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**BUSINESS & ECONOMY**

**Government Extends Vivad se Vishwas Scheme Deadline Till 30th June**

The authorities have as soon as again extended the cut-off date for making payment below the direct tax dispute contract scheme Vivad Se Vishwas' via two months until June 30, 2021, to supply alleviation to the taxpayers facing hardships amid the pandemic. This is the fourth time that the cut-off date is being extended by the Ministry of Finance when you consider that the launch of the scheme. The closing date was extended for the first time from March 31, 2020, to June 30, 2020, observed via December 31, 2020, and then again till March 31, 2021.

**Vivad Se Vishwas scheme:**
The Vivad Se Vishwas' scheme used to be introduced in the Union Budget 2020, as per which a taxpayer would be required to pay only the amount of the disputed taxes and will get a complete waiver of activity and penalty provided he will pay by means of 31st March 2020.

Those who avail of this scheme after 31st March 2020 will have to pay a 10% extra penalty and pastime amount.

The scheme presents for the contract of disputed tax, interest, penalty or fees in relation to an evaluation or reassessment order on the fee of 100% of the disputed tax and 25% of the disputed penalty or pastime or fee.

The taxpayer got immunity from interest levy, penalty and institution of any intending for prosecution for any offence under the Income-tax Act in admire of matters included in the declaration.

**RBI Caps Tenure of Private Banks MD & CEO at 15 Years**

The Reserve Bank of India (RBI) has capped the tenure of Managing Director and Chief Executive of business banks to 15 years. The identical restriction will also be relevant to whole-time directors (WTD). This means that the equal incumbent can't preserve the post for greater than 15 years.

**Highlights:**
The revised guidelines will be relevant to all the Private Sector Banks consisting of Small Finance Banks (SFBs) and completely owned subsidiaries of Foreign Banks. However, it will not be relevant to overseas banks operating as branches in India.
The MD & CEO or WTD who is additionally a promoter/ predominant shareholding, cannot keep these posts for more than 12 years.
The upper age restriction for MD & CEO and WTDs in private banks has been retained at 70 years.
The directions shall come into effect from the date of issue of this circular, that is April 26, 2021, however, in order to allow an easy transition to the revised requirements, banks are permitted to comply with these directions latest by using October 01, 2021.
RBI 25th Governor: Shaktikant Das; Headquarters: Mumbai; Founded: 1 April 1935, Kolkata.

**RBI to Issue CyberSecurity Norms for Payment Services**

The RBI will soon issue cybersecurity norms for payment service providers (PSPs), following a sequence of data leaks faced by operators.

**Highlights:**
- The standards for fintech-driven payment service providers will be comparable to cyber hygiene norms issued lately for banks and non-banking finance corporations (NBFCs).
- The firms will additionally have to do more than meet the minimum requirements to ensure protection as digital transactions gain further traction.
- The NPCI had laid down a framework for a greater even distribution of the share of third-party app providers in the UPI system.

The National Payments Corporation of India (NPCI): It is an umbrella organization for working retail payments and contracts structures under the ownership of the Reserve Bank of India in India. Founded in: 2008. Headquarters: Mumbai

**Ways and Means Advances scheme of State Governments and UTs**

The RBI decided to continue with the present intervening time Ways and Means Advances (WMA) scheme restrict of 51,560 crores for all States/ UTs shall for six months i.e., up to September 30, given the incidence of COVID-19.

**Highlights:**
- Ways and capability advances (WMA) is a mechanism used by way of RBI below its credit coverage to grant to States, banking with it, to assist them tide over
transient mismatches in the money drift of their receipts and payments. This is guided underneath Section 17(5) of the RBI Act, 1934.

Based on the tips of the Advisory Committee on WMA to State Governments, 2021 (chaired via Sudhir Shrivastava), the RBI had revised the WMA Scheme of States and Union Territories (UTs)

The WMA restriction arrived at with the aid of the Committee based totally on a total expenditure of States/ UTs, works out to be 47,010 crores.

The Reserve Bank stated it would evaluation the WMA restrict thereafter, depending on the direction of the pandemic and its impact on the economy.

### Google, Microsoft Announces Funding to Tackle COVID-19 in India

Google and Microsoft have lately pledged to help India fight COVID-19. Google is to furnish 18 million USD (Rs 135 crores). Microsoft is to help India with alleviation efforts to buy oxygen attention devices. The initiatives and the bulletins about the funding have been made by using Sundar Pichai of Google and Satya Nadella of Microsoft.

**Highlights:**

- The alleviation quantities of Google in the shape of offers are to go to non-profit enterprises UNICEF and GiveIndia. Through GiveIndia, Google is to provide cash help to households hit by the pandemic.

- The furnish being supplied to UNICEF is to be used to make pressing scientific supplies. This consists of testing gear and lifesaving oxygen equipment. Also, greater than 900 Google personnel paid a total of Rs 3.7 crores.

While Sundar Pichai and Nadella have been making the announcements, Jack Dorsey and Zuckerberg have been silent. Jack Dorsey is the CEO of Twitter. Mark Zuckerberg is the CEO of Facebook. Lately, Dorsey and Zuckerberg have had strained family members with the Indian Government due to the censorship and privacy insurance policies of the latter.

In 2019, the Government of India ordered Twitter, Facebook and other social media platforms to do away with 3,433 URLs between January and October 2019. The numbers have extended with the aid of five instances considering the fact that 2016. This used to be done below Section 69A of the Information Technology Act. Section 69A of the IT act: It offers powers to block the public from getting the right of entry to any data via a laptop resource. Persons failing to comply with the
regulations shall be punished with imprisonment up to seven years.

**State of the Economy Report by RBI**

The Reserve Bank of India these days launched the State of Economy Report for April 2021.

**Key Findings of the Report:**

The resurgence of COVID-19 may convey back inflationary pressures. Also, the restrictions and disruptions in supply chains may add up to the inflationary pressures.

Under the G-Sec Acquisition Programme, RBI goals to purchase 1 trillion well worth of bonds from the secondary market in the June quarter.

Solutions to take care of the issue: The Reserve Bank of India has supplied the following options in its State of Economy Report to handle the COVID-19 disaster in the country:

- Pandemic protocols: To ramp up a sanatorium and ancillary capacity, Speedier Vaccination, To continue to be centred on publishing pandemic future of strong and sustainable boom with economic stability
- Current Pace of Vaccination in India: According to the report, India has set a vaccination goal of 300 million with the aid of August 2021. This will require 3.5 million photographs per day. It is 13% greater than the present-day pace noted. However, RBI expects that the vaccination pace will increase due to the improvised and accelerated Vaccination phase in the country.

**Organic Food Products Of India Exports**

The Ministry of Commerce & Industry has announced that in terms of quantity, the exports of organic food products grew by 39 per cent to eight lakh 88 thousand metric tonne at some stage in the last economic year in contrast to 2019-20.

**Highlights:**

The growth in organic products has been carried out no matter logistical and operational challenges posed via the COVID19 pandemic.

Oil cake meal has been a main commodity of the organic product exports from the country accompanied by oil seeds, cereals and millets, tea, medicinal plant products and dry fruits.
India's natural products have been exported to 58 international locations which includes USA, European Union, Canada, Great Britain, Australia, Switzerland, Israel, South Korea.

Organic merchandise is currently exported from India solely if they are produced, processed, packed and labelled as per the requirements of the National Programme for Organic Production (NPOP).

The NPOP has been carried out via Agricultural and Processed Food Products Export Development Authority (APEDA) for the reason that its inception in 2001. The NPOP certification has been regarded through the European Union and Switzerland which enables India to export unprocessed plant merchandise to these nations without the requirement of additional certification. The equivalency with the EU also enables the export of Indian natural products to the United Kingdom even in the publish Brexit phase.

India now has greater than 30 lakh ha location registered under natural certification and slowly more and more farmers are joining the movement. India ranks fifth in terms of location and is at the top in phrases of complete quantity of producers (base year 2019).

Despite deep inroads of contemporary agricultural practices, still, there are massive contiguous areas in hills, tribal districts, wasteland and rained areas in India that continue to stay free from chemical input usage. With little efforts, such traditional/default natural areas can be brought under organic certification nearly immediately.

As per the hooked up norm of natural manufacturing systems, the areas having chemical input usage records are required to endure a transition length of a minimal 2-3 years to qualify as organic. During this period, farmers want to undertake preferred natural agriculture practices and maintain their farms below the certification process. On profitable completion, such farms can be licensed as natural after 2-3 years. The certification technique also requires complex documentation and time to time verification via the certification authorities.

**Report on Trends In Global Military Expenditure**


**Highlights:**

The five biggest spenders in 2020, which collectively accounted for 62 per cent of
world military expenditure, had been the United States, China, India, Russia and the United Kingdom. The world's pinnacle military spenders saw their military spending go up compared to 2019, even all through a pandemic year. The US spent a complete of $778 billion, China spent $252 billion and India's navy expenditure used to be $72.9 billion. In total, the global navy expenditure rose to $1981 billion last year, and amplify of 2.6 per cent in real phrases from 2019.

The Sweden-based SIPRI is an unbiased international institute committed to lookup into conflict, armaments, hands manipulate and disarmament. It was once installed in 1966 on the basis of a decision by way of the Swedish Parliament and receives a significant section of its funding in the shape of an annual provide from the Swedish Government.

**ADB Raises India GDP Forecast**

The Asian Development Bank currently launched its Asian Development Outlook, 2021. According to the report, India is to develop by way of 11%. The Asian Development Bank released its annual outlook. The outlook says that ADB has provided economic aid of 1.5 billion USD to India to battle in opposition to COVID-19.

**Highlights:**

According to ADB, the South Asia is predicted to rebound at 9.5% in 2021. The South Asian vicinity had shriveled by 6% in 2020. The increase of the region will average to 6.6% in 2022.

The monetary boom of Asia is to rebound at 7.3% in 2021. The location faced a contraction of 0.2% in its increase in 2020. In 2022, its boom rate is to be 5.3%.

The nations such as China, Hong Kong, Singapore and Taipei are expected to meet an multiplied increase charge of 7.7% in 2021 and 5.6% in 2022. The record classifies these nations as newly industrialised countries.

The GDP of East Asia is predicted to grow at 7.4% in 2021 and at 5.1% in 2022. The GDP of China is to extend to 8.1% in 2021 and will attain a reasonable cost of 5.5% in 2022.

Strong exports of China is to improve the financial endeavor of the country of a in 2021.
Agriculture Infrastructure Fund Crosses Rs. 8,000 Crores Mark

The Ministry of Agriculture & Farmers Welfare these days introduced that the Agriculture Infrastructure Fund crossed the Rs 8,000 crore mark. The Ministry has acquired 8,665 functions so far. The worth of these purposes has amounted to Rs 8 216 crores. Out of this, Rs 4 0 crores have been sanctioned via the Ministry so far.

**Highlights:**
- The states that received the most assistance thru the fund are Andhra Pradesh, Madhya Pradesh, Uttar Pradesh, Karnataka, and Rajasthan.
- The largest share of the sanctioned software was contributed by the following sectors: Primary Agricultural Societies: 58%. Agri-Entrepreneurs: 24%. Individual Farmers: 13%.
- In 2020, the Indian government established the Agriculture Infrastructure Fund to inject credit into agriculture and its allied activities.
- It was once launched as a part of Atma Nirbhar Bharat. The vital goal of the fund is to make the farmers self-reliant.
- Around One Lakh Crore of rupees used to be allocated for the fund. It is to be applied between 2020 and 2029.
- The fund will be used to furnish loans to the Primary Agricultural Societies, Marketing Cooperative Societies, Farmer Producers Organisation, Joint Liability Groups and Self Help Groups.
- The fund is being supplied to place up warehouses, bloodless stores, silos, grading, packaging units, ripening chambers, etc.
- The loans provided underneath the finds will get hold of a hobby subvention of 3% per annum up to two crores of rupees. This interest subvention is reachable for seven years.
- The Agricultural Infrastructure Funds are managed by using the Management Information System Platform.

**Reserve Bank of India (RBI) joins Network for Greening the Financial System- NGFS**

The Reserve Bank of India (RBI) has recently joined the Network for Greening the Financial System (NGFS). By joining the system, the Reserve Bank of India will learn from the financial sector and contribute to global climate risk management.
Ultimately, Apex Bank will work with its global partners to support the transition to a sustainable economy.

**Highlights:**
The system is made up of 83 different central banks. There are 75 participants and 13 observers among them.
The system's main goal is to increase and accelerate green finance.
It was revealed in 2017 at the One Planet Summit in Paris.
Eight central banks spearheaded the campaign, which was led by the Banque de France.
Its aim is to assist members in developing design policies and resiliency to climate risk in the financial sector.

**Current Functions of NGFS:**
NGFS is currently operating under the following conditions:
Microprudential or supervision: Singapore is in charge of this.
Bank of England's Macrofinancial works
Green Finance Scaling Up: Deutsche Bundesbank (Germany)
The International Monetary Fund (IMF) is bridging data gaps.
Research: China
INTERNATIONAL

Statehood Movement in Columbia

The House of Representatives in the US these days surpassed a consignment to make Washington DC, the fifty-first US state. The Washington DC Admission bill is being surpassed for the 2nd time in a year. The bill will create the country of Washington, Douglas Commonwealth. It has been named after Frederick Douglass.

Highlights:
Washington DC is formally recognised as Columbia. It is the capital of the United States. It is positioned on the Potomac River. It borders Maryland and Virginia.

The District of Columbia Statehood Movement targets to make the Columbia District a US state. This will provide the taxpayers with voting representation in Congress. Eventually, they will receive full manage over the local affairs. At Present, the Columbian district is under the direct jurisdiction of the US Congress.

The Statehood shall be done in the US if the US Congress passes a law. Article IV of the US Constitution empowers the US Congress to admit new states to the Union via passing a law.

If Columbia turns into a state, it will rank forty-ninth in population. But in phrases of GDP, it will rank first. And also, first in terms of median family income.

Frederick Douglass was the first African American to be nominated for Vice President of the USA. He was once a social reformer, orator and abolitionist. He as soon as served as a slave in Maryland. He escaped slavery and became a national chief of the Abolitionist movement. The Abolitionist movement sought to cease slavery in the US.

India-France Naval Exercise VARUNA Begins

The 19th edition of the Indian and French Navy bilateral exercise VARUNA-2021 carried out in the Arabian Sea from 25 to 27 April 2021. During the three day exercise, the devices of each of the navies will undertake excessive tempo-naval operations at sea, which will include superior air defence and anti-submarine exercises, severe fixed and rotary wing flying operations, tactical manoeuvres, surface and anti-air weapon firings, underway replenishment & other maritime protection operations.
Indian Navy:
The Indian Navy (IN) will participate with its guided-missile stealth destroyer INS Kolkata, guided-missile frigates INS Tarkash and INS Talwar, Fleet Support Ship INS Deepak, with Seeking 42B and Chetak indispensable helicopters, a Kalvari class submarine & P8I Long Range Maritime Patrol Aircraft.

French Navy
The French Navy will be represented via the Aircraft Carrier Charles-de-Gaulle with Rafale-M fighter, E2C Hawkeye plane and helicopters Caman M and Dauphin embarked, Horizon-class Air defence destroyer Chevalier Paul, Aquitaine-class multi-mission frigate FNS Provence with a Caman M helicopter embarked and Command and furnish ship war.

