

## GOVERNANCE

### **Ayushman Bharat PM-JAY SEHAT: J&K**

Recently the Prime Minister has launched the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) Social Endeavour for Health and Telemedicine (SEHAT) scheme via video-conferencing to extend health insurance coverage to all residents of Jammu and Kashmir (J&K).

#### **Key Points**

##### **AB-PMJAY SEHAT Scheme:**

- The Scheme provides free of cost insurance cover. It provides financial cover upto Rs. 5 lakh per family on a floater basis to all residents of the UT of J&K.
- Floater basis, means that it can be used by one or all members of the family. The whole family is insured under one plan.
- The scheme would work in convergence with Pradhan Mantri Jan Arogya Yojana (PMJAY).

#### **Benefits:**

##### **Full coverage to residents of J&K:**

- At present, about 6 lakh families of the UT are getting the benefit of the Ayushman Bharat Scheme. After the health plan, all 21 lakh families will get the same benefit.

##### **Portability of treatment:**

- Treatment will not be limited to government and private hospitals in Jammu and Kashmir only. Rather, various hospitals are connected under this scheme in the country.
- The hospitals empanelled under PM-AY scheme shall provide services under this scheme as well.

##### **Universal Health Coverage:**

- The scheme will ensure Universal Health Coverage and focus on providing financial risk protection and ensuring quality and affordable essential health services to all individuals and communities.
- Universal Health Coverage (UHC) includes the full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation, and palliative care.
- UHC enables everyone to access the services, protecting people from the financial consequences of paying for health services out of their own pockets and reducing the risk that people will be pushed to poverty.

##### **Ayushman Bharat PMJAY Yojana:**

- The PMJAY, world's largest health insurance/assurance scheme fully financed by the government, provides a cover of Rs. 5,00,000 per family per year for secondary and tertiary care hospitalisation across public and private empanelled hospitals in India.
- Pre-hospitalisation and Post-hospitalisation expenses such as diagnostics and medicines are also included in the scheme.

## INTERNATIONAL RELATIONS

### **Post-Brexit Trade Deal**

Recently, the UK and the European Union (EU) have published the full text of the post-Brexit trade agreement aimed at governing their relationship when the UK definitively leaves the bloc's single market on 31st December 2020.

#### **Key Points**

- The document lays out detail on trade, law enforcement, and dispute settlement among other arrangements. Despite the complexity of the document, which includes explanatory notes and side agreements on nuclear cooperation and the exchange of classified information, both sides have indicated they will rush through the adoption.
- The deal ensures the two sides can continue to trade in goods without tariffs or quotas but despite the breakthrough, key aspects of the future relationship between the 27-nation bloc and its former member remain uncertain.

#### **The two sides held extensive negotiations on three key issues:**

**Level Playing Field:** It essentially means that in order to trade with the EU's single market, the UK will have to follow the same rules and regulations to ensure that it does not have an unfair advantage over other EU businesses.

**Rules of Governance:** These will dictate how any deal is enforced as well as the penalties that will be imposed if one party violates the terms of a mutually-approved agreement.

**Fishing Rights:** The agreement gives free access to EU fleets to fish in UK waters, including up to six miles off the shoreline for a five-year transition period. At the end of the transition, everything will return to normal arrangements and the UK will have full control over its waters.

- However, the UK's fishing industry has expressed disappointment on the agreement on fishing rights.
- Despite the deal, there are still unanswered questions about huge areas, including security cooperation and access to the EU market for Britain's huge financial services sector.
- The European Commission (EC) has proposed the agreement be applied on a provisional basis until 28th February 2021.
- EC is the executive branch of the EU, which brings together the executives of all 27 member states.
- The European Parliament will be asked for its consent to the deal in 2021 and for the process to be concluded, the EC must adopt the decision.

#### **Opportunities for India**

- India should aggressively pursue free trade agreements (FTAs) separately with both the EU and the UK.
- Although it is premature to assess the gains for India from the agreement, India can explore opportunities in service sectors like IT, architecture, research and development and engineering in both the markets as the EU-UK pact does not cover the services sector.
- Indian competitors like Vietnam have greater duty advantage in sectors like apparel and marine goods.
- India had a lot of contentious issues while negotiating FTA with the EU. However, after Brexit, the UK could have a different stand on those issues and so India should continue pursuing FTA talks.
- The Apparel Export Promotion Council (AEPIC) held that India-UK FTA would help in removing the customs duty disadvantages faced by domestic players in Britain.
- However, Federation of Indian Export Organisations (FIEO) highlighted that there are no specific customs duty benefits for domestic goods from this agreement.
- The bilateral trade between India and the UK dipped to USD 15.5 billion in 2019-20 from USD 16.9 billion in 2018-19.

