



Mains Marathon
Compilation

12th to 17th December, 2022

Mains Marathon Compilation for the Month of December, (Second Week) 2022

- 1. What is end-to-end encryption? What are the applications of it and also highlight the issues associated with it.**
- 2. What are the financial roadblocks to India's dream to achieve net-zero by 2070?**
- 3. What are the issues with the population-based approach in comparison to individual-oriented interventions to public health problems?**
- 4. Grants and loans to the power distribution sector haven't worked. Why the central government should stop funding the power distribution sector?**
- 5. Wild Life (Protection) Amendment Bill, 2021 requires some changes to make it more suitable for wildlife conservation. Comment.**
- 6. Discuss the factors behind the shift of manufacturing activity and employment from bigger cities to smaller towns.**
- 7. Differentiate between fission and fusion energy. What are the challenges in sourcing energy from fusion reactions?**
- 8. The Census of India not only helps understand the perils of British rule but also flags the roadblocks lying ahead. Discuss.**
- 9. Highlight the reasons behind increasing cases of suicides among students preparing for competitive examinations. What measures can be taken to stop this menace?**
- 10. Do you think that the RTI Act is fulfilling its intended purpose?**
- 11. Critically analyze the present system of court vacations. In this regard, also highlight a few best practices in other countries.**
- 12. It is the need of the hour for the government to devise appropriate regulations to protect the openness of the internet. Comment.**

Q.1) What is end-to-end encryption? What are the applications of it and also highlight the issues associated with it.

The Hindu

Introduction: Explain end-to-end encryption.

Body: Write applications of end-to-end encryption and also highlight the issues associated with it.

Conclusion: Write a way forward.

End-to-end encryption (E2EE) is a communication process that **encrypts data being shared between two devices**. It prevents third parties like cloud service providers, internet service providers (ISPs) and cybercriminals from accessing data while it is being transferred.

The process of end-to-end encryption uses an algorithm that transforms standard text into an unreadable format. This format can only be unscrambled and **read by those with the decryption keys**, which are only stored on endpoints and not with any third parties including companies providing the service.

Applications of end-to-end encryption:

- End-to-end encryption is used to **secure communications**. Some of the popular instant-messaging apps that use it are Signal, WhatsApp, iMessage, and Google messages.
- It is also used to **secure passwords, protect stored data and safeguard data** on cloud storage.
- It is often used to **help companies comply with data privacy** and security regulations and laws. For example, an **electronic point-of-sale (POS)** system provider would include E2EE in its offering to protect sensitive information, such as customer credit card data.
- End-to-end encryption has long been used when **transferring business documents, financial details, legal proceedings, and personal conversations**.
- It can also be used to **control users' authorisation** when accessing stored data.

Issues:

- **Metadata:** it does not conceal information about the message, such as the date and time it was sent or the participants in the exchange. This metadata could give malicious actors with an interest in the encrypted information clues as to where they may be able to intercept the information once it has been unencrypted.
- **Compromised endpoints:** If either endpoint has been compromised, an attacker may be able to see a message before it is encrypted or after it is decrypted. Attackers could also retrieve keys from compromised endpoints.
- **Complexity in defining the endpoints:** Some E2EE implementations allow the encrypted data to be decrypted and re-encrypted at certain points during transmission. This makes it important to clearly define and distinguish the endpoints of the communication circuit.
- **Too much privacy:** Government and law enforcement agencies express concern that end-to-end encryption can protect **people sharing illicit content** because service providers are unable to provide law enforcement with access to the content.

It needs to be ensured that integrity of data and privacy is maintained whilst using such technology, for example recommendations of Srikrishna Committee on Data Protection can be implemented.

Q.2) What are the financial roadblocks to India's dream to achieve net-zero by 2070?

Business Standard

Introduction: Contextual introduction.

Body: Explain some financial roadblocks to India's dream to achieve net-zero by 2070.

Conclusion: Write a way forward.

In the recent **Glasgow climate summit (COP26)**, India announced new climate targets. One such ambitious target is achieving Net Zero by 2070. According to the '**Getting India to Net Zero**' report, India will require an economy-wide investment of **\$10.1 trillion** from now if it is to achieve its net-zero emissions target by 2070.

