

GOVERNANCE**Antitrust action against Google: USA**

Recently, the US Justice Department has sued Google, accusing the company of illegally abusing its dominance in internet search in ways that harm competitors and consumers.

The lawsuit (or antitrust action against the company) comes after a report by the US House of Representatives panel that found Google and three other tech giants -- Facebook Inc, Apple Inc and Amazon.com Inc — all abused their power as gatekeepers in the digital economy to thwart competitive threats.

Key Points**US Government's Stand:**

- Google is illegally protecting its dominant position in the market for search and search advertising with the deals it has struck with companies like Apple.
- Google pays Apple billions of dollars a year to have its search engine set as the default option on iPhones and other devices.
- Challenges contracts that Google has with smartphone makers that use Google's Android operating system, requiring them to install its search engine as the default.
- All this stifles competition and innovation from smaller upstart rivals to Google and harms consumers by reducing the quality of search and limiting privacy protections and alternative search options.
- Many countries have broad laws that protect consumers and regulate how companies operate their businesses. The goal of these laws is to provide an equal playing field for similar businesses that operate in a specific industry while preventing them from gaining too much power over their competition. These are called antitrust laws.
- Investigated Google's behavior and acquisitions in the overall market for digital advertising, which includes search, web display and video ads.
- Online advertising was the source of virtually all of Alphabet's USD 34 billion in profit last year. Alphabet Inc. is Google's parent company.
- Most of Google's services are offered for free in exchange for personal information that helps it sell its ads.
- Goods that are free to consumers are not exempt from antitrust oversight.
- In the landmark Microsoft case of the late 1990s, the software giant bundled its web browser for free into its dominant Windows operating system.
- Microsoft lost because, using restrictive contracts, it bullied personal computer makers and others to try to prevent them from offering competing web browser software — competition that could have undermined the Windows monopoly.

Google's Defense:

- The deals that the Justice Department is citing are entirely legal. Such company-to-company deals violate antitrust law only if they can be shown to exclude competition.
- Users can freely switch to other search engines, like Microsoft's Bing or Yahoo Search, anytime they want. Google's search service is the runaway market leader because people prefer it.
- Further, its services have helped hold down the prices of smartphones.

Report by the US House of Representatives panel:

- Big Tech Companies like Google, Facebook, Amazon and Apple act as a "gatekeeper", i.e. can control access to information.
- Gatekeepers can also decide whether a message will be spread to a wider audience.
- These companies not only wield tremendous power, but also abuse it by charging exorbitant fees, imposing oppressive contract terms, and extracting valuable data from the people and businesses that rely on them.
- Companies ran the marketplace for their respective domains, while also competing in it and to ensure they retain the number one position, the companies have restored to "self-preferencing, predatory pricing, or exclusionary conduct".
- Self-preferencing involves actions by an undertaking which are designed to favour its own products or services over those of its competitors.
- Predatory pricing is an act of setting prices low in an attempt to eliminate the competition.

- Exclusionary conduct is a conduct that creates or maintains monopoly power by disadvantaging and harming competitors.

Significance:

- The step is a response to the policy question of what measures, if any, should be taken to curb today's tech giants, which hold the power to shape markets, communication and even public opinion.
- The US Justice Department has come up with the possibility of structurally breaking up Google, and not just imposing conditions on its behavior as has happened in Europe.
- Critics contend that multibillion-dollar fines and mandated changes in Google's practices imposed by European regulators in recent years weren't severe enough and that structural changes are needed for Google to change its conduct.

Scenario in India

- Various antitrust probes are going on against Google in India. Google has had run-ins with regulators, especially the Competition Commission of India (CCI).
- In the last two years, the CCI has raised issues with Google's commercial flight search option, its dominant position in the search marketplace, the abuse of its dominant position in the Android phone and smart television market, and others.
- In 2019, for example, CCI had held Google guilty of misuse of its dominant position in the mobile Android market and said the company had imposed "unfair conditions" on device manufacturers to prevent them from using other operating systems.
- Recently, Google has also been accused of following a high and unfair commission mechanism for apps listed on its Play Store.

