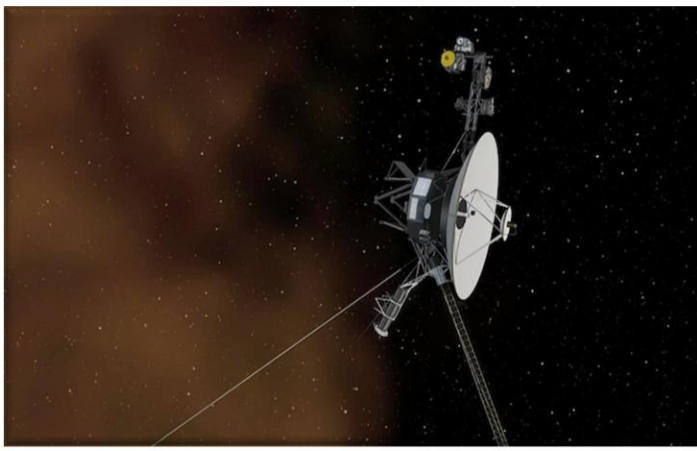


Collection of Important 10 Questions for SSC, Railway & Other Exams with Analysis of UPSC & STATE PSC

NASA's 45-year Voyager 2 probe mission in the news



Why in News?

- The Voyager 2 spacecraft, which is now travelling in interstellar space, has got a new lease of life after mission engineers developed a new plan to keep its instruments running for longer.
- This mission was to end in 2023 but now NASA found a way to keep it alive for another 3 years till 2026.

About-

- The Voyager 2 spacecraft was launched in 1977 and it is now more than 20 billion kilometers away from Earth.
- The ageing Voyager 2 spacecraft has begun using a small reservoir of backup

power to keep its instruments working despite a reduced power supply.

- Voyager 2 and Voyager 1 are the only spacecraft that have ever operated outside the heliosphere, which is considered to be the border of our solar system.
- The heliosphere is a bubble of particles and magnetic fields generated by the Sun.

What the mission is doing ?

- Both the Voyager spacecraft is helping scientists to better understand the heliosphere and how it protects our planet from interstellar energetic particles and other radiation.
- Both Voyager 1 and Voyager 2 are powered by radioisotope thermoelectric generators (RTGs) or nuclear batteries.
- These nuclear batteries convert the heat from decaying plutonium into electricity.
- Since the plutonium is continuously decaying, it means that the generator produces lesser and lesser power as time goes on.

