

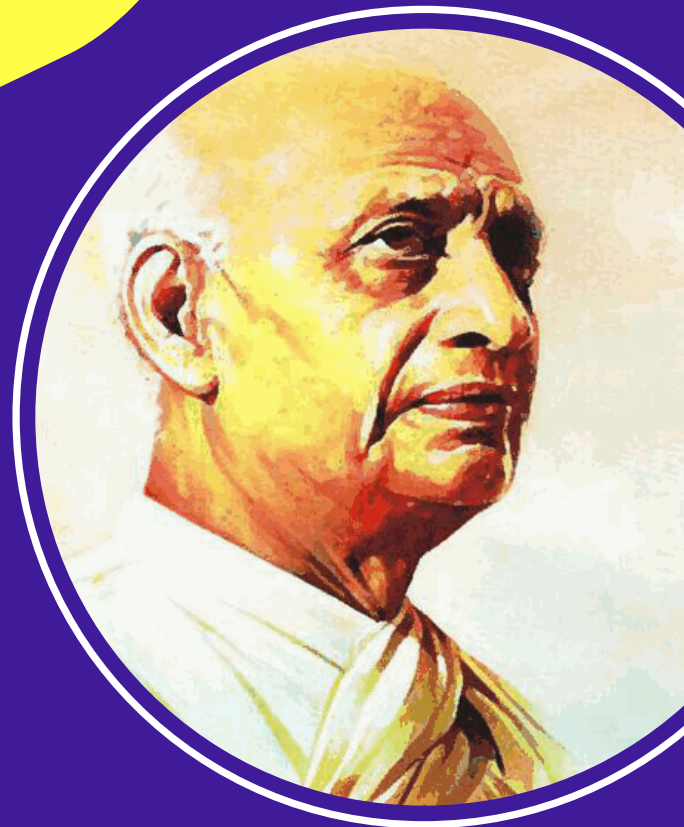
CURRENT AFFAIRS



OCTOBER 2021



HAPPY ACADEMY



PREFACE

This is our special edition of Current Affairs Magazine for various Central & State level Competitive Examinations, covering content from the month of October 2021.

The Magazine is divided into three sections:

Section 1: Topic Wise Current Affairs in Short Page 03 to Page 68

The first section is dedicated for Topic Wise Current Affairs with short description, to provide information about all major happenings in this month.

Section 2: Practice Questions with Answers..... Page 69 to Page 97

The Second Section contains 100 Multiple Choice Questions based on daily current affairs.

Section 3: Detailed Analysis of important events Page 98 to Page 133

The Third Section covers some major happenings in this month along with analysis. The content has been covered from various online & offline sources including reputed newspapers like The Hindu, Indian Express etc. All the news topics have been explained keeping in mind their underlying issues. Every issue has been covered comprehensively. Some of the information provided may not be directly relevant for the examination. As the content is very wide, we have only covered a limited set of issues. You can utilize it smartly along with the Daily Study of News Papers as well as your other sources.

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SECTION 1

Topic Wise Current Affairs in Short



1: Important Days



International Coffee Day 2021 : 1 October

October 1 is marked as the International Coffee Day. The day is celebrated to highlight the significance of all those farmers whose livelihood depends upon coffee plantations. The day also aims at creating awareness of the innumerable benefits of coffee and rich history of the aromatic beverage. There are two primary types of coffee: Arabica and Robusta. Farmers mostly plant the Arabica species. The lesser popular variety Robusta tastes slightly more bitter and also contains more caffeine. Both have their own distinct taste and benefits.



World Vegetarian Day : 1 October

World Vegetarian Day is observed annually around the planet on October 1. It is a day of celebration established by the North American Vegetarian Society in 1977 and endorsed by the International Vegetarian Union in 1978.



International Day of Older Persons-2021 : 1 October

International Day of Older Persons is observed every year on October 1. The day aims to raise awareness of the impact of an aging population and the need to ensure people can grow old with dignity and to elevate consciousness about points that are affecting the aged, like senescence and elder abuse. The day additionally celebrates and honours to respect of the contributions that older individuals make to society. The theme for International Day for Older Persons 2021 is "Digital Equity for All Ages" affirms the need for access and meaningful participation in the digital world by older persons.



National Voluntary Blood Donation Day : 1 October

National Voluntary Blood Donation Day is celebrated on 1st October of every year across the country to raise awareness about Blood donation and promote voluntary Blood donation in the country. On this occasion various Govt and non-govt organizations organize Blood donation camps and other awareness

activities across the country to celebrate the day. The theme for this year's Blood donation event is "Give Blood and keep the world beating".



Mahatma Gandhi Jayanthi : 2 October

Gandhi Jayanti is celebrated yearly on 2 October. It is one of the official declared national holidays of India, observed in all of its states and territories. Gandhi Jayanti is marked by prayer services and tributes all over India, including at Gandhi's memorial, Raj Ghat, in New Delhi where he was cremated. Born as Mohandas Karamchand Gandhi in Porbandar, Gujarat, he is also known as the "Father of the Nation". The United Nations declared October 2 as "International Day of Non-Violence" on June 15, 2007.



World Architecture Day: First Monday of every October

In 1996, at the International Union of Architects Congress held in Barcelona, Spain, the organization established that World Architecture Day should coincide with UN-Habitat's World Habitat Day. Therefore, World Architecture Day is celebrated on the first Monday of every October, to celebrate the architect's commitment to our societies, our ecosystems, and our cities.



World Habitat Day 2021: First Monday of October

The United Nations designated the first Monday of October as World Habitat Day. In 2021, World Habitat Day is being celebrated on October 04. The day is commemorated every year worldwide to throw light on the condition of our towns and cities, and on the basic right of all to adequate shelter.



World Teachers' Day 2021 : October 5

Annually on October 5, we celebrate World Teachers' Day 2021 to honour our teachers for their contribution to our upbringing. Teachers are considered before Gods as they enlighten their students with worldly knowledge and helps them in overcoming their fears. This special day was established in 1994 to commemorates the signing of the 1966 UNESCO/ILO Recommendation concerning the Status of Teachers. In 2021, the celebrations of World Teachers' Day will focus on the theme "Teachers at the heart of education recovery".

WORLD COTTON DAY 2021



World Cotton Day: October 7

The globe marks World Cotton Day on October 7th every year since 2019. The purpose of the international day is to maximize the importance of cotton, which range from its attributes as a natural fiber to the benefits people gain from its production, transformation, commerce, and consumption. The theme for World Cotton Day 2021 is “There’s more to cotton than you think”.



World Egg Day 2021 : 08 October

World Egg Day is celebrated every year on the second Friday of October and this year is a special one as it marks the 25th anniversary. The first World Egg Day was observed in the year 1996 at the IEC Vienna and is celebrated in more than 40 countries across the globe on the second Friday of October, this year being on October 8.



Indian Air Force Day : 08 October

The IAF was established on October 8, 1932 and The year 2021 marks 89 years since the IAF's foundation, and, as always, celebrations will take place at the Hindon Air Force Station in Uttar Pradesh's Ghaziabad in the presence of the Chief of Air Staff and senior officials of the three armed forces.



World Post Day: 09 October

World Post Day is celebrated each year on October 9 globally. The purpose of World Post Day is to create awareness of the role of the postal sector in people’s and businesses’ everyday lives and its contribution to the social and economic development of countries. The theme of 2021 World Post Day is “Innovate to recover.”



IFS (Indian Foreign Service) Day : 9 October

On October 9, 1946, the Indian Foreign Service was established for India's diplomatic, consular and commercial representation overseas. The IFS Day is celebrated on 9 October every year since 2011 to commemorate the day the Indian Cabinet created the IFS.



National Postal Day: 10 October

National Post Day is celebrated on October 10 every year and it is an extension of World Post Day, which is celebrated on October 9. National Post Day is celebrated to mark the role played by the Indian postal department in over 150 years. Technology has made our lives easier and faster.