ASEAN Initiative on the State of Myanmar
The Government of India currently welcomed the ASEAN (Association of Southeast Asian Nations) Initiative on Myanmar.

Highlights:
The ASEAN launched a five-point announcement on the Myanmar crisis. Under the statement, the ASEAN countries have demanded Immediate Cessation of Violence. The 5 points of the initiative are as follows:

Issue: The military of Myanmar brushed aside the Government headed via Aung San Suu Kyi in February 2021.

Criticisms: The five-point consensus used to be created between the ASEAN international locations and the modern army leader who seized power. There have been huge protests in the united states of America considering the navy coup. The consensus is being criticised that ASEAN is encouraging a navy coup. Also, the consensus did not mention a timeline. It also not noted the political prisoners in Myanmar.

Brunei is the current chair of ASEAN.

The Issue of Myanmar-IN DEPTH: Myanmar gained independence from Britain in 1948. Between 1962 and 2011, the USA was dominated by means of armed forces. It used to be the ruling navy that modified the name of Burma into Myanmar.

Aung San Suu Kyi, daughter of Father of Myanmar (Aung San), returned to Myanmar in 1988. She was once put under residence arrest via the army in 1989. In 2010, Suu Kyi used to be freed. In 2012, she received a by-election and took a seat
in Parliament.

In 2015, the National League for Democracy birthday celebration gained the elections. However, the army barred Suu Kyi from the presidency. A post of State-counsellor used to be created for Suu Kyi to run the Government.

In February 2021 elections, the National League for Democracy gained the polls again. The Tatmadaw (Name of Myanmar military) declared a country of emergency. It additionally declared that the energy is being transferred to the Commander-in-Chief of Defence Services.

**Deep Submergence Rescue Vessel Dispatched to Indonesia**

The Indian Navy (IN) dispatched its deep submergence rescue vessel (DSRV) from Visakhapatnam to guide the Indonesian Navy in the search & rescue efforts for its submarine KRI Nanggala that went lacking with 53 personnel aboard.

**Highlights:**

KRI Nanggala (402) is a diesel and electric attack submarine of the Indonesian Nav. It is one of two Cakra-class submarines (Type 209 design).

It is named after the Nanggala, a divine and effective brief spear that was owned by means of Prabu Baladewa (the elder brother of Kresna), a routine personality in wayang puppet theatre.

**Deep submergence rescue vessel (DSRV):**

India is amongst the few international locations in the world succesful of mission search & rescue of a disabled submarine through a DSRV.

DSRV of Indian Navy system can locate a submarine up to 1,000-metre depth utilising its contemporary facet scan sonar and remotely operated vehicle.

After the submarine is efficaciously located, another sub module of DSRV the submarine rescue vessel (SRV) links with the submarine to rescue the trapped personnel.

The SRV can also be used to grant emergency supplies to the submarine.

**Population of the United States Increases**

The US Central Bureau announced that the US population has increased by 7.4%. This is the second slowest increase in the U.S. population since the Great Depression.
**Highlights:**

The Census Bureau recently released the first set of data on the American population. It is expected that the country's complete population data will be released in August 2021. On this basis, US$1.5 trillion in federal funds will be distributed to communities across the country.

By 2020, the population of the United States will increase to 331,449,281. An increase of 7.4% is the second lowest country in the history of the United States.

According to the census, the seats allocated to the U.S. Congress.

Recently released data show that the number of immigrants in the United States has been increasing recently. For example, New York and California each lost their congressional seats. The same is true in Pennsylvania and New York.

On the other hand, the growth of Montana, Florida and North Carolina is enough to increase congressional seats.

The Census in 2010 showed that the population of the United States is shifting to the South and the West.

The United States Congress has two chambers. One is the House of Representatives and the other is the Senate. There are fifty states in the United States. Each state elects 2 senators for a 6 year term. The United States is categorised into 435 congressional districts. When a region has a population of 750,000 and becomes a representative, it becomes a region.

A representative from each region is elected into the House of Representatives for a two-year term. When the threshold population decreases, the region will lose its representation in the House of Representatives. For example, in the recent "US 2020 Census", New York lost a housing seat because it had 89 people, which is less than 750,000.

By 2021, approximately 142 women will occupy seats in the US Congress. This is 26.5% of the 535 members. Approximately 24% of women serve in the U.S. Senate, and 27.1% of women serve in the U.S. House of Representatives. The first U.S. Census was held in 1790.

**Human Rights Watch on Israel**

Human Rights Watch stated on Tuesday that Israel is committing the crime of apartheid by in search of to hold Jewish domination over Palestinians and its personal Arab population.
**Highlights:**

It pointed to measures, along with movement restrictions, land confiscation, forcible population transfer, denial of residency rights and suspension of civil rights.

The file finds that the Israeli authorities is the single authority with control over the place between the Jordan River and Mediterranean Sea.

Israel said: Currently beneath investigation by using the International Criminal Court (ICC) for alleged struggle crimes, Israel blasted HRW's accusations as preposterous and false, accusing it of having a long-standing anti-Israeli agenda.


**Supply Chain Resilience Initiative  India, Japan and Australia**

On April 27, 2021, India, Australia and Japan officially launched the supply chain resilience plan. This initiative was launched to counter China's dominant position in the global supply chain.

**Supply Chain Resilience Initiative:**

- It aims to prevent supply chain disruptions during the COVID-19 pandemic. The plan will mainly focus on the diversification of investment and the adoption of digital technologies.
- To increase foreign direct investment and ultimately make the Indo-Pacific region an "economic power." Build positive relationships between partner countries. It was built on the existing supply chain network.
- Japan proposed it, and its primary purpose is to reduce dependence on China. By the data from the Federation of Indian Industries (CII), China's share of imports from India is 14.5%.
- China's imported goods occupy a leading position in electronics, medicine, auto parts, chemicals, shipping and textiles. In terms of electronic products alone, China accounts for 45% of India's imports.
- During COVID-19, all these industries have been severely affected because India is heavily dependent on China for raw materials, especially in the electronics and
pharmaceutical sectors.
COVID-19 reveals the fragility of the supply chain and the monopoly that China enjoys in the region.
Chinese actions: China recently launched an initiative with its Asian neighbours Nepal, Pakistan, Afghanistan, Sri Lanka and Bangladesh to help them build COVID-19 emergency supplies. In addition, China's Sichuan Airlines recently suspended cargo flights to India, which are currently delivering oxygen concentrators to India. Even during the COVID-19 pandemic, China's belligerent attitude (aggressive war, such as behaviour) forced these countries to take the initiative.

Plain of Jars as Burial Sites
The archaeologists these days determined that the jars in the "Plain of Jars" had been used as burial sites. They have also determined that although the jars should be 3,000 years old, the human remains advocate that people had been buried alongside facet these jars 700 years ago, which is relatively recent.

Highlights:
By the view of scientists, the vessels in the Plain of Jars were placed in the late 2nd millennium BCE. The human remains comes from the 13th century. It is feasible that the jars have been continually used as burial sites.
Some also say that these jars had been used for brewing celebratory rice wine and whiskey. These conclusions had been made solely after four jar sites have been studied. There are lots of unexplored jar websites in Laos.
The jars had been made of different rock types such as Conglomerate, Breccia, Limestone, Granite, Sandstone. But the majority of the jars were made up of sandstone.
The Plain of Jars is in Laos. It is a megalithic archaeological landscape. It consists of hundreds of stone jars. These jars are located in the lower foothills of the Xiangkhoang Plateau.
There are greater than ninety Jar web sites in the plateau. Each web page has extra than 400 stone jars. Some of those jars have stone lids as well.

About the Jars
The Jars are cylindrical. The backside of the jar is wider than the top. A French researcher Madeleine Colani concluded in 1930 that the jars had been related to
burial practices. This interpretation was once supported with the aid of Japanese and Laos archaeologists with the discovery of human remains. The Plain of Jars grew to be the UNESCO World Heritage Site in 2019.

**India and Russia 2+2 Dialogue**

Prime Minister Narendra Modi and Russian President Vladimir Putin agreed to establish a "2 + 2 Ministerial Dialogue." A "2 + 2 ministerial" dialogue was held between the Minister of Defense and the Minister of Foreign Affairs.

**Highlights:**
- India has similar dialogues with the United States, Australia and Japan. Russia is the first non-quartet member with whom India will hold a dialogue.
- In 2021, President Putin will visit India and hold an India-Russia bilateral summit. The summit can also be held in India and Russia.
- Currently, Russia is India's largest defense supplier. In addition, India's key defense systems (such as S-400) were purchased from Russia.
- Both countries are members of the BRIC countries of the Shanghai Cooperation Organization. Russia supports India as a permanent member of the UN Security Council.
- The trade goal set by the two countries earlier is to reach 30 billion US dollars in trade by 2025. The dialogue will help them achieve this goal.
- All astronauts shortlisted for India's "Human Space Flight Program" have received Russian training. A nuclear power plant constructed in Kudankulam, Tamil Nadu, under the cooperation of Russia.
- India approved Russia's V-type satellite. This is the third vaccine approved in the country after COVAXIN and COVISHIELD.

**Net Zero Producers Forum Saudi Arabia**

Saudi Arabia will work with the Norway, United States, Canada and Qatar to form a "Net Zero Producer Forum" for oil and gas producers to discuss how they can support the implementation of the Paris Climate Agreement.

**Highlights:**
- Saudi Arabia exports the most crude oil in the world.
- The forum will discuss ways to achieve the goal of zero carbon net emissions to
limit global warming.

Saudi Arabia also stated that its goal is to reduce carbon emissions by producing 50% of the country's energy from renewable energy sources by 2030.

The President of the United States recently announced a plan to cut 2005 emissions by 50%-52%.

**NATO Military Exercises launched**

The North Atlantic Treaty Organization recently launched a joint military exercise in Albania, called "DEFENDER-Europe 21". Thousands of military personnel from the United States participated in the exercise.

**Highlights:**

The DEFENDER-Europe Exercise is an annual US-led transnational exercise. It is defensive in nature. It focuses on containing aggression.

The focus of work in 2021 is to establish operational readiness and interoperability.

More than 28,000 troops from the United States and its allies are participating.

From the Black Sea, the Balkans to the Baltic Sea and Africa, more than 26 countries/regions will simultaneously conduct business in more than 30 training areas.

USNS Bob Hope will demonstrate how to unload heavy equipment onto smaller vessels.

**About NATO:**

NATO is North Atlantic Treaty Organisation. It is a military alliance made up of thirty countries from North America and Europe. In 1952, NATO conducted its first military exercise. The Soviet Union signed the Warsaw Pact to fight NATO.
INDIAN AFFAIRS

Special Task Force to Monitor J&K Government Employees

The government of J&K constituted a Special Task Force (STF) for identifying and scrutinising the authorities personnel who are involved in any cases associated with posing a chance to the security or anti-national activities.

**Highlights:**

The Special Task Force will have the ADGP, (CID), J&K, as its chairman and the IGP, representatives of the Home Department; Law Department, Justice Member and Parliamentary Affairs and the concerned department as its members.

The STF will scrutinise instances of personnel suspected of activities requiring action under Article 311(2)(C) of the Indian Constitution.

The STF has been tasked to collect documents of such personnel and engage with other contributors of the Terror Monitoring Group (TMG) for identifying such different employees.

The cross comes as a variety of government personnel in the past had been observed expressing their political opinion in public space on the Kashmir conflict.

Appointment of Retired Judges As Ad-Hoc Judges In HC

The Supreme Court cleared the way for the appointment of retired judges as ad-hoc judges in High Courts (HCs) below Article 224A of the Constitution to deal with the mounting backlog of cases. Around fifty-seven lakh cases in HCs are pending. This will be relevant for two to three years to clear the backlog.

**Article 224A:**

This article deals with ad-hoc judges appointment in High Courts.

It is used hardly ever

Article: the Chief Justice of an HC for any State might also at any time, with the preceding consent of the President, request any person who has held the workplace of a Judge of that Court or of any different High Court to sit down and act as a Judge of the High Court for that State.

Indian Government to Import Oxygen Concentrator

The Indian government is to import 10,000 oxygen concentrators. An oxygen
concentrator concentrates oxygen from the atmosphere.

**Working of Oxygen Concentrator:**

The atmospheric air has 78% of nitrogen and 21% of oxygen. The Oxygen Concentrator accumulates air and filters through a sieve sending the nitrogen back in to the air and collects oxygen alone.

The oxygen in the oxygen concentrator is compressed and distributed via a cannula. The oxygen is 90% to 95% pure.

A strain valve in the concentrators helps to regulate the provision of oxygen from 1 to 10 litres per minute.

The Oxygen from the concentrators is no longer as pure as the Liquid Medical Oxygen. However, it is pure enough for moderate and average COVID-19 patients. It is appropriate for sufferers who require oxygen saturation stages of 85% or above. The Oxygen Concentrators are not really helpful for ICU patients.

The Oxygen Concentrators will furnish solely 5 to ten litres per minute. The essential patients will need 40 to 50 litres of oxygen per minute.

The Oxygen Concentrators are portable. On the other hand, the Liquid Medical Oxygen wants to be saved and transported in cryogenic tankers.

The Oxygen Concentrators only require an energy source to draw in ambient air. On the different hand, the Liquid Medial Oxygen wishes refilling.

1The Oxygen Concentrators are generally a one-time investment. They require Rs 40,000 to Rs 90,000. The cylinders fees Rs 8,000 to Rs 20,000.

The concentrators require minimal running cost that includes electricity and activities maintenance. On the different hand, cylinders contain refilling expenses and transportation costs.

### National Commission for Minorities

The Delhi High Court has directed the Centre to fill up the vacant posts of chairperson and five different participants of the National Commission for Minorities (NCM) with the aid of thirty-first July 2021.

**Highlights:**

In 1978, the putting up of the Minorities Commission (MC) was envisaged in the Ministry of Home Affairs Resolution.

The MC used to be detached in 1984 from the Ministry of Home Affairs and positioned under the newly created Ministry of Welfare, which excluded linguistic

In 1992, with the enactment of the NCM Act, 1992, the MC became a statutory body and was once renamed as the NCM.

In 1993, the first Statutory National Commission used to be set up and five non-sectarian communities viz the Muslims, Christians, Sikhs, Buddhists and Zoroastrians (Parsis) have been notified as minority communities.

In 2014, Jains have been additionally notified as a minority community.

Composition: NCM consists of a Chairperson, a Vice-Chairperson and 5 individuals and all of them shall be from amongst the minority communities. A total of 7 folks to be nominated by means of the Central Government must be from amongst people of eminence, capacity and integrity.

Tenure: Each Member holds a workplace for a length of three years from the date of assumption of office.

**Disaster Management Act Invoked For Liquid Oxygen**

Invoking the Act (Disaster Management Act), the Centre ordered States that all liquid oxygen, along with the current inventory with private plants, ought to be made accessible to the government and will be used for clinical functions only.

**Highlights:**

Liquid oxygen - LOx, LOX or Lox in the aerospace, submarine and fuel industries. It is the liquid structure of molecular oxygen. It has a faded blue color

Liquid Oxygen is strongly paramagnetic- it can be suspended between the poles of a effective horseshoe magnet.

Because of its cryogenic nature, it can purpose the substances it touches to come to be extraordinarily brittle.