### **SCIENCE & TECHNOLOGY**

#### **Nanotechnology and Health**

A team of scientists has created a nanomicelle that can be used for effective drug delivery to treat various cancers including breast, colon and lung cancer.

Nanotechnology or nanotech is the technology that involves the manipulation of matter on atomic, molecular, and supramolecular scales. This includes particles of a scale of 1 to 100 nanometers.

#### **Key Points**

##### **Nanomicelles:**

##### **Formation:**

- Nanomicelles are formed when amphiphilic molecules assemble themselves to create a globular structure that is only around 5 to 100nm in diameter.
- Different agents are used to create nanomicelles, however, they are usually made through surfactant molecules that may be non-ionic, ionic, and cationic detergents. Some nanomicelles may also be developed from a mixture of lipids and detergents.

##### **Use in Drug Delivery:**

- They are amphiphilic, i.e. have a hydrophilic outer shell and a hydrophobic interior. This dual property makes them a perfect carrier for delivering drug molecules.
- The hydrophilic shell makes the micelle water soluble that allows for intravenous delivery while the hydrophobic core carries a payload of drug for therapy.
- Once injected intravenously, these nanomicelles can easily escape the circulation and enter the tumours where the blood vessels are found to be leaky. These leaky blood vessels are absent in the healthy organs.

##### **Importance of Targeted Delivery:**

- The goal for cancer therapy is destroying the cancer cells without harming healthy cells of the body.
- Chemotherapeutics approved for treatment of cancer are highly toxic with various side effects.

- Thus the need arises for effective targeted drug delivery.

**Other Uses of Nanotechnology in Health Care:**

- Nanotech detectors for heart attack.
- Nanochips to check plaque in arteries.
- Nanocarriers for eye surgery, chemotherapy etc.
- Diabetic pads for regulating blood sugar levels.
- Nanoparticles for drug delivery to the brain for therapeutic treatment of neurological disorders.
- Nanosponges are polymer nanoparticles coated with a red blood cell membrane, and can be used for absorbing toxins and removing them from the bloodstream.
- NanoFlares are used for detection of cancer cells in the bloodstream.
- Nanopores are used in making DNA sequencing more efficient.

**Recent Use of Nanotechnology:**

- Antiviral nano coating on face masks and Personal Protection Equipment (PPE) kits.

**Risks of Nanotechnology:**

- Since this field is still at its nascent stage, the likely risks are contentious.
- The regulatory authorities like the US Environmental Protection Agency and the Health and Consumer Protection Directorate of the European Commission have started assessing the potential risks posed by the nanoparticles.
- Nanotoxicology is the study of potential health risks of nanomaterials.
- The human body can easily take up the nanomaterials as they are small in size. However, there is a need for detailed research on how it would behave inside an organism. The behaviour of nanoparticles based on their size, shape and surface reactivity must be thoroughly analysed before launching them into the market.
- Nanopollution is the generic term that is used to describe the waste generated by the nanodevices or nanomaterials during the manufacturing process.

**Governmental Initiatives to Promote Nanotechnology**

**Nano Science and Technology Mission (NSTM):**

- NSTM, launched in 2007, is an umbrella programme that aims to promote research and development in nanotechnology. The objectives include the promotion of research, infrastructure development to support the research, development of nanotechnology, human resources, and international collaborations.

**Nano Science and Technology Initiative (NSTI):**

- It was set up by the Department of Science and Technology (DST) in 2001 to focus on issues related to infrastructure development, research and application programmes related to nanomaterials including drugs, drug delivery, gene targeting and DNA chips.

**BIODIVERSITY & ENVIRONMENT**

**Iceberg A68a**

Iceberg A68a, which calved from Antarctica in 2017, has been floating off the coast of South Georgia island.

This has prompted fears about the impact the iceberg could have on the island's abundant wildlife.

**Key Points**

**Iceberg:**

- An iceberg is ice that broke off from glaciers or shelf ice and is floating in open water.
- Icebergs travel with ocean currents and either get caught up in shallow waters or ground themselves.
- The US National Ice Center (USNIC) is the only organisation that names and tracks Antarctic Icebergs.
- Icebergs are named according to the Antarctic quadrant in which they are spotted.

