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KOWLOON PENINSULA



- Hong Kong is set to grant a site on the western Kowloon peninsula, to China's national security office for its permanent base in the city.
- The Kowloon Peninsula is a peninsula that forms the southern part of the main landmass in the territory of Hong Kong, alongside Victoria Harbour and facing toward Hong Kong island.
- The Kowloon Peninsula and the area of New Kowloon are collectively known as Kowloon.
- Geographically, the term "Kowloon Peninsula" may also refer to the area south of the mountain ranges of Beacon Hill, Lion Rock, Tate's Cairn, Kowloon Peak, etc.
- The peninsula covers five of the eighteen districts of Hong Kong.
- Kowloon Bay is located at the northeast of the peninsula.

SWAMITVA SCHEME



- Prime Minister Narendra Modi will launch the distribution of e-property cards under the SWAMITVA scheme on 24th April 2021 (National Panchayati Raj Day).
- 09 lakh property owners will be given their e-property cards on this occasion, which will also mark the rolling out of the SVAMITVA scheme for implementation across the country.
- SVAMITVA (Survey of Villages and Mapping with Improvised Technology in Village Areas) was launched by Prime Minister on 24th April 2020 as a Central Sector Scheme to promote a socio-economically empowered and self-reliant rural India.
- The Scheme has the potential to transform rural India using modern technical tools of mapping and surveying.
- It paves the way for using the property as a financial asset by villagers for availing loans and other financial benefits.
- The Scheme will cover around 6.62 Lakh villages of the entire country during 2021-2025.

- The pilot phase of the Scheme was implemented during 2020–2021 in the States of Maharashtra, Karnataka, Haryana, Uttar Pradesh, Uttarakhand, Madhya Pradesh and select villages of Punjab and Rajasthan

ROAD-TRAINS



- Ministry of Road Transport & Highways has published Draft Standards for Road-Trains.
- To revolutionize the transport of goods and reduce the overall logistic costs, the Automotive Industry Standards Committee has amended its AIS-113 Standard to include the safety requirements of Road-Trains and has hosted the draft on Ministry of Road Transport & Highway's website.
- The amended standard AIS-113 (Code of Practice for Type Approval of Trailers / Semi-trailers of categories T2, T3 and T4 being towed by Motor Vehicles of categories N2 and N3) has been published for invitation of public comments, after which it shall be notified in due course.
- The standards have been prepared after examining European benchmarks, keeping in mind Indian operating conditions.
- Road-Train is a motor vehicle wherein the traction is provided by the puller, which is connected to a serial combination of trailers or semi- trailers.
- These shall ply on select stretches to reduce congestion, save fuel and reduce noise & air-pollution.
- The Automotive Industry Standards Committee has representatives from the relevant Ministries, Testing Agencies, Industry stakeholders, BIS etc.

CREW-2 MISSION



- Four astronauts were launched to the International Space Station (ISS) from Florida as part of a collaboration between NASA and SpaceX under the Commercial Crew Program
- The mission is called Crew-2 and is the second crew rotation of the SpaceX Crew Dragon and the first with international partners.
- Out of the four astronauts, two are from NASA and two are from the Japan Aerospace Exploration Agency (JAXA) and the European Space Agency (ESA).

- Now, Crew-2 astronauts will join the members of Expedition 65.
- They will stay aboard the ISS for six months during which time they will conduct science experiments in low-Earth orbit.
- Their central focus during this time will be to continue a series of Tissue Chips in Space studies.
- Tissue Chips are small models of human organs that contain multiple cell types that behave similarly to the human body.
- According to NASA, these chips can potentially speed up the process of identifying safe and effective drugs and vaccines.

NATIONAL PANCHAYAT AWARDS 2021



- Prime Minister Modi will confer the National Panchayat Awards 2021 on the occasion of National Panchayati Raj day (24th April 2021).