Liquid oxygen is one of the very powerful oxidizing agents: organic substances will burn swiftly and energetically in liquid oxygen.

It was once used as the oxidizer in the first liquid-fueled rocket invented in 1926 by way of Robert H. Goddard, an software which has endured to the present.

In commerce, it is categorized as an industrial gasoline and is extensively used for industrial and scientific purposes.

It is acquired from the oxygen observed naturally in air through fractional distillation in a cryogenic air separation plant.

It is the most frequent cryogenic liquid oxidizer propellant for spacecraft rocket
applications, usually in aggregate with liquid hydrogen, kerosene or methane.

**Cyber Crime Volunteer Union Home Minister**

Cyber Crime Volunteer Union Home Minister

The Union Home Ministry has stated it does no longer hold a centralised listing of volunteers enrolled under the cybercrime volunteer programme considering the police is a State subject below the Seventh Schedule of the Constitution.

**Highlights:**

The Ministry, through its cybercrime grievance portal, ambitions to raise a team of volunteers for cybercrime to flag unlawful matter on the Internet.

A digital rights team, the Internet Freedom Foundation (IFF), has said the programme enables a culture of surveillance and may want to create achievable social mistrust with the aid of encouraging civilians to document the on-line things to do of other citizens.

The programme was anticipated to encompass five hundred volunteers, 200 cyber consciousness promoters & 50 cyber experts.

Cybercrime Volunteers Programme : A constituent of The National Cybercrime Ecosystem Management Unit.

And, This unit is part of the Indian Cybercrime Coordination Centre scheme launched through Union Home Minister in January 2020.

**Research on Janani Suraksha Yojana**

A worldwide group of researchers has determined that the cash given under the Janani Suraksha Yojana is much less than the complete costs of facility-based childbirth, in terms of each monetary and actual costs. They have also observed that less than 50 per cent of eligible women take advantage of the scheme due to bad infrastructure at the hospitals.

**Highlights:**

Instead of monetary benefits, the use of maternal healthcare amenities is mostly pushed via the grass-root stage community fitness people recognised as ASHAs (Accredited Social Health Activists), researchers said.

The researchers advocated that it is of utmost importance to address indispensable gaps around first-rate of care at the public fundamental healthcare facilities.
Janani Suraksha Yojana (JSY) is a safe motherhood intervention underneath the National Health Mission launched through the Ministry of Health & Family Welfare in 2005.

It is being applied with the goal of reducing maternal and neonatal mortality by merchandising institutional shipping among pregnant female particularly with vulnerable socio-economic repute i.e. girls from Scheduled Castes, Scheduled Tribes and BPL households.

JSY integrates cash assistance with shipping and post-delivery care.

The scheme is underneath implementation in all states and Union Territories (UTs), with a distinct focal point on Low Performing States (LPS).

Cash assistance: Under the JSY, eligible pregnant women are entitled for money help irrespective of the age of mom and wide variety of teenagers for giving start in a government or accepted personal fitness facility.

BPL pregnant women, who decide on to supply at home, are entitled to a cash help of Rs 500 per shipping regardless of age of female and the quantity of children. The motive is that the beneficiary would be capable to use the money help for her care in the course of delivery or to meet incidental expenses of delivery.

Cabinet approves Agreement between India and UK

On April 28, 2021, the Union Cabinet chaired by Prime Minister Narendra Modi approved the settlement signed between Government of India and the Government of UK. The agreement used to be signed on Customs Cooperation and Mutual Administrative Assistance in Customs Matters.

**Highlights:**

India and UK have been signing a number of alternate related agreements after the latter moved out of European Union.

The Agreement will grant a prison framework to share brain and statistics between the customs department of the two countries.

It will help to make certain if Customs laws are abided. It will also assist in the prevention and investigation of customized offences.

Also, the settlement will assist in trade of records about the origin of items traded between the countries, customs value, tariff classification, etc. It is vital to analyze about these information as they are blanketed in the calculation of customs duty.
Large Area Certification Scheme Andaman and Nicobar

14,491 ha region of UT of A&N Islands has come to be the 1st large contiguous territory to be conferred with certification for organic beneath 'Large Area Certification' scheme.

**Large Area Certification scheme:**
Department of Agriculture and Farmers Welfare underneath its flagship scheme of Paramparagat Krishi Vikas Yojna (PKVY) has launched this special speedy certification programme to harness these manageable areas. Under LAC, each village in the vicinity is considered as one cluster/group.

All farmers with their farmland and farm animals want to adhere to the popular requirements and on being verified, get certified en-mass barring the want to go below conversion period.

Certification is renewed on an annual basis thru annual verification by a technique of peer appraisals as per the procedure of PGS-India.

As per the established regulations of organic production systems, the areas having chemical enter usage history are required to undergo a transition length of minimal 2-3 years to qualify as organic.

During this period, farmers need to undertake fashionable organic agriculture practices and hold their farms beneath the certification process.

On successful completion, such farms can be licensed as natural after 2-3 years. The certification system also requires difficult documentation and time to time verification by means of the certification authorities.

Whereas under requirements of LAC are simple and the vicinity can be certified nearly immediately.

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**Foundation Stone for Project Parasol**

The foundation stone for the integrated Solar Dryer and Pyrolysis pilot plant was currently laid at Chennai.

**Highlights:**

The pilot is a section of the Indo-German challenge 'Pyrasol', launched to transform urban natural waste into biochar and energy in clever cities.

It used to be awarded to CSIR-CLRI with the aid of the Indo-German Science & Technology Centre.
The task will in the end lead to technology improvement for the joint processing of Fibrous Organic Waste (FOW) and Sewage Sludge (SS) of Indian smart cities into hygienic and especially valuable biochar associated with power recovery, carbon sequestration and environmental improvement.

Project Pyrasol: The project focuses on managing and organising collection, treatment, and disposal systems of city wastes in Indian Smart Cities as nicely as in other city centres with an built-in and interactive approach.

About Indo-German Science & Technology Centre (STC): Established by India and Germany to facilitate Indo-German R&D networking with emphasis on enterprise participation, applied lookup and technology development. IGSTC thru its flagship program 2+2 Projects', catalyses innovation-centric R&D projects by means of synergising the strength of lookup and tutorial institutions and public/private industries from India and Germany.

**NITI Calls For EV Purchase Subsidy**

NITI Aayog these days stated that the Government of India has to furnish incentives on the purchase of electric-powered vehicles over and above current subsidies being provided under the FAME II scheme. Also, it has endorsed to furnish hobby subvention on mortgage quantity taken for Electric Vehicle purchases.

**Highlights:**

Apart from interest subvention and additional subsidies, NITI Aayog has additionally recommended creating non-financial incentives. This consists of exceptional parking for Electric Vehicles in industrial complexes, priority lanes for EVs.

The NITI Aayog has additionally encouraged that the Green Zones have to be demarcated within cities that permit only electric-powered Vehicles.

The think tank says that heavy taxes should be charged on conventional gas vehicles. Green corridors ought to be created that enable only E-Buses.

A National Level Policy must be formulated to incentivize distribution utilities that are investing in EV charging infrastructure.

The Financial Institutions in the united states of America need to be influenced to extend their lending facility to the Electric Mobility sector.

The charging infra developer has to allocate a land component for open public
amenities such as meals zones, cafeteria, etc. Such provisions have been covered in the Madhya Pradesh EV Policy.

The Electricity Regulator must be mandated to provide a mechanism to approve rate-basing of utility investments in constructing EV Charging infrastructure.

The Government of India had notified the National Electric Mobility Mission Plan, 2020, that targets to amplify home manufacturing capacities of EV. Also, the FAME II scheme was once launched to stimulate the EV market. Despite all these measures, the share of EVs in the USA’s total sale of automobile income is simply 1%. Therefore, NITI Aayog has come up with these recommendations.

First-ever Electric Tractor

The first-ever electric tractor was tested at the Central Farm Machinery Training & Testing Institute in Budni (Madhya Pradesh).

**Highlights:**

The institute initially received an application for an electric tractor under a Confidential Test.

Therefore, the Institute tested the tractor and issued a draft test report in February 2021.

Compared to other types of tractors, an electric tractor would be more environmentally friendly.
Virafin Gets Emergency Nod

DBT-BIRAC supported Virafin’ from Zydus Cadila receives emergency nod for treating average COVID-19 infections in adults.

**Highlights:**
- The restricted emergency use approval was once given with the aid of the Drug Controller General of India (DCGI).
- Virafin is a pegylated interferon alpha-2b(PegIFN), which when subcutaneously injected to the affected person in the early tiers of infection, resulted in their quicker recovery.
- For Virafin improvement, Zydus appreciated the guide supplied via DBT-BIRAC COVID 19 Research Consortium through NBM, for conducting the Phase II human medical trial studies.
- The studies tested the safety, tolerability and efficacy of Virafin.
- The research suggested that Virafin reduces viral load and aids in managing the disease in a higher way, such as reduction in the want for supplemental oxygen, thereby decreasing the respiratory anxiety-induced due to low oxygen levels.
- Phase III clinical trial research mentioned that a larger proportion of patients, when administered subcutaneously with Virafin, grew to become out to be RT-PCR negative by way of day 7, apart from quicker recuperation as compared to different antiviral agents.

Rising Prevalence of U.K. Strain in Delhi

The share of the U.K. variant (B.1.1.7) in genome samples sequenced from COVID-19 cases in the state of Delhi has risen from 28% in the 2nd week of March to 50% final week.

**Highlights:**
- The U.K. variant has a mutation N501Y that is pronounced to amplify the transmission of the virus, main to greater numbers and a knock-on outcome of growing sickness severity and mortality.
- Delhi used to be among the States, alongside with Punjab, Chhattisgarh and Gujarat, the place cases of the U.K. strain in the wider community a ways
outnumbered those detected among international guests and their contacts.
A mutation just potential a difference; a letter exchange in the genome. Mutations in viruses are just a natural part of evolution.
The pressure on the virus to evolve is expanded by the fact that so many thousands and thousands of human beings have now been infected.

**Infections After COVID Vaccine**
The Indian Council of Medical Research lately reported that around two to four of the ten thousand vaccinated people tested advantageous for the disease. This is referred to as Breakthrough Infection.

**Highlights:**
According to ICMR (Indian Council of Medical Research), around 9.3 million have received the first dose of COVAXIN. Of this, 4,208 have examined positive, which is 0.02%. Of the 1.7 million who acquired the 2d dose, 695 tested positive, which is 0.04%.
Of the 100.3 million who received the 1st dose of the COVIDSHIELD vaccine, 17,145 tested positive, which is 0.03%. Of the 15 million who obtained the 2nd dose of COVISHIELD, 5,014 tested positive, which is 0.04%.
An individual who has COVID-19 antigen or RNA after 14 days of taking the vaccine is stated to have a Breakthrough Infection. In simple words, Breakthrough infections are those infections that manifest in human beings who are vaccinated.
This is common in any vaccine. In AstraZeneca Clinical Trials, thirty out of 5,807 examined tremendous after fourteen days of the second shot.
During trials, COVID-19 vaccines have shown to be between 60% and 95% effective. In actuality, any vaccine is less effective than what is said in trials.
According to WHO, no vaccine gives one hundred per cent protection from any disease. It takes two weeks for the physique to construct immunity after being vaccinated. In the US, around 7% obtained COVID-19 infections after vaccination.
One predominant reason for the incidence of the infection after vaccination is wrong vaccination. This might happens due to injecting the vaccine in the wrong place. Weak Immunity and age additionally cause breakthrough infection.

**Astronomers Discovered Unicorn Black Holes**
Astronomers have discovered the smallest black holes. It has been named Unicorn. It is 1,500 mild years away from the earth. It is the closest of all the black holes located so far.

**Highlights:**

- The size of a Unicorn is three times the mass of the sun. Its size is tiny for a black hole. It appears that the Unicorn accompanies a red large star. The scientists have been able to locate the Unicorn by documenting the changes in the red large star. This is because the black holes are normally not visible. The black gap used to be determined via an impact known as Tidal Distortion.

- Tidal Distortion occurs via the gravitational interaction of an astronomical body. For instance, the tidal distortion between the moon and the Earth are higher during no moon and full moon days. The Tidal forces stretch a physique alongside the line in the direction of the centre of mass of another body.

- Significance of Black Holes: It is noticeably vital for scientists to study black holes as they tell them about the way the stars shape and die.

- A Black Hole is a location in the area the place the gravity pull is so high. The gravitational pull is so sturdy that even light cannot get out. The gravity pull in the vicinity is so sturdy as the depend has been squeezed into a tiny space. This typically takes place when a big name is dying.

- Are Black Holes the end stage of a star: Yes. Most of the celebrity fabric is blasted away into the house throughout its remaining stages. However, the core implodes into a neutron megastar referred to as the black hole.

**First Mars Rover of China  Zhurong**

China has named its first Mars rover as Zhurong after a ordinary hearth god. The title signifies igniting the flame of Planetary Explorations of China.

**Zhurong:**

- Zhurong is on board the Tianwen-1 Space probe. It arrived at the orbit of Mars in February 2021 and is due to land on the planet in May 2021.

- With Zhurong, China will end up in the 1/3 united states after the Soviet Union and the USA to obtain a gentle landing on Mars. Also, it will grow to be the 2nd country to put a rover on Mars after the US.

- Zhurong weighs 240 kilograms and is photo voltaic powered. Zhurong contains multispectral cameras and instruments to analyse the composition of the rocks. It
will investigate subsurface traits with ground-penetrating radar.

**Tianwen-1**

The main goal of Tianwen-1 is to analyse and map the Martian floor and seem to be for water ice and find out about the local weather and surface environment. It was launched in July 2020.

It was launched with an orbiter, camera, lander and the Zhurong rover. It weighs 5 tonnes and is one of the heaviest probes launched to Mars. It was launched in Long March 5 heavy elevate launch vehicle.

It was the second of the three space missions sent to Mars in 2020. The other missions launched have been as follows: The Hope Orbiter by the United Arab Emirates. Perseverance Rover and Ingenuity helicopter on Mars 2020 by way of US China these days became the first country to land a space probe on the little-explored far side of the moon. It again to the earth in December with lunar rocks for the first time due to the fact 1970s.

**NASA Helicopter Makes Third Flight On Mars**

The National Aeronautics and Space Administration (NASA) announced that the Ingenuity helicopter has carried out its 0.33 flight successfully.

**Highlights:**

According to NASA, in its 0.33 flight, the Ingenuity helicopter flew quicker and farther. In its third flight, the helicopter rose to 5 metres. This is the identical altitude as that of its 2nd flight. It rose at a pinnacle pace of two metres per second. The helicopter travelled fifty metres in its 0.33 flight.

The Martian Atmosphere is stuffed with Carbon Dioxide. This is the largest mission for the Ingenuity Helicopter.

Mars 2020 mission: It is section of Mars Exploration Programme of NASA. It consists of Perseverance rover and Ingenuity helicopter.

The predominant goal of Perseverance rover is to inspect Astro-biologically applicable historic environment in mars. Astro-Biology was once previously recognized as exobiology. It is an interdisciplinary scientific subject that is worried with the origins, evolution, distribution and future of existence in the universe.