**A68a:**

- Shaped like a closed hand with a pointing finger, the iceberg known as A68a split off in 2017 from Larsen Ice Shelf on the West Antarctic Peninsula, which has warmed faster than any other part of Earth's southernmost continent.
- On its journey, smaller icebergs have calved from the iceberg and the biggest section of the iceberg is called A68a and spans an area of roughly 2,600 sq. km.

- Recently, the two icebergs that calved from A68a - have been named by the USNIC. They are called A68e and A68f.
- All the berg fragments are entrained in a fast-moving stream of water known as the Southern Antarctic Circumpolar Current Front.
- The Antarctic Circumpolar Current (ACC) is the most important current in the Southern Ocean, and the only current that flows completely around the globe.
- The ACC, as it encircles the Antarctic continent, flows eastward through the southern portions of the Atlantic, Indian, and Pacific Oceans.
- It has been drifting towards the remote island of South Georgia, which is a British Overseas Territory (BOT).
- The fear is that if the iceberg grounds itself near the island, it could cause disruption to the local wildlife that forages in the ocean. Penguins and seals will have to travel farther in search of food.

On the other hand, there are some positives of an iceberg being stuck in the open ocean, since icebergs carry dust which fertilises ocean plankton, which draws up carbon dioxide from the atmosphere.

- The British Antarctic Survey (BAS) will launch a research mission to study A68a's impact on the ecosystem.
- BAS is a component of the Natural Environment Research Council (NERC). NERC is part of UK Research and Innovation.
- It delivers and enables world-leading interdisciplinary research in the Polar Regions.

### **Calving of Glaciers**

#### **Meaning:**

- Calving is the glaciological term for the mechanical loss (or simply, breaking off) of ice from a glacier margin.
- Calving is most common when a glacier flows into water (i.e. lakes or the ocean) but can also occur on dry land, where it is known as dry calving.

#### **Process:**

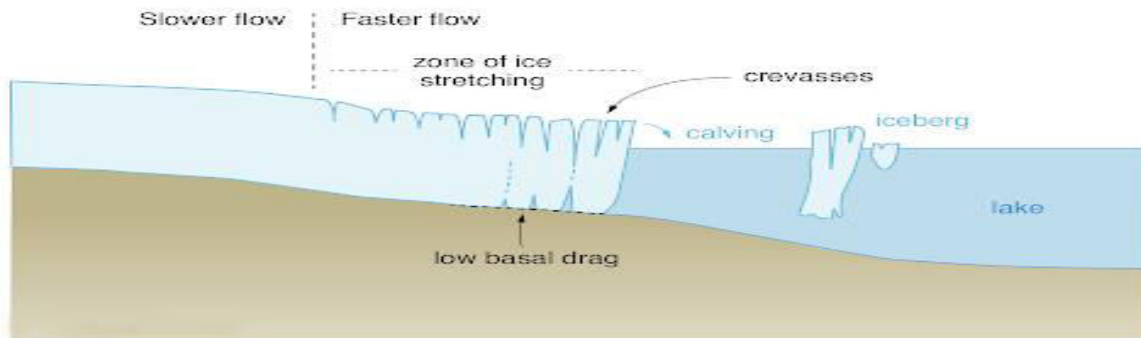
- Before calving occurs, smaller cracks and fractures in glacier ice grow into larger crevasses.
- The growth of crevasses effectively divides the ice into blocks that subsequently fall from the snout into an adjacent lake (where they are known as icebergs).
- Glacier Snout: It is the lowest end of a glacier, also called glacier terminus or toe.

#### **Impact on Glacier Mass Balance:**

- In lake-terminating (or freshwater) glaciers, calving is often a very efficient process of ablation and is therefore an important control on glacier mass balance.
- Ablation: It implies combined processes (such as sublimation, fusion or melting, evaporation) which remove snow or ice from the surface of a glacier or from a snow-field.
- Glacier mass balance: It is simply the gain and loss of ice from the glacier system.
- Global warming has increased the frequency of this process.

#### **Recent Cases of Calving:**

- Up to the end of the 20th century, the Larsen Ice Shelf had been stable for more than 10,000 years.
- In 1995, however, a huge chunk broke off, followed by another in 2002. This was followed by the breakup of the nearby Wilkins Ice Shelf in 2008 and 2009, and A68a in 2017.
- Hydrofracturing - when water seeps into cracks at the surface, splitting the ice farther down - was almost certainly the main culprit in each case.
- Hydrofracturing is a water well development process that involves injecting high pressure water via the well into the bedrock formation immediately surrounding it.
- It was originally developed for the oil and gas industry to increase oil and gas well production.
- On a global scale, drilling or hydrofracturing result in significant greenhouse gas emissions, leading to global warming.