World Mental Health Day: 10 October

World Mental Health Day is an international day for global mental health education, awareness and advocacy against social stigma. It was first celebrated in 1992 at the initiative of the World Federation for Mental Health. The theme for World Mental Health Day 2021 is 'Mental health in an unequal world'.



International Day of the Girl Child: 11 October

International Day of Girl Child was declared by the

United Nations to amplify the voices of young girls around the world and increase awareness of issues faced by them. Women and girls represent half of the world's population and it is crucial to accelerate their development. The theme for International Day of Girl Child 2021 is 'Digital generation. Our generation'.



US Indigenous People's Day: 11 October

Joe Biden has become the first United States president to formally mark Indigenous Peoples' Day, affirming his administration's commitment to upholding tribal sovereignty and respecting human rights. In a proclamation on Friday, Biden said Indigenous Peoples' Day would be marked on October 11 – the same date Columbus Day is observed.



World Arthritis Day: 12 October

The World Arthritis Day is observed every year on October 12 to raise awareness about arthritis, an inflammatory condition that causes pain and stiffness in joints that can worsen with age. This day was started by Arthritis and Rheumatism International (ARI) in 1996 in order to spread awareness about arthritis and encourage policymakers to help reduce the burden of arthritis.



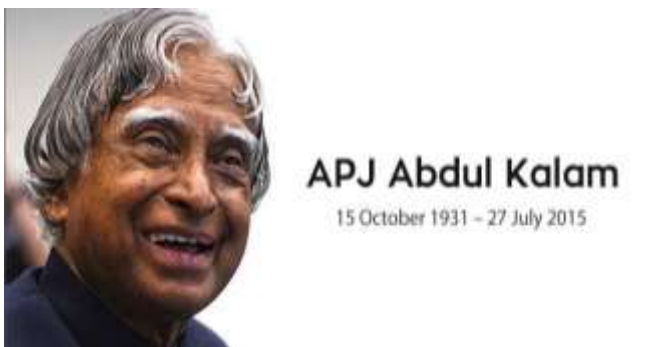
International Day for Disaster Reduction: 13 October

On October 13, the United Nations International Day for Disaster Reduction is marked globally to promote a worldwide culture of risk-awareness and disaster reduction. The theme for the 2021 edition is "International cooperation for developing countries to reduce disaster risk and disaster losses."



International E-Waste Day: 14 October

The International E-Waste Day (IEWD) is celebrated on 14 October every year since 2018, to promote the correct disposal of e-waste throughout the world with the aim to increase re-use, recovery and recycling rates. 2021 is the fourth edition of the International E-Waste Day.



World Student's Day: 15 October

October 15 of every year is celebrated as World Students' Day in honour of former Indian president APJ Abdul Kalam, who was born on the same day in 1931. The day aims to acknowledge the efforts of Kalam towards education and students.



International Day of Rural Women: 15 October

International Day for Rural Women is a day that focuses on gender equality and empowering women in rural areas. Highlighting the purpose of this day, the United Nations said that it "recognises the critical role and contribution of rural women in agricultural and rural development". It is observed on October 15 every year.



World Food Day: 16 October

World Food Day is an international day celebrated every year worldwide on 16 October to commemorate the date of the founding of the United Nations Food and Agriculture Organization in 1945. The theme this year is "Our actions are our future. Better production, better nutrition, better environment and a better life".



Global Handwashing Day : October 15

Global Handwashing Day is an international handwashing promotion campaign to motivate and mobilize people around the world to improve their handwashing habits. Washing hands at critical points during the day and washing with soap are both important. Global Handwashing Day occurs on 15 October of each year.



World Sight Day : Second Thursday of October

World Sight Day is an annual day of awareness held on the second Thursday of October, to focus global attention on vision impairment, including blindness. This year, World Sight Day will take place on October 14, 2021 with the theme: Love Your Eyes.



International Day for The Eradication Of Poverty: 17 October

International Day for the Eradication of Poverty is observed every year on 17 October to raise awareness about the struggles of people living in poverty. The theme for International Day for the Eradication of Poverty 2021 is "Building Forward Together: Ending Persistent Poverty, Respecting all People and our Planet". It highlights the importance of transforming our relationship with nature



37th Raising Day Of National Security Guard : 16 October

Every year, the Raising Day of the National Security Guard (NSG) is celebrated on 16 October. This year marks the 37th anniversary of the establishment of the NSG, popularly known as Black Cats. According to the official website of the NSG, a bill for the establishment of the elite striking force was sent to the President by the Parliament in 1986. The President signed his assent on 22 September, 1986, and the NSG came into existence.



World Osteoporosis Day: 20 October

World Osteoporosis Day is celebrated on October 20 across the globe to raise awareness about the disease. The day was first celebrated by United Kingdom's National Osteoporosis Society in the year 1996. The theme for 2021 is Serve Up Bone Strength.



World Statistics Day: 20 October

World Statistics Day is an international day to celebrate statistics. Created by the United Nations Statistical Commission, it was first celebrated on 20 October 2010. The day is celebrated every five years. The UN will observe the next World Statistics Day on 20 October 2025.



Police Commemoration Day : 21 October

The Police Commemoration Day, celebrated on October 21 every year, is linked to China. The day is celebrated in memory of the martyrdom of ten police personnel guarding the Indo-China border. On October 21, 1959 these policemen sacrificed their lives fighting valiantly against armed Chinese troops in Ladakh.



International Stuttering Awareness Day: 22 October

Every year October 22 is observed as International Stuttering Awareness Day, since 1998. The day is intended to raise public awareness of the millions of

people who have a speech disorder of stuttering or stammering. Theme 2021: "Speak the change you wish to see".



International Snow Leopard Day: 23 October

Every year, October 23 is observed as International Snow Leopard Day. The day commemorates the anniversary of the Bishkek Declaration and to celebrate this endangered cat and raise awareness for its conservation and protection. Many in India would know where to go if they want to see a tiger in the wild but that might not necessarily be the case when it comes to snow leopards. The government has also embarked on an ambitious snow leopard assessment program to get an estimate of how many snow leopards are there in the country.



United Nations Day: 24 October

United Nations Day is an annual commemorative day, reflecting the official creation of the United Nations on 24 October 1945. The year 2021 marks the 76th anniversary of the United Nations and its founding Charter. This year, the United Nations Day was marked with the UN annual concert under the theme "Building Back Together for Peace and Prosperity". The concert was a combination of live and pre-recorded performances.



International Day of Diplomats: 24 October

International Day of Diplomats is celebrated on 24 October every year. The first International Day of Diplomats was celebrated in Brasília on 24 October 2017 with the participation of diplomats from Bangladesh, France, Ghana, India, Israel, Italy, Mexico, South Africa and Turkey. The day aims to commemorate the contributions made by diplomats in shaping the world since ancient times.



World Polio Day: 24 October

World Polio Day is observed on October 24 every year to raise awareness for polio vaccination and eradication of polio. Polio is a crippling and potentially fatal infectious disease. There is no cure, but there are safe and effective vaccines. Polio can be prevented through immunization. The theme of World Polio Day 2021 is "Delivering on a Promise."



Disarmament Week 2021: October 24-28

The week aims to reduce the use of weapons,

specifically nuclear weapons, to bring peace in the society. This year, the disarmament week will be starting on October 24. The week-long observance will continue till October 30. The United Nations Disarmament Commission (UNDC) was set up in 1952 under the UN Security Council.



Vigilance Awareness Week 2021: October 26 to November 01

The Vigilance Awareness Week 2021 has been organised by the Central Vigilance Commission (CVC) from 26 October to 01 November 2021. The annual event is celebrated during the week in which the birthday of Sardar Vallabhbhai Patel falls, which is held on October 31. The theme of Vigilance Awareness Week 2021: 'Independent India @75: Self Reliance with Integrity'.



Indian Army Celebrates 75th Infantry Day : 27 October

The Infantry Day is observed as a remembrance of the first military operations carried out by independent India when the Indian army repelled the first attack on its soil on October 27, 1947 in the Kashmir valley. The army on 27 October held wreath laying ceremonies at different formations across the Jammu region, including the northern command headquarters at Udhampur, while observing the 75th Infantry day, a defence spokesman said.