Financial roadblocks in achieving net-zero by 2070:

- India needs over **\$400 billion in capital annually** to accelerate emissions reduction, much of which is risky because it involves new technologies, and requires state support.
- India is **home to some of the world's most polluting cities** led by Delhi. Despite that, the outlay for the environment ministry is only Rs70 billion.
- India's **renewable energy companies** have raised only around \$6.8 billion in debt from offshore capital markets since January 2021. This is **less than 2%** of India's annual decarbonising costs.
- Last year, the **green bond issuance** in India was a mere \$750 million.
- Lack of **cost-competitive technology alternatives** in India.
- The government is **silent on financially supporting** any decarbonisation efforts, except an Rs.100 billion subsidy scheme for EVs.
- In 2021 India's renewable sector attracted only \$12-\$15 billion in investment. Further, **funding costs are the largest expense** for renewable projects.
- Indian **banks are reluctant** to provide funds for decarbonisation. For instance, India's biggest bank, SBI, rarely funds commercial and industrial renewable projects.
- Traditional domestic and foreign sources and debt capital markets will not be able to fund the massive investments needed for decarbonising and they have **limited access to foreign capital** on concessional terms.

Renewable projects are an easier way for corporates to reach net zero. So, emission reduction projects should be funded by banks. India should facilitate **access to low-cost, long-term and diversified capital** to facilitate decarbonising the Indian industry.

Q.3) What are the issues with the population-based approach in comparison to individual-oriented interventions to public health problems?

The Hindu

Introduction: Contextual introduction.

Body: Explain the issues with the population-based approach in comparison to individual-oriented interventions to public health problems.

Conclusion: Write a way forward.

Data from the **National Sample Survey Organisation** shows that on an average, **only 3% of the total population in India** had an episode of hospitalisation in a year. Ideally, the Government needs to ensure health-care facilities to only 3%-5% of the population to cover all the hospitalisation needs of a population. This is population-based health-care planning.

Issues:

- This was evident in an evaluation of publicly-funded **insurance schemes**, which points to the **low proportion of population** that benefited from the scheme annually. The assurance of a service remains an unfulfilled promise when more than 90% of those who were given the promise do not need hospitalisation in the near future.

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- For example, most of the deaths due to COVID-19 are a reflection of the failure to offer ventilator and ICU support services to the 1%-2% in desperate need of it.
- The morbidity profile of a population across age groups is an important criterion used to plan the curative care needs of a population. But **curative care provisioning** is never planned at an individual level as epidemiologically as every individual will not necessarily need curative care every time.
- The **dominance of biomedical knowledge** and philosophy in the field of public health with a misconception that what is done at an individual level, when done at a population level, becomes public health.
- **Health effects** are more visible and appear convincing at the individual level, wherein improvements at the population level will be clear only after population-level analysis; this needs a certain level of expertise.
- The public health experts, who take individual experiences at face value, will make the same mistake of **judging a population's characteristics based on individual experiences**.
- The **market's role and the effect of consumerism** in public health practice. The beneficiaries for a programme become the maximum when 100% of the population is targeted. On the contrary, from a population perspective, the actual beneficiaries are very less.
- Even after the entire COVID-19 crisis, not much is talked about in terms of the **grossly inadequate health-care infrastructure** to ensure the necessary primary, secondary and tertiary care services for COVID-19 patients, in turn leading to many casualties.

All forms of individualistic approaches in public health need to be resisted to safeguard its original principles of practice, *viz.* population, prevention, and social justice.

Q.4) Grants and loans to the power distribution sector haven't worked. Why the central government should stop funding the power distribution sector?

Indian Express

Introduction: Contextual introduction.

Body: Explain why the central government should stop funding the power distribution sector.

Conclusion: Write a way forward.

According to **Niti Aayog's report 2021**, most power DISCOMs in the country incur losses every year. The total loss was estimated to be **₹90,000 crores** in the financial year 2021. So, they are also unable to build the infrastructure required to facilitate the transition from fossil fuel to renewable energy sources, such as solar or wind.

There are following reasons for why the central government should stop funding the power distribution sector:

- **Lack of consumer indexing:** In a distribution set-up, all end consumers get their supply from some identified distribution transformer (DT). Each DT is under the supervision of one person who is held accountable for losses. In the case of most public discoms, no one knows which consumer is attached to which DT (implying a lack of indexing). Incidentally, a large number of DTs are not metered.
- Recently, a budgetary outlay of about Rs 3 trillion was earmarked for aiding the distribution sector. However, the sector registered **only a small reduction in losses**. The AT&C loss has come down to 22.3 per cent in 2020-21 from 26.6 per cent in 2011-12.
- **Most discoms are state-owned**, and only about 10 percent of India's population is served by private distribution licensees. Higher private participation in distribution holds out the possibility of greater efficiency. **E.g. in Delhi**, AT&C losses have come down from about 55 percent in 2002 to about 9 percent in 2019.

