

### SATYENDRA NATH BOSE

On 4 June 2022, Google honoured Satyendra Nath Bose by featuring him on a Google Doodle.



#### About:

Satyendra Nath Bose (1894 – 1974) was an Indian mathematician and physicist specialising in theoretical physics.

He is best known for his work on quantum mechanics in the early 1920s, in developing the foundation for Bose statistics and the theory of the Bose condensate.

- The class of particles that obey Bose statistics, bosons, was named after Bose by Paul Dirac.
  - A Fellow of the Royal Society, he was awarded India's second highest civilian award, the Padma Vibhushan, in 1954 by the Government of India.
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### SCHEME FOR RESIDENTIAL EDUCATION FOR STUDENTS IN TARGETED AREAS (SHRESHTA)

Union Minister of social Justice and empowerment Dr. Virendra Kumar launched the Scheme “SHRESHTA”-Scheme for residential education for students in High school in



Targeted Areas.

#### About:

The Scheme will be beneficial for SC students those who could not reach for higher quality education. It provides for high quality education for meritorious but poor SC students in CBSE-affiliated reputed residential schools across the country.

- Approximately 3,000 seats are provided each year for admission in class 9th and 11th and the entire cost of the school fee and residential charges are borne by the Department.
  - The students, belonging to Scheduled Castes, studying in class 8th and 10th in the current academic year are eligible for availing the benefits of scheme are selected through a transparent mechanism through a National Entrance Test for SHRESHTA (NETS), which is conducted by the National Testing Agency (NTA) for admission in class 9th and 11th.
  - Students belonging to marginalized income group within the SC community, whose parental annual income is upto Rs.2.5 Lakh are eligible.
  - Successful candidates, after following the e-counselling process, are given admission in the school of their choice anywhere in the Country for their academic persuasion.
  - The Department shall bear the total cost of the school fee and hostel charges till completion of their academic upto class 12th. There after the students of the scheme may avail benefits of other schemes of the Department for their higher education.
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## PUNEET SAGAR ABHIYAN

National Cadet Corps (NCC) has launched the latest phase of its nationwide flagship campaign ‘Puneet Sagar Abhiyan’ on 30 May 2022 and it will continue till 5th June 2022, the World Environment Day.



### About:

Puneet Sagar Abhiyan was launched by NCC to clean Sea Shores/Beaches and other water bodies including rivers & lakes, of plastic & other waste and increase awareness amongst the local population

about importance of keeping the beaches and river fronts clean.

- The purpose of the Abhiyan is to educate locals and sensitise them about ‘Swachh Bharat’.

- About 74,000 cadets from 10 States and 4 Union Territories will participate in the campaign during this phase. The NCC cadets shall also be joined in by NCC Alumni, locals and tourists in several places across the country.
  - The waste collected during the campaign will be disposed of in an environment friendly manner in cooperation with Government/Private agencies.
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## NOT-FOR-PROFIT COMPANY

The Enforcement Directorate on Wednesday, summoned Sonia Gandhi and Rahul Gandhi following a trial court order that allowed the Income Tax Department to probe the affairs of the National Herald newspaper — owned by AJL— and conduct a tax assessment of Sonia and Rahul.



### About:

BJP MP Subramanian Swamy had in his complaint in 2013 alleged that the Gandhis acquired properties owned by the National Herald by buying the newspaper's erstwhile publishers, AJL, through an

organisation called Young India — a Section 25 company — in which they have 86% stake.

- As per the Companies Act, 1956, a Section 25 company — similar to what is defined under Section 8 under Companies Act, 2013 — is a not-for-profit charitable company.
- It is formed with the sole object of “promoting commerce, art, science, religion, charity, or any other useful object, and intends to apply its profits, if any, or other income in promoting its objects, and to prohibit the payment of any dividend to its members”.
- Section 8 of the Companies Act, 2013 includes other objects such as sports, education, research, social welfare and protection of environment among others.
- While it could be a public or a private company, a Section 25 company is prohibited from payment of any dividend to its members. Section 25 states that by its constitution the company is

required/ intends to apply its profits, if any, or other income in promoting its objects and is prohibited from paying any dividend to its members.”

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## WORLD’S LARGEST PLANT

The world’s largest plant has recently been discovered off the West Coast of Australia: a sea grass 180 km in length.



### About:

The ribbon weed, or *Posidonia australis*, has been discovered in Shark Bay by a group of researchers from Flinders University and The University of Western Australia.