International Animation Day: 28 October

International Animation Day is observed every year on October 28 to celebrate the art of animation and also recognise the artists, scientists and technicians behind animation. This year marks the 20th International Animation Day. The day was created in 2002 by International Animated Film Association (ASIFA), an International Animated Film Association, a member of UNESCO.



World Day For Audiovisual Heritage: 27 October

The World Day for Audiovisual Heritage takes place every 27 October. This commemorative day was chosen by UNESCO in 2005 to raise awareness of the significance and preservation risks of recorded sound and audiovisual documents. The theme of the World Day for Audiovisual Heritage 2021 is "Your Window to the World".



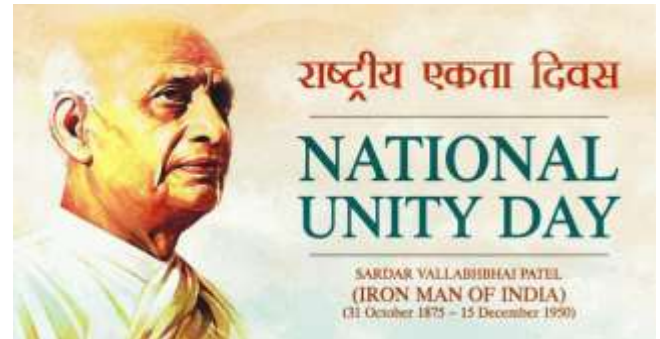
Vigilance Awareness Week 2021: October 26 To November 01

Observance of Vigilance Awareness Week every year during the last week of October is taken up to encourage all stakeholders to collectively participate in the prevention of, and the fight against corruption and to raise public awareness regarding the existence, causes and gravity of and the threat posed by corruption.



International Internet Day: 29 October

International Internet Day is celebrated on October 29 every year across the world to celebrate the usage of the internet for the first time. The day marks the sending of the first electronic message which was transferred from one computer to another in 1969. At that time the Internet was known as ARPANET (Advanced Research Projects Agency Network).



Rashtriya Ekta Diwas or National Unity Day: 31 October

In India, the Rashtriya Ekta Diwas or National Unity Day is observed every year on October 31 since 2014, to commemorate the birth anniversary of the Iron Man of India, Sardar Vallabhbhai Patel. This year marks the 146th anniversary of the great leader who played an instrumental role in India's struggle for independence, and later during the integration of the country.

2: Appointments



Sunil Kataria is re-elected as chairman of ISA :-

The newly elected executive council of the Indian Society of Advertisers (ISA) met on 27 September 2021 and elected Sunil Kataria, chief executive officer, India and SAARC, Godrej Consumer Products Limited, as chairman. Kataria has been leading the ISA for the last five years.



Air Marshal Sandeep Singh takes charge as Vice Chief of IAF :-

Air Marshal Sandeep Singh on Friday took charge as the new Vice Chief of the Indian Air Force. He succeeded Air Chief Marshal VR Chaudhari, who became the 27th Chief of the Air Staff on 30 September. An alumnus of the National Defence Academy, Air Marshal Singh was commissioned in the flying branch of the IAF in December 1983, as a fighter pilot. The officer is an experimental test pilot and a qualified flying instructor. He has rich and diverse experience in operational and experimental test flying on various types of fighter aircraft. He has a flying experience of 4,400 hours.



ER Sheikh took charge as first DG of Ordnance Directorate :-

Senior official ER Sheikh on Thursday 30 September assumed charge as the first director general of the Ordnance Directorate, the newly-created entity to replace the Ordnance Factory Board (OFB). An Indian Ordnance Factory Service (IOFS) officer of the 1984 batch, Sheikh served in various ordnance factories and is credited for setting up a modern production line for the manufacture of small arms and ammunition at Varangaon.



CRISIL appoints Amish Mehta as MD & CEO :-

Amish Mehta will take over as the Managing Director and Chief Executive Officer of CRISIL Ltd, an S&P Global Company, effective October 1, 2021. In his new role, Amish will steer the company's Indian and global businesses, and their efforts to deliver high-quality analytics, opinions and solutions to corporations, investors, financial institutions, policymakers and governments. CRISIL is the market leader for Ratings in India, covering over 28,000 large and mid-scale corporates and financial institutions.



Sanjay Bhargava to head Starlink satellite venture in India :-

Sanjay Bhargava, who had worked with Elon Musk as part of a team that had founded electronic payment firm, PayPal, will now head the tech billionaire entrepreneur's Starlink satellite broadband venture in India. Bhargava joins SpaceX as Starlink's country director (India), effective October 1, 2021, even as the Musk-led US aerospace company gears up to compete with Bharti group-backed OneWeb and others and launch fast satellite broadband services in India next year.



CEAMA appoints Eric Braganza as President :-

Consumer Electronics and Appliances Manufacturers Association (CEAMA), the apex body representing consumer electronics and home appliances, on 30 September announced the appointment of Eric Braganza as the President for the term 2021-23. Braganza is currently the President of Haier Appliances India Pvt. Ltd.



Eight judges elevated as chief justices of high courts :-

Eight judges, including acting chief justice of the Calcutta High Court Justice Rajesh Bindal, were on 09 October elevated chief justices of various high courts. In a related move, chief justices of five high courts, including Justice A A Kureshi, were transferred to different states in the same capacity. According to a list tweeted by the Department of Justice in the Law Ministry, Justice Rajesh Bindal, acting chief justice of the Calcutta High Court, was elevated as chief justice of the Allahabad High Court. Justice Ranjit V More of Meghalaya was made chief justice of the same high court.



Former higher education secretary Amit Khare appointed as advisor to PM :-

The Appointments Committee of the Cabinet has approved the appointment of Khare as advisor to the prime minister in Prime Minister's Office, in the rank and scale of secretary to government of India, on contract basis, initially for a period of two years.



Former SBI Chief Rajnish Kumar Appointed As Chairman Of BharatPe :-

Fintech firm BharatPe on Tuesday, 12 October announced the appointment of Rajnish Kumar, former chairman of State Bank of India (SBI), as the chairman of its board. In his role as the chairman, Kumar will define the company's short-term and long-term strategy besides working closely with other board members and

customer experience officers (CXOs) on business and regulatory initiatives, a release from the company said.



EESL Appoints Arun Kumar Mishra As CEO :-

State-owned Energy Efficiency Services Ltd (EESL) on Monday, 11 October announced the appointment of Arun Kumar Mishra as chief executive officer (CEO) on deputation. He will be responsible for EESL's operations across the nation, the company said in a statement.



OYO appoints Paralympian Deepa Malik as independent director :-

Hospitality firm OYO on Wednesday, 13 October said it has appointed Paralympian Deepa Malik as an independent director on the company's board. Oravel Stays Ltd (OYO) has appointed Deepa Malik, an Indian athlete and a silver-medalist at the 2016 Paralympic Games, as an independent director on the company's board of directors as of September 26, 2021, the company said in a statement.



Sajjan Jindal appointed as the chairman of World Steel

Association :-

World Steel Association (WSA) has elected Sajjan Jindal, Chairman and Managing Director of JSW Steel Ltd, as Chairman for the year 2021-22. JSW Group's flagship JSW Steel is India's leading and one of the world's most efficient integrated steelmakers.



Ritesh Chauhan appointed as the CEO of PM Fasal Bima Yojana :-

Senior bureaucrats Meera Mohanty and Ritesh Chauhan have been appointed as the joint secretary in the Prime Minister's Office (PMO) and the chief executive officer of the Pradhan Mantri Fasal Bima Yojana respectively as part of a bureaucratic reshuffle effected by the Centre on Tuesday, 12 October. Mohanty, a 2005-batch IAS officer of the Himachal Pradesh cadre, is currently serving as the director in the PMO.



UCO Bank MD A K Goel elected new chairman of IBA :-

The Indian Banks' Association (IBA) on Thursday, 14 October elected UCO Bank Managing Director A K Goel as its chairman. Goel replaces Union Bank Managing Director and CEO Rajkiran Rai G as head of the banking sector association. Goel has been recommended for the post of the managing director of Punjab National Bank (PNB) by the Banks Board Bureau, last month.



