



## Daily Current Affairs Prelims Quiz 18-07-2024 (Online Prelims Test)

- 1) 'one nation, one rate' (ONOR) Initiative, sometimes seen in the news recently, seeks to standardize?
- Public Distribution System (PDS)
  - Gold
  - Fertilizer
  - Goods and Services Tax

Answer : b

### 'one nation, one rate' (ONOR) Initiative

- It seeks to **standardize gold price across the country**.
- This initiative has been advocated by the All India Gem & Jewellery Domestic Council (GJC).
- **Reasons for fluctuations in gold price** – As India imports most of its gold requirement, the currency exchange rate and various duties further influence the gold price in India.
- If the US dollar strengthens against the rupee, domestic gold prices go up and vice versa.
- **Gold prices vary from State to State** due to differences in logistical costs, differing demand and supply dynamics.
- These factors create disparities in pricing.
- **Benefits of ONOR** – A single gold rate will guarantee that all **customers are treated equally** and receive jewellery at the **same price** regardless of their location.
- Having a single rate across the country will make the **gold market more efficient**.
- It will create a more **transparent** and **uniform pricing structure**.
- Eliminating price disparities could lead to a **reduction in gold price**.
- It will also help in eliminating opportunities for arbitrage and ensure a **fair competitive atmosphere** for all jewellers in India.
- **All India Gem And Jewellery Domestic Council** – Is a self-regulated trade body that serve as a bridge between the Government and the trade as well as undertaking various initiatives on behalf of and for the industry.
- It represents the interests of over 6 lakh gem and jewellery businesses from across the country.
- It represents various industry segments such as Manufacturers, Retailers, Wholesalers, Allied, gold, silver, platinum, diamonds, Gem stones, and machinery and so on.
- It undertakes various CSR activities on behalf of the industry workers to promote and ensure safe and secure working environment for its large workforce.

2) Consider the following statements with respect to Shellac

1. It is a natural, organic resin secreted by the lac bugs found on the trees in India.
2. Shellac Export Promotion Council works under the aegis of the Ministry of Agriculture & Farmers' Welfare.
3. It has the potential for eco-friendly alternatives in advanced materials production.

How many of the statements given above are correct?

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

Answer : b

## Shellac

*Indian researchers have recently developed a graphene-like material film with enhanced electrical conductivity using Shellac, showcasing the country's progress in cutting-edge scientific research.*

- Shellac is a natural, organic resin secreted by the lac bug (*Laccifer Lacca*) found on trees in India and Myanmar.
- The term 'lac' originates from the Sanskrit word 'lakh', meaning one hundred thousand.
- The resin forms a cocoon around the insect, serving to incubate its eggs.
- Raw shellac, known as 'sticklac', is refined to produce the commercially available product.
- **Historical context of shellac** - Mentioned in ancient Hindu scriptures like the Atharva Veda (1500 - 1200 BC).
- **Panini** (550 B.C) mentioned the *medicinal properties of lac* in his book, the **Ashtadhyayi**.
- Detailed in **Buddhist Vinaya Pitaka texts**.
- In 1563, the Portuguese traveller, Garcia de Orta, described the uses of lac resin and lac dye in India.
- The Ain-i-Akbari of Abu Fazal (1590) gives detailed procedures for the use of lac varnishes on door screens of public buildings during the Mughal rule in India.
- **Applications Of Shellac**
- **Pharmaceuticals** - Shellac is used to **coat enteric pills** so that they do not dissolve in the stomach, but in the lower intestine, which alleviates upset stomachs.
- It's also used as a coating on pills to "time release" medication.
- **Confectionery** - It is used to provide **protective candy coatings** or glazes on candies like Reese's Pieces, because of its unique ability to provide a high gloss in relatively thin coatings.
- It is approved by the FDA as a food safe coating when dissolved in pure ethanol (not denatured).
- **Hats** - Shellac is used to stiffen felt used to make hats.
- It allows the makers to shape the felt into brims, bowl shapes, etc.
- **Food Coatings** - Because of its FDA approval, shellac is used to coat apples and other fruits to make them shinier.
- **Electrical** - Shellac mixed with marble dust is used by lamp manufacturers to glue the metal base to glass incandescent bulbs.
- **Eco-friendly alternatives** - It has the potential for eco-friendly alternatives in advanced materials production.
- **Shellac Export Promotion Council (SEPC)** - It was formed under sponsorship of **Ministry of Commerce & Industry** to facilitate India's exports of shellac and lac based products.
- In April 2005, SEPC's role was enhanced as the Nodal EPC for India's Non Timber Forest Produce, to facilitate exports of Veg Saps & Extracts, Guar Gum, Sesame seeds, Herbs, Niger.
- Seeds, Other Vegetable materials, Fixed Vegetable Oil, Cakes and more.
- Subsequently, SEPC was renamed as **SHEFEXIL (Shellac & Forest Products Export Promotion Council)** and now supports 860 individual products.
- In October 2007, SHEFEXIL was declared as the nodal EPC for the North Eastern Region of India, to facilitate all exports from all North Eastern States.

