

**IMPORTANT INTERNATIONAL AFFAIRS**

❖ **E.U Digital Markets Act**

❖ **CONTEXT: The Digital Markets Act (DMA) entered into force in the European Union (EU) on November 1 2022, seven months after it was agreed for by the European Parliament in March 2022 .**

The bill, which was first proposed by the European Commission in December 2020, endeavours to put an end to unfair practices by tech companies that act as ‘gatekeepers’ in the online space.

It seeks to confront the domination of Big Tech which restrains the growth of new and alternate platforms.

However, critics have put forth that this would hinder innovation in the sector, especially if they are asked to share information and expertise essential for their own competitive success.

The Act will apply six months after it entered into force, that is, from May 2, 2023.

❖ **What does the law entail?**

- The Digital Markets Act introduces quantitative thresholds and penal provisions to keep a check on platforms that act as private rule-makers by virtue of their dominance in the space, thereby creating bottlenecks in the digital economy.

- The obligations mentioned under the Act are meant to open up possibilities for smaller and emerging players to compete in an equal market – based on the merits of their products and services, in turn, also generating the scope for further innovation in the space.

- As for consumers, the Act ensures access to a wider array of options as well as a lower price of services made possible by enforcing competition and de-exclusivities.

- The Act designates companies with sizeable dominance in any of the ‘core platform services’ as ‘gatekeepers’. These services include app stores, online search engines, social networking services, certain messaging services, video sharing platform services, virtual assistants, web browsers, cloud computing services, operating systems, online marketplaces and advertising services.

- Other than this, the emergence of newer innovations and more players are also expected to create more jobs in the sector.

❖ **What is the quantitative threshold to be deemed a ‘gatekeeper’?**

- In addition to managing a ‘core platform service’, a company must have accrued an annual turnover of at least €7.5 billion in each of the last three financial years in the E.U. or have an average market capitalisation of at least €75 billion in the last financial year.

- Operational qualifications require that it must have at least 45 million monthly active users in the Union and more than 10,000 annual active business users in the last financial year.

- The position must be entrenched and durable, that is, meeting each of the criteria in the last three financial years.

- Additionally, a proportionate subset of obligations may apply should the company, presently a non-gatekeeper, attain the stipulated threshold in the future. This is to prevent them from acquiring the same ‘gatekeeper dominance’ by unfair means.

❖ **What happens when rules are violated?**

- In case of non-compliance, the Commission can impose fines of up to 10% of the company’s annual revenue accrued from global operations. This would extend up to 20% in case of repeated infringements. Violations shall also invite periodic penalty payments of up to 5% of its daily worldwide turnover.

- For systematic infringements, and in situations where there are no alternatives or equally effective measures available, the European Commission can pursue additional remedies.

- These may include obliging a gatekeeper to sell a business or an essential part of it such as an important unit, asset, intellectual property rights or brand. Other than this, the ‘gatekeeper’ could be barred from acquiring a company in the same space or that collects similar data to that involved in the observed non-compliance.

❖ **How does the implementation look in reality?**

- DMA would ensure that ‘gatekeepers’ would not be able to disfavour services and products offered by third parties on their platform for their own similar services and products. Additionally, it would ensure interoperability with platforms offering similar services.

- More importantly, ‘gatekeepers’ would have to permit businesses to access data that was generated when they used the latter’s platform. This is to ensure that users do not unfairly benefit from their dual roles. For instance, if a company operates a search engine and an online marketplace, it could leverage the data from a user’s online searches to push certain products. In the absence of user data, a retailer might not be able to do much about the entire phenomenon. However, with a more equitable platform and access to certain user data, s/he could ensure visibility for their products, by effectively mapping the profile of its buyers and accordingly pushing paid advertisements.

- Other important changes that ‘gatekeepers’ will have to implement are ensuring that end users are able to easily unsubscribe from core platform services – including pre-installed apps, preventing the installation of

default software along with the operating system, allowing businesses to use alternative in-app payment systems as well as allowing end users to download alternative app stores.

- It is pertinent to recall that the Competition Commission of India (CCI) recently imposed a penalty of Rs 936.44 crore on Google for “abusing its dominant position with respect to its Play Store policies”.