Navrang Saini gets additional charge as IBBI Chairperson :-

Navrang Saini has been given the additional charge as the Chairperson of the Insolvency and Bankruptcy Board of India (IBBI). The post fell vacant after M.S. Sahoo retired after a five-year tenure on September 30. Mr. Saini is a Whole Time Member of IBBI.



Pradeep Kumar Panja Appointed As Chairman Of Karnataka Bank :-

Reserve Bank of India (RBI) has approved the appointment of Pradeep Kumar Panja as part-time Chairman of Karnataka Bank, the lender stated in a regulatory filing. The appointment will come into effect from November 14, 2021 and will be for a period of three years.



Sahdev Yadav elected as president of the Indian

Weightlifting Federation :-

Veteran sports administrator Sahdev Yadav was unanimously elected as president of the Indian Weightlifting Federation (IWF) for a four-year term. A total of 10 vice presidents, four joint secretaries and seven executive committee members were also elected. The elections were conducted by Returning Officer Narinder Paul Kaushik, Judicial Officer (Retd.), Delhi District Courts.



Amit Rastogi became new Chairman & Managing Director Of NRDC :-

Retired commodore Amit Rastogi, after spending 34 years in Indian Navy, took over as the chairman and managing director of the National Research Development Corporation. He was earlier director at Electrical Engineering at Integrated Headquarters, Ministry of Defence, for five years and additional general manager, tech services, at naval dockyard for two years.



A. Balasubramanian appointed as the Chairman of AMFI :-

A. Balasubramanian, CEO of Aditya Birla Sun Life Asset Management, has been elected as the Chairman of Association of Mutual Funds in India (AMFI), at a concluded board meeting of AMFI. He has earlier

served as the AMFI Chairman for the period 2017 – 2019 and now would continue to hold the office till the conclusion of the next AGM.



Alok Mishra appointed as the MD Of India Ports Global Limited :-

Government has selected Capt. Alok Mishra as the Managing Director of India Ports Global Ltd, the state-owned entity tasked with developing and running the strategically important and India-funded Chabahar port in Iran. The Appointments Committee of the Cabinet (ACC) has cleared the candidature of Mishra for the full-time role, a year after the previous incumbent demitted office on September 18 last year.



Commodore PK Garg appointed as the CEO of Target Olympic Podium Scheme (TOPS) :-

The Sports Authority of India has announced the appointment of the new Chief Executive Officer (CEO) of Target Olympic Podium Scheme (TOPS), Commodore PK Garg, at the Mission Olympic Cell meeting. Commodore Garg was the High-Performance Director with Sports Authority of India till June 2021 and is an Arjuna Awardee recipient (1990) in Sailing and Major Dhyan Chand Khel Ratna Awardee in 1993-94.



Icra appoints Ramnath Krishnan as Managing Director and Group CEO :-

Icra announced the appointment of Ramnath Krishnan as the company's Managing Director and Group Chief Executive Officer. Krishnan succeeds N Sivaraman, who stepped down from the position of Managing Director and CEO on Friday, October 22, for personal reasons. He joined Icra in 2020 and is currently President – Ratings and Chief Rating Officer of the company.



K Madhavan re-elected as president of Indian Broadcasting & Digital Foundation :-

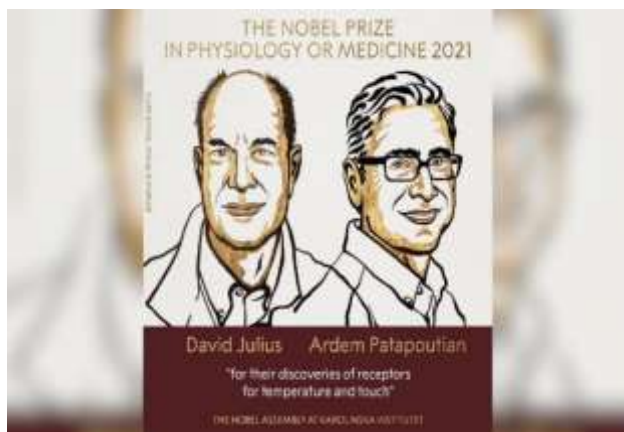
Indian Broadcasting & Digital Foundation (IBDF), an industry body of Television Broadcasters and Digital Streaming Platforms in the country, has re-elected K Madhavan, Country Manager & President - The Walt Disney Company India & Star India, as its President for the second term after the 22 nd Annual General Meeting of the company.

3: Awards



Global Leadership Award 2021 :-

Prominent Indian industrialists Shiv Nadar and Mallika Srinivasan have been chosen by a top India-centric business advocacy group as the recipients of its 2021 Global Leadership Award. The US India Business Council (USIBC) on 30 September announced the selection of Nadar, founder and chairman emeritus, HCL Technologies and Srinivasan, chair and managing director, Tractors and Farm Equipment Limited (TAFE), for the award. The two top leaders will be honoured at the 2021 India Ideas Summit to be held on October 6-7, a media release said.



Nobel Prize In Physiology Or Medicine 2021 :-

David Julius and Ardem Patapoutian jointly won the 2021 Nobel Prize in physiology or medicine for their discoveries of receptors for temperature and touch. The first of the 2021 Nobel Prizes kicked off the week of announcements of the most coveted award.



Vice President M. Venkaiah Naidu will confer Assam Government's biennial Lokapriya Gopinath Bordoloi Award :-

Vice President M. Venkaiah Naidu will confer Assam Government's biennial Lokapriya Gopinath Bordoloi Award for National Integration and National Contribution at a special function in Guwahati 03 October. Mr. Naidu will confer the awards to the Assam Branch of Kasturba Gandhi National Memorial Trust, German based Assamese litterateur Dr. Nirod Kumar Baruah and Shillong Chamber Choir at Srimanta Sankardeva Kalakshetra. The award carries five lakh rupees, a citation and an Angabastram.



Nobel Prize for physics awards 2021 :-

On 05 October, three scientists from the US, Germany, and Italy were awarded the Nobel Prize in Physics 2021 for their contributions in discovering climate and complex physical systems. The Royal Swedish Academy of Sciences awarded the Physics Nobel to Syukuro Manabe (US), Klaus Hasselmann (Germany), and Giorgio Parisi (Rome) "for groundbreaking contributions to our understanding of complex physical systems", said a statement.



Dr. Rukmini Banerji And Eric Hanushek Get Yidan Prize 2021 :-

On 28 September, the Yidan Prize Foundation awarded India-based Dr Rukmini Banerji and US-based Professor Eric Hanushek the prestigious Yidan Prize 2021. Dr Banerji and Professor Hanushek have been awarded the Yidan Prize in recognition of their ground-breaking work addressing a crucial piece of the education puzzle: improving quality of education and outcomes for learners at scale.



Nobel Prize award in Chemistry :-

The Nobel Prize in Chemistry was awarded on 06 October to Benjamin List and David W.C. MacMillan for their development of a new tool to build molecules, work that has spurred advances in pharmaceutical research and allowed scientists to construct catalysts with considerably less impact on the environment.



The Nobel Prize in Literature 2021 :-

The Nobel prize in literature has been awarded to the

novelist Abdulrazak Gurnah, for his “uncompromising and compassionate penetration of the effects of colonialism and the fate of the refugee in the gulf between cultures and continents”. Gurnah grew up on one of the islands of Zanzibar before fleeing persecution and arriving in England as a student in the 1960s.



Karnataka Vikas Grameena Bank bags two national awards :-

Karnataka Vikas Grameena Bank (KVGB), sponsored by Canara Bank, has bagged two national awards ('APY Big Believers' and 'Leadership capital') for significant enrolment under the Atal Pension Yojana (APY) from the Pension Fund Regulatory and Development Authority (PFRDA).



Nobel Prize 2021 in Physics :-

The Nobel Prize for Physics was awarded one half jointly to Syukuro Manabe and Klaus Hasselmann and the other half to Giorgio Parisi. It was awarded for their groundbreaking contributions to the understanding of complex physical systems.