The National Panchayat Awards 2021 are being conferred under the following categories:

- Deen Dayal Upadhyay Panchayat Sashaktikaran Puraskar (to 224 Panchayats),
- Nanaji Deshmukh Rashtriya Gaurav Gram Sabha Puraskar (to 30 Gram Panchayats),
- Gram Panchayat Development Plan Award (to 29 Gram Panchayats),
- Child-friendly Gram Panchayat Award (to 30 Gram Panchayats) and
- e-Panchayat Puraskar (given to States/UTs only) (to 12 States).
- Prime Minister will transfer the award money (as Grants-in-Aid) through the click of a button, ranging from Rs.5 lakh to Rs.50 lakh.
- The amount will be directly transferred to the bank account of the Panchayats concerned in real time. This is being done for the first time.

KRI NANGGALA



- The Indian Navy dispatched its deep submergence rescue vessel (DSRV) from Visakhapatnam to support the Indonesian Navy in the search and rescue efforts for its submarine KRI Nanggala that went missing with 53 personnel aboard.
- KRI Nanggala (402) is a diesel-electric attack submarine of the Indonesian Navy, one of two Cakra-class submarines (Type 209 design).
- On 21 April 2021, it went missing in deep waters during a SUT torpedo drill north of Bali.
- The boat is named after the Nanggala, a divine and powerful short spear that was owned by Prabu Baladewa (the elder brother of Kresna), a recurring character in wayang puppet theatre.

Deep submergence rescue vessel (DSRV):

- India is amongst the few countries in the world capable of undertaking search and rescue of a disabled submarine through a DSRV.
- Indian Navy's DSRV system can locate a submarine up to 1,000-metre depth utilising its state-of-the-art side scan sonar and remotely operated vehicle.
- After the submarine is successfully located, another sub module of DSRV — the submarine rescue vehicle (SRV) — links with the submarine to rescue the trapped personnel.
- The SRV can also be used to provide emergency supplies to the submarine.

#FOSS4GOV INNOVATION CHALLENGE



- Ministry of Electronics and Information Technology (MEITY) has announced #FOSS4GOV Innovation Challenge to accelerate adoption of Free and Open Source Software (FOSS) In Government.
- The #FOSS4GOV Innovation Challenge calls upon FOSS innovators, technology entrepreneurs and Indian Startups to submit implementable open source product innovations in CRM and ERP with possible applications for Govtech in Health, Education, Agriculture, Urban Governance etc.

- India is well positioned to become a vibrant hub for Free and Open Source Software (FOSS) innovations, due to the large number of 4G data subscribers in India, 96% of whom access the digital world via open-source based mobile operating systems (primarily Android).
- Some of India's largest-government projects (including Aadhaar) and many technology start-ups have also been built using FOSS.
- Acknowledging the huge potential of FOSS, the Government of India had issued a Policy on Adoption of Open Source Software in 2015.

WORLD PRESS FREEDOM INDEX, 2021



- The World Press Freedom Index, 2021, produced by Reporters Without Borders (RSF), a French non-governmental organisation, has again ranked India at 142nd out of 180 countries.
- This is despite the fact that for a year, on directions from Cabinet Secretary Rajiv Gauba, an index monitoring cell worked to improve the rankings, even holding a meeting between the Indian Ambassador to France and the RSF officials to lobby for a change in the ranking.
- In 2016, India's rank was 133, which has steadily climbed down to 142 in 2020.
- The RSF report says India is one of the world's most dangerous countries for journalists trying to do their job properly.
- They are exposed to every kind of attack, even police violence against reporters, ambushes by political activists, and reprisals instigated by criminal groups or corrupt local officials.
- The latest index released ranks 180 countries, topped, yet again, by Norway followed by Finland and Denmark, while Eritrea is at the bottom. China is ranked 177, and is only above North Korea at 179 and Turkmenistan at 178.

TYRANNOSAURUS REX



- According to a study published in the journal Royal Society Open Science by palaeontologists from the Netherlands, the Tyrannosaurus had a preferred walking speed of just 5 kmph– about the same as the average walking speed of humans
- The Tyrannosaurus rex, the most storied of all dinosaurs, is considered the most fearsome eating machine to have evolved on Earth.
- It lived toward the end of the Cretaceous period, around 66 million to 68 million years ago.
- It is believed that an adult member of the species stood 12 feet tall and 40 feet long, and weighed between 5,000 to 7,000 kg.
- The dinosaur inhabited what is today's western United States.
- It was not found in India; the fiercest of all Indian dinosaurs was probably the Rajasaurus narmadensis, followed by another specimen of the Abelisauridae family, the Indosuchus raptorius.
- Previous studies placed the T. rex's walking speed between 7.2-10.8 kmph– the maximum speed that its bone structure researchers believed could have permitted.
- The new research reduces the previous estimates by more than half.