### IMPORTANT FACTS FOR PRELIM

#### **Eminent Dance Scholar Sunil Kothari Passes Away**

Recently, eminent dance scholar and critic Sunil Kothari passed away at the age of 87.

#### **Key Points**

- He was conferred with the fourth highest civilian award, Padma Shri, in 2001.
- He authored 20 books on Indian classical dances and wrote extensively on Bharatanatyam, Kathak and Manipuri dance forms.
- His scholarly work, “Sattriya: Classical Dance of Assam”, helped in creating a better understanding of the dance form in the national and global circuit.
- His other notable contributions include New Directions in Indian Dance and Kuchipudi Indian Classical Dance Art.
- He was elected as a Fellow of Sangeet Natak Akademi.

#### **Indian Classical Dances**

The Indian classical dances have two basic aspects:

- Tandava (movement and rhythm) and Lasya (grace, bhava and rasa).
- The three main components of them are:
- Natya: the dramatic element of the dance i.e. the imitation of characters.
- Nritya: the dance movements in their basic form.
- Nritya: expressional component i.e. mudras or gestures.
- The nine rasas are: Love, Heroism, Pathos, Humour, Anger, Fear, Disgust, Wonder and Peace.
- The Natya Shastra written by Bharat Muni is the most prominent source for the Indian aestheticians for establishing the characteristics of the dances.

#### **There are 8 classical dances in India:**

- Bharatanatyam (Tamil Nadu)
- Kathak (North India)
- Kathakali (Kerala)
- Mohiniyattam (Kerala)
- Kuchipudi (Andhra Pradesh)
- Odissi (Odisha)
- Sattriya (Assam)
- Manipuri (Manipur)

Contemporary classical dance forms have evolved out of the musical play or sangeet-nataka performed from the 12th century to the 19th century.

#### **Sangeet Natak Akademi**

- It is India's national academy for music, dance and drama.
- It was created by a resolution of the Ministry of Education (formerly the Ministry of Human Resource Development), Government of India, in 1952 with Dr P V Rajamannar as its first Chairman.
- It is presently an autonomous body of the Ministry of Culture and is fully funded by the Government for implementation of its schemes and programmes.

The Akademi establishes and looks after institutions and projects of national importance in the field of the performing arts. Few important ones are:

- National School of Drama, New Delhi (set up in 1959).

- Jawaharlal Nehru Manipur Dance Academy, Imphal (set up in 1954).
- Kathak Kendra (National Institute of Kathak Dance), New Delhi (set up in 1964).
- National Projects of Support to Kutiyattam (Sanskrit theatre of Kerala), Chhau dances of eastern India, Sattriya traditions of Assam, etc.

### **DAILY ANSWER WRITING PRACTICE**

**Qns “MSMEs sector is referred to as the growth engine of the Indian economy”. In light of this statement discuss the challenges and solution pertaining to the MSMEs sector in India. (250 words)**

**Ans:**

The Micro, Small and Medium Enterprises (MSME) sector is the second largest employment generating sector (after agriculture) and accounts for 45% of output in India. This sector plays a crucial role in providing large employment opportunities at comparatively lower capital cost than large industries.

- They also help in industrialization of rural and backward areas, thereby, reducing regional imbalances, assuring more equitable distribution of national income and wealth.

#### **Significance of MSMEs for Indian Economy**

**Contribution to GDP:** With around 36.1 million units throughout the geographical expanse of the country, MSMEs contribute around 6.11% of the manufacturing GDP and 24.63% of the GDP from service activities.

**Exports:** It contributes around 45% of the overall exports from India.

**Inclusive growth:** MSMEs promote inclusive growth by providing employment opportunities in rural areas especially to people belonging to weaker sections of the society.

**Financial inclusion:** Small industries and retail businesses in tier-II and tier-III cities create opportunities for people to use banking services and products.

**Promote innovation:** It provides opportunity for budding entrepreneurs to build creative products boosting business competition and fuels growth.

#### **Issues and Challenges faced by MSMEs**

##### **Access to credit:**

- 90% of the MSMEs are dependent on informal sources for funding
- Lack of sufficient collateral and high working capital needs

##### **Access to Markets**

- Low outreach and non availability of new markets.
- Lack of skilled manpower and ineffective marketing strategy.
- Difficult for MSMEs to sell products to government agencies.

##### **Technology Access**

- Limited human resources and weak financial standing.
- MSMEs, particularly in the unorganised sector, show lower adaptability of new technology and innovation

#### **Quality and Export Issues**

- Low quality products impact export competitiveness.
- Inadequate access to quality raw materials.
- Use of traditional machines causes low productivity.