Chaitanya Tamhane wins award for best screenplay at Asian Film Awards :-

Director Chaitanya Tamhane has won the best screenplay award for his Marathi-language feature 'The Disciple' at the 15th Asian Film Awards. The winners in 18 categories were announced on 08 October at a ceremony hosted by the Asian Film Awards Academy (AFAA) in conjunction with Busan International Film Festival (BIFF) and Asian Contents & Film Market (ACFM) at the Paradise Hotel Busan.



The Nobel Prize In Economic Sciences 2021 :-

The 2021 Nobel Prize for economic sciences has been awarded in one half to Canadian-born David Card and the other half jointly to Israeli-American Joshua D Angrist and Dutch-American Guido W Imbens.



Malayalam Writer Benyamin Bags Vayalar Award 2021 :-

'Mantharile 20 Communist Varshangal,' a novel by Benyamin, has won the 45th Vayalar Ramavarma Memorial Literary Award. Instituted by the Vayalar Ramavarma Memorial Trust, the award commemorates the celebrated poet and lyricist. It carries a purse of Rs 1 lakh, a bronze statuette crafted by the sculptor Kanayi Kunhiraman and citation. The novel was selected for the 2021 edition of the coveted prize by a jury consisting of the writers K. R. Meera, George Onakkoor and C.

Unnikrishnan.



Dr Randeep Guleria awarded 22nd Lal Bahadur Shastri National Award :-

AIIMS Delhi Director Dr Randeep Guleria was honoured with the 22nd Lal Bahadur Shastri National Award for Excellence for his pioneer and sustained contribution in the field of medicine and pandemic awareness. Dr. Guleria was conferred the prestigious award by Vice President M Venkaiah Naidu.



Microsoft Team Wins 2021 C.K. Prahalad Award :-

Indian American Satya Nadella, the Microsoft CEO, is among the corporate leaders to receive this year's prestigious C K Prahalad award for Global Business Sustainability Leadership. Nadella along with its president and vice chair Brad Smith, chief financial officer Amy Hood and chief environment officer Lucas Joppa -- received the prestigious honour for their collaborative leadership.



India's "Takachar" Wins 'Eco-Oscar' Award :-

A Delhi-based entrepreneur's agricultural waste recycling project was named among the winners of Prince William's inaugural Earthshot Prize, dubbed the "Eco Oscars", at a gala ceremony in London on October 17 evening. Vidyut Mohan led Takachar was named the winner of the GBP 1 million prize.



Russian Opposition leader wins top European human rights prize :-

Imprisoned Russian Opposition leader Alexei Navalny was awarded the European Union's top human rights prize on 20 October in a clear slap to President Vladimir Putin. In awarding the Sakharov Prize to Mr. Navalny, the European Parliament praised his "immense personal bravery."



Parambikulam Tiger Conservation Foundation Wins Earth Heroes Awards 2021

Parambikulam Tiger Conservation Foundation has won the Earth Guardian Award for its efforts in supporting the conservation of tigers and biodiversity. The award was instituted by NatWest Group India (formerly RBS India) at the 11th edition of the NatWest Group Earth Heroes Awards. Parambikulam Tiger Conservation Foundation, located in the Western Ghats, is one of the premier tiger reserves of India.



Martin Scorsese, Szabo To Get Satyajit Ray Lifetime Achievement Award :-

Hollywood veteran Martin Scorsese and celebrated Hungarian film-maker Istevan Szabo will be honoured with the Satyajit Ray Lifetime Achievement award at this year's International Film Festival of India (IFFI), Union Minister for Information and Broadcasting Anurag Thakur announced on 22 October.



Rajinikanth honoured with Phalke Award :-

Actor Rajinikanth was conferred the Dadasaheb Phalke Award at a National Film Awards ceremony by Vice-President Venkaiah M Naidu at a ceremony in Delhi.



Tsitsi Dangarembga Receives Peace Prize Of The German Book Trade 2021 :-

Zimbabwean author and filmmaker Tsitsi Dangarembga was honored with the Peace Prize of the German Book Trade. Dangarembga is "a widely audible voice of Africa in contemporary literature," the jury said in its statement. The 62-year-old was honored for her artistic work, but also for her political commitment.

4: Banking



PNB launches '6S Campaign' under customer outreach programme :-

With India celebrating 75 years of Independence, the Government of India has launched "Azadi ka Amrit Mahotsav" for various outreach activities on financial services, with focal theme of 'Janta Se Jodna'. In line with the above Government's initiative, Punjab National Bank, as the country's second largest Public Sector Bank, has launched a "6S Campaign" encapsulating different schemes such as - Swabhiman, Samruddhi, Sampark and Shikhar, Sankalp and Swagat.

NABARD disburses Rs 12,298 crore so far under Swachh Bharat Mission :-

The National Bank for Agriculture and Rural Development (NABARD) on 01 October said it has disbursed Rs 12,298 crore so far under the Swachh Bharat Mission-Gramin (SBM-G) for construction of 3.29 crore household toilets. To mark the 150th birth anniversary of Mahatma Gandhi, the development finance institution has launched a nationwide sanitation literacy campaign.



Kotak Mahindra Bank launches Micro ATMs across India :-

To deliver essential banking services conveniently to a larger section of consumers living in relatively far-off areas, private lender Kotak Mahindra Bank Ltd on Tuesday, 12 October announced the launch of Micro ATMs across the country. Customers of all banks who possess a debit card can use a Kotak Micro ATM for key banking services such as cash withdrawals and checking account balances.



SBI, Indian Navy Launched NAV-eCash Card :-

State Bank of India (SBI) and Indian Navy on 04 October launched the lender's NAV-eCash card onboard the country's largest Naval Aircraft carrier INS Vikramaditya. SBI, in a release, said that the unique infrastructure at naval ships inhibits traditional payment solutions particularly when the ship is in high seas where there is no connectivity.



RBI penalises Standard Chartered Rs 1.95 cr :-

The Reserve Bank of India (RBI) imposed a monetary penalty of Rs 1.95 crore on Standard Chartered Bank for not complying with various directions issued by the central bank with regard to 'customer protection', 'cyber security framework in banks', 'credit card operations of banks, and 'creation of a central repository of large common exposures'. "This action is based on the deficiencies in regulatory compliance and is not intended to pronounce upon the validity of any transaction or agreement entered into by the bank with its customers", the central bank said in a statement.



IndiaFirst Life launched 'Saral Bachat Bima' Insurance Plan :-

IndiaFirst Life Insurance Company Limited (IndiaFirst Life), promoted by Bank of Baroda and Union Bank of India, has introduced IndiaFirst Life Saral Bachat Bima Plan, a savings and protection cover for the entire family. This non-linked, non-participating, individual, limited premium policy provides a shorter pay commitment of five or seven years while keeping you

and your entire family protected for 12 or 15 years.



RBI imposes Rs 1 crore penalty on Paytm Payments Bank :-

The Reserve Bank of India (RBI) has imposed a penalty of Rs 1 crore on Paytm Payments Bank for violating provisions of Payment and Settlement Systems Act 2007. According to a statement issued by the central bank, it was noted that Paytm payments bank's application seeking issue of final certificate of authorization, did not reflect its factual position.



HDFC Bank, Mastercard, DFC, USAID Launched A \$100 Million Credit Facility :-

HDFC Bank, Mastercard, US International Development Finance Corporation (DFC), and US Agency for International Development (USAID) launched a \$100 million credit facility. This is aimed to promote and encourage small businesses in the country to digitise, while also helping Indian businesses, particularly those that are women-owned.



Bharti AXA Life Insurance signs bancassurance pact with Utkarsh Small Finance Bank :-

Bharti AXA Life Insurance on October 21 announced its bancassurance partnership with Utkarsh Small Finance Bank Limited (USFBL) for the distribution of life insurance products through the bank’s network of branches across the country. With this collaboration, Bharti AXA Life’s insurance plans including protection, health, savings and investment, will be available for purchase to over 3 million customers of the bank across its more than 600 branches.