- These researchers have also found that the plant is 4,500 years old, is sterile, has double the number of chromosomes than other similar plants, and has managed to survive the volatile atmosphere of the shallow Shark Bay.
  - The ribbon weed covers an area of 20,000 hectares. The second largest plant, is the clonal colony of a quaking Aspen tree in Utah, which covers 43.6 hectares. The largest tree in India, the Great Banyan in Howrah’s Botanical Garden, covers 1.41 hectares.
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## DIRECT-TO-MOBILE (D2M) BROADCASTING

The Department of Telecommunications (DoT) and India’s public service broadcaster Prasar Bharati are exploring the feasibility of a technology that allows to broadcast video and other forms of multimedia content directly to mobile phones, without needing an active internet connection.

### About:

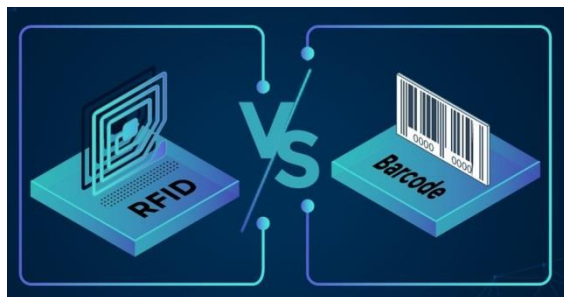
- The technology, called ‘direct-to-mobile’ (D2M) broadcasting, promises to improve consumption of broadband and utilisation of spectrum. The technology is based on the

convergence of broadband and broadcast, using which mobile phones can receive terrestrial digital TV.

- It would be similar to how people listen to FM radio on their phones, where a receiver within the phone can tap into radio frequencies. Using D2M, multimedia content can also be beamed to phones directly.
  - It can possibly be used to directly broadcast content related to citizen-centric information and can be further used to counter fake news, issue emergency alerts and offer assistance in disaster management, among other things.
  - More so, the content should stream without any buffering whatsoever while not consuming any internet data.
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## RFID VS BARCODES

Baggage tags equipped with radio-frequency identification (RFID) will soon be available at Delhi's Indira Gandhi International Airport, marking a first of its kind for the country.



**What is Radio-frequency identification (RFID) technology?**

Radio-frequency identification (RFID) is a technology that uses radio waves to automatically identify various tagged objects. Radio Frequency

Identification (RFID) is a wireless tracking method that uses tags and readers to track objects.

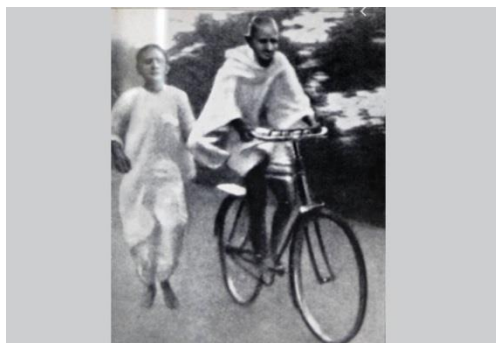
- Transponder, receiver, and transmitter are the three components of an RFID system.
- The RFID reader continually sends radio waves of a specific frequency in RFID system. If the object to which the RFID tag is attached is within the range of the radio waves, it provides feedback to the RFID reader, which then identifies the object based on the feedback.

**Radio-frequency identification (RFID) technology Vs. barcodes**

- RFID uses radio waves to communicate data from RFID chips to readers that do not require line of sight in order to obtain the data, whereas barcodes use light to read the black-and-white pattern printed on the sticky tag. An RFID tag can communicate with a powered reader even when the tag is not powered.
  - When printed on paper or sticky labels, barcodes are more susceptible to wear and breakage, which can affect their readability. RFID tags, on the other hand, are sometimes placed in plastic labels or into the object itself, making them more durable than barcodes.
  - In contrast to barcode scanners, RFID scanners can process dozens of tags in a single second. Also, barcodes are simple and easy to copy or counterfeit, whereas RFID is more complicated and difficult to replicate or counterfeit.
  - Unlike barcodes, which must in line of sight, RFID tags need not be.
  - Also, RFID tags are expensive compared to barcodes.
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## WORLD BICYCLE DAY

Referring to the concept of Lifestyle for Environment (LIFE), The Prime Minister, Narendra Modi has shared a picture of Mahatma Gandhi riding a bicycle on the occasion of World Bicycle Day.



### About:

World Bicycle Day is observed on 3rd of June every year.

The day is marked to spread awareness about the benefits of using a bicycle. As per the United Nations, the day highlights the uniqueness, longevity and

versatility of the bicycle.

- The day is observed since 2018 after a resolution was passed by the United Nations, during its 72nd Regular Session of the United Nations General Assembly.



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- World Bicycle Day talks about the benefits of using the bicycle, a simple, affordable, clean and environmentally fit sustainable means of transportation.
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