

artificial intelligence models. It has also declared its intent to align research and development towards industry-specific research. However none of this will bear fruit without scientists, particularly young researchers who are engaged full-time, having long careers at institutions doing cutting-edge research. The government had once set up institutions such as the Indian Institutes of Science Education and Research (IISER) and introduced four-year undergraduate programmes in basic science, precisely because the incentives then were not strong enough to retain potential scientists. India needs to ensure that the conditions for research, such as respectable salaries, funds and equipment to do good research, are made available more widely.

ARTICLE FOR SKIMMING

Expanding tree cover is crucial

As climate change accelerates, tree plantation and carbon sequestration are essential for environmental sustainability. For India, a rapidly growing economy reliant on carbon-intensive industries, expanding tree cover is crucial for mitigating climate change while supporting industrial growth and rural livelihoods. India's forest and tree cover is 25.17%, significantly below the 33% target set by the National Forest Policy of 1988. This shortfall has serious implications, as deforestation, rapid urbanisation, and industrial emissions continue to degrade ecosystems. Tree plantations act as natural carbon sinks, absorbing and storing atmospheric carbon dioxide (CO₂). However, in India, this sequestration potential needs to be enhanced through large-scale afforestation programmes. Beyond reducing greenhouse gas emissions, increased tree cover improves soil health, recharges groundwater, retains water, reduces soil erosion, and enhances resilience against extreme weather events. Recognising this, India has introduced several policies and initiatives to accelerate afforestation efforts. The National Agroforestry Policy (2014) and the Trees Outside Forests in India Program encourage private landowners, farmers, and industries to participate in large-scale tree planting. They aim to reduce dependence on natural forests for timber and fuelwood, restore degraded ecosystems, and provide additional income sources for rural communities. The Green India Mission, part of the National Action Plan on Climate Change, has been instrumental in reviving degraded forests and promoting sustainable forest management. According to government data, GIM has helped increase forest cover by 0.56% between 2017 and

2021. Corporate social responsibility initiatives have also contributed to large-scale tree plantation drives. Companies in sectors such as automobile manufacturing, cement, and energy have undertaken afforestation projects to offset emissions. Many corporations are also integrating afforestation efforts into their carbon credit strategies, allowing them to claim emission reductions while restoring ecosystems. Indian industries face growing pressure to reduce their carbon footprint due to stringent international regulations. The European Union's Carbon Border Adjustment Mechanism, set to be enforced in 2026, will impose tariffs on carbon-intensive imports such as steel, cement, and aluminium. As trade between India and the EU reached €124 billion in 2023, these tariffs could greatly impact Indian exporters. To remain competitive in global markets, industries are increasingly investing in carbon-offset projects, including large-scale tree plantations. Such investments help companies align with global sustainability standards, earn carbon credits under frameworks such as the Verified Carbon Standard and Clean Development Mechanism, and offset emissions in a cost-effective manner instead of purchasing expensive international carbon credits. Sustainability is no longer about regulatory compliance — it has become a strategic advantage.

DESCRIPTIVE WRITING

Poverty remains one of the most pressing socio-economic challenges in India, affecting millions of people despite significant economic progress. It refers to a condition where individuals lack the necessary resources to meet their basic needs, including food, shelter, healthcare, and education. India, with its large and diverse population, faces a complex mix of rural and urban poverty, influenced by factors such as unemployment, inadequate access to education, and socio-economic inequalities. The causes of poverty in India are multifaceted. Rapid population growth, limited job opportunities, and lack of proper education hinder economic mobility. The rural population, primarily dependent on agriculture, suffers from low productivity, lack of modern technology, and climate-related uncertainties, which exacerbate poverty levels. In urban areas, unorganized labor, underemployment, and rising living costs contribute to economic hardships. Historical factors such as colonial exploitation, social inequalities, and caste-based discrimination have also played a role in perpetuating poverty. The Indian government has implemented several poverty alleviation programs, such as the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), which provides wage employment, and the Public Distribution System (PDS), which ensures subsidized food for the poor. Initiatives like Pradhan Mantri Jan Dhan Yojana (PMJDY) and Aatmanirbhar Bharat aim to promote financial inclusion and self-reliance. Furthermore, skill development programs and rural development schemes have been introduced to enhance employment opportunities. While these measures have led to a decline in poverty rates, challenges persist, including corruption, inefficient policy implementation, and income disparity. The COVID-19 pandemic further exposed vulnerabilities, pushing millions back into poverty. A comprehensive approach focusing on education, healthcare, employment generation, and social welfare is necessary for sustainable poverty reduction.