AU Small Finance Bank launches sound box for payment alerts :-

AU Small Finance Bank on 22 October unveiled a sound box that will provide instant voice-based payment alerts to merchant partners. The QR Code Sound Box is aimed at enhancing the bank’s reach in digital payments, AU Small Finance Bank said in statement. The sound box is a portable speaker that is equipped with a dedicated SIM slot for data connectivity, which gives voice notification.



Union Bank, CDAC Join Hands For Cyber Security :-

Union Bank of India has entered into an MoU with Centre for Development of Advanced Computing, Hyderabad under which CDAC will assist it to impart cyber security awareness and education to customers and employees. Describing their collaboration as a first of its kind initiative on cyber security, the bank in a release on 12 October said the MoU seeking to improve security awareness levels and serve as a guide to protect from cyber threats will also benefit people at large.

5: Books and Author



A Book Titled “The Origin Story Of India’s States” By VS Srinivasan :-

A new book, slated to release on October 25, will present the incredible origin stories of each of India’s 28 states and eight union territories. “The Origin Story of India’s States”, published by Penguin Random House India (PRHI), is written by author Venkataraghavan Subha Srinivasan. According to the publishers, the story of the birth of India’s states is the story of the birth and continuing rebirth of India.



Gulzar authors a news book titled “Actually... I Met Them :-

Penguin Random House India announced the acquisition of a new book by renowned Indian poet, lyricist and film director Gulzar. In this book, the working title for which is Actually... I Met Them: A Memoir, the author will recount his encounters with the stalwarts of Indian cinema, art, literature and music. It will be published under the Hamish Hamilton imprint in 2021.

6: Defence



India, Australia sign ‘Terms of Reference’ for navy to navy talks :-

The Indian Navy and the Australian Navy on September 29 signed the ‘Terms of Reference’ (ToR) for the conduct of the navy to navy talks under the framework of the ‘Joint Guidance for the India - Australia Navy to Navy Relationship’ document, signed by the two Navy Chiefs in August. This is the first such document signed by the Indian Navy with any country. The document set the navy to navy talks as the principal medium for guiding the bilateral cooperation.

Mitra Shakti 2021: India- Sri Lanka joint military exercise :-

With an aim to enhance inter-operability and share best practices in counter insurgency and counter terrorism operations, India and Sri Lanka will begin a 12-day mega-military training exercise in Sri Lanka's Ampara from October 4. The eighth edition of the 'Mitra Shakti' exercise, which will be conducted at Combat Training School, will conclude on 15 October, the Defence Ministry said on Saturday, 02 October. An all-arms contingent of 120 personnel of the Indian Army will participate in the exercise along with a battalion of the Sri Lankan Army.



India-Nepal joint military exercise Surya Kiran-15 ends :-

In Uttarakhand, the joint military exercise Surya Kiran-15 between the armies of India and Nepal ended on 02 October in Pithoragarh. 300 soldiers from both each side took part in the exercise, which started on

September 21. During the exercise, soldiers of both countries shared counter-insurgency tactics, information about weapons, expertise in the field of counter-terrorism operations, and technical know-how to combat IEDs and booby traps.



'AUSINDEX': India, Australia Participate In 4th Edition Of Biennial Maritime Series :-

India and Australia on 30 September participated in the fourth iteration of the biennial maritime series 'AUSINDEX'. Chief of Navy Australia Michael Noonan, in a tweet, called the maritime exercise a vital opportunity to showcase Australia's ability to conduct high-end maritime warfare training with India and showcase a range of 'AusNavy' maritime capabilities.



India and Japan to hold maritime exercise in Arabian Sea :-

From 06 October, India and Japan are set to hold their first bilateral maritime exercise since the in-person summit of Quad nations in Washington in September, where the grouping of like-minded democratic powers committed to a free and open Indo-Pacific. The fifth

edition of the India-Japan Maritime Bilateral Exercise, 'JIMEX', between the Indian Navy (IN) and the Japan Maritime Self-Defence Force (JMSDF), will be held in the Arabian Sea from October 6-8, 2021.



India, Nepal to conduct joint patrols for controlling trans-border crime :-

The border guarding forces of India and Nepal will conduct regular joint patrolling along the border to control trans-border crimes, smuggling of arms, human trafficking and other areas of concern, a statement by the Sashastra Seema Bal (SSB) said on October 07. SSB, a central armed police force, secures the Nepal and Bhutan borders. The fifth annual coordination meeting between the Director General, SSB and Inspector General, Armed Police Force, Nepal concluded on Thursday. The Indian delegation was led by Kumar Rajesh Chandra and the Nepal delegation was led by Shailendra Khanal, IG, APF.



Ajeya Warrior: India-UK Joint Company Level Military Exercise :-

The 6th Edition of India - UK Joint Company Level Military Training EXERCISE AJEYA WARRIOR has commenced at Chaubatia, Uttarakhand and will culminate on 20 Oct 2021. The exercise is part of an initiative to develop inter-operability and sharing expertise with friendly foreign nations.



2nd phase of Maritime Exercise Malabar in Bay of Bengal from Oct 12 to 15 :-

The Indian Navy will be participating in the second phase of Malabar exercise from October 12-15, along with the US Navy (USN), Japanese Maritime Self Defence Force (JMSDF), and the Royal Australian Navy (RAN). The 25th edition of Malabar exercises is being conducted in two phases, while observing all protocols during the Covid-19 pandemic.



Indo-US Joint Military Exercise "Ex Yudh Abhyas 2021" :-

The Exercise Yudh Abhyas is the largest running joint military training and defence cooperation endeavour between India and the US. This would be the 17th Edition of the joint exercise from October 15 to 29, hosted alternately between both countries, said the Ministry of Defence in a statement. The earlier version

of this exercise was held in India at Mahajan Field Firing Ranges in Bikaner, Rajasthan earlier this year in the month of February.



China-Russia 'Joint Sea 2021 naval exercise' :-

China and Russia are holding Joint naval drills called "Joint Sea 2021 naval exercise" in the Sea of Japan. The joint naval drill was kicked off from October 14, 2021. It highlights the latest sign of growing political and military alignment between Russia and China. The drill started in Russia's Peter the Great Gulf in Sea of Japan. It will run through October 17, 2021.



Integrated unmanned road map for Navy launched :-

Defence Minister Rajnath Singh on 18 October launched an 'Integrated Unmanned Road Map for Indian Navy' at the second edition of the Naval Commanders; Conference that commenced on Monday. This will outline all the unmanned aerial and underwater platforms and efforts of the Navy as part of its force modernisation.



S Jaishankar Meets IAF Contingent Taking Part In Biennial Blue Flag Exercise In Israel :-

External Affairs Minister S Jaishankar on 19 October visited Israel's Ovda Airbase to meet the Indian contingent participating in the biennial Blue Flag exercise involving Air Force missions from eight countries, that aims to share knowledge and combat experience to improve operational capabilities.



Odisha: DRDO successfully tests high-speed expendable aerial target ABHYAS :-

Defence Research and Development Organisation (DRDO) on 22 October successfully tested the high-speed expendable aerial target (HEAT), ABHYAS, used for evaluation of various missile systems, from the Integrated Test Range (ITR), Chandipur off the coast of Bay of Bengal in Odisha. As per the note released by the Ministry of Defence, ABHYAS is designed and developed by DRDO's Aeronautical Development Establishment (ADE), Bengaluru.



Govt signs pact with US to procure MK 54 torpedo, expendables worth Rs 423 cr :-

Centre has inked a deal with the US government to procure MK 54 torpedo and expendables for the Indian Navy. As per the official release, the Ministry of Defence has signed a contract on 21 October 2021 with the US Government under Foreign Military Sale (FMS) for procurement of MK 54 Torpedo and Expendable (Chaff and Flares) for the Indian Navy at a cost of Rs 423 Crores.