❖ **What about inter-operability?**

- Interoperability among platforms would be a particularly important factor with respect to messaging services. For perspective, the provision would entail, ex - WhatsApp users being able to freely send and receive messages (including media attachments) from a competing messaging app, ex- iMessages.
- The functionality would be instituted as per a stipulated timeline. When the Act enters into force, ‘gatekeepers’ would have to ensure interoperability for text messages between two individual users.
- More complex functionalities, such as group text messaging, would have to be instituted after two years of enforcement, while audio or video calls between users may be instituted within four years.
- It is pertinent to note that only users of non-gatekeeper companies would have the option to refuse the interoperability.
- The idea is to avert any entry barrier that may deter users from opting for a non-gatekeeper service and prevent ecosystem captivity. Additionally, as pointed out by researchers at the digital liberties advocacy group The Electronic Frontier Foundation (EFF), “Having multiple services for users, especially vulnerable users, to choose from may help protect against improper governmental surveillance and censorship.”

❖ **What are the criticisms?**

- Critics argue that interoperability in messaging might bother end-to-end encryption of messaging apps. Though mandated by the law, it would be a particularly tough precondition considering that communication now would be cross-platform, that is, beyond a platform’s controllable dominion.
- However, several researchers, argue that the feature cannot be compromised upon. “encryption is also critical to protecting human rights defenders who depend upon strong security while opposing or exposing abuses in dangerous environments.
- The move would mean that companies unable to combine and cross-utilise data would not be able to create targeted advertisements. For example, ‘gatekeepers’ would not be able to push advertisements for phones after noting that a consumer was looking for the easiest route to a retailer. Thus, sharing of user data would be less than ideal because they are central to the company’s own competitive success.
- “Clauses such as these may help smaller tech companies to take market share from gatekeepers even in situations where it is not clear there has been an unfair practice.
- Further, critics have suggested that the ‘gatekeeper’ threshold may emerge as a deterrent to further innovation for both emerging and established companies. The trade-off between further innovation and compliance requirements on attaining the threshold might not appeal to some.
- It has been suggested that the DMA’s penal provision of forbidding acquisitions in the space would hamper start-up lifecycles.
- Certain players might not sustain in the long run, for whom acquisitions serve as a worthy exit prospect. Thus, as per critics, the provision only adds to an emerging entrepreneur’s unpredictability in the space.

**PRELIMS**

1. **Atal Innovation Mission (AIM)**

❖ **CONTEXT: Atal Innovation Mission (AIM) NITI Aayog launched the fourth edition of ‘Innovations for You’ coffee table book featuring 75 successful women entrepreneurs of India.**

- The 75 women entrepreneurs are supported by Atal Incubation Centres (AICs) of AIM, NITI Aayog. As the country celebrates the Azadi ka Amrit Mahotsav – 75th Year of Independence,
- ‘Innovations For You’ is a Coffee Table Book series with 3 editions being released previously. The book captures success stories of start-ups supported through Atal Incubation Centres, Atal Community Innovation Centres and Atal New India Challenges, three flagship programs under the Atal Innovation Mission. Each edition showcases the journey of entrepreneurs working in different sectors and is dedicated to creating new, disruptive, innovative products, services, and solutions that can pave the path for a sustainable future.

❖ **AIM**

- Launched by NITI aayog, AIM is the Government of India’s flagship initiative to promote a culture of innovation and entrepreneurship in the country.
- Its objectives are to create and promote an ecosystem of innovation and entrepreneurship across the country via interventions at school, university, research institutions, MSME and industry levels and to provide platform and collaboration opportunities for different stakeholders.

❖ **Major Initiatives under the programme**

- Atal Tinkering Labs: Creating a problem-solving mindset across schools in India.

- Atal Incubation Centres: Fostering world-class startups and adding a new dimension to the incubator model.
- Atal New India Challenges: Fostering product innovations and aligning them to the needs of various sectors/ministries.
- Mentor India Campaign: A national mentor network in collaboration with the public sector, corporates and institutions.
- Atal Community Innovation Centre: To stimulate community-centric innovation and ideas in the unserved /underserved regions including Tier 2 and Tier 3 cities.
- Atal Research and Innovation for Small Enterprises (ARISE): To stimulate innovation and research in the MSME industry.
- Apart from the above initiatives, it has also launched AIM Prime, AIM iCREST, etc to boost industrial exposure of students and innovators.