3) Consider the following statements:

1. Encarsia Formosa are wasps that provide an efficient way to control whiteflies.
2. Wolbachia is a common bacterium that is usually found in dengue-carrying Aedes aegypti mosquitoes.

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

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

Answer : a

## Encarsia Formosa

*Recent research have shown that the Encarsia Formosa are important in agricultural pest management, particularly in controlling whiteflies.*

- **Encarsia formosa** is a tiny parasitic wasp that parasitizes whiteflies.
- It provides an **efficient way to control whiteflies**.
- **Wolbachia** is a common bacterium that occurs naturally in 60% of insect species, including some mosquitoes, fruit flies, moths and butterflies.
- **Wolbachia is usually not found in dengue-carrying Aedes aegypti mosquitoes.**
- Wolbachia bacteria are present in insect eggs but not in sperm, allowing only female insects to transmit them to offspring.
- To ensure their own survival and spread, Wolbachia evolved ways to manipulate host insects to produce more females than males.
- **Genetic Manipulation** - The ability of Wolbachia to manipulate its host's genetics demonstrates the power of microorganisms in shaping evolution.
- **Antibiotic Resistance** - The use of antibiotics to alter Wolbachia concentrations in the study highlights the broader issue of antibiotic use and resistance, a critical concern in public health and agriculture.
- **Biodiversity Threats** - The potential extinction of E. formosa due to loss of genetic diversity illustrates how subtle changes in ecosystems can lead to species loss, emphasizing the importance of biodiversity conservation.
- **Environmental Impact** - The study highlights the delicate balance in ecosystems and how human interventions (like pesticide use) can have unforeseen consequences on species interactions.

4) Consider the following statements with respect to Dual-tower Solar Thermal Plant

1. Unlike conventional thermal power plants, it incorporates molten salt storage to produce power at night when the sun is unavailable.
2. India has unveiled the world's first dual-tower solar thermal power plant.

Which of the above statement(s) is/are **incorrect**?