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- Discoms have locked themselves into **long-term, expensive power purchase agreements** (PPAs). As long as the markets continue to provide low-cost power, discoms should not sign new expensive long-term thermal PPAs.
- So far, the govt. schemes have helped the cash-strapped discoms in reducing their debts and the total AT&C loss. However, it has not been able to address **challenges around cross-subsidy and power-procurement costs**.
- The massive **Saubhagya scheme** mostly succeeded in expediting electricity access across off-grid pockets. However, it could not address challenges around **tariff realisation** with these new groups of consumers which ultimately impacted the discoms' finances in some states.

A **public-private partnership (PPP) model** can be especially useful in loss-making areas, where commercial operation might not be feasible without support in the form of viability gap funding (VGF) by the government.

Q.5) Wild Life (Protection) Amendment Bill, 2021 requires some changes to make it more suitable for wildlife conservation. Comment.

The Hindu

Introduction: Contextual introduction.

Body: Explain some key provisions of the Bill. Also write some issues which require changes to make it more suitable for wildlife conservation.

Conclusion: Write a way forward.

Wild Life (Protection) Amendment Bill, 2021 seeks to amend the Wild Life (Protection) Act, 1972. It makes a significant amendment as it reduces the number of **schedules from six to four** and seeks to **increase the species** protected under the law and implement the CITES.

Key provisions of the Bill:

- **Rationalizing schedules:** The Bill reduces the total number of schedules from six to four.
- **Permitted certain activities:** The Bill seeks better management of protected areas and provides for certain permitted activities like grazing, movement of livestock, and bona fide use of drinking and household water by local communities.
- **Captive elephants:** The Bill permits the transfer or transport of a captive elephant for a religious or any other purpose by a person having a valid certificate of ownership.
- **Conservation reserves:** The Bill empowers both Central and State governments to declare areas adjacent to national parks and sanctuaries as a conservation reserves, for protecting flora and fauna.
- **Alien species:** The Bill **empowers the Central government** to regulate and stop the import, trade or possession of invasive plant or animal alien species.

However in Wild Life (Protection) Amendment Bill, 2021 following issues require changes to make it more suitable for wildlife conservation:

- The Bill **allows for commercial trade In Live Elephants**. The prohibition on commercial transfer only drove the **live elephant trade underground** as traders switched to dressing up commercial deals as gift deeds to bypass the 2003 amendment. According to the Parliamentary Standing Committee instead of the blanket exemption, **limit it only to temple elephants kept for religious purposes**.
- The bill severely **curtailed the ability to graze across pastoral spaces** in the conservation areas. The Van Gujjars are a semi-nomadic pastoral community (Uttarakhand, Uttar Pradesh and Himachal Pradesh) that may be impacted.

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- The Bill seeks to do away with **Schedule V for vermin** species entirely. This **gives the Centre direct power** to declare any species to be 'vermin' and make way for them to be freely hunted. Thus, declaring any species as vermin becomes easier.

There is an imminent need to expand the definition of invasive alien species **to include invasive native species** also.

Q.6) Discuss the factors behind the shift of manufacturing activity and employment from bigger cities to smaller towns.

The Hindu

Introduction: Contextual introduction.

Body: Explain some factors behind the shift of manufacturing activity and employment from bigger cities to smaller towns.

Conclusion: Write a way forward.

The rural segment is a **significant contributor** to the manufacturing sector's output. While 42% of factories are in rural areas, 62% of fixed capital is in the rural side. In terms of output and value addition, rural factories contributed to exactly half of the total sector. In terms of employment, it accounted for 44%.