❖ **Achievements**

- The AIM has worked on integrating innovation ecosystem both nationally and globally:
- The AIM has created bilateral relations with various international agencies for building synergistic collaboration on innovation and entrepreneurship such as the AIM – SIRIUS Student Innovation exchange program with Russia, AIM – ICDK (Innovation Centre Denmark) Water Challenge with Denmark, and IACE (India Australian Circular Economy Hackathon) with Australia.
- The AIMS played a pivotal role in the success of InSprenneur, an Innovation Startup Summit hosted between India and Singapore.
- The AIM partnered with the Ministry of Defence to set up the Defence Innovation Organisation which is fostering innovation as well as procurement in the defence sector.
- The AIM supported startups have raised 2000+ Crores from the government and private equity investors and have created several thousand jobs.

2. **Juvenile Justice (Care and Protection of Children) Act, 2015**

❖ **Context: The Ministry of Home Affairs has asked the States/Union Territories to appoint a Child Welfare Police Officer (CWPO) in every police station to exclusively deal with children, either as victims or perpetrators.**

- The Home Ministry referred to provisions under the Juvenile Justice (Care and Protection of Children) Act, 2015, which calls for designating at least one officer, not below the rank of an Assistant Sub-Inspector, as CWPO in every station.

❖ **About the JJA:**

- The Juvenile Justice (Care and Protection of Children) Act, 2015 pertains to provisions for children found in conflict with the law.
- It also gives provisions for children in need of care and protection.
- The Juvenile Justice (Care and Protection of Children) Act, 2015 replaced the Juvenile Justice Act, 2000.
- The Act changed the nomenclature of 'juvenile' to 'child' and 'child in conflict with the law'.
- The Act defines orphaned, surrendered and abandoned children.
- It also defines petty, serious and heinous crimes by children.
- The Act gives more clarity on the functions and powers of the Juvenile Justice Board and the Child Welfare Commission.
- Juvenile Justice Board acts as a separate court for juveniles since they are not to be taken to a regular criminal court. It comprises of a judicial magistrate of the first class and two social workers, one should be a woman.
- The State Governments set up Child Welfare Committee in districts.
- The Committees have the power to dispose of cases as well as to provide for their basic needs and protection.
- The Act makes it compulsory for all child care institutions to be registered.
- It provides for minors in the age group 16 – 18 years to be treated as adults in the case of heinous crimes.
- The Act also gives the Central Adoption Resource Authority (CARA) statutory status.
- The Act distinguishes between children in conflict with the law and children in need of care and protection.

3. **Employees' Pension Scheme (EPS-95)**

❖ **CONTEXT: In a crucial judgment, the Supreme Court held the provisions of the Employees' Pension (Amendment) Scheme 2014 to be legal and valid.**

- The top court said that the employees, who were entitled to join the pension scheme but could not do so as they did not exercise the option within the cut-off date, should be given an additional opportunity.
- The reason cited was the lack of clarity regarding the cut-off date in view of the High Court judgments invalidating the provisions of the Employee's Pension (Amendment) Scheme, 2014.

- Therefore, the Court exercised its powers under Article 142 of the Constitution to extend the cut-off date.
- The provision of the contribution of 1.16% of monthly salary towards pension schemes for, those who earn more than Rs 15,000 per month has been struck down.

❖ **What is EPS?**

- Employees' Pension Scheme 1995 or EPS-95 is a social security scheme which was introduced in November 19, 1995 by the EPFO. The scheme entitles the employees working in the organised sector for a pension after their retirement at the age of 58 years.

- **Eligibility:** All employees who are eligible for the EPF scheme are be eligible for EPS however, the benefits of the EPS can be availed only if the employee has been in service for at least 10 years (this does not have to be continuous service). The scheme's benefits are available to both existing as well as new EPF members.

- **Contributions:** Both the employee and the employer contribute 12 per cent of the employee's basic salary and Dearness Allowance (DA) to the EPF. While the entire portion of employee's contribution goes to EPF, the employer's contribution goes to EPS at a rate of 8.33 per cent.

- **Benefits:**

➤ **Pension on retirement at the age of 58 years**

- ✓ An EPS member becomes eligible for pension once they retire at the age of 58 years. However, it is mandatory for them to be in service for at least 10 years before turning 58 and availing pension benefits. An EPS Scheme Certificate is generated which can be used to fill Form 10D for withdrawing the monthly pension.

