

WHAT ARE NON-FUNGIBLE TOKENS (NFTS)?

Google recently said it will allow developers to offer games on the Play Store where players can buy, sell and earn tokenized digital assets—like non fungible tokens.



About Non-Fungible Tokens (NFTs):

- NFTs are **unique cryptographic tokens** that exist on a blockchain and cannot be replicated.
- They can **represent digital or real-world items** like artwork, photograph, song, video, real estate, individuals' identities, property rights, and more.
- Thus, **NFTs are assets that have been tokenized via a blockchain**. They are assigned **unique identification codes and metadata** that distinguish them from other tokens.
- The term 'non-fungible' simply means that each token is **different as opposed to a fungible currency such as money** (a ten-rupee note can be exchanged for another and so on).
- **NFTs can be traded and exchanged for money, cryptocurrencies, or other NFTs**—it all depends on the value the market and owners have placed on them.
- **NFT transactions are recorded on blockchains**, which is a digital public ledger, with **most NFTs being a part of the Ethereum blockchain**.
- **NFTs became popular in 2021**, when they were beginning to be seen by artists as a convenient way to monetise their work.

What is Blockchain Technology?

- A blockchain is essentially a **digital ledger of transactions that is duplicated and distributed across the entire network of computer systems** on the blockchain.
- **Each block in the chain contains a number of transactions**, and every time a new transaction occurs on the blockchain, a **record of that transaction is added to every participant's ledger**.
- **Decentralized blockchains are immutable**, which means that the data entered is irreversible.
- This means **if one block in one chain was changed, it would be immediately apparent** it had been tampered with.

BARD CHATBOT

Google's parent company Alphabet is rolling out its artificial intelligence chatbot Bard in Europe and Brazil.



About Bard Chatbot:

- It is an **Artificial Intelligence (AI)** chatbot developed by Alphabet, parent company of Google.
- It is an example of **generative AI** that can respond to questions in a human-like way.
- **Features:**
 - Users can interact with the Bard chatbot in 40 languages, including nine Indian languages.
 - Users can change the tone and style of Bard's responses to either simple, long, short, professional or casual.
 - They can pin or rename conversations, export code to more places and use images in prompts.

What is Generative AI?

- Generative AI (GenAI) is a type of AI that can create a wide variety of data, such as images, videos, audio, text, and 3D models.
- It does this by learning patterns from existing data, then using this knowledge to generate new and unique outputs.
- GenAI is capable of producing highly realistic and complex content that mimics human creativity, making it a valuable tool for many industries such as gaming, entertainment, and product design.

WHAT IS THE AMRIT BHARAT STATION SCHEME (ABSS)?



Southern Railway has identified 90 stations for development under the Amrit Bharat Station Scheme (ABSS).

About Amrit Bharat Station Scheme (ABSS):

- It envisages **development of stations on a continuous basis with a long-term vision.**
- The scheme will **subsume all previous redevelopment projects** where work is yet to begin.
- The scheme **aims at preparation of Master Plans** of the Railway stations and **implementation of the Master Plan in phases to enhance the facilities** including and **beyond the Minimum Essential Amenities.**
- However, plans and consequent budgets **will only be approved on the basis of factors** such as **footfall and inputs from stakeholders.**
- **Zonal railways have been given the responsibility of selecting stations,** which will then be approved by a committee of senior railway officials.
- The model **envisages low-cost redevelopment** of stations which can be executed timely.
- The scheme shall **cater for introduction of new amenities as well as upgradation and replacement of existing amenities.**

Facilities Planned under Amrit Bharat Station Scheme:

- Provision for **Roof Plaza** to be created in future.
- **Free Wi-Fi, space for 5G mobile towers.**
- Smooth access by **widening of roads, removal of unwanted structures, properly designed signages, dedicated pedestrian pathways,** well planned parking areas, **improved lighting** etc.
- Attempts shall be made to **club different grades/types of waiting halls** and provide **good cafeteria/retail facilities** as far as possible.
- **Better furniture** will be installed in **waiting rooms, platforms, rest rooms** and offices.
- **High level platforms(760-840 mill meter)** shall be provided at all categories of stations.
- **Special amenities for the disabled** as per guidelines issued by the Railway Board from time to time.

