



### **Daily Current Affairs Prelims Quiz 14-12-2024 (Online Prelims Test)**

1) Consider the following statements with respect to the National Conference of Chief Secretaries

1. It emphasises on the “evolution and implementation” of a common development agenda and blueprint for cohesive action in partnership with the States.
2. It is chaired by the Cabinet Secretary of India.
3. It is organised by the Ministry of Parliamentary Affairs.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

Answer : a

### **National Conference of Chief Secretaries**

*The 4th National Conference of Chief Secretaries in Delhi is all set to be held from 14th and 15th December 2024.*

- National Conference of Chief Secretaries emphasises on the “evolution and implementation” of a common development agenda and blueprint for cohesive action in partnership with the States.
- It is driven by the vision to strengthen cooperative federalism and ensure better coordination between the Centre and States to achieve faster growth and development.
- **It is chaired by the Prime Minister Shri Narendra Modi. (Statement 2 is incorrect)**
- 4th National Conference of Chief Secretaries is a 3 day Conference that will emphasise on the evolution and implementation of a common development agenda.
- **It is organised by the NITI Aayog. (Statement 3 is incorrect)**
- The Conference has been held annually for the last 3 years.
- First Chief Secretaries Conference was held in June 2022 at Dharamshala, followed by second and third conference at New Delhi in January 2023 and December 2023 respectively.

2) SAMARTH Udyog Bharat, sometimes seen in the news recently, is associated with?

- a. Enhancement of Competitiveness in the Indian Capital Goods Sector.
- b. AI-Enabled Dashboard Cameras for Efficient Emergency Response.
- c. Training programs to train Rural Poor including Below Poverty Line (BPL) youth.
- d. Cooperative Enterprise Support and Innovation Scheme.

Answer : a

### **SAMARTH Udyog Bharat 4.0**

- SAMARTH Udyog Bharat 4.0 is an Industry 4.0 initiative of *Ministry of Heavy Industry & Public Enterprises*.
- The scheme aids to enhance the competitiveness in Indian Capital Goods Sector.
- SAMARTH Udyog encompasses manufacturers, vendors and customers as the main stakeholders.
- The experiential and demonstration centres for Industry 4.0 have been proposed to spread awareness about I4.0 amongst the Indian manufacturing industries.
- **Five centres** of I4.0 having a unique identity for spreading awareness and branding have been sanctioned under SAMARTH Udyog.
- Five CEFC (Common Engineering Facility Center) Projects are:
  1. Center for Industry 4.0 (C4i4) Lab Pune.
  2. IITD-AIA Foundation for Smart Manufacturing.
  3. I4.0 India at IISc Factory R & D Platform.
  4. Smart Manufacturing Demo & Development Cell at CMTI.
  5. Industry 4.0 projects at DHI CoE in Advanced Manufacturing Technology, IIT Kharagpur.
- SAMARTH Centres have been providing assistance to industries including MSMEs to train the workforce and make them aware about Industry 4.0 technologies.
- **No financial assistance** is given to any industry including MSME for adopting Industry 4.0 enabled technologies under SAMARTH centre initiative of the Scheme.

3) Consider the following statements with respect to Titanium

1. Titanium Sponge is used in preparing critical components in the aerospace industry like Aircraft fuselage, engine parts and landing gear.
2. India has rich reserves of titanium ore in the beach sands along the coasts of Kerala, Tamil Nadu, Andhra Pradesh and Odisha.
3. Titanium Slag is an intermediate product in the value chain of Titanium and can be used as a feed material to produce Titanium Sponge.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

Answer : c

## Titanium

*The Joint Venture between IREL (India) Limited (IREL) and Ust-Kamenogorsk Titanium & Magnesium Plant JSC, recently proposes to convert low TiO<sub>2</sub> ilmenite to high Titanium oxide (TiO<sub>2</sub>) Titanium slag.*

- Titanium (Ti) is a silvery gray metal of Group 4 (IVb) of the periodic table.
- Titanium is a lightweight, high-strength, low-corrosion structural metal and is used in alloy form for parts in high-speed aircraft.
- Titanium is widely distributed and *constitutes 0.44% of Earth's crust*.
- The metal is found combined in practically all rocks, sand, clay and other soils.
- India has rich reserves of titanium ore in the beach sands along the **coasts of Kerala, Tamilnadu, Andhra Pradesh and Odisha**.
- Kerala Minerals and Metals Limited (KMML), Kollam, produces titanium tetrachloride (TiCl<sub>4</sub>) as an intermediate product during the production of pigment grade titanium dioxide.
- Based on the Defence Metallurgical Research Laboratory (DMRL) technology, the country's

first commercial titanium sponge plant with a capacity of 500 tons per year was established at KMML, with funding from ISRO.