Mars Exploration Programme: It was once launched in 1993 to discover the probabilities of life on mars. In 2013, the US Government reduce 40% of NASA's budget. This delayed the initiatives under the programme. The most important
targets of the programme are as follows:
   To determine if existence ever existed in Mars
   To characterise the Climate of Mars
   To characterise the geology of Mars
   To prepare for human exploration of Mars

**Four Astronauts Launched To The International Space Station  Crew 2 Mission**

Four astronauts had been launched to the International Space Station (ISS) from Florida as part of a collaboration between NASA and SpaceX underneath the Commercial Crew Program. The mission is known as Crew-2.

**Highlights:**

NASA's Commercial Crew Program is a partnership between NASA and personal industry to elevate astronauts to and from the International Space Station.

Unlike previous human spaceflight programs, NASA is a purchaser buying flights from business providers. The organization does now not very own or function the spacecraft.

The program is helping to lower the fee of spaceflight and doubtlessly create a new business market for people in space.

By encouraging personal organizations to furnish crew transportation services to and from low-Earth orbit, NASA can center of attention on constructing spacecraft and rockets intended for deep space exploration missions.

Boeing and SpaceX had been selected by way of NASA in September 2014 to boost transportation structures supposed to transfer crew from the US to the ISS.

ISS is a liveable artificial satellite tv for pc - the single greatest man-made structure in low earth orbit. Its first factor was launched into orbit in 1998. It circles the Earth in roughly ninety-two minutes and completes 15.5 orbits per day. It is expected to operate until 2030.

**Harlequin Ichthyosis - Rare Genetic Disorder**

Odisha suggested its first-ever case of a child born with Harlequin Ichthyosis, a rare genetic pores and skin condition. India's first recorded case of a toddler born with harlequin ichthyosis was in 2016, at a personal clinic in Nagpur, Maharashtra.
**Highlights:**
Harlequin Ichthyosis is a rare genetic pore and skin sickness to a newborn infant. It's a kind of ichthyosis, which refers to a crew of disorders that reason persistently dry, scaly skin all over the body. It is inherited in an autosomal recessive pattern.

Autosomal Recessive Pattern: Autosomal (that ability inherited) Recessive Pattern is a way, place a genetic trait or situation can be passed down from mum or dad to child. A genetic situation can occur when the infant inherits one copy of a mutated (changed) gene from each parent. If a man or woman receives one normal gene and one ordinary gene for the disease, the character will be a provider for the disease. The danger to have a child who is a carrier, like the parents, is 50% with each pregnancy. The danger for a child to get hold of regular genes from each dad and mom is 25%. The danger is equal for men and females.

Causes: It can be brought on through changes (mutations) in the ABCA12 gene. ABCA12 Gene offers directions for making a protein that is indispensable for skin cells to strengthen normally. It performs a key position in the transport of fats (lipids) to the most superficial layer of the skin (epidermis), developing an positive skin barrier. When this gene is mutated, the skin barrier is disrupted.

Impact: Newborn babies are blanket with plates of thick pores and skin that crack and split apart and can avert respiratory and eating. The premature beginning is typical, leaving the children at hazard for issues from early delivery.

Affected Population: It influences adult males and ladies in equal numbers. It impacts approximately one in 5,00,000 persons. There are around 250 such cases throughout the world.

Treatment: A new child with Harlequin ichthyosis requires neonatal intensive care, which may additionally consist of spending time in a heated incubator with excessive humidity.

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**Single Crystal Blade Technology by DRDO**

The Single Crystal Blade Technology was developed by DRDO (Defence Research and Development Organisation). The agency has delivered sixty such blades to Hindustan Aeronautics Limited. A very few international locations in the world possess this technology. They are the UK, USA, Russia and France.

**Highlights:**
The helicopters want practical and compact aero engines to function in extreme
conditions. To acquire this, Single Crystal Blades are essential. The Single Crystal blades are made of nickel-based outstanding alloys. These alloys have the capacity to withstand high temperatures. The science is to be used in helicopters.

Usually the Grain Boundary technology is used in making blades. Here the metal varieties grains whilst solidifying.

Usually, metallic alloys are used in making blades. Different metals in the alloy produce specific grains whilst solidifying, thereby developing grain boundaries. A grain boundary defined as an interface between 2 grains or crystals. The boundaries lead to creep that are in the blades.

The issue of creep is overcome in Single Crystal Blade technological know-how by designing alloys that can be used in single crystal form. This skill that no boundaries will be formed here.

The technological know-how makes use of a vacuum funding casting method to comprehend the blades, that includes ceramic moulding, wax patterning, heat treatment.

It is indispensable to formulate exceptional ceramic composition for the technology. This involves making sturdy ceramic moulds that withstand metallostatic stress at 1500 levels Celsius.

Creep is defined as the tendency of blade material to deform at low temperatures.

Benefits of Single Crystal Blade Technology: The blades created beneath this technology have more extended lifestyles and extra corrosion resistance.

UNICEF Goodwill Ambassador Leads Global Vaccination Drive

UNICEF Goodwill Ambassador, David Beckham, is fronting an international initiative to inspire confidence in vaccines and inspire parents around the world to vaccinate their kids against lethal diseases.

Highlights:

In an effective video released in advance of World Immunization Week, Beckham talks about the loss of daily activities due to COVID-19, such as hugs with family, spending time with friends, and being with the humans we love, and encourages mother and father to vaccinate themselves so that they can be safe.

UNICEF Headquarters is at New York, United States of America.

UNICEF Executive Director: Henrietta H. Fore.
Testing of Python 5 Air to Air Missile

The Defense Research and Development Organization of the United States recently conducted a series of missile tests. It includes Derby missiles and Python missiles. These missiles were tested in Goa, and the hit rate reached 100%.

**Highlights:**

After DRDO announced the move, Python 5 air-to-air missiles have been successfully added to the light fighter Tejas.

Python 5 is the fifth-generation Python missile. It is an air-to-air missile manufactured by the Israeli weapons manufacturer Rafael Advanced Defense Systems.

The Israeli government began to manufacture missiles under the name "Shafir". Later, when it started exporting missiles, it chose the Western name "Python" or "Derby".

Python-5 is the most capable air-to-air missile in Israel's inventory. It is beyond the line-of-sight missile. Beyond line-of-sight missiles are missiles that can operate within a range of more than 37 kilometers. It has advanced star finder, including photoelectric and image infrared homing.

The Python 5 is capable to scan for the goal place for the opposed aircraft and then locks on for terminal chase. It was first used in the 2006 Lebanon war. It destroyed two Iran made UAVs. Speed of the missile is Mach 4. It weighs eleven kilograms.

Derby: Just like Python, it was additionally made through Rafael of Israel. In fact, Python 5 is a superior version of Derby. It is additionally a Beyond Visual Range Missile. It is active radar homing missile. An Active Radar Homing Missile is a missile that includes a radar transceiver to locate and music the goal autonomously.

Advanced Chaff Technology by DRDO

Advanced Chaff Technology been developed by the Defence Research and Development Organisation to guard the naval ships against enemy missile attack. It is any other step towards Atmanirbhar Bharat.

**Highlights:**

Chaff is a digital countermeasure technological know-how used by using militaries international to defend naval ships or other sensitive objectives from radar and radio frequency (RF) guiding mechanisms of the enemy missile.
The chaff rockets deployed in the air mirror as multiple aims for the missile training structures and deflecting adversary missiles, hence protecting their own assets.

DRDO has indigenously developed three editions of the fundamental science, namely Short-Range Chaff Rocket (SRCR), Medium-Range Chaff Rocket (MRCR) and Long-Range Chaff Rocket (LRCR).

**Difference between Chaff and Flares:**
Both chaff & flares are defensive countermeasures deployed by using navy aircraft. The cause is to confuse radar-guided or infrared-guided anti-plane missiles fired so that they may want to be diverted.

The Chaff is composed of many small aluminium or zinc lined fibres saved on-board the plane in tubes. In case the plane feels threatened by means of any radar monitoring missiles, chaff is ejected into the turbulent wake of air at the back of the plane.

Flares on being fired grant an alternate strong IR (Infrared) source to heat-seeking anti-air missiles. Thus they are lured away from the aircraft.

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**Ct value  Covid 19 Test**

The ICMR (Indian Council of Scientific Research) has decided a single Ct value cut-off for finding out whether or not a patient is effective for Covid-19.

**Highlights:**
Ct is a cost that emerges at some point of RT-PCR tests. All sufferers with a Ct price less than 35 may also be viewed as wonderful while these with a Ct price above 35 might also be regarded as negative.

In an RT-PCR (Reverse Transcription Polymerase Chain Reaction) test, RNA (Ribonucleic acid) is extracted from the swab accrued from the patient. It is then converted into DNA (Deoxyribonucleic acid), which is then amplified.

Amplification refers to the process of growing more than one copies of the genetic material - in this case, DNA.

This improves the capability of the test to become aware of the presence of the virus.

Amplification takes place thru a sequence of cycles one replica becomes two, two turns into four, and so on and it is after a couple of cycles that a detectable quantity of virus is produced.
Ct Value: Ct is brief for Cycle Threshold. The Ct cost refers to the range of cycles after which the virus can be detected. If a greater wide variety of cycles is required, it implies that the virus went undetected when the quantity of cycles was once lower.

The lower the Ct value, the greater the viral load because the virus has been spotted after fewer cycles. It has been found that the time considering the onset of signs has a more advantageous relationship with Ct values as in contrast to the severity of the disease.

Viral Load: It refers to the quantity of genetic material, normally RNA, of a virus present in an infected person's blood. This is expressed as the total number of viral particles present in every millilitre of blood.

A greater viral load in the blood potential that the virus is replicating and the contamination is progressing. An contaminated man or woman with a high viral load is more probably to shed greater virus particles, in the method regarded as viral shedding.

Deep Time Project Came to End

The Deep Time challenge in France's Lombrives Cave came to an end. As a section of the project, a crew of 15 people stayed in and explored the cave for forty days and forty nights. They slept in tents, made their own electricity, and had no contact with the outdoor world.

The Deep Time undertaking regarded how a lack of external contact affects one's grasp of time. Its purpose was to look into how human beings regulate to dramatic adjustments in their residing conditions and environments.

Scientists at the Human Adaption Institute leading the $1.5 million Deep Time assignment say the test will assist them better recognize how humans adapt to drastic changes in dwelling conditions and environments.

DANTAK Project Completes 60 Years

Project DANTAK completes 60 years in Bhutan. DANTAK was established on April 24, 1961. DANTAK used to be tasked to construct the pioneering motorable roads in the Kingdom.

Highlights:
The construction of Paro Airport, Yonphula Airfield, Thimphu Trashigang Highway, Telecommunication & Hydro Power Infrastructure, Sherubtse College, Kanglung and India House Estate.

Over the years, DANTAK has met the myriad infrastructure requirements in Bhutan in accordance with the vision of Their Majesties and the aspirations of the humans in a symbiotic manner.

The clinical and training services established by way of DANTAK in far-flung areas had been regularly the first in those locations.

The meals outlets along the avenue delivered the Bhutanese to Indian food and developed a sweet-tooth in them.

**IA 2030 Immunisation Agenda**

The IA 2030 is Immunisation Agenda 2030. It was launched by World Health Organisation, GAVI and UNICEF. It has been titled "A Global Strategy to depart No One Behind". Its pursuits to maximize lifesaving have an impact on vaccines. The Immunisation Agenda 2030 was once launched all through the World Immunisation Week.

**IA 2030:**

Its ambitions to promote "Vaccination during life" are from infancy to adolescence and until ancient age.

According to WHO, if implemented, the IA 2030 will avert fifty million deaths. Of this, 75% of them will be in low-income and lower-middle-income countries.

It aims to obtain 90% coverage of vital vaccines administered to infants, teenagers and adolescents.

Also, the IA 2030 agenda will aim to halve the range of kids lacking vaccines with the aid of 2030.

Also, it will be entire 500 countrywide introductions of new vaccines such as COVID-19 vaccines and Human Papilloma Virus vaccine called the HPV and rotavirus.

The seven priorities of IA 2030 are as follows: Commitment and Demand, Coverage and Equity, Outbreaks and Emergencies, Life Course and Integration, Supply and Sustainability, Research and Innovation.

**UK to Allow Driverless Cars on Roads**
The United Kingdom has emerged as the first united states to announce a law for the use of self-driving cars at low speeds.

**Highlights:**
The UK desires to be at the forefront in rolling out self-reliance using technology. The UK government forecasts that around 40% of UK vehicles will have self-driving abilities by means of 2035. This initiative will create 38,000 jobs in the country.

The UK government has been working on the highway code for the use of self-driving vehicles. The Ministry of Transport is to commence with Automated Lane Keeping Systems (ALKS).

About the Regulations: The pace limit of the ALKS is to be set at 37 miles per hour. The ALKS shall pressure itself in a single lane.

According to the UK Government, the technological know-how will help decrease accidents caused due to human errors. 85% of accidents in the UK are brought about due to human errors.

A self-driving vehicle is autonomous. No driver is required for the secure operation of the vehicle. Self-driving applied sciences have been developed via Uber, Google, Nissan, Tesla.

Most of the self-driving systems hold an interior map. They use sensors, lasers and radars to map their surroundings. Based on the map created, guidelines are delivered to the actuators of the vehicle.

- **Level 0:** All the predominant structures are controlled by means of humans
- **Level 1:** It includes automated braking/cruise control
- **Level 2:** The cars offer at least 2 simultaneous automatic functions such as steerage and acceleration
- **Level 3:** The car have the capacity of managing all fundamental security functions. However, the driver is predicted to take over when alerted.
- **Level 4:** Almost autonomous. However, now not completely
- **Level 5:** Completely capable of self-driving in each situation

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**Tianhe Space Station Core Module Launched by China**

On 29 April, 2021, China launched the core module of its Space Station. This is an essential milestone in the country's bold layout of setting up an everlasting human
presence in space. The module that was launched is referred to as Tianhe. The Space Station China is building is referred to as Tiangong.

**Highlights:**
Tiangong capability Heavenly Space. It is to commence its operations in 2022. Still, eleven more excellent modules are to be launched and assembled to complete the area station.

According to the Chinese Government, the executed Space Station will seem to be like the Mir Station. Mir Station was a Russian Space Station that orbited between the Eighties and 2001.

The Tiangong (Chinese Space Station), will orbit the earth in the low earth orbit at the top of 400 to 450 kilometres.

The lifespan of the house station is fifteen years. It weighs extra than 90 tonnes. The dimension of the Tiangong Space Station will be a quarter the size of the International Space Station.

In 2011, the Chinese launched the Tiangong 1. It used to be the prototype module that laid the groundwork for the wholly crewed station. In 2016, the 2d lab Tiangong two used to be launched.

International Space Station (ISS) is a collaboration between the US, Japan, Russia, Canada and Europe. It is to retire by 2024. After the end of the collaboration, Russia is to pull out of the International Space Station (ISS). Russia has deliberated to launch its area station in 2025. After International Space Station retires, Tiangong will be the only area station orbiting the earth.

The Chinese are additionally planning to construct a separate lunar space station with Russia. This area station may either be positioned in the orbit of the moon or on its surface.

**First 3D Printed House of India at IIT**

The Finance Minister Smt Nirmala Sitaraman inaugurated the first 3D printed HouseHouse at IIT Madras.

**Highlights:**
The HouseHouse was once constructed using indigenous 3D printing technology. It used to be built in just five days. It was constructed via TVASTA Manufacturing options based on a thought via former IIT-M students.