Antitrust Laws

- Antitrust laws are regulations that monitor the distribution of economic power in business, making sure that healthy competition is allowed to flourish and economies can grow.
- Antitrust laws apply to nearly all industries and sectors, touching every level of business, including manufacturing, transportation, distribution, and marketing.
- These prohibit a number of business practices that restrain trade. Examples of illegal practices are price-fixing conspiracies, corporate mergers that are likely to cut back the competitive fervor of certain markets, and predatory acts designed to gain or hold on to monopoly power.
- In India, competition policy has been implemented via the Competition Act, 2002 which alongwith its amendment, establishes a Competition Commission of India to prevent anti-competitive practices, promote and sustain competition, protect the interests of the consumers and ensure freedom of trade in the markets in India.

Way Forward

- With this lawsuit, the big tech companies are likely to come under more scrutiny from regulators including the CCI in India.
- In coming years, as India plans to regulate the use of personal and non-personal data, these tech companies could face scrutiny over how they manage and use the data they collect from users in India.

SCIENCE AND TECHNOLOGY

Monoclonal Antibodies for Covid-19

Recently, the International AIDS Vaccine Initiative (IAVI) and Serum Institute of India (SII), Pune announced an agreement with Merck, a science and technology company, to develop SARS-CoV-2 neutralising monoclonal antibodies (mAbs), which will be used to address the Covid-19 pandemic.

IAVI is a non-profit scientific research organisation dedicated to addressing urgent global health challenges. It is headquartered in New York, USA.

SII is the world's largest vaccine manufacturer.

Key Points

Monoclonal Antibodies:

- Antibodies are proteins produced naturally by the immune system that target a specific foreign object (antigen). They are called monoclonal Antibodies (mAbs) when they are produced by clones derived from a single parent cell.
- They are man-made proteins that act like a human antibody in the immune system. They are made by cloning a unique white blood cell.

- mAbs have monovalent affinity, it binds only to the same epitope i.e. the part of an antigen that is recognized by the antibody.
- They are designed to perform many roles, like they can be used to carry drugs, toxins, or radioactive substances directly to affected cells.
- mAbs are used to treat many diseases, including some types of cancer.

mAbs and Covid-19:

- Neutralising monoclonal antibodies (mAbs) against SARS-CoV-2 were co-invented by IAVI and Scripps Research.
- They are widely considered to be promising candidates for Covid-19 treatment and prevention.
- Encouraging results for Covid-19 antibody treatment have emerged from preclinical research and from initial clinical trials.
- mAbs also have the potential to play an important complementary role to Covid-19 vaccines.
- It can be used both for treatment and potentially for prevention, especially for those individuals who, due to age or medical conditions, may not benefit from vaccination.

Antibody

- Antibody, also called immunoglobulin is a protective protein produced by the immune system in response to the presence of a foreign substance, called an antigen.
- A wide range of substances are regarded by the body as antigens, including disease-causing organisms and toxic materials.
- Antibodies recognize and attack onto antigens in order to remove them from the body.

Way Forward

Given that many experts speculate that Covid-19 will become an endemic disease, and given the severity of symptoms in a significant proportion of people affected, effective therapies will be necessary to treat those who remain unvaccinated or whom vaccination does not protect.

INDIAN POLITY

Punjab Assembly rejects Centre's Farm Laws

Recently, Punjab became the first State in the country to formally reject the Central government's three Farm Acts by passing three Bills to negate the Union laws.

It also rejected the proposed Electricity Amendment Bill and demanded their immediate annulment.