Power saving tips for Voyager

2-

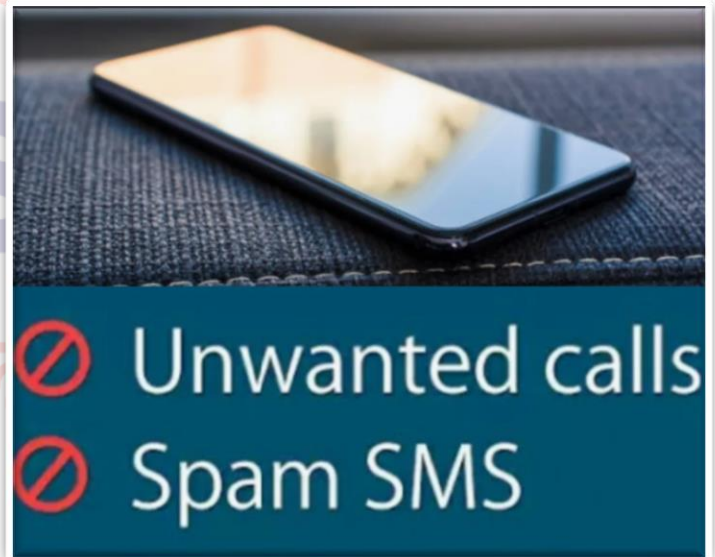


- Both Voyager 1 and Voyager 2 are powered by radioisotope thermoelectric generators (RTGs) or “nuclear batteries.” These nuclear batteries convert the heat from decaying plutonium into electricity.
- Since the plutonium is continuously decaying, it means that the generator produces lesser and lesser power as time goes on. According to JPL, the declining power supply has not impacted the mission’s science objectives so far. This is because engineers have turned off heaters and other non-essential systems to keep the probes going.
- But they have run out of such power-conservation options on Voyager 2. Interestingly, one of Voyager 1’s science instruments failed early into the mission meaning that it could continue operating for almost another year before scientists have to consider new power-saving methods like the one tried with Voyager 2.
- Launch: Voyager 2 was launched on August 20, 1977 and Voyager 1 was launched on September 5, 1977.
- The spacecraft were built to last five years and conduct close-up studies of Jupiter and Saturn.
- Voyager 2 is NASA’s longest-running mission.

About Voyager-2 Space Mission-

- Voyager 2 is the only probe ever to study Neptune and Uranus during planetary flybys.
- It is the second man-made object to leave our planet.
- Voyager 2 is the only spacecraft that have visited all four gas giant planets — Jupiter, Saturn, Uranus and Neptune — and discovered 16 moons, as well as phenomena like Neptune’s mysteriously transient Great Dark Spot, the cracks in Europa’s ice shell, and ring features at every planet.

Spam calls and SMS will be stopped from now onward



Why in News?

- Telecom Regulatory Authority of India (TRAI) has ordered telecom companies to use AI filters on their voice and SMS services.



Website: - www.ankitinspiresindia.com



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- The Telecom Regulatory Authority of India (TRAI) has announced to change the rules regarding these unsolicited communications from May 1, 2023.
- TRAI is going to set up an AI filter to stop pesky calls and SMS, providing a major relief to telecom customers.

What is AI Filter and how does it work?

- An AI filter is a technology that uses artificial intelligence (AI) and machine learning (ML) to detect and block pesky calls and SMSs based on their content, sender, and frequency.
- An AI filter can analyze the patterns and behaviors of telemarketers and identify them as unregistered or fraudulent.
- It can also check the consent of the customers and their preferences for receiving promotional messages.
- An AI filter works in coordination with the distributed ledger technology (DLT) platform that TRAI has mandated for all telecom service providers and telemarketers.
- The DLT platform is a blockchain-based system that records and verifies the registration of telemarketers, their headers, and message templates.
- It also allows customers to register their preferences for receiving commercial communications.
- The AI filter will act as an additional layer of protection for customers by intelligently scrubbing the headers and message templates on the DLT platform

and blocking all unverified or suspicious ones.

- It will also monitor the frequency and volume of pesky calls and SMSs and take action against those who violate the norms.

Importance of AI Filters

- It will reduce the nuisance and harassment caused by pesky calls and SMSs.
- It will protect the privacy and security of customers from phishing and cyber fraud.
- It will enhance the customer experience and satisfaction by respecting their choices and preferences.
- It will improve the quality of service and network performance by reducing congestion and spam traffic.

Conclusion:

- The AI filter service is available for all telecom customers from May 1, 2023. Users do not need to do anything special to avail of this service. It will be automatically activated by the telecom service provider.
- The AI filter is a welcome step by TRAI to curb the menace of pesky calls and SMSs that have been plaguing telecom customers for a long time. It is expected that this technology will make a significant difference in improving the telecom sector and customer satisfaction in India.



Q 1: Recently, Nasa extracts which element from lunar soil after that the moon's colonization seems a possibility?

- A. Oxygen
- B. Hydrogen
- C. Carbon
- D. All of the above

Q 2: Which of the following organisation with MoA&FW launches Millets Experience Centre (MEC), recently?

- A. NAFED
- B. SAFED
- C. RAFED
- D. CAFED

Q 3: Recently, NPCI International partners with which organisation to facilitate global e-commerce payments through UPI?

- A. PPRO
- B. CPRO
- C. DPRO
- D. NPRO

Q 4: Recently, which Medical College was Inaugurated by PM Modi in Silvassa?