3D printing is a system of making three-dimensional objects via digital instructions.
It is additionally called Additive manufacturing. It is the opposite of Subtractive Manufacturing. Subtractive manufacturing is slicing away from a giant material. The Global market of 3D printing is predicted to reach 34.8 billion USD by using 2024.

In 2020, the Electronics & Information Technology Ministry launched the National Strategy for Additive Manufacturing.

India holds only 1.4% of the world market share in Additive Manufacturing. Within the ASEAN grouping, Thailand, Singapore and Malaysia account for about 80% of the Additive Manufacturing market.

National Strategy for Additive Manufacturing: The key aim is to make India as a global hub for additive manufacturing. This will address the following difficulties in 3D printing in India: Data Formats, Fabrication speed, the Surface finish of contoured surfaces, Lack of Additive manufacturing Standards

In the construction sector, this takes a lot of hard work to create a detailed, handmade and scaled product. With 3D printing, the venture will become simpler, mainly when complicated geometries are involved. It can render designated fashions in terms of colouration and a variety of materials.

**First Indigenous Vaccine for Fish Developed**

The Central Institute of Brackish Aquaculture, that is located in Chennai, has developed an indigenous vaccine for Viral Nervous Necrosis. The name of the vaccine is Nodavac-R.

**Viral Nervous Necrosis:**

The sickness is prompted via the Betanodavirus. It generally impacts teleost fish. More than 40 species are affected by this virus, and most of them are marine species. This virus transmits via passive diffusion and contact. The ailment, more often than not, happens in juveniles or larvae. However, it also influences adults species.

Viral Nervous Necrosis (India): In India, the disease has been a severe problem affecting freshwater, marine, and brackish water fishes largely. They result in 100% mortality in fishes that are in juvenile and larval stages.

Red Spotted Grouper Nervous Necrosis Virus is the sole genotype located in India. The infected adults are the essential carriers. They transmit the virus to their offspring via the eggs.
Solution: The great way to control the disorder is to vaccinate adult fish and fingerlings. The Nodavac-R is secure for all species that are inclined to Viral Nervous Necrosis. They are to be used in fish hatcheries to carry down the incidence of the disease. Fish Hatchery is the vicinity for the artificial breeding of fishes.

Teleost fish range from giant oars fish that measure 7.6 metres in size to minute Angler fish that measure 6.2 millimetres. They are economically significant. The Teleost fish are captured for meals all over the world.

India ranks 2nd in aquaculture, and extra than 14.5 million Indians are established on fish production.

**COVID-19 Vaccines for Animals Produced by Russia**

Russia produced the first COVID-19 vaccine for animals. The name of the vaccine is Carnivac-Cov. The World Health Organization recently confirmed the possibility of spreading the virus between humans and the virus.

**Highlights:**

- After Denmark determined that the virus had spread from humans to minks, by 2020, Denmark had killed more than 17 million minks. In Denmark, the virus was transferred from humans to mink skins. Then, it was passed back to humans as a mutant strain.
- Carnivac-Cov: It is produced by Rosselkhoznadzor, the Veterinary and Phytosanitary Supervision Department of the Russian Federation.
- Russian scientists believe that the use of the vaccine will help prevent virus mutations. The results of the vaccine test show that it has a good immunogenic effect.
- Response to COVID-19 animal vaccine: Russia said that Lebanon, Kazakhstan, Poland, Greece, Germany, Austria, Iran, Argentina, South Korea and other countries have expressed interest in purchasing the vaccine.

- COVID-19 is spread mainly through human-to-human transmission. However, there is evidence that there is transmission between humans and animals. This is possible mainly because it is a zoonotic virus.

**Worlds Oldest Water in Canada**
The oldest water in the world found in Canada shines at the beginning of life.

**Highlights:**
In 2019, Dr. Barbara Sherwood Lollar, a geologist and earth science professor at the University of Toronto, won the Gerhard Herzberg Canada Gold Award for Science and Engineering, the highest science prize for his discovery of the world's oldest water, worth 1 million Canadian dollars. It was discovered at a depth of 2.4 kilometers in the Kidd Creek Mine. The salt content of water is very high, ten times higher than that of sea water.

**The Oxygen Crisis has an easy and fast solution**

IIT Mumbai demonstrated how to solve the widespread oxygen shortage problem by converting a Nitrogen Generator into an Oxygen Generator.

**Highlights:**
IIT-Bombay's pilot project to convert a PSA (Pressure Swing Adsorption) Nitrogen Unit to a PSA Oxygen Unit has been successfully tested.
- Oxygen can be produced at 3.5 atm pressure, with a purity of 93%-96%.
- By providing a continuous supply of oxygen, this gaseous oxygen can be used for COVID-related needs in existing hospitals and upcoming COVID-19 dedicated facilities.

**How to convert a nitrogen unit to an oxygen unit?**
- Finished by fine-tuning the existing nitrogen production equipment and changing the molecular sieve from "carbon" to "zeolite".
- The pilot project is a joint effort between Tata Consulting Engineers IIT Mumbai and Spantech engineers in Mumbai, who are responsible for the production of PSA's nitrogen and oxygen plants.

**About Pressure Swing Adsorption:**
Pressure Swing Adsorption is a technique for isolating specific gas species from mixtures of gases under pressure.
- PSA operates at close to ambient temperature (temperature related to the surrounding environment), which is very different from cryogenic distillation technology for gas separation.
- Cryogenic separation is a commercial process carried out at very low temperatures.

**MACS 1407 - A New Soybean Variety Has Been Produced**
Scientists in India have produced a pest-resistant, high-yielding soybean variety. MACS 1407, a newly developed variety, is suitable for cultivation in West Bengal, Jharkhand, Assam, Chhattisgarh, and the North-Eastern states, and its seeds will be available to farmers for sowing during the 2022 Kharif season.

**About MACS 1407:**
In collaboration with the Indian Council of Agricultural Research (ICAR), New Delhi, scientists from MACS Agharkar Research Institute (ARI), Pune, an autonomous institute of the Department of Science & Technology, Government of India, created the new variety.

The variety was created using the traditional cross-breeding method.

It is suitable for rain-fed conditions in northeast India.

Its seeds have 19.81 per cent oil content, 41 per cent protein content, and good germinability.

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**China's Space Station's Core Module Is Launched**

China launched the core modules of the space station and started a series of important launch missions, aiming to complete the construction of the space station by the end of next year.

**Highlights:**

- The Long March 5B Y2 rocket carrying the Tianhe module was launched from the Wenchang spacecraft launch site on the coast of the southern island province of Hainan.

- The Tianhe module will act as the "Tiangong" (meaning "Heavenly Palace") space station's management and control hub. The node can dock with up to three spacecraft at a time, or stay for two short periods of time.

- Tianhe is the largest spacecraft developed by China.

- The space station will be T-shaped, with the core module in the center and the laboratory compartments on each side.

- The station will operate in low earth orbit from 340 km to 450 km.

- Its designed service life is 10 years, but experts believe that it can last for more than 15 years if properly maintained and repaired.

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**SpaceX Falcon 9 Rocket Launched 60 Starlink Satellites**
Sixty Starlink Internet Satellites were recently launched by SpaceX. The Falcon 9 rocket was used to launch the satellites. It was launched from the Space Force Station in Cape Canaveral, Florida.

**Highlights:**
The SpaceX corporation has already completed twelve launches in 2021. Its own Starlink satellites have been launched in the bulk of those missions.
SpaceX has been granted permission to launch up to 30,000 satellites.
SpaceX plans to create a constellation of 12,000 satellites as part of the Starlink project.
The project's main goal is to provide space-based internet services at a reasonable cost.
There are currently over four billion people on the world who do not have access to the internet. This is mostly due to inept internet delivery methods.
The majority of countries use fibre optic cables or cellular networks to deliver internet. These techniques are extremely difficult to implement in areas with difficult terrain where towers or cables are not feasible.
Satellite signals, on the other hand, can quickly clear these obstacles.
ENVIRONMENT

Action of New Zealand to Save Maui Dolphins

The Maui Dolphins are located solely on the West Coast of New Zealand and nowhere else in the world. They are one of the smallest dolphin's subspecies globally. There are only sixty-three Maui dolphins left in the world.

**Highlights:**

The New Zealand Government along with World Wide Fund and a few fishing agencies is to increase a drone that is capable of finding and tracking Maui dolphins the use of Artificial Intelligence.

It will gather data on dolphins' habitat, behaviour and population size. The facts can then be used to inform the Government policy modifications to give up the decline in the population. It was developed with the aid of a non-profit organisation MAUI63.

The Artificial Intelligence-based system will distinguish Maui dolphins with other species with more than 90% accuracy.

**Reasons for the declining population:**

The Maui Dolphins are threatened by way of business fisheries. This includes trawling and set-netting.

They are affected by means of illnesses such as Brucellosis and toxoplasmosis.

Low meals availability

Climate Change

In 2014, the Government of New Zealand opened 3,000 rectangular kilometres of the West Coast for oil drilling. This is the most important habitat of Maui dolphins.

**IUCN:** The International Union of Conservation of Nature has listed the Maui Dolphins below Critically Endangered species.

**Toxoplasmosis:** Toxoplasmosis sickness is currently the biggest danger of Maui Dolphins. It is prompted by a parasite located in cat faeces. The parasite survives in weathering circumstance and is clearly indestructible. As it enters into water, it is ingested by using fish. It then reaches the dolphins when they feed on fish. The parasite motives organ failure and it assaults the brain.

Forest Fires in Mizoram
The fireplace season of the country is between February and May. The most incidents of fires are pronounced in the months of April and May.

**Highlights:**

The kingdom has an elevated range of forest fires due to Slash and burns or shifting cultivation, burning farm residues, a series of non-timber wooded areas, and clearance of land for different purposes.

In the year 2021, so far, the VIIRS (Visible Infrared Imaging Radiometer Suite) has said 1,604 furnace alerts.

Forest Fire Disaster Management Report, 2014 - It was prepared by way of the National Institute of Disaster Management, New Delhi.

Strengthening Forest Fire Management in India Report: It was jointly organised by the Ministry of Environment, Forest and Climate Change and World Bank.

At least 60% of Indian districts are affected by woodland fires. The states in the North East account for the most significant share of furnace detections.

Central India is the most prominent place affected by wooded area fires. Forest Survey of India, 2019 - The Survey divided the wooded area fireplace susceptible into the following zones:
- Extremely fire-prone areas accounted for 3.89% of complete woodland cover
- Very-quite fire-prone areas accounted for 6.01%
- Highly fireplace susceptible areas: 11.50%
- Together these three classes add up to 21.4% of wooded area cover.

**Groundwater Depletion May Reduce Winter Cropping Intensity**

Groundwater depletion might also decrease wintry weather cropping intensity with the aid of 20% in India.

**Highlights:**

India positioned as 2nd largest producer of wheat in the globe, with over 30 million hectares in India committed to producing this crop.

Some of the necessary iciness plants (Rabi crops): wheat, barley, mustard and peas.

But with extreme groundwater depletion, the cropping intensity or the quantity of land planted in the winter season may also minimize by up to 20% by means of 2025.

The worldwide team studied India's three predominant irrigation kinds on wintry
weather cropped areas: dug wells, tube wells, canals, and additionally analysed the groundwater information from the Central Ground Water Board. They located that 13% of the villages in which farmers plant a wintry weather crop are located in significantly water-depleted regions. And, These villages may lose 68% of their cropped vicinity in future if access to all groundwater irrigation is lost. The consequences recommend that these losses will largely happen in northwest and central India.

**Genome Study on Endangered Sumatran Rhinoceros**

Researchers at the Stockholm Paleontological Center have shown that the inbreeding level of Sumatran rhinos is very low.

**Highlights:**

To study their level of inbreeding, the researchers sequenced the genomes of 16 rhinos in Sumatra and Borneo. The discovery that rhinos face low levels of inbreeding is based on this genome sequencing. The rhinos of Sumatra and Borneo face high levels of genetic diversity and inbreeding. The low level of inbreeding is due to the small population. Researchers have found that the frequency of potentially harmful mutations is high. This means that the offspring of closely related parents suffer from genetic diseases.

Researchers will now study the sequenced genome to estimate its level of inbreeding, the frequency of potentially harmful mutations, and genetic variation. According to the researchers, future studies will reveal potentially harmful mutations hidden in these rhino genomes.

The researchers suggest that the only way to solve the extinction problem facing rhinos is to increase their populations. In addition, the genes of Sumatran rhinos and Bornean rhinos should be exchanged.

**IUCN classifies Sumatra and Bornean rhinos as critically endangered. World Wildlife Fund: Only 80 rhinos left in Sumatra and Borneo**

Five different types of rhinos: black rhino, big rhino, Sumatran rhino and Java rhino. They are distributed in India, Bhutan, Nepal, Malaysia and Indonesia, so these countries are called Asian Rhino Mountain Countries. Among these five species, only the big-horned rhino has been found in India. The
big-horned rhino is classified as "vulnerable" in the Red List of Endangered Species of the World Conservation Union (IUCN).

Earthquake in the State of Assam

On April 28, 2021, seven back-to-back earthquakes came about in Assam and different north jap states. The first shocks had been of 6.4 magnitude. Later, the jolts were at 3.2 to 3.4 magnitude in Richter scale. Roads have been cracked and buildings tilted in Sonitpur and Nagaon. The prevalence of earthquakes was once demonstrated through National Center for Seismology.

Highlights:

The Epicentre of the earthquake was placed at a depth of 17 km. The epicentre was once positioned 9 km away from the town of Dhekiajuli of Assam.

National Center for Seismology: It is the nodal organisation that monitors earthquake pastime in India. It continues a National Seismological Network of one hundred fifteen stations. Each station holds a separate equipment. Apart from monitory, the core also performs Seismic Hazard Microzonation and seismological research.

Causes of the Assam Earthquake: The entire Himalayas are susceptible to Earthquakes. This is due to the fact the Indian tectonic plate is consistently wedging into the Eurasian plate at a velocity of forty-four millimetres per year. These motions build up stress and trigger earthquakes. While the whole Himalayas are prone to earthquakes, the high-intensity earthquakes occur in North-Eastern India and hence these regions are classified below Zone V.

Waves generated for the duration of Earthquakes: Every earthquake happening in the planet generates three unique types of waves referred to as P-waves, S-waves and L-waves. The P-waves are longitudinal waves. They are analogous to sound waves. The S-Waves are transversal waves and are analogous to light waves. The L-waves are surface waves. They originate when the P-waves of the earthquake hits the surface of the earth.

Indian Civets Recovered in East Godavari

Two kittens of small Indian Civets have been rescued from the East Godavari district of Andhra Pradesh.
**Highlights:**

Small Indian civets are recognized to happen in south and central China, Hong Kong, India, Lao PDR, Myanmar, Thailand, Viet Nam, Cambodia and Sri Lanka. They are recorded in semi-evergreen and deciduous forest, combined deciduous forest, bamboo forest, scrubby areas, grasslands and riverine habitat. In India, they are absent in the high Himalayan vary and located in the rest of the country. Their food regimen consists of fruits, roots, reptiles, amphibians, smaller birds etc. IUCN status: Least Concern, Poaching or hunting of the small Indian civet is prohibited beneath Schedule II of the Wildlife (Protection) Act, 1972.
AWARDS AND HONOURS

Nelson Mandela World Humanitarian Award 2021 Won by Rumana Sinha Sehgal

Rumana Sinha Sehgal, a Software engineer who grew to become an entrepreneur from Hyderabad, Andhra Pradesh, won the Nelson Mandela World Humanitarian Award 2021 by the Diplomatic Mission Global Peace.