Key Points

Punjab State Bills: The Punjab assembly introduced three farm Bills:

- The Farmers Produce Trade and Commerce (Promotion and Facilitation) (Special Provisions and Punjab Amendment) Bill, 2020.
- It seeks to ensure that sale or purchase of wheat or paddy in Punjab is not allowed below the Minimum Support Price (MSP).
- It also seeks to provide for punishment for harassment of farmers or payment of less price to the farmers.
- The Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services (Special Provisions and Punjab Amendment Bill, 2020.
- It provides for imprisonment of not less than three years and fines for sale-purchase of wheat or paddy under a farming agreement below the MSP.
- The Essential Commodities (Special Provisions and Punjab Amendment) Bill, 2020.
- It prevents hoarding and black-marketing of agricultural produce and seeks to ensure status quo ante with regard to implementation of the Central Act namely, 'The Essential Commodities (Amendment) Act, 2020'.
- While the central law abolished any market fees or licences for private players outside the APMCs, the Punjab bills have reintroduced it.
- These fees will go towards a fund for the welfare of small and marginal farmers.
- The Assembly also introduced Code of Civil Procedure (Punjab Amendment) Bill, 2020.
- It seeks to exempt agricultural land not exceeding 2.5 acres from Section 60 of The Code of Civil Procedure, 1908, which provides for attachment of various properties - moveable and immovable in execution of decree (judgement).
- It also seeks to exempt the Properties of the farmers such as cattle, implements, cowsheds, etc from attachment.

- These exemptions are provided, given the farmers' apprehension about attachment-decree of their land as a consequence of enforcement of farming contracts.

Rationale:

- The Central laws were aimed to do away with government interference in agricultural trade by creating trading areas free of middlemen and government taxes outside the structure of Agricultural Produce Market Committees (APMCs).
- This according to farmers was giving preference for corporate interests at the cost of farmers' interests and a lack of regulation in these non-APMC mandis were a cause for concern for farmers.
- The absence of any regulation in non-APMC mandis was seen as a precursor to the withdrawal of the guarantee of MSP-based procurement.
- To annul the apprehensions of farmers, the Punjab government has changed the application of central laws to the state. It will restore the agricultural safeguards for the farmers through the regulatory framework of Punjab Agricultural Produce Markets Act, 1961.
- However, there are apprehensions that this step taken by the Punjab Government may discourage private players to buy at rates less than MSP.
- The Punjab government states that 86.2% of farmers in the state are small and marginal, with the majority owning less than two acres of land. Consequently, they have limited access to multiple markets, and lack the negotiation power needed to operate in a private market.
- The Bills also point out that agriculture, agricultural markets, and land is the primary legislative domain of the state.

Constitutional Issues

- Earlier three Farm Acts were passed by the Central government under Entry 33 of the Concurrent List. Entry 33 of the Concurrent List mentions trade and commerce, production, supply and distribution of domestic and imported products of an industry; foodstuffs, including oilseeds and oils; cattle fodder; raw cotton and jute.
- However, if foodstuffs are considered synonymous with agriculture, then all the powers of states in respect of agriculture, listed so elaborately in the Constitution, shall become redundant.
- States have no authority to overrule the legislations passed by the Centre except under Article 254(2).
- Article 254(2) enables a State government to pass a law, on any subject in the Concurrent List, that may contradict a Central law, provided it gets the President's assent.
- In 2014, the Rajasthan government took this Article 254 (2) route to make changes to the central labour laws — the Factories Act, the Industrial Disputes act, and the Contract Labour Act — which subsequently got the President's assent.
- However, the Parliament is not barred from enacting at any time any law with respect to the same matter including a law adding to, amending, varying or repealing the law so made by the Legislature of the State.
- Article 257(1) also states that the executive power of every State shall be so exercised as not to impede or prejudice the exercise of the executive power of the Centre.
- It authorises the Centre to impose President's Rule in case when the State is exercising its executive power prejudicial to Centre's executive power.
- Apart from the Governor, the Punjab government's new farm Bills need the assent of the President since they seek to amend laws passed by the central government. If not, they can at best serve as a symbolic political statement against the Centre's farm laws.

ENVIRONMENT AND DIVERSITY

Environmental Clearance to Kaleshwaram Project Invalid

Recently, the National Green Tribunal (NGT) has declared that the environmental clearance (EC) granted to the Kaleshwaram Lift Irrigation Project in Telangana was ex post facto (i.e. granted after completion of substantial work) and illegal.