INDIA FRANCE TIES

Context

- On 14th July, the PM of India will be the **Guest of Honour at France's Bastille Day** parade in Paris.
- The visit becomes more important as **it coincides with 25 years milestone of India-France strategic partnership.**

Why India-France Partnership is a Special Partnership

- **France Stood by India at Critical Points**

- India-France commenced their strategic partnership, India's first, immediately after India's nuclear tests, at a time **when most Western capitals had turned their backs on New Delhi.**
- **France was the first country to recognise the strategic importance of India** after the nuclear tests in 1998.
- The partnership with France is India's most important strategic partnership in Europe.
- During the civil nuclear negotiations with the US, French President Jacques Chirac, on his visit to India in 2006, sent a strong message to President George W Bush that **India should not be boxed into a corner.**

- **Strategic Autonomy: A Common Quest**

- India and France as **"mirror images of each other"** in their common quest for strategic autonomy amid big power play.
- Although India and France are on different continents, there is a **remarkable resonance** in the strategic outlook.

- **Mutual Trust and Reliability**

- **The defence relationship**, a critical element in ties, is marked by trust and reliability.
- While defence deals with the US are dogged by unpredictability due to Congressional interventions and export control regimes, **the French deals come with no strings attached.**
- France understands that India would not like to put all its defence eggs in one basket.

- **Defence Cooperation**

- **The Inter-governmental agreement for purchase of 36 Rafale jets** by India in flyaway condition was signed in New Delhi in 2016. Project implementation is underway.

- **The contract for six Scorpene submarines from M/s DCNS** was signed in October 2006. All six vessels are to be built under technology transfer at the Mazagaon Docks Ltd. Project implementation is underway. The first submarine **INS Kalvari** was commissioned in 2017.
- **The French offered their own Safran engine** that would be fully made in India.
- While the US offer, which signalled a major breakthrough in India-US defence ties, does not include the transfer of a critical part of the technology, **the French have promised 100 per cent technology transfer.**

Conclusion

- France is **India's oldest strategic partner**, and the relationship has almost no friction points.
- Both nations value their **strategic autonomy**, independent foreign policies, and seek a multipolar world.
- **The defence relationship** between both nations is robust, and is **set to get stronger.**

WHAT IS AGRICULTURE INFRASTRUCTURE FUND?

- It is a **Central Sector Scheme** which was **launched in 2020**
- The scheme shall provide a medium - long term **debt financing facility** for investment in viable projects for **post-harvest management Infrastructure** and community farming assets through interest subvention and financial support.
- **Duration:** The duration of the Scheme shall be from **FY2020 to FY2032** (10 years).

Benefits

- All loans under this financing facility will **have interest subvention** of 3% per annum up to a limit of Rs. 2 crores. This subvention will be available for a maximum period of **seven years.**
- Further, credit guarantee coverage will be available for eligible borrowers from this financing facility **under Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme** for a loan up to Rs. 2 crores. The fee for this coverage will be paid by the Government.
- In case of FPOs the credit guarantee may be availed from the facility created under FPO promotion scheme of Department of Agriculture, Cooperation & Farmers Welfare (DACFW).

- Moratorium for repayment under this financing facility may vary subject to minimum of 6 months and maximum of 2 years.
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INDO-PACIFIC ECONOMIC FRAMEWORK (IPEF)

• About

- Launched in Tokyo, in May 2023, IPEF aims to strengthen economic engagement among the member countries to advance growth, peace and prosperity in the region.
- According to an insight paper on IPEF put out by the US Congressional Research Service, the **IPEF is not a traditional trade agreement**.
- Rather, it would include different modules(**four pillars**) covering various aspects.

Four Pillars of IPEF

- Pillar I - fair and resilient trade,
- Pillar II - supply chain resilience,
- Pillar III - infrastructure and decarbonization, and
- Pillar IV - tax and anticorruption.
- Countries would have to **sign up to all of the components within a module (pillar)**, but do not have to participate in all modules.

Members

- The IPEF has **14 partner countries** including Australia, Brunei, Fiji, India, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, Vietnam and the US.

• Significance

- The 14-nation IPEF bloc is seen as crucial as it accounts for about 40 per cent of the world's GDP and 28 per cent of the world's trade in goods and services.
- It is seen as an economic and trade strategy backed by the US to counter China's economic influence in the region.