Other Awards:
Rumana Sinha Sehgal used to be simply awarded for her contribution to the area of growing modern and useful green products with the aid of recycling diverse materials and non-biodegradable materials. Other Awards won by her are as follows:
- She won Nationwide Award -under 50- Business Leader 2021 of Social entrepreneurship.
- International Influencer of the year 2021 at the Influencer Summit held in January 2021.
- ReXKarmaveer Chakra (silver) and Global Fellowship award 2019 for her work in the region of girls and toddler empowerment.
- She was once topped as the Mrs Universe Successful 2018'.

First Asian Woman to Win Best Director Oscar  Zhao

The Chinese born filmmaker Chloe Zhao has grown to be the first Asian lady to win the Best Director at the Academy Awards. She won the award for her film Nomadland.

Highlights:
Zhao was born in China and went to a boarding college in London. She then moved to Los Angeles where she did her excessive school. Her debut movie used to be Songs My Brothers Taught Me. It used to be premiered at Sundance Film Festival. Her 2d film was The Rider. It received nominations at the Independent Spirit Award for the Best Director and Best Film.
Nomadland gained three main awards namely Best Director, Best Actress for Frances McDormand and Best Picture. The film is about a lady who leaves town after her husband dies. She additionally becomes houseless as sole enterprise closes down. Then, She lives in a van and travels round the US.
The Academy Awards is additionally recognised as Oscars. They are awarded for inventive and technical advantage in the film industry. These are viewed as the most prestigious awards in the world.

The winners are awarded with a copy of a Golden Statuette as a trophy for their work. The trophy is formally called Academy Award of Merit. The award used to be designed by Cedric Gibbons and sculpted by way of George Stanley. It was first presented in 1929.

Bhanu Athaiya was the 1st Indian to win Oscar in 1982. She gained the award for Best Costume Design for the film Gandhi. As of 2021, thirteen Indians had been nominated for Oscars and eight have gained in scientific and technical category.

**Oscar Awards 2021 Was Announced**

The 93rd Academy Awards ceremony, additionally recognised as the Oscars Award, took area in Los Angeles on April 25, 2021. The award is presented yearly with the aid of the Academy of Motion Picture Arts and Sciences (AMPAS). 2021 Oscars honoured the fine films of 2020 and early 2021.

**Highlights:**

American drama Nomadland' won most honours with three awards. Chloe Zhao, who directed Nomadland, used to be crowned satisfactory director, and with this, she grew to become the only 2nd female to claim the title and the first female of coloration to win that award. Indian film personalities Irrfan Khan and Bhanu Athaiya have been honoured in the In Memoriam montage showcased at the event.

**Complete List of Winners:**

- Best Picture: Nomadland
- Best Director: Chloe Zhao, Nomadland
- Best Actress: Frances McDormand, Nomadland
- Best Actor: Anthony Hopkins, The Father
- Best Supporting Actress: Youn Yuh-jung, Minari
- Best Supporting Actor: Daniel Kaluuya, Judas And The Black Messiah
- Best Original Screenplay: Promising Young Woman
- Best Adapted Screenplay: The Father
- Best Animated Feature Film: Soul
- Best International Feature Film: Another Round
- Best Original Score: Soul
Best Original Song: Fight For You, Judas And The Black Messiah
Best Documentary Feature: My Octopus Teacher
Best Documentary Short: Colette
Best Live Action Short: Two Distant Strangers
Best Animated Short: If Anything Happens I Love You
Best Sound: Sound Of Metal
Best Production Design: Mank
Best Cinematography: Mank
Best Makeup And Hair: Ma Rainey's Black Bottom
Best Costume Design: Ma Rainey's Black Bottom
Best Film Editing: Sound Of Metal
Best Visual Effects: Tenet
Jean Hersholt Humanitarian Award: Tyler Perry

**Krithi Karanth - First Indian Woman to Get Wild Innovator Award**

Dr Krithi K Karanth, who has been the Chief Conservation Scientist at Bengaluru-based Centre for Wildlife Studies has been chosen as the first Indian and Asian woman for the 2021 'WILD Innovator Award'.

**Highlights:**
This award given by the "WILD ELEMENTS Foundation" brings together a coalition of innovators, advocates and partners to "disrupt the popularity quo and identify options to world sustainability and conservation". The Foundation's different strategy to addressing local weather trade is the Power of Three, recognizing the interconnectedness of animal-kind, humankind & plant kind for the future planetary well-being of our shared home.

**A Bengaluru Teacher Has Been Awarded The Order Of The Rising Sun By Japan.**

Shyamala Ganesh, a Bengaluru-based Japanese teacher, was recently awarded the Order of the Rising Sun by the Japanese government.

**Highlights:**
Shyamala is a Japanese instructor at the septuagenarian institution as well as the Ohara School of Ikebana in Bengaluru's RT Nagar. Since its establishment 38 years
ago, she has tutored hundreds of students. Ikebana is a Japanese flower arrangement technique.

Shyamala and her husband Ganesh established a Japanese language school in Bengaluru in 1983.

**Order of Rising Sun:**

The Emperor of Japan bestows the prize, which was founded in 1875.

The award is given to those who have made outstanding contributions to the promotion of Japanese culture, international affairs, professional advances, and environmental protection.

It was also provided for outstanding military service prior to World War II.

It is the Japanese government's third most prestigious honour.

In 1981, the tradition of awarding the award to non-Japanese recipients began.

Since 2003, the award has been given to women.

The award can also be given to anyone who has passed away.
OBITUARY

Doyen of Indian Classical Music Rajan Mishra Passed Away

Renowned Hindustani classical singer, from Banaras Gharana' of India, Pandit Rajan Mishra, has handed away. He was a vocalist in the khyal style of classical singing. Mishra was awarded Padma Bhushan in the area of artwork in 2007. Pandit Rajan Mishra used to be also a recipient of the Sangeet Natak Akademi Award, the Gandharwa National Award and also the National Tansen Samman.

Death of Michael Collins  American Astronaut

Michael Collins was once an American Astronaut. He was once the pilot of the Apollo eleven command module. On July 20, 1969, Michael Collins stayed in the back of Buzz Aldrin, and Neil Armstrong were the 1st persons to walk on the moon. He these days died at the age of 90.

Michael Collins:

Michael is frequently addressed as the forgotten 1/3 astronaut in the Apollo mission. He stayed alone in the command module for twenty-one hours until his colleagues returned. The worst section of his twenty-one hour of lonely remain is that he misplaced contact with Houston when his spacecraft circled the dark facet of the moon. Only one aspect of the moon is seen to the earth constantly. This is because the rotation and revolution duration of the moon is equal.

The Autobiography written by way of Michael used to be Carrying the Fire. He was born in Rome on October 31, 1930. He was the son of a US Army Major. He started his career as an Air Force Test pilot. His first Voyage mission was Gemini X. Gemini X used to be a part of the missions that prepared the Apollo Programme. His next and ultimate spaceflight was once Apollo 11.

Apollo 11

Apollo 11 used to be the spaceflight that landed the first human beings on the moon. Armstrong used to be the first character to land on the moon. He used to be joined by way of Aldrin after nineteen minutes. They spent two and a quarter hours on the moon outdoor the spacecraft. They introduced 21.5 kilograms of lunar material again back to the earth. They named the website they spent on the lunar surface as Tranquillity Base.
The Apollo 11 had three components, particularly the Command module, carrier module and lunar module. The Command Module is the region place Michael spent while the others landed on the moon. It was once the only part that returned to the earth. Service Module supported the Command Module with electrical power, propulsion, oxygen and water. The Lunar Module had two stages. One used to be the descent stage to place the astronauts on the moon and an ascent stage to location the astronauts into orbit.
SVAMITVA E-Property Cards Distributed

PM Narendra Modi launched the distribution of E-Property Cards underneath the Svamitva (Survey of Villages and Mapping with Improvised Technology in Village Areas) Scheme. Around 4.09 lakh property cards have been distributed. The cards were allotted on the side-lines of National Panchayati Raj Day celebrations.

**Highlights:**

- Each and Every year, the National Panchayati Raj Day is celebrated on April 24. It is celebrated on this day as the Panchayati Raj Act used to be enacted on this day.
- The Svamitva Scheme was once launched in 2020 on National Panchayati Raj day.
- The scheme pursuits to provide integrated property validation solution for rural India.
- Under the scheme, the mapping is to be accomplished in a phase-wise manner between 2020 and 2024.
- The scheme will map the land parcels the usage of drone technology. And, a Continuously Operating Reference Station will be used for demarcation.
- The scheme is presently applicable only in the states of Karnataka, Maharashtra, Madhya Pradesh, Uttarakhand and Uttar Pradesh.
- The Indian government has allotted Rs 79.65 crores for the scheme.
IMPORTANT DAYS

World Malaria Day is on 25th April

Every year, World Malaria Day is celebrated on April 25 by the World Health Organisation and countless different global organisations.

**Highlights:**

- The World Malaria Day is one of the eleven professional Global Public Health campaigns marked by means of the World Health Organisation.
- The World Malaria Day was hooked up via the 60th session of the World Health Assembly. Earlier it was once broadly recognised as African Malaria Day.
- Malaria is caused by way of Plasmodium parasite. The ailment spreads to the people through the chunk of woman Anopheles mosquito.
- According to the World Health Organisation, India represents 3% of international malaria. India once nearly eliminated Malaria. However, Malaria came lower back to India in the commencing of the twenty-first century.
- There were 1.5 million Malarial cases in India in the year 2009. India has set a goal of turning into Malaria free country by 2027 and malaria elimination by 2030.
- The National Strategic Plan for Elimination of Malaria diagram was launched by the Ministry of Health and Family Welfare. The above target used to be set under this plan. The graph is designed based on the Global Technical Strategy of Malaria (2016-2030).
- The Ministry of Health and Family Welfare currently introduced that, in 2020, 116 Indian districts said zero malaria cases.
- Malaria has been eliminated in Europe, the United States, components of Asia and Latin America. However, the disease is re-emerging in these areas as drug-resistant and insecticide-resistant.

Theme: Reaching the zero-malaria target

World Intellectual Property Day is on 26th April

Each and Every year, World Intellectual Property Day is celebrated on April 26. Intellectual property day is celebrated to highlight the importance of Intellectual Property. The day is celebrated through the World International Property and a number of different global organisations.
Highlights:
The day was set up through the World Intellectual Property Organisation in 2000. Its ambitions to enlarge recognition on how copyright, patents, designs and trademarks affect each day life.

April 26 was once chosen to rejoice World Intellectual Property Day as Convention Establishing the World Intellectual Property Organisation entered into force. Celebrating World Intellectual Property Day used to be proposed through China.

World Intellectual Property Organisation: The WIPO was mounted in 1967. It entered into pressure in 1970. It is one of the fifteen specialised companies of the United Nations. The business enterprise administers 26 global treaties that range between the safety of broadcast and setting up global patent classification. India is a member of WIPO.

The theme for the year: IP and SMEs: Taking your ideas to market

International Chernobyl Disaster Remembrance Day is Designated on 27th April

Each and Every year on April 26, the International Chernobyl Disaster Remembrance Day is being observed. The day was once proclaimed by means of the United Nations and was first found in 2016.

Highlights:
The International Chernobyl Disaster Remembrance Day was first determined on the 30th anniversary of the 1986 nuclear disaster. It is being marked to expand focus about the risks of nuclear power in general.

On April 26, 1986, the Chernobyl Nuclear Power Plant in today's Ukraine confronted a fore explosion. The reactor started to emit radioactive materials.

Though the casualties are minimal, the radioactive materials are still current in the environment and are posing challenges to human survival in the region. Due to the accident, various young people even nowadays are going through thyroid, most cancers in the regions of Ukraine, Russia and Belarus.

The fire explosion spread a large radioactive cloud over Russia, Ukraine and Belarus. More than 8.4 million human beings were exposed to radioactive waves. In 1991, the Chernobyl Trust Fund was once created via the United Nations. It is now being managed via the OCHA-Office for the Coordination of Humanitarian
Affairs.

The United Nations that were fashioned for world peace after the second world struggle is eager on addressing nuclear issues after the Hiroshima and Nagasaki incident.

**World Day For Animals In Laboratories is on 24th April**

The World Day For Animals In Laboratories (WDAIL); also regarded as World Lab Animal Day or World Day for Laboratory Animals, is located every 12 months on 24 April.

**Background:**
The day used to be instituted in 1979 with the aid of the National Anti-Vivisection Society (NAVS), as an international day of commemoration for animals in laboratories. WDAIL pursues to stop the struggling of animals in laboratories around the world and promote their substitute with advanced scientific non-animal techniques. Apart from this, the World Week for Animals In Laboratories (Lab Animal Week) is celebrated from April 20 to 26.

**International Delegates Day is Designated on 25 April**

International Delegate's Day observed globally on 25 April each year and every year. This day is observed to raise cognizance of the position of the representatives and delegates of the Member States to the United Nations.

**Background:**
International Delegate's Day marks the anniversary of the 1st day of the San Francisco Conference which is additionally recognised as the United Nations Conference on International Organization.

On 25 April 1945, delegates from 50 international locations got here together for the first time in San Francisco. The conference took place after the devastation of the 2d world war. The delegates aimed to set up an employer that would restoration world peace and imposes policies on the post-war world order. On April 2, 2019, the United Nations General Assembly proclaimed 25 April as International Delegate's Day.

**ANZAC Day in Australia and New Zealand is Designated on 25th April**
Each and Every year Anzac Day is celebrated on April 25 in Australia and New Zealand. This day is celebrated as a national day of remembrance that commemorates all the New Zealanders and Australians who died in wars, conflicts and peacekeeping operations.

**Highlights:**

ANZAC is abbreviated for the Australian and New Zealand Army Corps.

The day was at the beginning planned to honour the contributors of New Zealand and Australian armies who served in the Gallipoli Campaign.

Gallipoli Campaign: It was the first military marketing campaign of the First World War. It took location in the Gallipoli peninsula between 1915 and 1916. It is regularly considered as the beginning of Australian and New Zealand national consciousness.

New Zealand and Australia set out to capture the Gallipoli peninsula to open the way to the Black sea for the Allied Navies in the year 1915. The fundamental goal used to be to seize Ottoman Empire. The Ottoman Empire was an ally of Germany for the duration of the war.

On April 25, 1915, the Armies of New Zealand and Australia landed on April 25, 1915, and met fierce resistance from the Ottoman Empire. The format to knock the Ottomans grew to become a stalemate.

The Gallipoli Campaign dragged for eight months. The military targets of the Gallipoli marketing campaign had been to capture Constantinople and knock the Ottoman Empire out of war.

New Zealand and Australia will withdraw their forces from Afghanistan following the US. NATO had planned to preserve 13,000 troops in Afghanistan earlier. Recently, the US introduced that it is to withdraw its forces totally from Afghanistan.

Australia was one of the top countries in non-NATO troop contributors to NATO-led efforts in the country of Afghanistan. New Zealand signed a partnership agreement with NATO in 2012. Australia is one of the signatories of the Southeast Asia Treaty Organisation.