- A. NAMO
- B. GMCS
- C. SDNH
- D. VNSGU

Q 5: At which place the 'Sinthan Snow Festival-2023' was organised at Kishtwar, J&K, recently?

- A. Sinthan Maidan
- B. Jammu Maidan
- C. Kishtwar Maidan
- D. Kashmir Maidan

Q 6: Recently, which of the following Bank issued \$750-million 5-year bonds at 4.875%?

- A. SBI
- B. HDFC Bank
- C. IDFC Bank
- D. ICICI Bank

Q 7: Who have hosted the Filmfare Awards-2023 ceremony for the very first time, alongside co-hosts Ayushmann Khurrana and Maniesh Paul?

- A. Salman Khan
- B. Akshay Kumar
- C. Rajkummar Rao
- D. Amitabh Bachchan

Q 8: Which Union Minister launches a book titled 'Reflections' authored by Shri Narayanan Vaghul in Mumbai, recently?

- A. Nirmala Sitharaman
- B. Amit Shah
- C. Nitin Gadkari
- D. Ashwini Vaishnaw

Q 9: Which of the following new non-fiction book by Amitav Ghosh is about to release in July 2023?

- A. 'Smoke and Ashes'
- B. 'Ashes and Smoke'
- C. 'Smog and Ashes'
- D. None of these

Q 10: Which famous Indian Scientist(founder of the Indian Institute of Scientific Heritage: IISH) passes away, recently?

- A. N. Gopalakrishnan
- B. N. Radhakrishnan
- C. R. Gopalakrishnan
- D. None of these



Answers & Related Facts

Ans 1: A



- NASA scientists at Johnson Space Center in Houston have successfully extracted oxygen from simulated(sample) lunar soil in a vacuum environment, which could pave the way for establishing a long-term presence of humans on the lunar surface, and even for the future colonization of the Moon.
- To simulate the conditions on the Moon, NASA scientists used a special spherical(15-foot diameter) chamber called the 'Dirty Thermal Vacuum Chamber,' where there is no atmosphere and the temperature can range from -173°C to 127°C .
- NASA plans to send similar devices to the Moon's South Pole on two upcoming exploration missions – the 'Polar Resources Ice Mining Experiment-1' in 2023 and NASA's 'Volatiles Investigating Polar Exploration Rover' (VIPER) in November 2024.
- The Moon is Earth's only natural satellite.
- It is the fifth largest satellite in the Solar System.
- Its surface gravity is about one-sixth($1/6$) of Earth's at 0.1654 g .

- The National Aeronautics and Space Administration (NASA) is an independent agency of the U.S. federal government responsible for the civil space program, aeronautics research, and space research.
- NASA was established in 1958, succeeding the 'National Advisory Committee for Aeronautics' (NACA).
- Headquarter: Washington, D.C.
- The current administrator is Bill Nelson, appointed by President Joe Biden, since May 3, 2021.
- The United State's 'Apollo 11' was the first crewed mission to land on the Moon, on 20 July 1969.
- The first human-made object to touch the Moon was the Soviet Union's 'Luna 2,' on 13 September, 1959.

Ans 2: A



- Union Minister of Agriculture & Farmers Welfare, Shri Narendra Singh Tomar, along with Shri Rajbir Singh, Managing Director, NAFED, commemorated the launch of the first of its kind 'Millets Experience Centre (MEC)' at Dilli Haat, INA, New Delhi today.
- NAFED in collaboration with the Ministry of Agriculture and Farmers



Welfare (MoA&FW) established the Millets Experience Centre with an aim to raise awareness on Millets and encourage its adoption among general public.