BOAO FORUM FOR ASIA



- While speaking at the annual Boao Forum, China's President Xi Jinping said that global rules cannot be imposed "by one or a few countries".
- Headquartered in China, the Boao Forum for Asia (BFA) is an international organization jointly initiated by 29 member states.
- BFA holds its annual conference in Boao, Hainan on a regular basis.
- The founding purpose of BFA was to promote economic integration in Asia. Its mission now is to pool positive energy for the development of Asia and the world.
- The first conference of BFA was held on Feb. 26-27, 2001 in Boao, Hainan Province, China.
- The forum, sometimes known as the "Asian Davos" is modelled on the World Economic Forum held annually in Davos, Switzerland.
- Its fixed address is in Bo'ao, Hainan province, China, although the Secretariat is based in Beijing.

Codex Committee on Spices and Culinary Herbs (CCSCH)



- The fifth session of the Codex Committee on Spices and Culinary Herbs (CCSCH), formed under the Codex Alimentarius Commission (CAC), was recently inaugurated by the Food Safety and Standards Authority of India (FSSAI)
- Due to their high economic value, the Codex Committee on Spices and Culinary Herbs (CCSCH), formed under the Codex Alimentarius Commission (CAC), identified the risk of unscrupulous and deliberate adulteration of spices by substitution.
- To establish and extend global standards for spices and culinary herbs, as well as collaborate with other international organisations throughout the production process.
- CCSCH was founded in 2013 with the help of over a hundred countries.
- India serving as the host country and Spices Board India serving as the Secretariat for the committee's sessions.
- Spices Board (Ministry of Commerce and Industry) is the flagship organization for the development and worldwide promotion of Indian spices.
- The Codex Committee on Spices and Culinary Herbs has been active in establishing globally harmonised Codex standards for spices and herbs since its inception.
- The committee established and finalised criteria for four spices, including dried or dehydrated varieties of black/white/green pepper, cumin, thyme, and garlic, over the course of four sessions.
- The Codex Alimentarius Commission (CAC) is an intergovernmental body created in 1963 by the UN's Food and Agriculture Organization (FAO) and the World Health Organization (WHO) as part of the Joint Food Standards Programme to protect consumer health and ensure fair trade practises.
- The World Trade Organization's (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) accepts Codex codes, guidelines, and recommendations as reference standards for international trade and trade dispute resolution.
- The Codex Alimentarius Commission currently has 189 members, consisting of 188 member countries and one member organisation (The European Union).
- In 1964, India became a part of the Codex Alimentarius.

India-US Clean Energy Initiative



- Initiative to mobilise investments and allow green partnerships, as part of his pitch for global action to tackle climate change at “high speed and on a large scale.”
- US-hosted virtual summit on climate, attended by 40 global leaders, including US President Joe Biden and China’s Xi Jinping.
- The US pledged to cut emissions by 50 to 52 percent of its 2005 levels by 2030.
- This is double the 2015 goal set by former President Barack Obama.
- Together we will help mobilise investments, demonstrate clean technologies, and enable green collaboration.
- India’s per capita carbon footprint is 60 percent lower than the global average.
- It is because our lifestyle is still rooted in sustainable traditional practices.
- America is on a path of a net-zero emissions economy by no later than 2050.
- But the truth is, America represents less than 15 percent of the world’s emissions.
- The US rejoined the Paris Agreement three months ago, after former President Donald Trump’s decision to leave the multilateral forum made it the only country in the world to do so.
- Biden’s announcements re-assert the US’s commitment in the run-up to the United Nations Climate Change Conference (COP26) in November in Glasgow.