**World Day for Safety & Health at Work is Designated on 28th April**

World Day for Safety & Health at Work is observed on April 28 in the view of promoting the prevention of occupational accidents globally and illnesses at the
workplace.

**Highlights:**

The day is a crucial part of the Global Strategy on Occupational Safety and Health of ILO, as documented in the Conclusions of the International Labour Conference in the year 2003. The day is observed to promote the prevention of occupational accidents and diseases worldwide.

The World Day for Safety and Health at Work 2019 edition is inspired through ILO's centenary (1919-2019) and tries to take inventory of its 100 years of work in improving occupational security and health.

It also looks into the future for persevering with these efforts to aid major adjustments such as science (digitalisation and ICT, platform work, automation and robotics), demographics, globalisation, sustainable development consisting of climate trade and modifications in work organisation.

**International Labour Organization (ILO):** It is a United Nations business enterprise dealing with labour issues, particularly global labour standards, social protection, and work possibilities for all. It is headquartered in Geneva, Switzerland. It was created in 1919 as a phase of the Treaty of Versailles that ended World War I. In 1969, ILO acquired the Nobel Peace Prize for enhancing fraternity and peace amongst nations. India is the founding member of ILO.

**Workers Memorial Day is on 28th April**

The Workers' Memorial Day, also acknowledged as International Commemoration Day for Dead and Injured Workers occurs each and every year on 28 April.

**Highlights:**

The day has been organized global by way of the International Trade Union Confederation for the reason that 1996.

Theme: Health and Safety is a fundamental-workers right.'

Its motive is to bear in mind workers killed in incidents at work or with the aid of diseases brought on by means of work and honour the victims of occupational accidents and ailments by organizing worldwide mobilizations and attention campaigns on this date.

**International Dance Day is on 29th April**
Dance Day is determined on 29 April worldwide. It is a wake-up name for the governments, politicians and establishments which has now not but regarded the importance of dance.

**Highlights:**

It is also recognised as World Dance Day. The day promotes art and culture, raises cognizance amongst the public involving the "art of dance". It additionally spread schooling about quite a few varieties of dance and its fee in its artwork form.

Basically, this day encourages participation and training in dance via a number events and gala's held all over the world. Dance is each an artwork shape and a approach of conversation in cultures around the world and is practised through millions of people.

The day dance is celebrated globally and it was once created by way of the Dance Committee of the International Theatre Institute, the predominant companion for the performing arts of UNESCO. The date 29 April used to be chosen because it is the birthday of well-known French dance artist Jean-Georges Noverre, who was once born in 1727, a ballet grasp and a fantastic reformer of dance.

Various Artforms of Dance:

- **Odissi Dance Form:** This is a pure classical fashion of dance, enriched in mesmerizing mudras. In this dance form storytelling aspect is there, which has its roots from the Odisha temples.

- **Bharatanatyam Dance Form:** The dance is one of the oldest classical performing art forms which is performed in the complete world. Let us tell you that this structure of dance is originated from Tamil Nadu.

- **The contemporary Dance Form:** This structure of dance is in fashion these days and is also associated with theme styled dance.

- **The neoclassical dance form:** It is additionally the contemporary shape of performing arts. It is additionally regarded as present-day fashion matching the current gen-X of 2019.

- **Tandava Dance Form:** Shiva Tandava dance structure has mythological roots related to Lord Shiva & is depicted in various forms.

- **Kuchipudi Dance Form:** This is also another form of classical dance. It is from Andhra Pradesh.

- **Kathak Dance form:** It is one of the most glamorous classical dance types in India till date. Origin of Kathak is from North India.
Chau Dance Form: It is a semi-classical structure of stage dance and is originated in the eastern phase of the Indian subcontinent.

Kathakali Dance Form: It is a terrific stage artwork shape of dance. And, it is originated from the Deccan part of Indian sub-continent. It is an efflorescent art form of Kerala. This dance is regarded as one of the most hard dance varieties in India.

Manipuri Dance Form: As the name suggests, this shape of dance is originated from Manipur, the northeastern section of the country. It is a vibrant classical dance which revolves around pure Indian mythological tales of Indian gods and goddesses.

**Ayushman Bharat Diwas is on 30th April**

Ayushman Bharat Diwas is celebrated as a part of Gram Swaraj Abhiyan on April 30 every year.

**Highlights:**

Celebrate Ayushman Bharat Diwas' double mission. They will promote the health and care of the poor and provide them with insurance money. Prime Minister Narendra Modi initiated the plan in April 2018.

According to the Health & Family Welfare Ministry, the Ayurman Bharat plan opened 75,532 Ayurman Bharat health and wellness centres. It has set a goal of establishing 150,000 health and wellness centres by 2022.

The beneficiaries are selected from the socio-economic census database. It is the most comprehensive medical insurance in the world.

The goal is to provide each family with 500,000 rupees per year of medical insurance.

The beneficiaries of the Jan Arogya Yojana come from 40% of the Indian population. The plan also includes fifteen days before hospitalization and fifteen days after hospitalization.

**International Jazz Day is on 30th April**

International Jazz Day is designated on 30 April every yr to spotlight the importance of jazz and its diplomatic position in uniting humans in all corners of the globe.
**Highlights:**
The 2021 celebration marks the tenth anniversary of International Jazz Day. The day was created on the notion of jazz pianist and UNESCO Goodwill Ambassador Herbie Hancock.

The musical structure of jazz used to be developed by means of African Americans. It was once influenced by means of each European harmonic structure and African rhythms. It originated in the nineteenth and early 20th centuries. The United Nations Educational, Scientific and Cultural Organization (UNESCO) proclaimed April 30 as International Jazz Day in November 2011. The day was once targeted to convey communities, schools, artists, historians, academics, and jazz enthusiasts collectively from across the world to have fun and study the art of jazz and its impact.


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**Maharashtra Day is on 1st May**

May 1st of each year is Maharashtra State Memorial Day to commemorate the establishment of Maharashtra State. It was established on May 1, 1960.

**Highlights:**
The National Reorganization Act of 1956 redefines the boundaries of Indian states based on language. Maharashtra was established under this bill. Different languages are used in Mumbai, namely Gujarati, Konkani, Marathi and Kutch.

In 1960, Mumbai was divided into Gujarat and Maharashtra. Gujarat was established, where people spoke Gujarati and Kutch. Another area is called Maharashtra, where people speak Konkani and Marathi.

Samyukta Maharashtra Samiti is at the forefront of the movement to divide Mumbai into two states, Maharashtra and Gujarat.

Mumbai was created when India became independent. Before independence, it was called the President of Mumbai, which is roughly related to the current state of Maharashtra.

Samyukta Maharashtra Movement is commonly known as Samiti. It was established in 1956 and required the establishment of a Marathi-speaking country between 1956 and 1960.
World Laughter Day is on 2nd May

World Laughter Day is celebrated on the 1st Sunday of May every year to spread happiness around the world. In 2021, the day falls on 2nd May.

**Background:**
Laughter will change the people in a peaceful and positive way. Some people say that laughter is a universal language that may unite mankind. Due to COVID-19, this year's celebration was held online. Our mission is to achieve health, happiness and world peace through laughter.

In 1998, Dr Madan Kataria, the founder of the World Laughter Yoga Movement, founded World Laughter Day. In more than 70 countries/regions around the world, World Laughter Day is celebrated on the first Sunday in May every year. Dr. Madan initiated the "Laughter Yoga" campaign in 1995, with the goal of facial feedback assuming that a person's facial expressions might affect their emotions.

International Workers Day is on 1st May

May 1 of each year is called International Labor Day, also known as May 1 Labor Day, International Workers' Day or Labor Day around the world.

**Highlights:**
May day is commemorated to celebrate the global labor community and to commemorate their contributions and the historic hay market riots of 1886.

The origin of International Labor Day can be traced back to the labor union movement in the United States in the 19th century.

Previously, workers were forced to work 15 hours a day. On May 1, 1886, there was a strike in Chicago, calling it the Haymarket riot because the working hours were 8 hours.

On May 1, 1923, the Labor Kisan Party of Hindustan celebrated International Labor Day for the first time in Madras (now known as Chennai), India. It was also on that day that India was used with a red flag.
Results of CSIR Sero Survey

The Council for Scientific and Industrial Research lately released the outcomes of Sero Survey. The survey was carried out on 10,427 persons. Of these, only 10.14% confirmed sero positivity.

**Highlights:**

- The survey suggested that the neutralising antibodies have declined. This had made humans susceptible to reinfections.
- Around 20% of seropositive people lagged neutralisation activity after five to six months.
- The scientists conclude from the survey that this might be one of the motives for the recurrence of outbreaks in March 2021.
- India had massive pool of recovered immune subjects in September 2020. However, the duration for which the developed immunity can withstand is no longer ample to stop future outbreaks.
- Sero positivity: It is showing a effective result for a precise antibody in a blood test.
- Antibody: It is a blood protein that is generated to combat against a virus. The antibodies are generated in opposition to particular antigen. More the antibodies greater is the immunity. These antibodies are generated in response to resources that physique recognises as alien. It can be bacteria, virus or any other overseas substance in the blood.
- Neutralising Antibodies: They are these antibodies that are responsible for defending cells from pathogens.
- A cured COVID-19 affected person consists of antibodies towards COVID-19 virus. His immunity holds as lengthy as he generates these antibodies. According to CSIR, as days skip through these antibodies are lowering in recovered patients. This capability that they are again prone to the virus.
- India is presently dealing with excessive surge in COVID-19 infections. The day by day rely elevated to three lakhs in four consecutive days.

**India Ranks 49th in Chandler Good Government Index**
India has been placed at 49th position amongst 104 international locations in the Chandler Good Government Index (CGGI) 2021. Finland has topped the CGGI Index 2021, and Venezuela is the ultimate ranked united states at 104.

**Highlights:**
- Rank 1: Finland
- Rank 2: Switzerland
- Rank 3: Singapore
- Rank 4: Netherlands
- Rank 5: Demark

The Chandler Good Governance Index is released by means of the Chandler Institute of Governance, headquartered in Singapore. The index is organized based on seven pillars: leadership and foresight, sturdy institutions, robust laws and policies, attractive market place, monetary stewardship, supporting people rise, international influence, and reputation.
**QUIZ CORNER**

1) When was World Malaria Day celebrated?

A. April 25  
B. April 26  
C. April 27  
D. April 28  

Answer A  

Explanation Every year, the World Malaria Day is celebrated on April 25 by the World Health Organisation and countless different global organisations. The World Malaria Day is one of the eleven professional Global Public Health campaigns marked by means of the World Health Organisation.

2) When was World Intellectual Property Day observed?

A. April 26  
B. April 22  
C. April 25  
D. April 24  

Answer A  

Explanation Each and Every year, the World Intellectual Property Day is celebrated on April 26. Intellectual property day is celebrated to highlight the importance of Intellectual Property. The day is celebrated through the World International Property and a number of different global organisations.

3) India has set a goal of turning into Malaria free country by ____________.  

A. 2027  
B. 2025  
C. 2023  
D. 2021  

Answer A
Explanation In 2009, there were 1.5 million Malarial cases in India. India has set a goal of turning into Malaria free country by 2027 and malaria elimination by 2030. National Strategic Plan for Elimination of Malaria diagram was launched by the Ministry of Health and Family Welfare. The above target used to be set under this plan. The graph is designed based on the Global Technical Strategy of Malaria (2016-2030).

4) In which year World Intellectual Property Day was declared?

A. 2000  
B. 2001  
C. 2002  
D. 2003

Answer A

Explanation The day was set up through the World Intellectual Property Organisation in 2000. Its ambitions to enlarge recognition on how copyright, patents, designs and trademarks affect each day life. April 26 was once chosen to rejoice World Intellectual Property Day as Convention Establishing the World Intellectual Property Organisation entered into force.

5) International Chernobyl Disaster Remembrance Day is on ____________.

A. April 26  
B. April 25  
C. April 23  
D. April 21

Answer A

Explanation Each and Every year on April 26, the International Chernobyl Disaster Remembrance Day is being observed. The day was once proclaimed by means of the United Nations and was first found in 2016.

6) When was World Intellectual Property Organisation established?

A. 1957  
B. 1967  
C. 1987  
D. 1977
Answer B

Explanation World Intellectual Property Organisation: The WIPO was mounted in 1967. It entered into pressure in 1970. It is one of the fifteen specialised companies of the United Nations. The business enterprise administers 26 global treaties that range between the safety of broadcast and setting up global patent classification. India is a member of WIPO.

7) In Which year International Chernobyl Disaster Remembrance Day declared?

A.2015
B.2016
C.2017
D.2018

Answer B

Explanation Each and Every year on April 26, the International Chernobyl Disaster Remembrance Day is being observed. The day was once proclaimed by means of the United Nations and was first found in 2016.

8) Which of the following article deals with Appointment of Retired Judges As Ad-Hoc Judges In HC?

A. Article 224A
B. Article 224
C. Article 225
D. Article 22

Answer A

Explanation Appointment of Retired Judges As Ad-Hoc Judges In HC The Supreme Court cleared the way for the appointment of retired judges as ad-hoc judges in High Courts (HCs) below Article 224A of the Constitution to deal with the mounting backlog of cases. Around fifty-seven lakh cases in HCs are pending.

9) India has set a goal of turning into malaria elimination by ______________.

A.2030
B.2035
In 2009, there were 1.5 million Malarial cases in India. India has set a goal of turning into Malaria free country by 2027 and malaria elimination by 2030. National Strategic Plan for Elimination of Malaria diagram was launched by the Ministry of Health and Family Welfare. The above target used to be set under this plan. The graph is designed based on the Global Technical Strategy of Malaria (2016-2030).

10) In which year Vivad Se Vishwas scheme was introduced?
A. 2020  
B. 2019  
C. 2018  
D. 2017

Answer A

Explanation The Vivad Se Vishwas scheme used to be introduced in the Union Budget 2020, as per which a taxpayer would be required to pay only the amount of the disputed taxes and will get a complete waiver of activity and penalty provided he will pay by means of 31st March 2020.

11) When was Indian Council of Medical Research established?
A. 1911  
B. 1913  
C. 1915  
D. 1917

Answer A

Explanation Established in 1911, when the Government of India set up the Indian Research Fund Association (IRFA) with the specific objective of sponsoring and coordinating medical research in the country. In 1949, it was re-designated the Indian Council of Medical Research (ICMR) with considerably expanded scope of its functions.

12) In which of the following place thus 19th edition of the Indian and French Navy bilateral exercise VARUNA-2021 carried out?
A. Bay of Bengal
B. Arabian Sea
C. Indian Ocean
D. None

Answer B

Explanation: The 19th edition of the Indian and French Navy bilateral exercise VARUNA-2021 carried out in the Arabian Sea from 25 to 27 April 2021. During the three day exercise, the devices of each of the navies will undertake excessive tempo-naval operations at sea, which will include superior air defence and anti-submarine exercises, severe fixed and rotary wing flying operations, tactical manoeuvres, surface and anti-air weapon firings, underway replenishment & other maritime protection operations.

13) When was International Delegates Day observed?

A. 25 April
B. 27 April
C. 29 April
D. 30 April

Answer A

Explanation: International Delegates Day observed globally on 25 April each year and every year. This day is observed to raise cognizance of the position of the representatives and delegates of the Member States to the United Nations.

14) Where is the headquarters of Indian Council of Medical Research?