- The first MEC(Millets Experience Centre) was launched at Dilli Haat, INA, New Delhi, and is the first of its kind in India.
- Acting upon India's proposal supported by 72 countries, the United Nations General Assembly declared the year 2023 as the International Year of Millets (IYM 2023).
- India's proposal to observe an International Year of Millets in 2023 was approved by the Food and Agriculture Organisation (FAO) in 2018, and supported by over 70 nations.
- It is grown in about 131 countries and is the traditional food for around 60 crore people in Asia & Africa.
- India accounts for 20 % of global production and 80% of Asia's production.
- National Agricultural Cooperative Marketing Federation of India Ltd (NAFED) is an apex organization of marketing cooperatives for agricultural produce in India.
- It was founded on the birthday of Mahatma Gandhi on 2 October 1958 to promote the trade of agricultural produce and forest resources across the nation.
- Key people: Dr. Bijender Singh (Chairman)

Ans 3: A



- NPCI International Payments, a wholly-owned subsidiary of National Payments Corporation of India (NPCI), entered into partnership with digital payments infrastructure provider 'PPRO' to facilitate global e-commerce payments through UPI.
- PPRO CEO Simon Black said that international payment service providers and their merchants can now easily tap into an e-commerce market expected to reach an estimated \$111 billion next year, and predicted to almost double to \$200 billion by 2026.
- NPCI International Payments Limited (NIPL) signed memorandum of understanding (MoU) with UK based PPRO Financial on 17 November 2021 to expand the acceptance of UPI into foreign markets.
- The National Payments Corporation of India(NPCI) is an organization for operating retail payments and settlement systems in India, under the provisions of the Payment and Settlement Systems Act, 2007.
- Founded in December 2008, the NPCI is a not-for-profit organisation registered under Section 8 of the Companies Act



2013, established by the Reserve Bank of India and Indian Banks' Association.

- Key people: Biswamohan Mahapatra(Non-Exe Chairman); Dilip Asbe(MD & CEO)
- Unified Payments Interface (UPI) is an instant real-time payment system developed by National Payments Corporation of India (NPCI).
- First Introduced: 11 April 2016; 7 years ago

Ans 4: A



- Prime Minister Narendra Modi on Tuesday inaugurated the NAMO Medical Education & Research Institute at Silvassa town in the Union Territory of Dadra and Nagar Haveli.
- After inaugurating the medical college, the first in the Union Territory, he inspected facilities on the campus.
- The NAMO Medical Education and Research Institute has been built at a cost of ₹203 crore, and the foundation stone for the project was laid in January 2019.
- The first undergraduate batch commenced on 15 August 2019.
- The hospital associated with the institute is the Shree Vinoba Bhave Civil

Hospital in Silvassa, earlier known as the Cottage Hospital, established in the year 1952.

- Vinoba Bhave Institute of Medical Sciences / NAMO Medical Education & Research Institute (also known as Government Medical College, Silvassa) is a government medical college located in Silvassa in the Union Territory of 'Dadra and Nagar Haveli' and 'Daman and Diu'.
- 'Dadra and Nagar Haveli' and 'Daman and Diu' is a union territory in India.
- Daman and Diu were Portuguese colonies from the 1520s until annexed by India on 19 December 1961.
- Dadra and Nagar Haveli were invaded by the Indian Army on 11 August 1961

Ans 5: A



- The Directorate of Tourism, Jammu and Kishtwar Tourism Development Authority (KTDA) a two-day Sinthan Snow Festival-2023 was organised at Sinthan Maidan, Kishtwar to the 30th April.
- The snow festival (Sinthan Snow Festival-2023) was organized in collaboration with the District Administration Kishtwar, the Jammu &



Kashmir Academy of Art, Culture, and Languages (JKAACL), and the Army.

- Sinthan Top is a mountain pass, a popular tourist destination located between South Kashmir's Breng Valley (Sub-District Kokernag) in Anantnag district and Kishtwar district of Chenab Valley in the Indian union territory of Jammu and Kashmir.
- The first ever Map of Tourism in Jammu and Kashmir was published in "Konnect Magazine".
- Srinagar have been called the "Venice of the East".
- Provisions for the formation of the union territory of 'Jammu and Kashmir' were contained within the 'Jammu and Kashmir Reorganisation Act, 2019'.
- The state of Jammu and Kashmir was accorded special status by 'Article 370' of the Constitution of India.
- Lieutenant Governor: Manoj Sinha

Ans 6: A



- State Bank of India concluded the sale of \$750-million worth of 5-year coupon of 4.875%, with the sale seeing robust demand from investors.
- This bonds will be issued through London branch as of 5th May 2023 and

shall be listed on Singapore Stock Exchange and India International Exchange.