Armenian Genocide



- The Armenian Genocide, the systematic killing and expulsion of hundreds of thousands of Armenians by the Ottoman Empire more than a century ago, is set to be officially acknowledged by US President Joe Biden.
- Armenian Genocide, campaign of deportation and mass killing conducted against the Armenian subjects of the Ottoman Empire by the Young Turk government during World War I (1914–18).
- Armenians charge that the campaign was a deliberate attempt to destroy the Armenian people and, thus, an act of genocide.
- The Turkish government has resisted calls to recognize it as such, contending that, although atrocities took place, there was no official policy of extermination implemented against the Armenian people as a group.

- While Turkey disagrees, the consensus among historians is that during the Armenian Genocide, between 1915 to 1922, in the First World War, thousands of Armenians perished due to killings, starvation and disease, when they were deported by Ottoman Turks from eastern Anatolia.
- It is difficult to estimate the total number of Armenians who died during the genocide, but the Armenian diaspora says that approximately 1.5 million died.
- Turkey rejects that number and claims that some 300,000 Armenians may have perished.
- The International Association of Genocide Scholars estimates that more than 1 million Armenians may have died.

Why is the acknowledgement significant?

- Researchers say that the acknowledgement by the US government would have little legal impact on Turkey, other than becoming a cause for embarrassment for the country and perhaps giving other countries the impetus to also acknowledge the genocide.
- Some researchers have asserted and drawn comparisons between the Holocaust and the Armenian Genocide and this acknowledgement or wider acknowledgement of it in the international community may be unwelcome and unpalatable for Turkey.
- Countries including India, that have not formally recognised the Armenian Genocide have primarily adopted this stance in the interests of their wider foreign policy decisions and because of their geo-political interests in the region.
- According to the Armenian National Institute, an American non-profit organisation, 30 countries officially recognise the Armenian Genocide.

Harlequin Ichthyosis

- Odisha reported its first-ever case of a baby born with harlequin ichthyosis, a rare genetic condition, at a hospital in Berhampur in the state's Ganjam district April 22, 2021.
- Mutations in the ABCA 12 gene are stated to cause harlequin ichthyosis.
- The ABCA12 protein plays a major role in transporting fats in cells which make up the outermost layer of skin.
- Severe mutations in the gene lead to the absence or partial production of the ABCA12 protein.
- The disease affected one in three million births and is caused due to a mutated gene inherited from the parents.
- The disease sees the skin form large diamond-shaped plates across the body that are separated by deep cracks..
- The skin is dry and scaly, almost like fish skin and hence the term 'ichthyosis', derived from 'ikthus', Greek for fish.

- The facial features of the baby, including the mouth, eyes and ears were deformed, restricting breathing and eating.
- The baby was kept in the intensive care unit.
- The condition of the mother was good, Indira Palo, assistant professor at the college and hospital's gynaecology department.
- India's first recorded case of a baby born with harlequin ichthyosis was in 2016, at a private hospital in Nagpur, Maharashtra.
- Such cases were also reported in Delhi, Patna and West Bengal.
- The infants could not survive for long and succumbed to the disease days after birth. There have been maybe 200 to 250 such cases across the world.

Impact Rankings 2021



- According to the latest edition (11th) of the QS World University Rankings by Subject, 25 programmes offered by Indian higher education institutions were ranked among the top 100 in the world in their respective subject categories.
- The Times Higher Education Impact Rankings are the only global performance tables that assess universities against the United Nations' Sustainable Development Goals (SDGs).
- Calibrated indicators to provide comprehensive and balanced comparison across four broad areas: research, stewardship, outreach and teaching.
- The 2021 Impact Rankings is the third edition and the overall ranking includes 1,115 universities from 94 countries/regions.
- Globally Massachusetts Institute of Technology (MIT -USA) and Harvard (USA) are among top performers, Russia and China record best-ever performances.
- The overall ranking is led by a UK university for the first time: the University of Manchester.
- Three Australian institutions complete the top four: the University of Sydney, RMIT University and La Trobe University.
- The top institution from an emerging economy is Thailand's Chulalongkorn University at joint 23rd place.
- Russia is the most-represented nation in the table with 75 institutions, followed by Japan with 73.