Kaleshwaram Lift Irrigation Project

- It is a multi-purpose irrigation project, on the Godavari River in Kaleshwaram, Bhupalpally, Telangana initiated in 2016.
- The project starts at the confluence point of Pranahita River and Godavari River.

- Originally called Dr. B R Ambedkar Pranahita Chevella Sujala Sravanthi Project in erstwhile Andhra Pradesh, it was redesigned, extended and renamed as Kaleshwaram project in Telangana in 2014.

Key Points

Issues in the Project:

- The petition filed in 2018 stated that while the Kaleshwaram Project was a lift irrigation system, the state government wrongly claimed, until the grant of environmental clearance (EC), that the project was not for lift irrigation, but only for drinking water supply.
- Substantial work of the project had already been undertaken before granting of EC in December 2017. Thus, the EC was ex post facto, in violation of the Environmental Impact Assessment (EIA) Notification, 2006.
- The Ministry of Environment, Forest and Climate Change (MoEFCC) had published the draft Environmental Impact Assessment (EIA) notification 2020, with the intention to replace the existing EIA Notification 2006 under the Environment (Protection) Act, 1986.
- The draft notification has provisions for post facto project clearance, reiteration of a March 2017 notification for projects operating without clearance.
- The Project also underwent change by increase in capacity and inclusion of Mission Bhagiratha to provide drinking water to Hyderabad and certain villages of Telangana.
- However, the pre-feasibility report submitted in January, 2017 and draft of EIA report submitted in July, 2017 did not mention the Mission Bhagiratha which involved interlinking of the two projects.
- Feasibility of the changed project was never evaluated while granting EC.

NGT's Observation: There are two legal issues confronting the Project:

- One, Kaleshwaram Lift Irrigation Project was functioning without requisite prior environmental clearance under EIA Notification, 2006, until 2017, when the EC was granted.
- Second, project contractor L&T was alleged to have cleared large areas of forest land for construction of quarters for its employees, without requisite forest clearance under the Forest (Conservation) Act, 1980.
- The NGT directed that until the Telangana government obtains final forest clearance, it should stop all work except the drinking water component.
- It has further asked MoEFCC to consider measures to prevent recurrence of such violations where EC is sought ex post facto.
- It is particularly required when the projects are multi-purpose and part of it requires EC, so that such requirement is not defeated on specious plea that the project was partly not covered by the schedule Environmental Impact Assessment (EIA) Notification as has happened in the present case.
- It observed that accountability of the responsible person needs to be fixed and remedial measures has to be taken.
- For that purpose, it has directed the MoEFCC to constitute a seven-member expert committee.
- The expert committee could assess the extent of damage caused in going ahead with the project without EC – the period from 2008 to 2017 — and identify the necessary restoration measures.
- The expert committee must be constituted within a month and needs to complete its exercise within six months.

Mission Bhagiratha

- It is a project for safe drinking water for every village and city household in Telangana State.
- It aims to provide piped water to 2.32 crore people in 20 lakh households in urban and 60 lakhs in rural areas of Telangana.
- The project will supply clean drinking water to all households in the state through water sourced from River Godavari and River Krishna.

INTERNATIONAL AFFAIRS

Extending New START Treaty

The Russian President has proposed extending by one year the New START (Strategic Arms Reduction Treaty) between the USA and Russia expiring in February 2021.