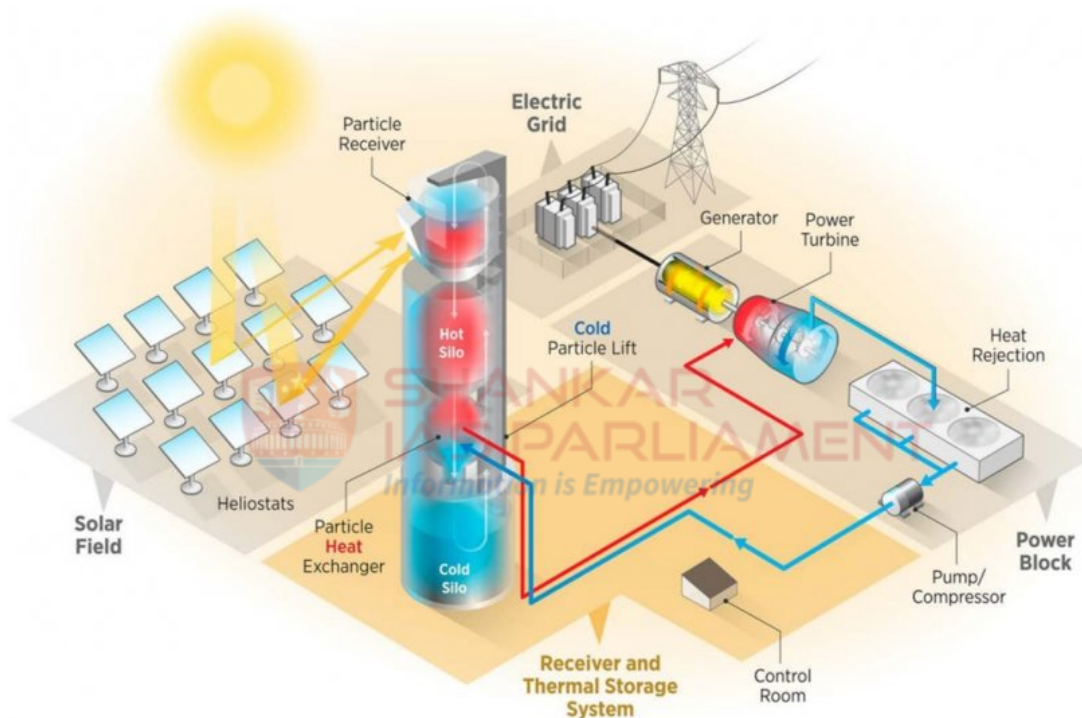
- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : b

## Dual-tower Solar Thermal Plant

*World's 1st dual-tower solar plant unveiled was recently unveiled by China.*

- **China has unveiled the world's first dual-tower solar thermal power plant**, which utilises an innovative design to significantly improve energy efficiency.
- *Unlike conventional thermal power plants, it incorporates molten salt storage to produce power at night when the sun is unavailable.*
- Molten salt stored in the towers functions as a thermal battery, storing excess heat during the day and releasing it to keep the generators running continuously.
- The **mirrors** in the overlapping area can be utilized by either tower
- The mirrors track the sun's movement, concentrating its rays on the eastern tower in the morning and automatically adjusting westward in the afternoon.
- The mirrors are made of special materials, whose *reflection efficiency can reach a staggering 94%*.
- China claims that this design is not limited to the two towers; it has the potential to involve multiple towers for even greater efficiency gains.



5) Consider the following statements with respect to Business Responsibility & Sustainability Reporting (BRSR)

1. It is the medium through which listed companies report the performance on environmental, social and governance (ESG) aspects.
2. It is applicable only to the top 1000 companies by market capitalisation.
3. It is based on the nine principles of the National Guidelines for Responsible Business Conduct (NGRBC).

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

## **Business Responsibility & Sustainability Reporting (BRSR) Framework**

*The Securities and Exchange Board of India (SEBI) recently concluded a consultation paper seeking feedback on significant revisions to the Business Responsibility & Sustainability Reporting (BRSR) Framework.*

- **Evolution of BRSR** - Evolved from Business Responsibility Reporting (BRR) and National Voluntary Guidelines for Responsible Business Conduct.
- BRSR is the medium through which listed companies report the performance on environmental, social and governance (ESG) aspects.
- It is **based on the nine principles of the National Guidelines for Responsible Business Conduct (NGRBC)**.
- **Scope and Implementation** - Applicable to top 1000 companies by market capitalization.
- **Key features** - BRSR Core focuses on **nine key performance indicators**.
- It includes **Essential and Leadership indicators** with Leadership indicators being optional.
- The frame incorporates global standards relevant to India.
- **Not fully interoperable with international standards.**
- **Challenges** - IT systems not fully equipped for data capture.
- Lack of awareness and preparedness and shortage of sustainability-trained personnel.
- **Global Standards and Frameworks** - The IFRS sponsored ISSB's (International Sustainability Standards Board) standards IFRS S1 and IFRS S2 have gained acceptance.
- Similarly, the IFAC's (International Federation of Accountants) standards for assurance are now the norm.
- These standards are not yet officially prescribed although the prescription of 'Reasonable Assurance' by SEBI.