- The 2021 QS global university performance comparison provided independent data on the performance of 253 programmes across 51 academic disciplines at 52 Indian higher education institutions.
- This year, there are 12 Indian universities/institutions in the top 100 subject rankings, up from 8 last year.
- IIT Bombay, IIT Delhi, IIT Madras, IIT Kharagpur, IISc Bangalore, IIT Guwahati, IIM Bangalore, IIM Ahmedabad, JNU, Anna University, University of Delhi, and OP Jindal University are among the top 100 universities in the country.
- IIT-Bombay has more top 100 rankings than any other Indian university.

Human-Monkey chimeras



- For the first time, scientists at the Salk Institute for Biological Studies in the United States have developed human cells in monkey embryos.
- On April 15, the findings of their research were published in the journal Cell.
- Researchers agree that the ability to grow cells from two separate organisms together would provide scientists with a valuable tool for science and medicine, allowing them to learn more about early human growth, disease initiation and progression, and ageing.
- In addition, this type of study may aid in drug assessment and resolve the urgent need for organ transplantation.
- Chimeric instruments, according to researchers, offer a new medium for studying how diseases develop.
- For example, a human cell may be modified to express a gene linked to a specific form of cancer.
- Researchers could then study the course of disease progression using the engineered cells in a chimeric model, which may be able to tell them more about the disease than results obtained from an animal model.

What did the researchers come up with?

- Researchers have developed a chimeric tool by incorporating human cells into the embryos of macaque monkeys.
- Chimeras are organisms made up of cells from two different species, such as humans and monkeys in this case.

- For example, if this hybrid embryo was implanted in the womb of a monkey, it might develop into a new species (however this was not the aim of this study).
- The monkey embryos containing human stem cells in this study survived and developed outside the body for 19 days.

Ethical Concerns

- **Survivability and Fertility of Hybrid Animals:** In 2014, an Irish farm accidentally created “Geep,” a hybrid between a goat and a sheep.
- Mules, which are the product of mating between a female horse and a male donkey, are another example of a hybrid animal (intentional breeding).
- Different species seldom cross-breed, and when they do, the offspring don’t live long and are susceptible to infertility.
- **Society’s Acceptance:** While further research into chimaeras which lead to improvements, potentially allowing them to be used as a source of organs for humans, these chimaeras will still be made up of a combination of human and non-human cells, which many people find unsettling.
- **Treatment of other lifeforms:** some argue that chimaera research has the potential to exacerbate animal injustice, while others argue that using part-human animals to meet human needs is ethical.
- **Hybrid Animal Laws in India**
- The cultivation of hybrid animals has been prohibited in India since 1985.
- The “Rules for the manufacture, use, import, export, and storage of dangerous microorganisms, genetically modified organisms, or cells, 1989” (referred to as Rules, 1989) notified under the Environment (Protection) Act, 1986 control GMOs and their products.
- The Ministry of Environment, Forests and Climate Change, the Department of Biotechnology, and state governments are responsible for enforcing these rules through six competent authorities.
- A collection of guidelines on enclosed studies, biologics, confined field trials, food safety evaluation, environmental risk assessment, and other topics was supported by the Rules of 1989.