- "The bonds will be issued through London branch as of 5th May 2023 and shall be listed on Singapore Stock Exchange and India International Exchange, GIFT City," SBI said in an exchange filing.
- State Bank of India (SBI) is an Indian multinational public sector bank and financial services statutory body headquartered in Mumbai, Maharashtra.
- It is a public sector bank and also the largest bank in India.
- The bank descends from the Bank of Calcutta, founded in 1806 via the Imperial Bank of India, making it the oldest commercial bank in the Indian subcontinent.
- National Institute of Design, Ahmedabad designed the SBI logo in 1971.
- Singapore Exchange Limited (SGX Group) is a Singapore-based exchange conglomerate.
- SGX was formed on 1 December 1999 as a holding company.
- Key people: Koh Boon Hwee (Chairman)

Ans 7: A





- Salman Khan hosted the 68th Filmfare Awards along with Ayushmann Khurrana and Maniesh Paul.
- The glamorous night kicked-off with Alia Bhatt, Anil Kapoor, Rekha, Janhvi Kapoor, Nora Fatehi, Vicky Kaushal and several others walking the red carpet.
- The 68th annual Filmfare Awards, the ceremony concluded in grand fashion in Mumbai.
- Alia Bhatt won the coveted Best Actor (female) award and her film Gangubai Kathiawadi was declared the best film.
- Sanjay Leela Bhansali won the Best Director award.
- Best Actor in a Leading Role (Male): Rajkummar Rao for 'Badhaai Do'
- The Filmfare Awards are annual awards that honour artistic and technical excellence in the Hindi-language film industry of India.
- This awards were first introduced by the Filmfare magazine of The Times Group in 1954.
- First awarded: March 21, 1954; 69 years ago
- Latest awarded: 27 April, 2023
- Hollywood star Gregory Peck was invited to be the guest of honour at the first ever awards on 21 March 1954 at the Metro theatre, Mumbai.

Ans 8: A

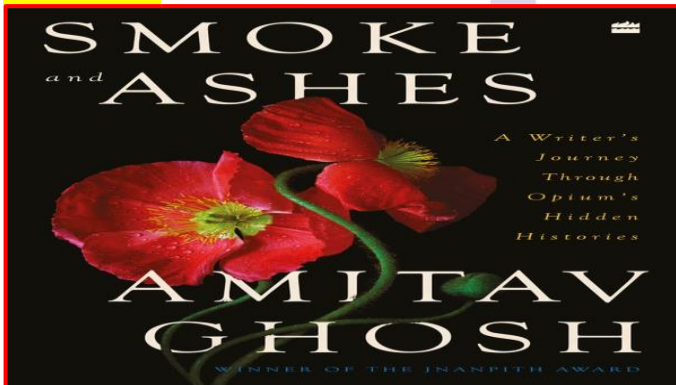


- Union Minister of Finance and Corporate Affairs Smt. Nirmala Sitharaman launched 'Reflections', a book authored by eminent banker Shri Narayanan Vaghul, in Mumbai.
- The book carries a vivid account of Shri Vaghul's experiences spanning decades in India's financial landscape.
- Finance and Corporate Affairs Minister Nirmala Sitharaman launches a book titled 'Reflections' authored by Shri Narayanan Vaghul in Mumbai.
- Narayanan Vaghul (Born 1936) is a Philanthropist and an ex-banker professional from India.
- He was awarded "Padma Bhushan" in the Trade and Industry category in 2010 by the Government of India.
- Nirmala Sitharaman (born 18 August 1959) is an Indian economist and politician serving as the 28th Minister of Finance and 33rd Minister of Corporate Affairs of the Government of India since 2019.
- Sitharaman previously served as the 28th Defence Minister from 2017 to 2019, thereby becoming India's second female defence minister and the second female finance minister after Indira Gandhi.



