

RBI TO ISSUE CYBERSECURITY NORMS FOR PAYMENT SERVICES

The Reserve Bank of India (RBI) will soon issue cybersecurity norms for payment service providers (PSPs), following a series of data breaches faced by operators including Mobikwik and payment aggregator JusPay.

About:

- While the standards for fintech-driven payment services providers will be similar to cyber hygiene norms issued recently for banks and non-banking finance companies (NBFCs), the RBI is quite clear that firms will have to do more than observe the minimum standards to ensure safety as digital transactions gain further traction.
- The National Payments Corporation of India (NPCI) had laid down a framework for a more even distribution of share of third-party app providers in the UPI system.

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NPCI?

- The National Payments Corporation of India (NPCI) is an umbrella organisation for operating retail payments and settlement systems under the ownership of Reserve Bank of India in India.
- Founded in: 2008.
- Headquarters: Mumbai.

MOXIE

NASA has extracted oxygen from the carbon dioxide in the thin Martian atmosphere.

About:

- The unprecedented extraction of oxygen on Mars was achieved by a device called MOXIE aboard Perseverance, a six-wheeled science rover.
- MOXIE is short for Mars Oxygen In-Situ Resource Utilization Experiment.
- It produced about 5 grams of oxygen, equivalent to roughly 10 minutes' worth of breathing for an astronaut.
- NASA is planning that future human missions would take scaled-up versions of Moxie with them to the Red Planet rather than try to carry all the oxygen needed to sustain them.
- Mars' atmosphere is dominated by carbon dioxide (CO₂) at a concentration of 96 per cent. The expectation is that it can produce up to 10 grams of O₂ per hour.
- This is the first extraction of a natural resource from the environment of another planet.
- It is the second successful technology demonstration on the mission, which flew a mini-helicopter last Friday.

UNICORN

Scientists have discovered what may be the smallest-known black hole in the Milky Way galaxy and the closest to our solar system.

About:

- Nicknamed 'Unicorn' the researchers said the black hole is roughly three times the mass of our Sun, testing the lower limits of size for these extraordinarily dense

objects.

- A luminous red giant star orbits with the black hole in a so-called binary star system named V723 Mon.
- The black hole is located about 1,500 light years - the distance light travels in a year, 5.9 trillion miles (9.5 trillion km) - from Earth. While it may be the closest one to us, it is still far away. By way of comparison, the closest star to our solar system, Proxima Centauri, is 4 light years away.
- Black holes like this one form when massive stars die and their cores collapse.
- The study is published in the Monthly Notices of the Royal Astronomical Society.

OXYGEN CONCENTRATORS

With oxygen cylinders in short supply across several states, the Oxygen concentrator is among the most sought after devices for oxygen therapy, especially among patients in home isolation and for hospitals running out of oxygen.

About:

- An oxygen concentrator is a medical device that concentrates oxygen from ambient air.
- Atmospheric air has about 78 per cent nitrogen and 21 per cent oxygen, with other gases making up the remaining 1 per cent.
- The oxygen concentrator takes in this air, filters it through a sieve, releases the nitrogen back into the air, and works on the remaining oxygen.
- This oxygen, compressed and dispensed through a cannula, is 90-95 per cent pure. A pressure valve in concentrators helps regulate supply, ranging from 1-10 litres per minute.
- According to a 2015 report by the WHO, concentrators are designed for continuous operation and can produce oxygen 24 hours a day, 7 days a week, for up to 5 years or more.

INDIAN SARS-COV-2 GENOMIC CONSORTIUM (INSACOG)

In the backdrop of reports of emergence of variants of the SARS-CoV-2, in the world, the Government of India had established a national multi-agency consortium, Indian SARS-CoV-2 Genomic Consortium (INSACOG) in December 2020.

About:

- It consists of ten laboratories of the Department of Biotechnology, Council of Scientific and Industrial Research (CSIR), Indian Council of Medical Research (ICMR) and Ministry of Health & Family Welfare (MoHF&W).
- It's overall aim is monitoring the genomic variations in the SARS-CoV-2 on a regular basis. The responsibility to correlate the clinical aspects and coordinate the collection of samples from states, for this purpose, was provided to National Centre for Disease Control (NCDC), MoHFW.
- INSACOG has a data repository at IGIB, New Delhi and NIBMG, Kalyani.

VIRAFIN

Drug Controller General Of India (DCGI) gave a restricted emergency use approval to the Zydus Cadila's 'Virafin' for treating the patients showing moderate COVID-19 symptoms.

About:

- Virafin is a pegylated interferon alpha-2b(PegIFN), which when subcutaneously injected to the patient in the early stages of infection, resulted in their faster recovery.
- For the development of Virafin, Zydus appreciated the support provided by DBT-BIRAC COVID 19 Research Consortium through NBM, for conducting the Phase II human clinical trial studies.
- The studies confirmed the safety, tolerability and efficacy of Virafin. The studies also reported that Viarfin reduces viral load and aid in managing the disease in a better way, such as reduction in the need for supplemental oxygen, thereby reducing the respiratory tension caused due to low oxygen levels.
- **About Zydus Cadila:** Also known as Cadila Healthcare Limited is an Indian multinational pharmaceutical company headquartered in Ahmedabad, Gujarat.

EXERCISE VARUNA – 2021

The 19th edition of the Indian and French Navy bilateral exercise 'VARUNA-2021' is scheduled to be conducted in the Arabian Sea from 25th to 27th April 2021.

About:

- From the Indian Navy's side, guided missile stealth destroyer INS Kolkata, guided missile frigates INS Tarkash and INS Talwar, Fleet Support Ship INS Deepak, with Seaking 42B and Chetak integral helicopters, a Kalvari class submarine and P8I Long Range Maritime Patrol Aircraft, will participate in the exercise.
- VARUNA-21 highlights growing bonhomie and showcases increased levels of synergy, coordination and inter-operability between the two friendly navies.