Ensuring inclusive growth, technological advancements in agriculture and industry, and equitable wealth distribution can help India overcome poverty and achieve long-term economic stability.

Precis Writing:

Poverty in India remains a major challenge, affecting millions due to unemployment, lack of education, and economic disparities. Rural poverty is driven by low agricultural productivity, while urban poverty results from underemployment and high living costs. Historical factors have further deepened economic inequality.

The government has launched various programs like MGNREGA, PDS, and PMJDY to provide employment, subsidized food, and financial inclusion. While these efforts have reduced poverty, challenges such as policy inefficiencies and economic disparity persist. A comprehensive strategy focusing on education, employment, and inclusive growth is crucial to achieving sustainable poverty eradication.

- **You are an HR executive who needs to schedule an interview with a shortlisted candidate. Write an email inviting them to attend.**

To:@gmail.com

Subject: Interview Invitation for [Job Title] Position at [Company Name]

Dear [Candidate's Name],

I hope this message finds you well. Thank you for your application for the position of [Job Title] at [Company Name]. We are pleased to inform you that you have been shortlisted for the next stage of the selection process. We would like to invite you for an interview to discuss your qualifications and the opportunity in more detail.

Below are the details of the interview: Date: [Insert Date] Time: [Insert Time] Mode: [In-person / Online – if online, include platform and meeting link] Location: [Insert Address if in-person] Duration: Approximately [X] minutes Please confirm your availability for the above schedule at your earliest convenience. If you are unavailable at the proposed time, do let us know, and we will do our best to accommodate an alternative slot.

We look forward to speaking with you and learning more about how you can contribute to our team.

Best regards,
[Your Full Name]

PERFECTION VOCAB

- **Eligible** – Qualified or allowed to do or receive something.
- **Guidelines** – Official instructions or rules.
- **Streamlines** – Makes a process simpler and more efficient.
- **Contentious** – Causing or likely to cause disagreement or argument.
- **Emphasized** – Gave special importance or prominence to something.
- **Advantage** – A condition that puts someone in a favorable position.
- **Disadvantage** – A condition that reduces chances of success or effectiveness.
- **Additives** – Substances added to food to preserve flavor or enhance taste/appearance.
- **Transparency** – Openness, honesty, and clarity in information or actions.
- **Neurological** – Related to the nervous system and brain.

- **Safeguarding** – Protecting from harm or danger.
- **Synthetic** – Made by chemical synthesis, especially to imitate a natural product.
- **Petroleum-based** – Made from substances derived from crude oil.
- **Contaminants** – Substances that make something impure or harmful.
- **Feasibility** – The possibility of something being accomplished or carried out.
- **Cultivating** – Growing or raising something, usually crops or food.
- **Infrastructure** – Basic systems and services necessary for a country or organization.
- **Low gravity** – A condition where gravitational force is weaker than on Earth.
- **Radiation** – Energy emitted from a source, especially harmful in high levels.
- **Pilot (project)** – A small-scale preliminary study conducted to evaluate feasibility.
- **Borrowing** – The act of taking and using money that must be paid back.

- **Tariffs** – Taxes on imported goods.
- **Speculation** – Forming a theory without firm evidence.
- **Imposed** – Forced or put in place (e.g., a rule or limit).
- **Chancellor** – A senior official in charge of economic and financial matters.
- **Non-negotiable** – Not open to discussion or modification.
- **Regulatory standards** – Rules governing the production or sale of goods.
- **Fermentation** – A process that uses yeast or bacteria to convert sugars into gases or alcohol.
- **Outpouring** – A strong and sudden expression of emotion or support.
- **Cultural significance** – Importance of something in the traditions and identity of a group.
- **Comply** – To act according to rules or orders.
- **Simmering** – Existing just below the surface or quietly intensifying.
- **Eruption** – A sudden explosion or outburst, especially from a volcano.

- **Crater** – A large, bowl-shaped cavity caused by an explosion or impact.
- **Hazardous** – Risky or dangerous.
- **Submarine volcanoes** – Volcanoes located beneath the ocean surface.