Hambantota Port



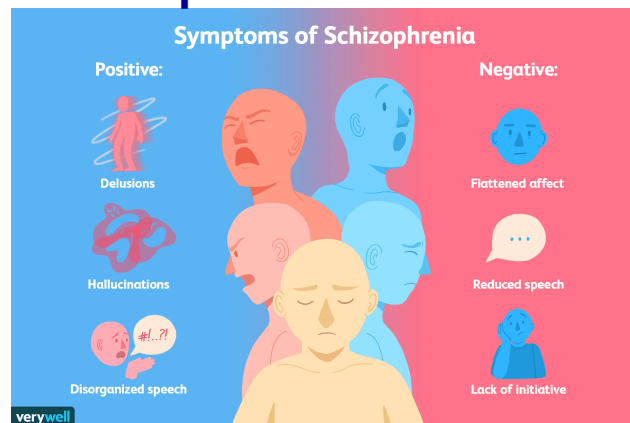
- Officials in Sri Lanka said on Wednesday that they had requested a Chinese ship to leave the southern port of Hambantota after it was discovered to be carrying radioactive material.
- The port of Hambantota is strategically located in the Indian Ocean, linking the Middle East and East Asia.
- Sri Lanka has agreed to sell a 70% stake in the strategic Hambantota deep-sea port to China for \$1.1 billion.
- Hambantota port is a deep-water port on Sri Lanka's southern coast.
- China will spend up to \$1.1 billion in port and marine-related operations over the course of the 99-year lease agreement.
- The agreement has alarmed countries with competing strategic interests with China, especially India and the United States.
- The port is expected to play an important role in China's Belt and Road Initiative (BRI), which will link ports and roads between China and Europe.
- This agreement is also thought to offer China an edge in the bunkering market, which provides fuel to ships.
- India's disadvantages include fears that the port is part of a Chinese "string of pearls" designed to encircle India and dock its military vessels.
- The String of Pearls is a strategic hypothesis about China's possible intentions in the Indian Ocean.
- It refers to a network of Chinese military and commercial facilities and relationships that stretches from the Chinese mainland to Port Sudan's sea lines of communication.
- The Strait of Mandeb, the Strait of Hormuz, the Strait of Malacca, and the Lombok Strait, as well as other strategic maritime centres in Pakistan, the Maldives, Sri Lanka, Bangladesh, and Somalia, are all crossed by these sea lines.

RESPOND programme of ISRO

- The Indian Space Research Organisation (ISRO) recently announced that it would help eight joint research projects proposed by IIT-Space Delhi's Technology Cell.
- The ISRO has pledged its support to the RESPOND program's projects.
- In the 1970s, ISRO launched the RESPOND (Research Sponsored) programme.
- Aim: To encourage academia to engage in and contribute to a variety of space-related research activities.

- ISRO provides financial assistance to academic institutions in India to conduct research and development activities in the fields of space science, space technology, and space applications.
- This is ISRO's flagship initiative for promoting extramural study in new areas of space at academia.
- It aims to strengthen the academic base, create human capital, and improve facilities at academic institutions in order to fund space programmes.
- India is on track to launch Gaganyaan, its first human spaceflight mission, which will enable Indian astronauts to conduct space experiments. This large-scale mission would help the country's preparations for potential deep-space missions.

Schizophrenia



- Schizophrenia is a serious mental disorder in which people interpret reality abnormally.
- Schizophrenia may result in some combination of hallucinations, delusions, and extremely disordered thinking and behavior that impairs daily functioning, and can be disabling.
- People with schizophrenia require lifelong treatment.
- Early treatment may help get symptoms under control before serious complications develop and may help improve the long-term outlook.

Symptoms

- **Delusions:** These are false beliefs that are not based in reality. For example, you think that you're being harmed or harassed; certain gestures or comments are directed at you; you have exceptional ability or fame; another person is in love with you; or a major catastrophe is about to occur. Delusions occur in most people with schizophrenia.
- **Hallucinations:** These usually involve seeing or hearing things that don't exist. Yet for the person with schizophrenia, they have the full force and impact of a normal experience. Hallucinations can be in any of the senses, but hearing voices is the most common hallucination.
- **Disorganized thinking (speech):** Disorganized thinking is inferred from disorganized speech. Effective communication can be impaired, and answers to questions may be partially or completely unrelated. Rarely, speech may include putting together meaningless words that can't be understood, sometimes known as word salad.
- **Extremely disorganized or abnormal motor behavior:** This may show in a number of ways, from childlike silliness to unpredictable agitation. Behavior isn't focused on a goal, so it's hard to do tasks. Behavior can include resistance to instructions, inappropriate or bizarre posture, a complete lack of response, or useless and excessive movement.

- Negative symptoms: This refers to reduced or lack of ability to function normally. For example, the person may neglect personal hygiene or appear to lack emotion (doesn't make eye contact, doesn't change facial expressions or speaks in a monotone). Also, the person may lose interest in everyday activities, socially withdraw or lack the ability to experience pleasure.

Symptoms in teenagers

- Withdrawal from friends and family
- A drop in performance at school
- Trouble sleeping
- Irritability or depressed mood
- Lack of motivation

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