There are following factors behind the shift of manufacturing activity and employment from bigger cities to smaller towns:

- **Factory floor space supply constraints:** When locations get more urbanised and congested, the greater these space constraints are. The continuing displacement of labour by machinery forces the continuous capital investments in new production technologies. Thus, **increased capital intensity of production** is one reason for this trend.
- **Production cost differentials:** Many firms experience substantially higher operating costs in cities than in rural areas, with inevitable consequences for the firm's profitability and competitiveness.
- **Possibility of capital restructuring:** There is a tendency for growing capital accumulation and centralisation by large multi-plant corporations. Big firms deliberately shift production from cities to take advantage of the availability of less skilled, less unionised and less costly rural labour.
- **Higher urban-rural cost ratios** caused this shift.
- Rural areas have generally been more attractive to manufacturing firms because wages, property, and land costs are all lower than in most metropolitan areas.

A more educated and skilled rural workforce will establish rural areas' comparative advantage of low wages, higher reliability and productivity and hasten the process of the movement out of agriculture to higher-earning livelihoods.

Q.7) Differentiate between fission and fusion energy. What are the challenges in sourcing energy from fusion reactions?

Times of India

Introduction: Contextual introduction.

Body: Explain some differences between fission and fusion energy. Also write some challenges in sourcing energy from fusion reactions.

Conclusion: Write a way forward.

Recently researchers at the Lawrence Livermore National Laboratory in California for the first time produced more energy in a fusion reaction than was used to ignite it, something called net energy gain.

Difference between fission and fusion energy:

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- **Fusion is where two light atomic nuclei combine** and release energy, while **fission is the process of splitting** two heavy, unstable atomic nuclei into two lighter nuclei.
- Fusion releases **several times the energy generated by fission**, making it a far more powerful process.
- Nuclear **fission is more dangerous** than fusion as it produces harmful weapons-grade radioactive waste in the fuel rods that need to be stored safely away for thousands of years. Fusion does not create harmful radioactive by-products.
- Fission reactions do not **occur in nature** naturally. Fusion reactions occur in stars and the sun.

Challenges in sourcing energy from fusion reactions:

- **Extreme Heat and Pressure:** To make nuclear fusion work on Earth, we need temperatures exceeding 100 million degrees Celsius, intense pressure, and sufficient confinement to hold the plasma and maintain the fusion reaction long enough for a net power gain.
- **Precision:** The energy from the lasers must be applied precisely to counteract the outward force of the fusion fuel.
- **Complexity:** It's harder to produce electricity in a power plant. For example, the lab's lasers can only fire a few times a day. To produce energy, they would need to fire rapidly and capsules would need to be inserted multiple times a minute, or even faster.
- **Efficiency:** Another challenge is to increase efficiency. The lasers require a lot of electrical energy, and researchers need to figure out a way to reproduce their results in a much more cost-effective way.

The success of this research can be viewed as a significant step forward in the decades-long effort to master a technology that is regarded as the most reliable source of energy in the future.

Q.8) The Census of India not only helps understand the perils of British rule but also flags the roadblocks lying ahead. Discuss.

The Hindu

Introduction: Contextual introduction.

Body: Explain how Census of India not only helps understand the perils of British rule but also flags the roadblocks lying ahead.

Conclusion: Write a way forward.

Census in India is the **largest single source** of a variety of statistical information on different characteristics of the people of India. It is a sacred democratic exercise. Census 2011 was the 15th National Census of the country since 1872 and the 7th after Independence.

Helps understand the perils of British rule:

- Data from the Census of India reveal that between 1880 and 1920 approximately 100 million Indians died due to British policy in India.
- The **mortality rate** in British India is seen to **rise steadily** after 1881, recording an increase of close to 20% by 1921. As it is unusual for the mortality rate of a country to rise continuously due to natural causes, this suggests that the living conditions worsened during this period.
- The mortality rate dipped in 1931, which was the last census conducted in British India, but the last famine took place in Bengal in 1943, in the last five years of the close to two centuries of British colonial rule.
- The Census shows that in the 1950s, life expectancy at birth of Indians increased by more than it did in the previous seventy years.

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- The population numbers recorded after 1947 point to the extent to which the **lives of Indians improved** since the **end of colonial rule** in dimensions other than merely income.

Flags the roadblocks lying ahead:

- **Worsening gender inequality:** It is believed that in the absence of factors that lower the life chances of women, including foeticide, this ratio would tend to one. The Census of India shows that we have not attained that level in our recorded history, except in pockets within the country.
- This ratio has **steadily declined after 1947**. So, even though life expectancy increased soon after Independence, in the early years at least it increased faster for men than it did for women.
- Though India became free of foreign rule, some Indians grew more free than others.