India, UK Take Part In Joint Exercise Konkan Shakti 2021 :-

The sea phase of the maiden bilateral tri-service exercise 'Konkan Shakti 2021' between the UK and Indian Armed Forces commenced off the Konkan coast in the Arabian Sea. The maiden India-UK Joint Tri-Service exercise Konkan Shakti is scheduled to be held between October 21 and 27 off the west coast of India and aims to derive "mutual benefits" from each other's experiences.

7: Economy



India estimated to grow at 8.3% in the current fiscal: World Bank :-

India's real Gross Domestic Product (GDP) in the current fiscal year is estimated to grow by 8.3%, the World Bank said as it released a South Asia economic focus report ahead of its annual meetings which start next week in Washington. This growth estimate is supported by an increase in public investment to bolster domestic demand and schemes, like the production-linked incentive to boost manufacturing.



India in last stage of finalising details on global minimum tax: Nirmala Sitharaman :-

Finance Minister Nirmala Sitharaman on OCTOBER 06 said India is "very close" to arriving at the specifics of the two-pillar taxation proposition at the G20 and is in the last stage of finalising the details. A total of 130 countries had in July agreed to a overhaul of global tax norms to ensure that multinationals pay taxes wherever

they operate and at a minimum 15% rate.



Air India Sold To Tata Sons For Rs 18,000 Crore :-

Talace Pvt Ltd, a unit of Tata Sons, the holding company for the conglomerate, will acquire 100 per cent of Air India, said Secretary, Department of Investment and Public Asset Management, Tuhin Kanta Pandey. "In the next steps, the letter of intent will be issued and the share-purchase agreement will be signed, and the transaction is expected to close by the end of December 2021," he said.



Centre releases Rs 40,000 crore as GST compensation :-

The Centre released Rs 40,000 crore to States and Union Territories on Thursday October 07 to help meet the shortfall in GST compensation cess collections, through back-to-back borrowings from the market. The

Finance Ministry said this was part of the Rs 1.59 lakh crore shortfall estimated in the Compensation Fund for States, to be raised via market borrowings, but indicated that total GST compensation to be paid in 2021-22 may exceed States' actual dues for the year.



FICCI revises India's GDP growth forecast to 9.1% for 2021-22 :-

Federation of Indian Chambers of Commerce & Industry (FICCI) has revised India's real GDP growth forecast for 2021-22 upwards to 9.1 per cent from nine per cent estimated earlier in July 2021.



Reliance New Energy acquires REC Solar Holdings for \$771 million :-

Reliance New Energy Solar Ltd (RNESL), a wholly-owned subsidiary of Reliance Industries Ltd (RIL) said that it has acquired 100% shareholding of REC Solar Holdings AS (REC Group) from China National Bluestar (Group) Co Ltd., for a value of \$771 million.



Adani Group Takes Over Management Of Jaipur International Airport :-

Gautam Adani-led Adani Group on Monday, 11 October took over the responsibilities of the Jaipur International Airport from the Airports Authority of India (AAI). The airport has been leased out to the group by the government of India for a period of 50 years. For the last two months, officials from Adani group have been observing operations at the airport.



Indian economy to grow at 9.5% in 2021, 8.5% in 2022: IMF :-

India's economy, which contracted by 7.3 per cent due to the COVID-19 pandemic, is expected to grow by 9.5 per cent in 2021 and 8.5 per cent in 2022, according to latest projections released by the International Monetary Fund on Tuesday.



Industrial production grows 11.9% in August :-

India's industrial production rose 11.9% in August, according to official data released on Tuesday, 12 October. As per the Index of Industrial Production (IIP) data by the National Statistical Office (NSO), the

manufacturing sector's output surged 9.7% in August 2021. In August, the mining output climbed 23.6%, and power generation increased 16%. The IIP had contracted 7.1% in August 2020.



IndusInd Bank gets authorised by RBI to collect direct and indirect taxes :-

IndusInd Bank has been authorised by the Reserve Bank of India for collection of direct and indirect taxes on behalf of the Central Board of Direct Taxes and the Central Board of Indirect Taxes and Customs. The authorization has been awarded basis a recommendation from the Controller General of Accounts as well as the Ministry of Finance (Govt. of India), and comes close on the heels of the Bank being appointed as an 'Agency Bank' of the RBI to conduct government business.



RBI Imposes Penalty On State Bank Of India :-

The Reserve Bank of India (RBI) on Monday imposed a monetary penalty of Rs 1 crore on the country's largest lender, State Bank of India (SBI), for not complying with directions issued by the central bank with regard to fraud classification and reporting by commercial banks.



RBI Authorised Karur Vysya Bank (KVB) To Collect Direct Taxes :-

The Reserve Bank of India has authorised Karur Vysya Bank to collect direct taxes on behalf of Central Board of Direct Taxes (CBDT). Following the approval received, KVB has initiated the integration process with CBDT. Once completed, KVB customers can remit their Direct Taxes through any branch, Net Banking and DLite Mobile app, it said in a statement. B. Ramesh Babu, MD & CEO said that it has been the long standing requirement of the bank customers to pay direct taxes easily and they were happy to offer the services.



Ayushmann Khurrana joins CoinDCX as a part of 'Future Yahi Hai' campaign :-

Ayushmann Khurrana has become the latest celebrity to venture into the cryptocurrency space through his association with CoinDCX's 'Future Yahi Hai' campaign. Khurrana joins A-listers like Amitabh Bachchan, Ranveer Singh and Salman Khan to be associated with various crypto exchanges and crypto trade platforms like Chingari and Coin SwitchKuber. The CoinDCX 'Future

Yahi Hai' Megadrive is directed towards addressing major questions and doubts and dispel myths when it comes to crypto investments from the perspective of young India.



Reliance Brands acquires Manish Malhotra's MM Styles :-

Reliance Brands Ltd (RBL), a unit of Reliance Industries Ltd, has agreed to buy a 40% stake in MM Styles Pvt. Ltd, owned by homegrown designer Manish Malhotra.

This makes it one of the most prominent investments by Reliance Brands in the luxury ethnic wear market though the company did not disclose the deal size.



ICICI Bank overtakes Hindustan Unileve in m-cap to occupy 5th spot :-

ICICI Bank overtook Hindustan Unilever to become the fifth most valued company of India on 25 October after the 10.8% surge in the share price boosted by strong September quarter results. This is the first time since May 2015 that the private lender has raced past HUL in market-cap.

8: International



US: Kilauea volcano erupts in Hawaii :-

Honolulu — One of the most active volcanos on Earth is erupting on Hawaii's Big Island. Officials with the U.S. Geological Survey confirmed on 29 September Wednesday, that an eruption has begun in the Kilauea volcano's Halemaumau crater at the volcano's summit.



Switzerland legalize same-sex marriage :-

Switzerland has agreed to legalise marriage for same-sex couples by a nearly two-thirds majority in a referendum, making it one of the last countries in Western Europe to do so. According to results provided by the Swiss federal chancellery, 64.1 percent of voters voted in favour of same-sex marriage on 27 September Sunday's nationwide referendum. Switzerland is the

world's 30th country to adopt same-sex marriages, and one of the last remaining western European nations to do so. The Netherlands was the first in 2001.



Bangladesh: Renovated Gandhi Museum was inaugurated at Gandhi Ashram Trust :-

On the occasion of the 152 birth anniversary of Mahatma Gandhi, the renovated Gandhi Museum was inaugurated at the historic Gandhi Ashram Trust at Noakhali in Bangladesh. The inauguration was done by the Foreign Minister of Bangladesh Dr A K Abdul Momen, Law Minister Advocate Anisul Huq and High Commissioner of India to Bangladesh Vikram Doraiswami.



Russia test fires hypersonic cruise missile from submarine for first time :-

Russia said on 04 October it had successfully test launched a Tsirkon (Zircon) hypersonic cruise missile from a submarine for the first time, a weapon President Vladimir Putin has lauded as part of a new generation of unrivalled arms systems. The defence ministry said that the Severodvinsk submarine had fired the missile in the Barents Sea, successfully hitting its chosen target.