- **Titanium slag** - Is an intermediate product in the Titanium value chain.
- Titanium Slag can be used as the *feed material to produce Titanium Sponge*.
- **Titanium Sponge** - It is used in preparing critical components in the aerospace industry like Aircraft fuselage, engine parts and landing gear.
- In defence, it is used in armour plating, hull and heat exchanger in submarine, missiles and fighter jets and so on.
- In atomic energy it is used for nuclear reactor shields, heat exchanger and condenser tubes and so on.
- At present, in the country the titanium sponge capacity is extremely limited (500 Tonnes per annum) with production of the order of about 260 Tonnes per annum.
- The setting up of this JV plant is expected to catalyse the establishment of Ti Slag/sponge manufacturing industry, which has been hindered by non-availability of high TiO<sub>2</sub> feed stock.
- The quality of Ti slag produced in Indian facility will be at par with the one required for producing Ti sponge/metal essential for strategic application in aerospace, defence and atomic energy.

4) Consider the following statements with respect to PM Formalisation of Micro Food Processing Enterprises (PMFME) Scheme

1. It aims to enhance the competitiveness of existing individual micro-enterprises in the unorganized segment of the food processing industry.
2. It is a central sector scheme that will directly assists the micro food processing units by credit linked subsidy.
3. The Seed Capital is a component under the scheme being implemented through respective State Rural Livelihood Missions & State Urban Livelihood Missions.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

Answer : c

### **PM Formalisation of Micro Food Processing Enterprises (PMFME) Scheme**

- PM Formalisation of Micro Food Processing Enterprises (PMFME) Scheme was launched in partnership with the State/ UT Governments under Aatmanirbhar Bharat Abhiyan.
- It aims to *enhance the competitiveness of existing individual micro-enterprises in the unorganized segment* of the food processing industry.
- It is a **centrally sponsored scheme** that is designed to address the challenges faced by the micro-enterprises and to tap the potential of groups and cooperatives in supporting the upgradation and formalization of these enterprises.
- It also aims to promote formalization of the sector and support Farmer Producer Organizations (FPOs), Self Help Groups (SHGs) and Producers Cooperatives along their entire value chain.
- *Under the scheme, 2, 00,000 micro food processing units will be directly assisted with credit linked subsidy.*
- Adequate supportive common infrastructure and institutional architecture will be supported to accelerate the growth of the sector.

*The unorganized food processing sector in the country comprises nearly 25 lakh food processing enterprises that are unregistered and informal.*

- Under the PMFME Scheme, Ministry provides grants for **Seed Capital up-to Rs. 40,000/per member of SHG**.
- Individual SHG member can avail credit linked grant @35% of the project cost with maximum ceiling of Rs.10 lakh as a single unit of food processing enterprise.
- SHGs are also eligible for assistance under relevant component schemes of Central Sector Pradhan Mantri Kisan SAMPADA Yojana (PMKSY).
- *The Seed Capital component of PMFME Scheme is implemented through respective State Rural Livelihood Missions (SRLMs) & State Urban Livelihood Missions (SULMs).*

5) AgeXtend, sometimes seen in the news recently, is associated with?

- AI-based platform to identify age-defying molecules rapidly.
- A scheme to resolve the grievances faced by the senior citizens.
- An agency that conduct research for their anti-aging properties.
- A scheme to create a universal social security system for all senior citizens.

Answer : a

## AgeXtend

- AgeXtend is an AI-based platform to identify age-defying molecules rapidly.
- It also helps in understanding the biological mechanism of compounds, says one of the scientists.
- It was **developed by the Researchers at IIT-Delhi**.
- The tool can efficiently cut down the time taken to identify viable molecules with geroprotectors or age defying properties, through conventional research.
- The platform had uncovered several promising candidates validated through experiments on yeast, worms (*C. elegans*) and human cell models.
- A fraction of them, less than 1%, have been identified with anti-ageing properties.
- It uses AI to predict and identify compounds with anti-ageing properties, assess their safety, and understand their biological effects.