As India chants Vasudhaiva Kutumbakam at the G-20, implying that the nations of the world are a family, it behoves us to ensure that all the persons in our own family enjoy the same freedoms.

Q.9) Highlight the reasons behind increasing cases of suicides among students preparing for competitive examinations. What measures can be taken to stop this menace?

Indian Express

Introduction: Contextual introduction.

Body: Explain some reasons behind increasing cases of suicides among students preparing for competitive examinations. Also write some measures to stop this menace.

Conclusion: Write a way forward.

The **National Crime Records Bureau's** Accidental Deaths and Suicide in India report shows that the number of students' deaths by suicide **rose by 4.5 percent** in 2021, with **Maharashtra bearing the highest toll** with 1,834 deaths, followed by Madhya Pradesh and Tamil Nadu. According to the report, student suicides have been **rising steadily for the last five years**.

Reasons behind increasing cases of suicides among students:

- **Unemployment:** Unemployment rate in India is very high. In Sikkim, about 27% of the state's suicides were related to unemployment and found to be most common among those between 21 and 30 years of age.
- **Examination Centric Education:** equating academic excellence with marks, pressure of studies and performance are critical factors in students' suicides in India.
- **Forced career choices:** Many students succumb to very high amount of pressure, especially from their family and teachers in terms of their career choices and studies.
- **Lack of support from Educational Institutions:** not equipped with tackling mental health issues of children and adolescents and lack centres and trained human resource for guidance and counselling.
- **Financial stress:** The steep cost of preparatory courses and tertiary education acts as a burden on the students and put tremendous pressure on them.

Measures:

- The **'Happiness Curriculum' launched by the Delhi government** focuses on holistic education by including meditation, value education, and mental exercises in conventional education curriculum. It should be adopted by other states also.
- It is important to **revamp the exam-centric education system** in India. The curriculum should be designed in ways that stress the importance of **mental exercises and meditation**.

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- **Training teachers as gatekeepers** and innovative methods of examination should be adopted to mitigate risk factors of suicides.
- Students need to be appreciated and it is important to change how Indian society perceives education. It should be a celebration of efforts and not marks.
- **Effective counselling centres** should be set up in all schools/colleges/coaching centers to address student's anxieties, depression and other mental health issues

The need of the hour is to learn from past failures to address the growing crisis and take urgent steps that involve all stakeholders — students, parents, teachers, institutes and policy makers.

Q.10) Do you think that the RTI Act is fulfilling its intended purpose?

The Hindu

Introduction: Contextual introduction.

Body: Explain how RTI Act is fulfilling its intended purpose. Also write associated issues.

Conclusion: Write a way forward.

The RTI Act, 2005 **empowers people to participate in the policymaking** process, by providing access to information relating to the functioning of all public authorities. Cross section of citizens including activists, lawyers, bureaucrats, researchers and journalists are using RTI to **unearth corruption of all kinds** from the Panchayat level right up to Parliament.

Fulfilling its intended purpose:

- **Enabled citizen rights:** a majority of the RTI applications are filed by people who are asking about their basic rights and entitlements. So it has fulfilled its purpose to that extent.
- **Anti-corruption tool:** To hold high offices to account, people have used the RTI law to know what is happening with taxpayers' money. This has enabled them to expose big-ticket scams such as the **Adarsh, Commonwealth Games** and **Vyapam scams**.
- **Empowered people's voice:** According to estimates, nearly 60 lakh applications are being filed every year. It is used by citizens as well as the media. They've also been able to **expose human rights violations**, and then force accountability in those cases as well.
- **Strengthened democracy:** Every citizen has right to claim information from public authorities under the act. This strengthened democracy through active participation of public.
- **Features leading to transparency:** All the Government departments along with a number of bodies which receive substantial funding from the Government have been brought under the RTI.

Issues:

- The beauty of this Act is its simplicity. But, in some states **complex format or rules** create hindrances for people.
- There are **huge vacancies** in information commissions which mean that appeals and complaints keep pending.
- **Untrained staff** and a non-cooperative set of public information officers (PIOs).
- Many commissioners have been seen openly expressing their **political inclinations**. It creates a sense of bias among the petitioners.
- **Not all institutions are** being covered under the Act. E.g. **judiciary** is not under the act.
- The Implementation of RTI requires the PIOs to provide information to the applicant through photocopies, soft copies etc. These facilities are not available at Block and Panchayat level.
- **Awareness about RTI is yet very low.** Awareness level is low especially among the disadvantaged communities such as women rural population, OBC/SC/ST population.