➤ **Complete withdrawal on leaving service before becoming eligible for monthly pension**

- ✓ If a member is not able to remain in service for 10 years before turning 58 years old, he/she can withdraw the complete sum invested so far after turning 58 years by filling Form 10C. However, he/she will not get monthly pension benefits post retirement.

➤ **Pension on total disablement during the service**

- ✓ An EPFO member who becomes disabled permanently is entitled to a monthly pension irrespective of the fact that he/she has not served the pensionable service period. In this case, the employer has to deposit funds in the concerned employee's EPS account for at least one month to be eligible for the pension.

- ✓ The member becomes eligible for monthly pension from the date of permanent disablement and is paid for lifetime. However, the member may have to undergo a medical examination to determine whether he/she is unfit for their job before becoming disabled.

➤ **Family pension on the death of the member**

- ✓ A member's family becomes eligible for the pension benefits in the following cases: 1) In case of death of the member while in service and the employer has deposited funds in his EPS account for at least one month 2) In case the member has completed 10 years of service and dies before attaining 58 years of age 3) In case of death of the member after the commencement of the monthly pension.

4. **Researchers develop reusable, paper-based lycopene sensors**

- ❖ **CONTEXT:** A team of researchers from the Institute of Nano Science and Technology (INST), Mohali, has developed a nano-biosensor for detecting 'lycopene', a phytochemical with high commercial value.

- The biosensor (transparent strip) offers minimal scattering with maximum sensitivity in comparison to previous paper strips.

- The sensor uses a portable smartphone-based upconverting reusable fluorescent paper strip.

- A simple smartphone camera can be used for detection. The reusable, paper-based strip may help make the lycopene detection process easy, cheap, and less time-consuming.

- **Working:** According to researchers an increase in strip hydrophobicity during the fabrication process complements the strip to selectively permeate and present an extraction-free substitute analysis for chromatography. Hydrophobicity endows the strip with the capability to reuse the strip with approximately 100 per cent luminescence recovery.

- **Upconverting nanoparticles (UCNPs)** are nanoscale particles (diameter 1–100 nm) that exhibit photon upconversion. Upconversion is a process where light can be emitted with photon energies higher than the light generating the excitation.

- In photon upconversion, two or more incident photons of relatively low energy are absorbed and converted into one emitted photon with higher energy.

- This transparent Upconversion nanoparticle (UCNP) strip is sensitive to lycopene with a detection limit as low as 10 nM.

- **Lycopene** is a carotenoid found in tomatoes, grapefruit, watermelons and papaya. It is also synthesised by plants and microorganisms but cannot be synthesised by the human body and can only be obtained via diet.
- It is a potent antioxidant that helps prevent cancer and heart diseases.
- Several epidemiologic studies have suggested a strong association between a high intake of lycopene-rich foods and a reduced risk of several cancers, notably prostate cancer.
- However, there are not many well-designed clinical trials conducted and the data remain inconclusive. As lycopene has potent antioxidant effects, it may interfere with chemotherapy and radiation therapy. Cancer patients are therefore suggested to use lycopene supplements with caution.
- **Effect:** The undesirable degradation of lycopene affects the health benefit of tomato and other tomato-based foods for the human body. The quality of the produce is rated on the basis of the lycopene present in it and is priced accordingly.

### ANSWER WRITTING

**Q. Is inclusive growth possible under market economy? State the significance of financial inclusion in achieving economic growth in India.**

In a market economy, the production of goods and services is directed by the laws of supply and demand and by profit with no government intervention.

The Organisation for Economic Co-operation and Development (OECD) defines inclusive growth as economic growth that is distributed fairly across society and creates opportunities for all.

Achieving inclusive growth in a market economy is a difficult prospect.

- The absence of government intervention does not leave any substantial scope for social welfare schemes.
- The profit-driven efficient utilisation does not take into consideration the deprivations faced by the marginalised sections of the population.
- This often results in the further socio-economic weakening of these sections such as job loss, etc.
- Market economy encourages privatisation, which in an unregulated manner, can prove to be detrimental to a large section of the population (high education fees and exorbitant prices of vaccines, essential medicines, etc.).

Financial Inclusion is the process of ensuring access to financial services for vulnerable groups at affordable costs.