India and IPEF

- In September 2022, India joined three pillars of the IPEF. These are:
 - the supply chain, decarbonisation and infrastructure, and anti-tax and corruption pillars of the IPEF.
- However, it had decided to remain out of the trade pillar.

Current status of IPEF

- The fourth negotiating round of IPEF for all pillars is currently underway from July 9-15 hosted by Korea in Busan.
- The first negotiating round was held in Australia in December 2022, followed by a special negotiating round on Pillars II-IV in India in February 2023.
- The second negotiating round was held in Indonesia in March 2023, followed by the third negotiating round in Singapore in May 2023.
- Text-based negotiations under the supply chain pillar (Pillar-II) were substantially concluded in the **second ministerial meeting** in May 2023 in the US.
- On May 27, the IPEF partners met in Detroit, Michigan for a ministerial meeting.

ARTIFICIAL SWEETENER: WHO PANEL SAYS NO NEED TO CUT DAILY INTAKE

Why in News?

- A World Health Organization's (WHO) committee categorised artificial sweetener **aspartame** as “possibly carcinogenic to humans”.
- However, another committee simultaneously assessing the levels that can be safely consumed has said there is no need to reduce the previously established acceptable daily intake (ADI) for the sweetener.

What are Low-Calorie/Artificial Sweeteners?

- Low-calorie sweeteners (LCS) other than sweeteners with calories—like table sugar, fruit juice concentrates, and corn syrups.

- Other names for LCS are non-nutritive sweeteners, artificial sweeteners, sugar substitutes, and high-intensity sweeteners.
- LCS sometimes carry the label “**sugar-free**” or “**diet**”. Some LCS can be used as general purpose sweeteners.
- LCS are found in many beverages and foods like frozen desserts, yogurt, candies, baked food items, chewing gum, breakfast cereals, gelatins, and puddings.

Common Low-Calorie/Artificial Sweeteners:

Name of LCS	Source
1. Sucralose	<ul style="list-style-type: none"> • Made from adding chlorine to sugar molecules.
2. Saccharin	<ul style="list-style-type: none"> • The oldest artificial sweetener. • Made from benzoic sulfonimine and is up to 700 times sweeter than table sugar.
3. Acesulfame	<ul style="list-style-type: none"> • Made from acesulfame potassium.
4. Aspartame	<ul style="list-style-type: none"> • Made from the amino acids phenylalanine and aspartic acid. Also includes methanol.
5. Neotame	<ul style="list-style-type: none"> • Similar to aspartame and made from phenylalanine and aspartic acid.
6. Stevia	<ul style="list-style-type: none"> • Extracted from the leaves of the stevia plant. • The extracts are processed before they're packaged and sold, putting them in the same category as an artificial sweetener.
7. Sugar alcohols	<ul style="list-style-type: none"> • Sugar molecules with an alcohol attached. Naturally occur in some fruits.

Benefits of Artificial Sweeteners:

- **Sweetness without sugar** –
 - One of the main selling points of artificial sweeteners is the ability to add sweetness to foods without adding any actual sugar.
- **Calorie control** –
 - Sugar substitutes have significantly less calories than real sugar.
 - Most of them don't truly contain zero calories, but they contain such a negligible amount that manufacturers can write "No Calories" on the label.
- **Used in weight-loss diet** –
 - Prior to beginning a weight-loss diet, a person may be accustomed to eating sugary beverages and foods.

- Consuming artificial sweeteners can provide a “bridge” for a person who’s changing their eating habits.
- It allows them to slowly wean off of real sugar and eventually cut out sweetened foods and beverages.
- **Diabetics/Pre-diabetics –**
- Artificial sweeteners don’ affect blood sugar the same way that real sugar does, making it useful for people managing diabetes or pre-diabetes.

Disadvantages/Side Effects of Artificial Sweeteners:

- **Possible link to diseases –**
 - Articles published in Nature in 2014 reported that LCS ingestion in mice for 11 weeks led to the development of glucose intolerance by altering the gut microbiome.
 - Saccharin fed mice (in high fat fed) developed marked glucose intolerance as compared to the control group.
 - **May lead to more sugar cravings –**
 - Because artificial sweeteners aren’t real sugar, they may not satisfy your sugar cravings.
 - This can lead to overeating to satisfy these cravings.
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