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A strong political system is a must for the RTI regime to flourish. A **code of conduct** must be evolved for the central and state information commissioners to keep them away from any political influence.

Q.11) Critically analyze the present system of court vacations. In this regard, also highlight a few best practices in other countries.

Indian Express

Introduction: Contextual introduction.

Body: Write some arguments in favour of and against court vacations. Also write some measures and best practices in other countries.

Conclusion: Write a way forward.

The 1958 statute tells that vacation means such periods during a year fixed by SC rules with the prior approval of the President. The current rule followed by SC for vacation is **Supreme Court Rules, 2013** and Chief Justice of India (CJI) issues notifications for the vacation every year. Currently, the Supreme Court has 193 working days per year, while the High Courts have 210 days.

Need of vacancies:

- Except on rare occasions like family tragedies or health issues, judges **do not take leave of absence** like other working professionals when the court is in session.
- Judges are **overburdened** on a daily basis and work extremely long hours. In the absence of sufficient breaks, judges will suffer a burnout.
- Many judges **use the long breaks to write judgments** that are pending and also catch up on research, which is essential for judges to maintain the quality of justice.
- They also have to perform **administrative tasks** like supervision of lower judiciary and appointment of judges.

Concerns:

- The concept of vacation is originated from **colonial rules**. Judges at that time came from England, a place colder compared to India and the summer of India was unbearable to them.
- There are **no governmental organizations** in the country except courts and schools that have vacation.
- There is a **backlog of over 3.1 crore cases** in Indian courts.
- There is **insufficient judicial power** (India has only 13 judges per million population, compared to the UK's 100) in India.
- The **subordinate criminal courts do not have any vacation**. But the subordinate civil courts, High Courts and the Supreme Court have vacations.

What can be done?

- **Arrears Committee** and 230th Report of **Law Commission** recommended for a **shorter duration** in the vacation.
- The **Justice Malimath Committee** recommended that the period of vacation should be reduced by 21 days and the Supreme Court should work for 206 days, and High Courts for 231 days every year.

Best practices in other countries: There are **many countries** in the world that **do not have vacations** in the courts. For example, **France and the US**. Judges don't have vacation, but they can take holidays without affecting the function of the court.

The need of the hour is an efficient judiciary that is not only committed to meet the interests of the citizens, but also communicates this commitment by modifying their practices to suit the needs of the country.

Q.12) It is the need of the hour for the government to devise appropriate regulations to protect the openness of the internet. Comment.

Indian Express

Introduction: Contextual introduction.

Body: Explain why there is need for the government to devise appropriate regulations to protect the openness of the internet.

Conclusion: Write a way forward.

Internet openness means **enabling people to observe, participate, and innovate**, on both the core internet infrastructure and major online services. According to the **Internet and Mobile Association of India (IAMAI)**'s report- "**Internet in India**", at present, there are a total of 692 million active internet users in India and there will be 900 million internet users in India by 2025.

Need to protect the openness of the internet:

- Digital technologies are **evolving at a very fast rate**. The code of conduct and regulations can not catch up with the new gateway providers that are emerging.
- Sometimes internet gateways enable and **restrict access to other** gateways or networks, so the openness of the internet is threatened.
- The **Internet's economic importance** has grown exponentially, driven by a higher number of users and the growing adoption of digital tools like **E-commerce, cloud computing, online advertising, digital payments** etc.
- Various practices of the distribution platforms like **Google and Apple** have come into question lately. These ranges from restrictions on payment gateways, **advertising choices, app policies** and various other aspects which are **discriminatory in both principle and practice**. E.g. Google Play Store and Apple's App Store are said to be charging up to **30% commission** on payments processed.
- As Google and Apple have garnered **unilateral control** over the publishing of smartphone applications on their OS. Various **smartphone application-dependent businesses and developers** continue to remain **vulnerable** to such internal business policy changes on these platforms.

The Indian government has taken steps to maintain its sovereignty through the path-breaking and disruptive digital public goods like Aadhaar, UPI, DigiLocker, and CoWIN. The need of the hour for the government to devise **appropriate regulations** to ensure a level playing field and not let the innovating gateways turn into gatekeepers.