- The government has initiated several schemes such as PM Jan Dhan Yojana (PMJDY) and PM Mudra Yojana (PMJY) aimed at effecting financial inclusion in the country.
- These schemes are primarily to increase the coverage of the formal financial services in the country and enable a larger number of people to join the economic mainstream.
- The integration of a greater number of people into the formal economic system of the country and the development of the habit of saving which further contributes to economic growth.
- Extension of loans (PM Mudra Yojana) is also a key part of financial inclusion. With the availability of capital, more MSMEs, start-ups, etc., can be established that can play a crucial role in economic growth.
- Pension-related schemes (Atal Pension Yojana, etc.) also constitute a key part of financial inclusion. This allows the elderly population of the country to remain economically productive and allow them to lead a dignified life.
- Technology-driven financial inclusion (UPI) can also lead to economic growth since it helps in plugging leakages and enable larger people to integrate themselves with the formal financial services in the country.

The market economy despite being economically efficient is not the ideal system for the implementation of inclusive growth which is based on equity and socio-economic welfare.

### MCQs

1. Consider the following statements about the Atal Innovation Mission (AIM):
  1. It has been set up by the NITI Aayog for transforming the innovation and entrepreneurship ecosystem in the country
  2. It aims to establish tinkering labs in schools to foster the creativity of students
  3. AIM possess the IP rights and patents for innovations found in the process

Which of the above statement/s is/are correct?

  - a) 1 and 2 only
  - b) 2 and 3 only
  - c) 1 and 3 only
  - d) 1,2 and 3
2. With reference to Employees Provident Fund Organisation (EPFO) consider the following
  1. It is a statutory Government organization.
  2. The organisation implements Employees' Provident Fund and Miscellaneous Provisions Act, 1952.
  3. The above said act applies to whole of India including Jammu and Kashmir.

Which of the above statement/s is/are not correct?

  - a) 1 and 2 only

- b) 2 only  
c) 2 and 3 only  
**d) 3 only**
3. Consider the following statements about Juvenile Justice (Care and Protection of Children) Act, 2015
1. The Central Adoption Resource Authority (CARA) is given the status of a statutory body under the act.
  2. The Act permits juveniles between the ages of 14-18 years to be tried as adults for heinous offences.

Select the correct statement.

- a) **1 only**  
b) 2 only  
c) Both 1 and 2  
d) Neither 1 nor 2
4. As per the Juvenile Justice Act 2015, which of the following children can be kept in special homes?
- a) **Children in conflict with law**  
b) Neglected children  
c) Abused children  
d) Street children
5. Which of the following constitutes a type of juvenile delinquency?
- a) Status Offence  
b) Civil Offence  
c) Criminal Offence  
**d) Both a and c**
6. Which one of the following groups of items is included in India's foreign-exchange reserves?
- a) Foreign-currency assets, Special Drawing Rights (SDRs) and loans from foreign countries  
**b) Foreign-currency assets, gold holdings of the RBI and SDRs**  
c) Foreign-currency assets, loans from the World Bank and SDRs  
d) Foreign-currency assets, gold holdings of the RBI and loans from the World Bank
7. With reference to the Bharat Stage Emission Standards (BSES) norms, consider the following statements:
1. These were first introduced in 2000.
  2. Diesel Particulate Filter (DPF) and Selective Catalytic Reduction (SCR) are introduced in BS VI.
  3. BS VI fuel will have only 10 ppm of sulphur.
  4. These are implemented by the Ministry of Environment, Forest and Climate Change.

Which of the statements given above are correct?

- a) 1,2 and 4 only  
b) 1,3 and 4 only  
**c) 1,2 and 3 only**  
d) 1,2,3,4
8. Consider the following statements:
1. The Presidency of the Council of European Union rotates among the Member States every six month.
  2. The European Union is a Political and Economic union

Which of the statement/s given above is/are correct?

- a) 1 only  
b) 2 only  
**c) Both 1 and 2**  
d) Neither 1 nor 2
9. Recently blue carbon in news frequently, which of the following are the important blue carbon wetland habitats
1. Mangroves
  2. Seagrasses
  3. tidal marshes

Choose the correct answer using the codes given below

- a) 1 and 2 only  
b) 2 and 3 only  
c) 1 and 3 only  
**d) All of the above**
10. Umiam lake recently seen in news is situated in which state?
- a) Assam  
b) Haryana  
**c) Meghalaya**  
d) Rajasthan