#### **E- Governance**

- Issues such as online access to credit
- Online resolution of disputes
- Access to robust IT infrastructure

#### **Ease of Doing Business**

- Cumbersome government procedures and rules for establishing new units.
- Red Tapism
- Poor litigation system in the country.

#### **Steps Taken**

- Launch of the 59 minute loan portal to enable easy access to credit for MSMEs.
- 2 percent interest subvention for all GST registered MSMEs, on fresh or incremental loans.
- Trade Receivables e-Discounting System (TReDS) to enable access to credit from banks, based on their upcoming trade receivables from corporate and other buyers.
- The Union government announced the launch of an e-commerce platform on the lines of private e-commerce companies to sell products from MSMEs.

- Public sector companies now compulsorily procure 25%, instead of 20% of their total purchases, from MSMEs.
- Government e-Marketplace (GeM) portal: It provides transparency in procurement and facilitates MSMEs to directly reach out to the buyers.
- Financial support to MSMEs in ZED(Zero Defect Zero Effect) certification to improve quality of products.
- Government provides subsidies towards the expenditure incurred by enterprises to obtain the product certification licenses from national and international bodies
- Udyami Mitra Portal : launched by SIDBI to improve accessibility of credit and handholding services to MSMEs.
- MSME Sambandh : To monitor the implementation of the public procurement from MSMEs by Central Public Sector Enterprises.
- MSME Samadhaan- MSME Delayed Payment Portal— will empower Micro and Small entrepreneurs across the country to directly register their cases relating to delayed payments by Central Ministries/Departments/CPSEs/State Governments.
- Digital MSME Scheme : It involves usage of Cloud Computing where MSMEs use the internet to access common as well as tailor-made IT infrastructure

#### Way Forward

- The government can play a crucial role in creating domestic manufacturing capabilities by leveraging proposed public procurement and projects.
- For example, Mega public projects such as Sagarmala, Bharatmala, industrial corridors, and the Pradhan Mantri Awas Yojana (PMAY) can stimulate domestic manufacturing activities.
- Efforts should be made to develop self-sufficient clusters of manufacturing competence, with Cluster Administrative Authorities, empowered to provide single window clearances to entrepreneurs and investors.
- Leveraging Industrial Revolution 4.0: Disruptive technology, while leading to job losses in traditional areas, also presents new job opportunities.
- A greater connect between government-industry-academia is required to identify the changing requirements in manufacturing and prepare an employable workforce.
- Also, the Industrial Revolution 4.0 will boost the Industrial supply chains in India.
- The recent stimulus package of Rs 3-lakh crore collateral-free assistance to the MSMEs under Atmanirbhar Bharat Abhiyan, is the step in the right direction. However, providing a stimulus package may not be effective, until adequate reforms are carried out to solve its pressing problems and to utilize its potential.

#### DAILY QUIZ

1. Consider the following statements:

1. The British Antarctic Survey (BAS) and the US National Ice Center (USNIC) names and tracks the Antarctic Icebergs.
2. The Antarctic Circumpolar Current (ACC) in the Southern Ocean is the only Ocean current that flows completely around the globe.

Which of the given statements is/are correct?

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

2. Consider the following statements about the Inner Line Permit (ILP):

1. The ILP is an official travel document implemented by the Government of India in 1950.
2. The ILP was applicable to Mizoram, Arunachal Pradesh, Manipur and Nagaland only.

Which of the given statements is/ are not correct?

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

3. Which of the following statements are correct regarding the Social Endeavour for Health and Telemedicine (SEHAT) scheme?

1. It will cover only the district's under the aspirational district programme.
2. This scheme provides free of cost insurance cover.
3. The scheme would work in convergence with Pradhan Mantri Jan Arogya Yojana.

Select the correct answer using the code given below:

- a) 1 and 3 only
  - b) 2 and 3 only**
  - c) 1 and 2 only
  - d) 1, 2 and 3
4. 'Nanomicelle' was recently in the news, it is a-
- a) Effective drug delivery method to treat cancer.**
  - b) Method to turn saline water into fresh water.
  - c) Method to increase soil fertility.
  - d) An organism that recently became extinct.
5. The 'Main Bhi Digital Drive' has been in the news. It is being launched by which of the following ministries?
- a) Ministry of Electronics and Information Technology
  - b) Ministry of Housing and Urban Affairs**
  - c) Ministry of Youth Affairs and Sports
  - d) Ministry of Education



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