Prelim Bits 09-01-2022 & 10-01-2022 | UPSC Daily Current Affairs

Gold & Silver Futures

Gold and silver futures on Multi Commodity Exchange (MCX) opened at marginally low price.

- A precious metals futures contract is a **legally binding agreement** for delivery of gold or silver at an **agreed-upon price in the future**.
- Gold and silver futures contracts can offer,
    - A hedge against inflation,
    - An alternative investment class or a commercial hedge for investors seeking opportunities outside of traditional equity and fixed income securities.
- A futures exchange standardizes the contracts as to the quantity, quality, time, and place of delivery. Only the price is variable.
- With futures, you don't need to actually hold physical metal and you can leverage your purchasing power.
- Hedgers use these contracts as a way to manage price risk on an expected purchase or sale of the physical metal.
- Holding futures has no management fees that might be associated with ETFs or mutual funds, and taxes are split between short-term and long-term capital gains.

Reference

1. https://www.thehindubusinessline.com/markets/commodities/gold-futures-down-109-in-opening-trades/article38213558.ece
2. https://www.investopedia.com/articles/optioninvestor/06/goldsilverfutures.asp

National AIDS Control Organisation

A lawyer says that the NACO's implementation of WHO recommendations to diagnose and treat advanced HIV disease faces multiple delays.

- After the first AIDS case in India (1986), in 1992,
    1. India's first National AIDS Control Programme (1992-1999) was launched and
    2. National AIDS Control Organization (NACO) was constituted to implement the programme.
- NACO is a nodal agency for formulating policy & implementing interventions to prevent and control HIV in India.
- NACO comes under the Ministry of Health and Family Welfare.
- **Components** - Prevention; Information, Education & Communication; Testing; Treatment; Laboratory Services; Mainstreaming & Partnership and Social Protection; and Strategic Information (SI).
- National AIDS Control Programme (NACP) is a fully funded Central Sector Scheme implemented through State/ UT AIDS Control Societies (SACS) in States/Union Territories

(UTs).
- It is closely monitored through District AIDS prevention and control unit (DAPCU) in 188 high priority districts.
- Currently, NACP-IV (extension) is under implementation for the period 2017-20.

Reference

1. https://www.thehindubusinessline.com/news/national/covid-throws-a-spotlight-on-aids-treatment-in-india/article37961834.ece
2. https://main.mohfw.gov.in/sites/default/files/24%20Chapter%20496AN2018-19.pdf
3. http://naco.gov.in/about-us

Carbon Enhanced Metal-Poor Stars

Indian astronomers have traced the origin of a much higher fraction of elements heavier than iron than is expected in carbon-rich stars to the low-mass companions of these stars, from which the materials have been stolen.

The low-mass companion stars have further evolved to white dwarfs that are no longer detectable.

- The carbon-rich stars are known as the Carbon Enhanced Metal-Poor (CEMP) stars.
- CEMP stars show enhancement of carbon, and are characterised by diverse heavy elements abundance patterns.
- These stars are primarily classified into 4 groups, based on which groups of heavy elements are more abundant.
- These are mostly dwarf stars, sub-giant stars, or giant stars, and stars that belong to these evolutionary stages can't produce elements heavier than iron.
- **Formation** - CEMP stars were formed from the ejected material of the first stars that formed after the Big Bang, carrying the chemical imprints of early Galactic chemical evolution.

Heavier elements are produced mainly by two processes of nucleosynthesis– slow and rapid neutron-capture processes called s and r processes respectively.

- CEMP stars showing enhancements of s-process and r-process elements are known as CEMP-s and CEMP-r stars respectively.
- CEMP-r/s stars are subclass of CEMP stars that exhibit the enhancement of both s- and r-process elements.
- Scientists from the Indian Institute of Astrophysics (IIA) have found that an intermediate process called i-process.
- This i-process operating at neutron densities intermediate between those for s-process and r-process is responsible for the peculiar abundance pattern of CEMP-r/s stars.
- They have also put forward a new stellar classification criteria based on the abundances of barium, lanthanum and europium to distinguish between the CEMP-s and CEMP-r/s stars.

Reference

https://www.business-standard.com/article/current-affairs/carbon-rich-stars-steal-heavy-elements-from-low-mass-companions-scientists-122010100025_1.html

Sweet Revolution

KVIC rolls out innovative "Mobile Honey Processing Van" to support farmers and beekeepers in line with the "Sweet Kranti" (Sweet Revolution).

- 'Sweet Revolution' was launched by the Government of India in 2016 to promote beekeeping (apiculture) and associated activities.
- It is a strategic step to emphasize the increase in honey production, which can be a major contributor to doubling the income of the farmers.
- With the increase in income, the production of crops will also increase by 15%.
- **Related Links -** National Beekeeping & Honey Mission

Reference

1. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1788375
2. https://blog.mygov.in/sweet-revolution-mithi-kranti-steps-towards-doubling-farmers-income/

Green Energy Corridor

The Cabinet Committee on Economic Affairs approved the scheme on Green Energy Corridor (GEC) Phase-II for the Intra-State Transmission System (InSTS).

- The Green Energy Corridor Project of the Ministry of New & Renewable Energy aims at synchronizing electricity produced from renewable sources (solar and wind), with conventional power stations in the grid.
- For evacuation of large-scale renewable energy, Intra State Transmission System (InSTS) project was sanctioned by the Ministry in 2015-16.
- It is being implemented by 8 renewable-rich states of Tamil Nadu, Rajasthan, Karnataka, Andhra Pradesh, Maharashtra, Gujarat, Himachal Pradesh, and Madhya Pradesh.
- The project is being implemented in these states by the respective State Transmission Utilities (STUs) allocating the work through a competitive bidding process.
- **Funding mechanism** consists of 40% Government of India Grant, 20% state equity and 40% loan from KfW, Germany (500 million EUR).
- The Central grant is disbursed in two installments to the STUs:
    a. 70% advance on the award of contract, and
    b. 30% after successful commissioning and 3 months of performance testing.

Reference

1. https://pib.gov.in/PressReleasePage.aspx?PRID=1788011
2. https://mnre.gov.in/green-energy-corridor

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