- Sitharaman featured in the Forbes 2022 list of World's 100 most powerful women and was ranked 36, and the most powerful woman in India.
- There have been a number of Ministers of Finance that went on to become the Prime Minister; Morarji Desai, Charan Singh, Vishwanath Pratap Singh and Manmohan Singh and also to serve as the President; R.Venkataraman and Pranab Mukherjee.

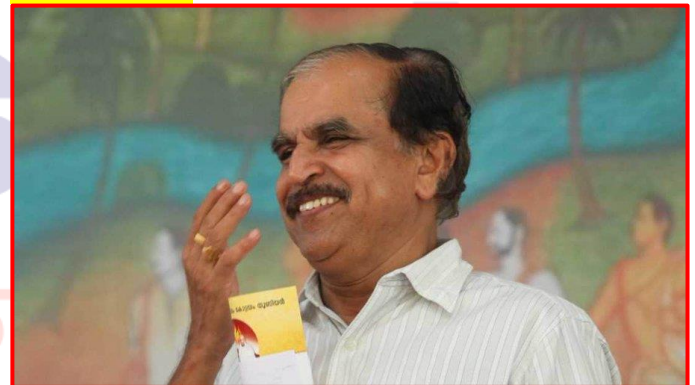
Ans 9: A



- On July 15th, HarperCollins' Fourth Estate will publish a book titled "Smoke and Ashes: A Writer's Journey Through Opium's Hidden Histories" by Amitav Ghosh.
- The book is a combination of a memoir, a travelogue, and a deep dive into the economic and cultural history of opium.
- Amitav Ghosh explains that the book ('Smoke and Ashes') is based on the vast amount of research he conducted while writing his novels between 2005 and 2015.
- Amitav Ghosh (born: 11 July, 1956) is an Indian writer. He won the 54th Jnanpith award in 2018, India's highest literary honor.

- In 2007 he was awarded the "Padma Shri", one of India's highest honours, by the President of India.
- In 2009, he was elected a Fellow of the Royal Society of Literature.
- Opium is dried latex obtained from the seed capsules of the opium poppy *Papaver somniferum*.
- Approximately 12 percent of opium is made up of the analgesic alkaloid morphine, which is processed chemically to produce heroin and other synthetic opioids.
- Heroin, the first semi-synthetic opioid, was first synthesized in 1874, but was its rediscovery in 1897 by Felix Hoffmann at the Bayer pharmaceutical company in Elberfeld, Germany.

Ans 10: A



- N. Gopalakrishnan, 67, founder of the Indian Institute of Scientific Heritage (IISH) and former scientist at the Council of Scientific and Industrial Research (CSIR), died in Kochi.
- He was under treatment for cardiac-related ailments and collapsed at his residence at Thripunitura.
- N. Gopalakrishnan was the creator of the Indian Institute of Scientific



Heritage (IISH) and a former scientist at the Council of Scientific and Industrial Research (CSIR).

- For a period of 25 years, beginning in 1982, he worked as a Senior Scientist in the Council of Scientific and Industrial Research (CSIR) under the Government of India.
- Indian Institute of Scientific Heritage (IISH) was established in August 1999 and registered as a charitable trust (328/99/iv) during the last quarter of 1999.
- The Council of Scientific and Industrial Research (CSIR) was established by the Government of India in September 1942 as an autonomous body that is the largest research and development organisation in India.
- N Kalaiselvi is the present Director General of CSIR-cum-Secretary DSIR, Ministry of Science and Technology, Government of India.
- It (CSIR) operates as an autonomous body through the Societies Registration Act, 1860.
- Founder(s): Arcot Ramasamy Mudaliar; Shanti Swaroop Bhatnagar
- Sir Shanti Swaroop Bhatnagar was the first director-general of the Council of Scientific and Industrial Research (CSIR), he is revered as the "father of research laboratories" in India.
- He was also the first Chairman of the University Grants Commission (UGC).