Key Points

- The New START Treaty: It is a treaty between the United States of America and the Russian Federation on measures for the further reduction and limitation of strategic offensive arms.
- It entered into force on 5th February, 2011.
- New START has replaced the 1991 START I treaty, which expired December 2009, and superseded the 2002 Strategic Offensive Reductions Treaty (SORT), which terminated when New START entered into force.
- It is a successor to the START framework of 1991 (at the end of the Cold War) that limited both sides to 1,600 strategic delivery vehicles and 6,000 warheads.
- It continues the bipartisan process of verifiably reducing the USA and Russian strategic nuclear arsenals by limiting both sides to 700 strategic launchers and 1,550 operational warheads.
- It will lapse in February 2021 unless extended for a five-year period.
- Recent Proposal: Russia has extended the proposal along with concerns of lack of interest from the United States.
- In 2019, the United States has also suspended the Intermediate-Range Nuclear Force Treaty (INF Treaty) with Russia.
- It was a nuclear arms-control accord reached by the United States and the Soviet Union in 1987 in which the two nations agreed to eliminate their stocks of intermediate-range and shorter-range (or “medium-range”) land-based missiles (which could carry nuclear warheads).
- The United States withdrew from the Treaty on 2nd August 2019.
- USA’s Stand: The USA wanted any replacement treaty should include China and to encompass all of Russia’s nuclear weapons — not just the “strategic” weapons covered under New START but also Russia’s sizable stockpile of smaller, “tactical” nuclear weapons that fall outside the treaty.
- Russia rejected the demands, and China has refused to take part in negotiations.
- The USA has agreed to negotiate the extension.

Way Forward

Negotiators would still need to work out a verification system and agree on the detailed definition of a warhead. Failure to do so would remove the main pillar maintaining the nuclear balance between them. If the treaty is not extended or replaced, the world’s two biggest nuclear powers will return to an era without substantive restraints on their arsenals for the first time in decades. An extension would mark a rare bright spot in the fraught US-Russian relationship. The time bought by extending New START can be used for conducting comprehensive bilateral negotiations on future control over nuclear missile weapons.

IMPORTANT FACTS FOR PRELIM

INC Kavaratti

- Recently, INS Kavaratti has been formally inducted into the Indian Navy at the Naval Dockyard in Eastern Naval Command (ENC), Visakhapatnam.

Key Points

- It is named after the capital of the Lakshadweep group of islands.
- It is the last of the four indigenously built Anti-Submarine Warfare (ASW) stealth corvettes built under Project 28 (Kamorta class), by Garden Reach Shipbuilders and Engineers (GRSE), Kolkata.
- The ship is regarded as one of the most potent ASW stealth corvettes to have been constructed in India as it joins three other ships of the same class INS Kamorta, INS Kadmatt and INS Kiltan, at the ENC.
- Its induction is a game-changer in the eastern seaboard, especially with the Chinese submarines trying to increase their presence in the Indian Ocean.
- It has enhanced stealth features resulting in reduced Radar Cross Section (RCS) achieved by the superstructure along with optimally sloped surfaces.
- INS Kavaratti and INS Kiltan are the first two major warships in the country to have the unique feature of the superstructure made of carbon fibre composite material.
- It has high indigenous content with the state-of-the-art equipment and systems to fight in Nuclear, Biological and Chemical (NBC) warfare conditions.
- Some of the major equipment/ systems developed indigenously include Combat Management System, Torpedo Tube Launchers and Infra-Red Signature Suppression System, etc.

- The high level of indigenisation incorporated in the production accentuates the objectives of Atmanirbhar Bharat Initiative.
- The ship is the reincarnation of the erstwhile Arnala Class missile corvette of the same name, INS Kavaratti-P 80, a ship that played an important role in the liberation of Bangladesh in 1971.

DAILY ANSWER WRITING PRACTICE

Qns. "Artificial intelligence (AI) is important for the development of humanity in the near future." Discuss the ethical implications that arise from the development and implementation of artificial intelligence technologies.(250 words)

Ans.

Artificial Intelligence (AI) refers to systems that display intelligent behaviour by analysing their environment and taking actions – with some degree of autonomy – to achieve specific goals.

AI somehow gets closer to our skin than other technologies'. Perhaps this is because the project of AI is to create machines that have a feature central to how we humans see ourselves, namely as feeling, thinking, intelligent beings.

The main purposes of an artificial intelligent agent probably involve sensing, modelling, planning and action, but current AI applications also include perception, text analysis, natural language processing (NLP), logical reasoning, game-playing, decision support systems, data analytics, predictive analytics, as well as autonomous vehicles and other forms of robotics.