A. Kolkata
B. New Delhi
C. Mumbai
D. Chennai

Answer B

Explanation: Established in 1911, when the Government of India set up the Indian Research Fund Association (IRFA) with the specific objective of sponsoring and coordinating medical research in the country. In 1949, it was re-designated the Indian Council of Medical Research (ICMR) with considerably expanded scope of its functions.
15) When was World Day For Animals In Laboratories observed?

A. April 24  
B. April 25  
C. April 26  
D. April 27  

Answer A  

Explanation The World Day For Animals In Laboratories (WDAIL); also regarded as World Lab Animal Day or World Day for Laboratory Animals, is located every 12 months on 24 April.

16) When was Anzac Day celebrated?

A. April 25  
B. April 24  
C. April 23  
D. April 22  

Answer A  

Explanation Each and Every year Anzac Day is celebrated on April 25 in Australia and New Zealand. This day is celebrated as a national day of remembrance that commemorates all the New Zealanders and Australians who died in wars, conflicts and peacekeeping operations.

17) With Nomadland, Chlo Zhao becomes the first Chinese woman to be nominated for best director. In what two other ways is she also making history?

A. The first woman to direct the best actress and best picture nominee Frances McDormand.  
B. The first woman of color to be nominated for best director.  
C. The first female filmmaker to receive four nominations in a single year.  
D. Both C and D  

Answer D  

Explanation Chlo Zhao is the first woman of color to be nominated for best director as well as the first woman to receive four nominations in a single year: best picture (she is among the producers of the film), director, adapted screenplay and editing.
18) What would change if our Sun was suddenly replaced by a black hole of the same mass?

A. Earth would be sucked into the singularity  
B. The planets would no longer orbit a central object  
C. Only the temperature on Earth would change  
D. None

**Answer D**

**Explanation** Astronomers have discovered the smallest black holes. It has been named Unicorn. It is 1,500 mild years away from the earth. It is the closest of all the black holes located so far.

19) The Oxygen Concentrators are generally _____________.

A. one-time investment  
B. Waste of money  
C. Are portable  
D. Both A and C

**Answer D**

**Explanation** The Oxygen Concentrators are portable. On the other hand, the Liquid Medical Oxygen wants to be saved and transported in cryogenic tankers. The Oxygen Concentrators only require a energy source to draw in ambient air. On the different hand, the Liquid Medial Oxygen wishes refilling. The Oxygen Concentrators are generally one-time investment. They require Rs 40,000 to Rs 90,000. The cylinders fees Rs 8,000 to Rs 20,000.

20) What is the IUCN Status of Maui Dolphins?

A. Endangered  
B. Critically endangered  
C. Vulnerable  
D. Extinct

**Answer B**

**Explanation** In 2014, the Government of New Zealand opened 3,000 rectangular kilometres of the West Coast for oil drilling. This is the most important habitat of Maui dolphins. IUCN: The International Union of Conservation of Nature has listed the Maui Dolphins below Critically
Endangered species.

**21) When was Tianwen-1 launched?**

A. July 2020  
B. June 2020  
C. May 2020  
D. March 2020

**Answer A**

**Explanation** Tianwen-1's main goal is to analyse and map the Martian floor and seem to be for water ice and find out about the local weather and surface environment. It was launched in July 2020. It was launched with an orbiter, camera, lander and the Zhurong rover. It weighs 5 tonnes and is one of the heaviest probes launched to Mars. It was launched in Long March 5 heavy elevate launch vehicle.

**22) When was Mars Exploration Programme launched?**

A. 1995  
B. 1993  
C. 1991  
D. 1989

**Answer B**

**Explanation** Mars Exploration Programme: It was once launched in 1993 to discover the probabilities of life on Mars. In 2013, the US Government reduce 40% of NASAs budget. This delayed the initiatives under the programme.

**23) International Space Station was launched in _____________.**

A. 1992  
B. 1996  
C. 1994  
D. 1998

**Answer D**

**Explanation** ISS is a liveable artificial satellite tv for pc - the single greatest man-made structure
in low earth orbit. Its first factor was launched into orbit in 1998. It circles the Earth in roughly ninety-two minutes and completes 15.5 orbits per day. It is expected to operate until 2030.

24) **Indias first recorded case of a toddler born with harlequin ichthyosis was at a personal clinic in ____________.**

A. Maharashtra  
B. Karnataka  
C. Kerala  
D. Gujarat  

**Answer A**

**Explanation** Odisha suggested its first-ever case of a child born with Harlequin Ichthyosis, a rare genetic pores and skin condition. Indias first recorded case of a toddler born with harlequin ichthyosis was in 2016, at a personal clinic in Nagpur, Maharashtra.

25) **When was the first Statutory National Commission set up?**

A. 1993  
B. 1994  
C. 1995  
D. 1996  

**Answer A**

**Explanation** In 1993, the first Statutory National Commission used to be set up and five non secular communities viz the Muslims, Christians, Sikhs, Buddhists and Zoroastrians (Parsis) have been notified as minority communities.

26) **Where is the headquarters of Reserve Bank of India?**

A. Kolkata  
B. Mumbai  
C. Chennai  
D. New Delhi  

**Answer B**

**Explanation** The directions shall come into effect from the date of issue of this circular, that is
April 26, 2021, however, in order to allow an easy transition to the revised requirements, banks are permitted to comply with these directions latest by using October 01, 2021. RBI 25th Governor: Shaktikant Das; Headquarters: Mumbai; Founded: 1 April 1935, Kolkata.

27) When was National Payments Corporation of India founded?

A. 2006  
B. 2008  
C. 2010  
D. 2012

**Answer B**

**Explanation** The National Payments Corporation of India (NPCI): It is an umbrella organization for working retail repayments and contract structures underneath the ownership of the Reserve Bank of India in India. Founded in: 2008. Headquarters: Mumbai

28) When was Pandit Rajan Mishra awarded Padma Bhushan?

A. 2003  
B. 2005  
C. 2007  
D. 2009

**Answer C**

**Explanation** Renowned Hindustani classical singer, from Banaras Gharana of India, Pandit Rajan Mishra, has handed away. He was a vocalist in the khyal style of classical singing. Mishra was awarded Padma Bhushan in the area of artwork in 2007.

29) New Zealand signed a partnership agreement with NATO in __________.

A. 2012  
B. 2014  
C. 2016  
D. 2018

**Answer A**
Australia was one of the top countries in non-NATO troop contributors to NATO-led efforts in the country of Afghanistan. New Zealand signed a partnership agreement with NATO in 2012. Australia is one of the signatories of the Southeast Asia Treaty Organisation.

30) Bhanu Athaiya was the 1st Indian to win Oscar in ____________.

A. 1982  
B. 1981  
C. 1985  
D. 1980

Answer A

Explanation Bhanu Athaiya was the 1st Indian to win Oscar in 1982. She gained the award for Best Costume Design for the film Gandhi. As of 2021, thirteen Indians had been nominated for Oscars and eight have gained in scientific and technical category.

31) When was World Day for Safety & Health at Work observed?

A. April 28  
B. April 27  
C. April 26  
D. April 25

Answer A

Explanation World Day for Safety & Health at Work is observed on April 28 in the view of promoting the prevention of occupational accidents globally and illnesses at the workplace.

32) In 93rd Oscar Awards which of the following won Best Picture Award?

A. Nomadland  
B. Promising Young Woman  
C. Sound of Metal  
D. The Father

Answer A

Explanation 'Nomadland' wins best picture at the 93rd Academy Awards. A view of the red carpet during the 93rd Annual Academy Awards at Union Station on April 25, 2021 in Los
Angeles, California. The 93rd annual Academy Awards made history before the first award was even handed out.

33) When was International Labour Organization established?
A.1919  
B.1920  
C.1921  
D.1922  

Answer A

Explanation International Labour Organization (ILO): It is a United Nations business enterprise dealing with labour issues, particularly global labour standards, social protection, and work possibilities for all. It is headquartered in Geneva, Switzerland. It was created in 1919 as a phase of the Treaty of Versailles that ended World War I.

34) In 93rd Oscar Awards which of the following won Best Actor Award?
A.Anthony Hopkins  
B.Steven Yeun  
C.Gary Oldman  
D.Riz Ahmed  

Answer A

Explanation Sir Philip Anthony Hopkins CBE (born 31 December 1937) is a Welsh actor, director and film producer. He has received many awards, including two Academy Awards, four BAFTAs, two Emmys, the Cecil B. DeMille Award and a British Academy Television Award.

35) Where is the headquarters of ILO?
A.New York  
B.Paris  
C.Geneva  
D.London  

Answer C

Explanation International Labour Organization (ILO): It is a United Nations business enterprise
dealing with labour issues, particularly global labour standards, social protection, and work possibilities for all. It is headquartered in Geneva, Switzerland. It was created in 1919 as a phase of the Treaty of Versailles that ended World War I.

36) When was Google founded?

A. 1995  
B. 1998  
C. 2000  
D. 2002  

**Answer B**


37) In 93rd Oscar Awards which of the following won Best Actress Award?

A. Frances McDormand  
B. Viola Davis  
C. Andra Day  
D. Vanessa Kirby  

**Answer A**

**Explanation** Frances Louise McDormand (born Cynthia Ann Smith; June 23, 1957) is an American actress and producer.

38) Who is CEO of Twitter?

A. Jack Dorsey  
B. Mark Zuckerberg  
C. Sundar Pichai  
D. None  

**Answer A**

**Explanation** Jack Dorsey is the CEO of Twitter. Mark Zuckerberg is the CEO of Facebook. Lately, Dorsey and Zuckerberg have had strained family members with the Indian Government.
due to the censorship and privacy insurance policies of the latter.

39) In 93rd Oscar Awards which of the following won Best Supporting Actress Award?

A. Amanda Seyfried  
B. Glenn Close  
C. Youn Yuh-jung  
D. Olivia Colman  

**Answer C**

**Explanation** Youn Yuh-jung Wins Best Supporting Actress Oscar For Her Performance In 'Minari': Live Updates: Oscars 2021 In the celebrated film Minari, Youn Yuh-jung plays Soon-ja, the grandmother of a young boy whose family has relocated to rural Arkansas.

40) Where is National Institute of Disaster Management located?

A. Mumbai  
B. Kolkata  
C. Chennai  
D. New Delhi  

**Answer D**

**Explanation** National Institute of Disaster Management abbr. NIDM, is a premier institute for training and capacity development programs for managing natural disasters in India, on a national as well as regional basis.

41) Where was the first Headquarters of Reserve Bank of India (RBI)?

A. Mumbai  
B. Bangalore  
C. Chennai  
D. Kolkata  

**Answer A**

**Explanation** The Reserve Bank of India is India's central bank and regulatory body under the jurisdiction of Ministry of Finance, Government of India. It is responsible for the issue and
supply of the Indian rupee and the regulation of the Indian banking system.

42) Which of the following are members of ASEAN countries?

A. Indonesia  
B. Malaysia  
C. Cambodia  
D. All the above

**Answer D**

**Explanation** The Association of Southeast Asian Nations (ASEAN) is a regional grouping that promotes economic, political, and security cooperation among its ten members: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.

43) Which Commission recommended the formation of Reserve Bank of India (RBI)?

A. YV Reddy Committee  
B. Hilton Young Commission  
C. Rangrajan Committee  
D. J Reddy Committee

**Answer B**

**Explanation** In 1926, Royal Commission on Indian Currency (Hilton Young Commission) recommends the establishment of a central bank to be called the Reserve Bank of India. In 1931, Indian Central Banking Enquiry Committee revives the issue of the establishment of the Reserve Bank of India as the Central Bank for India. In 5 March 1934, Reserve Bank of India Act, 1934, (II of 1934) constitutes the statutory basis on which the Bank is established.

44) What is the color of Liquid Oxygen?

A. Blue Color  
B. Faded Blue Color  
C. Faded Pink Color  
D. Pink Color
Answer B

Explanation Liquid oxygen - LOx, LOX or Lox in the aerospace, submarine and fuel industries. It is the liquid structure of molecular oxygen. It has a faded blue color. Liquid Oxygen is strongly paramagnetic - it can be suspended between the poles of an effective horseshoe magnet.

45) When was Janani Suraksha Yojana (JSY) launched?
A. 2006
B. 2005
C. 2004
D. 2003

Answer B

Explanation Janani Suraksha Yojana (JSY) is a safe motherhood intervention underneath the National Health Mission launched through the Ministry of Health & Family Welfare in 2005. It is being applied with the goal of reducing maternal and neonatal mortality by merchandising institutional shipping among pregnant female particularly with vulnerable socio-economic repute i.e. girls from Scheduled Castes, Scheduled Tribes and BPL households.

46) When is State day of Maharashtra celebrated?
A. May 1
B. May 5
C. May 10
D. May 15

Answer A

Explanation May 1st of each year is Maharashtra State Memorial Day to commemorate the establishment of Maharashtra State. It was established on May 1, 1960.

47) World Laughter Day is celebrated on _____________
A. First Sunday of May
B. Second Sunday of May
C. Third Sunday of May
D. Last Sunday of May
Answer A

Explanation World Laughter Day is celebrated on the 1st Sunday of May every year to spread happiness around the world. In 2021, the day falls on 2nd May.

48) ____________ produced the first COVID-19 vaccine for animals.

A. India  
B. Russia  
C. China  
D. Germany

Answer B

Explanation Russia produced the first COVID-19 vaccine for animals. The name of the vaccine is Carnivac-Cov. The World Health Organization recently confirmed the possibility of spreading the virus between humans and the virus.

49) When was International Workers Day observed?

A. May 1  
B. April 1  
C. March 1  
D. June 1

Answer A

Explanation May 1 of each year is called International Labor Day, also known as May 1 Labor Day, International Workers' Day or Labor Day around the world.

50) Where was Worlds Oldest Water found?

A. Paris  
B. London  
C. Canada  
D. India

Answer C

Explanation In 2019, Dr. Barbara Sherwood Lollar, a geologist and earth science professor at the
University of Toronto, won the Gerhard Herzberg Canada Gold Award for Science and Engineering, the highest science prize for his discovery of the world's oldest water, worth 1 million Canadian dollars

51) Which of the following vaccine is from Russia?

A. Covaxin  
B. Sputnik V  
C. Covishield  
D. None

Answer B

Explanation Sputnik V (Russian: V) is a viral vector vaccine for COVID-19 developed by the Gamaleya Research Institute of Epidemiology and Microbiology.

52) Tianhe is the largest spacecraft developed by ____________.

A. China  
B. India  
C. Japan  
D. Russia

Answer A

Explanation Tianhe is the largest spacecraft developed by China. The space station will be T-shaped, with the core module in the center and the laboratory compartments on each side. The station will operate in low earth orbit from 340 km to 450 km.

53) When NATO conducted its first military exercise?

A. 1950  
B. 1952  
C. 1954  
D. 1956

Answer A

Explanation NATO is North Atlantic Treaty Organisation. It is a military alliance made up of thirty countries from North America and Europe. In 1952, NATO conducted its first military
The Soviet Union signed the Warsaw Pact to fight NATO.

54) In which year Maharashtra was established?

A. 1960  
B. 1905  
C. 1950  
D. 1976  

Answer A

Explanation May 1st of each year is Maharashtra State Memorial Day to commemorate the establishment of Maharashtra State. It was established on May 1, 1960.
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