Ethical Implications in development and implementation of AI Technologies

- **Machines with Moral Status:** It is not easy for machines to comply with ethical and moral standards while developing and implementing AI technologies. Even if ethical standards are set, they worry from society to society.
- **Unemployment and inequality:** By using artificial intelligence a company can drastically cut down on relying on the human workforce, and this means that revenues will go to fewer people. Consequently, individuals who have ownership in AI-driven companies will make all the money.
- **Challenges to Humanity:** Artificially intelligent bots are becoming better and better at modelling human conversation and relationships. While humans are limited in the attention and kindness that they can expend on another person, artificial bots can channel virtually unlimited resources into building relationships.
- **When used right,** this could evolve into an opportunity to nudge society towards more beneficial behavior. However, in the wrong hands it could prove detrimental.
- **Could Be Racist and Discriminatory:** Though artificial intelligence is capable of a speed and capacity of processing that's far beyond that of humans, it cannot always be trusted to be fair and neutral.
- **We shouldn't forget that AI systems are created by humans,** who can be biased and judgemental. However, if used right, or if used by those who strive for social progress, AI can become a catalyst for positive change.
- **Privacy and Security:** The more powerful a technology becomes, the more can it be used for nefarious reasons as well as good. This applies not only to robots produced to replace human soldiers, or autonomous weapons, but to AI systems that can cause damage if used maliciously.
- **Evil Genies:** It's not just adversaries we have to worry about. What if artificial intelligence itself turned against us? This doesn't mean by turning "evil" in the way a human might, or the way AI disasters are depicted in Hollywood movies. Rather, we can imagine an advanced AI system as a "genie in a bottle" that can fulfill wishes, but with terrible unforeseen consequences.

Conclusion

- Ethics is not only important in technology (Artificial Intelligence), but it should be the foundation of any innovation. We cannot run the risk of building unethical tools.
- It is essential that we equip our people with the education, training and support they need to take on the many jobs that will be created.
- We also need to make AI responsible. Governments and businesses must work together to develop a code of ethics - tangible standards and best practices to develop and use intelligent machines.
- The ethical issues that come with AI adoption are complex. The key will be to keep these issues in mind in order to analyze the broader societal issues at play.

Whether AI is good or bad can be examined from many different angles with no one theory or framework being the best. We need to keep learning and stay informed in order to make good decisions for our future.

DAILY QUIZ

1. Consider the following statements:

1. India was the largest recipient of Foreign Direct Investment (FDI) in 2019.
2. Equity capital, Reinvested earnings and Intra-company loans are the components of FDI.

Which of the above statements is/are correct?

- a) 1 only
- b) **2 only**
- c) Both 1 and 2
- d) Neither 1 and 2

2. Consider the following statements about Taiwan:

1. Taiwan became the newest state to join the United Nations General Assembly.
2. Luzon strait separates Taiwan from mainland China.

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) **Both 1 and 2**
- d) Neither 1 nor 2

3. With reference to Nazca lines, consider the following statements:

1. These are groups of geoglyphs known for the depictions of larger-than-life animals, plants and imaginary beings.
2. This is on the leeward side of Andes mountain in Argentina.

Which of the statements given above is/are correct?

- a) **1 only**
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

4. Consider the following statements:

1. The central government has the mandate to control production, supply and distribution of agricultural products.
2. The state government has no authority to overrule the legislation passed by the Centre.
3. Agriculture forms the part of the concurrent list of the Indian Constitution.

Which of the statements given above is/are correct?

- a) **1 only**
- b) 2 only
- c) 1 and 2 only
- d) 1, 2 and 3

5. Consider the following statements:

1. New START Treaty is a treaty between the United States of America and the Russian Federation for the reduction of strategic offensive arms.
2. The United States of America withdrew from the Intermediate-Range Nuclear Forces Treaty in the year 2019.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) **Both 1 and 2**
- d) Neither 1 nor 2