Death toll from cyclone Shaheen rises to 13 as storm hits Oman :-

The death toll from cyclone Shaheen has risen to 13 while other fishermen remain missing as the storm moved further inland into Oman and weakened. India's Meteorological Department, the top forecasters for cyclones that sweep across the Indian Ocean, said winds from Shaheen now gust up to 90km/h and would continue to weaken.



Romanian government falls after a no-confidence vote :-

Romanian Prime Minister Florin Citu of the governing National Liberal Party was ousted on 05 October after a no-confidence motion in his government passed overwhelmingly, deepening an ongoing political crisis.



Australia won't welcome international tourists until 2022 :-

International tourists won't be welcomed back to Australia until next year, with the return of skilled migrants and students given higher priority, the Prime Minister said on October 5.



World Investor Week 2021: October 04-10 :-

The importance of investor education and protection is the key element of World Investor Week which runs October 4-10, 2021, supported by Canada's securities regulators. This year's event focuses on sustainable finance and fraud and scams prevention. A recent report tied to the second of these found that some people are more susceptible to financial scams. The week has been running for five years and is organised by the International Organization of Securities Commissions (IOSCO) and brings together securities regulators, stock markets, financial organizations, and other stakeholders.



WHO approves world's first Malaria vaccine :-

In a landmark announcement, the World Health Organization (WHO) has recommended the use of the first-ever malaria vaccine for children. WHO Director-General Tedros Adhanom Ghebreyesus endorsed the RTS,S/AS01 malaria or Mosquirix - a vaccine developed by British drugmaker GlaxoSmithKline (GSK).

India joins High Ambition Coalition for Nature and People :-

India on Thursday, 07 October officially joined the High Ambition Coalition for Nature and People, a group of more than 70 countries encouraging the adoption of the global goal to protect at least 30 percent of the world's land and ocean by 2030.



Pandora Papers expose :-

The Pandora Papers are a 2021 leak of over 12 million documents incriminating hundreds of global politicians and wealthy elite for tax avoidance and corruption. The papers details how such individuals sheltered money in offshore accounts, shell companies, and real estate investments.



UK recognises India's Vaccine certificate :-

Days after India announced 10-day mandatory quarantine, the UK said it will accept India's vaccine certification from Oct 11. The UK High Commissioner to India announced relaxation of rules for Indians. India

had earlier imposed reciprocity on all UK nationals arriving from the country.



IEA Invites India To Become Full-Time Member :-

International Energy Agency (IEA) has invited India, the world's third-largest energy consumer, to become its full-time member - a proposal if accepted will require New Delhi to raise strategic oil reserves to 90 days requirement. Oil Minister Hardeep Singh Puri on Monday said he held online discussions with IEA Executive Director Fatih Birol.



Germany launched world's first self-driving train :-

Deutsche Bahn (DB), in partnership with Siemens Mobility, has developed the world's first fully automated driverless train in Germany. This train made its debut under the Digital S-Bahn Hamburg project, which is part of DB's Digital Rail Germany project.



ADB boosts 2019-2030 climate financing goals to \$100 billion :-

The Chief of Asian Development Bank (ADB) announced on October 12, 2021, that the lender will boost its climate financing goals by \$20 billion to a new target of \$100 billion through 2030. The plans, disclosed by Asian Development Bank President Masatsugu Asakawa, increase a previous \$80 billion goal for climate financing for developing nations in Asia for the decade announced in 2018.



Jonas Gahr Store Becomes Norway's New PM :-

Prime Minister Narendra Modi congratulated Jonas Gahr Store on assuming the office of Prime Minister of Norway and said that he is looking forward to working closely with the latter's new administration in further strengthening India-Norway relations.



"The Challenge" : The first movie filmed in space :-

"The Challenge" is the story of a Russian doctor who's sent to the International Space Station to save the life of a cosmonaut. If all goes according to plan, the production team will lift off next month on a 12-day mission to pull off the historic first.



Sri Lanka Seeks \$500 Million Loan From India For Fuel Purchase :-

Sri Lanka has sought a USD 500 million credit line from India to pay for its crude oil purchases amid a severe foreign exchange crisis in the island nation. The move came few days after energy minister Udaya Gammanpila warned that the current availability of fuel in the country can be guaranteed only till next January.



India, Israel, US and UAE agree to establish joint economic forum :-

S Jaishankar, India's External Affairs Minister, and his counterparts from Israel, the US and the UAE have agreed to establish a forum for economic cooperation at a quadrilateral meeting during which they discussed possibilities for joint infrastructure projects in the fields of transportation, technology, maritime security, and economics and trade.



Zalmay Khalilzad, U.S. chief interlocutor for

Afghanistan, resigned :-

Some two months after the U.S.'s chaotic troop withdrawal from Afghanistan, Zalmay Khalilzad, America's chief negotiator in what was meant to be an Afghan peace settlement, has resigned. Mr. Khalilzad, an Afghan-American, was appointed in 2018 by former U.S. President Donald Trump and continued to hold the position in the Biden administration.



Donald Trump To Launch Social Media Platform Called Truth Social :-

Former US president Donald Trump announced plans to launch his own social networking platform called "TRUTH Social," which is expected to begin its beta launch for "invited guests" next month. The long-awaited platform will be owned by Trump Media & Technology Group (TMTG), which also intends to launch a subscription video on-demand service



Barbados elects its first-ever president to replace the Queen as head of state :-

Barbados has elected its first-ever president to replace Queen Elizabeth II as head of state in the process of becoming a republic. Dame Sandra Mason, 72, was elected with a two-thirds majority vote at a joint session of the Caribbean country's House of Assembly and Senate.



Economist Gita Gopinath To Leave IMF In January 2022

:-

International Monetary Fund (IMF) chief economist Gita Gopinath will leave the multilateral lending agency in January and return to academia after a three-year stint. Gopinath, an Indian-origin economist, will resume her earlier job as a professor at Harvard University's economics department. Gopinath was the IMF's first female chief economist and the second Indian to hold the prestigious position after Raghuram Rajan.



Japan: Mount Aso volcano erupts at country's main island of Kyushu :-

Mount Aso, a volcano in the tourist destination on the southwestern main island of Kyushu in Japan, sent plumes of ash 3.5 km high when it erupted on 20 October, prompting warnings of lava flows and falling rocks. A dark cloud of ash loomed over the volcano, obscuring large swathes of the mountain.



Financial Action Task Force (FATF) retains Pakistan on its grey list :-

In June 2018, the Financial Action Task Force (FATF) placed Pakistan on the 'grey list' of jurisdictions under increased monitoring. Since then, it has been presented with multiple recommendations for compliance. Owing to Pakistan's failure in fully implementing all the action points, it was once again retained on the 'grey list' following the conclusion of the latest FATF plenary on October 21, 2021.



South Korea launches its first homegrown space rocket called Nuri :-

South Korea's first domestically built rocket blasted off on October 21, 2021, but failed to deliver a dummy payload into orbit. Nuri, or "world" in Korean, was part of the country's broader space plans, which include launching a range of military satellites.



UN sets up special trust fund for 'people's economy' in Afghanistan :-

The United Nations said on 21 October it had set up a special trust fund to provide urgently-needed cash directly to Afghans through a system tapping into donor funds frozen since the Taliban takeover last August. With the local economy "imploding", the aim is to inject liquidity into Afghan households to permit them to survive this winter and remain in their homeland despite turmoil, it said.



US FDA clears Moderna, J&J booster shots; backs Covid-19 vaccine mixing :-

The U.S. Food and Drug Administration cleared a path for millions more Americans to receive Covid-19 vaccine booster shots, as the nation looks to bolster its defenses and prevent another virus surge. The agency said in a statement on 20 October that Moderna Inc. vaccine recipients 65 and over can receive a third shot, as can adults 18 and up who are at high risk of severe Covid.



China Launches Satellite 'Shijian-21' successfully :-

China successfully launched a new satellite on 24 October to test and verify space debris mitigation technologies. It was launched from the Xichang Satellite Launch Centre in southwest China's Sichuan Province. The satellite, named Shijian-21, was launched by a Long March-3B carrier rocket and it entered the planned orbit successfully.

9: National



7 newly-elected Rajya Sabha members :-

Seven new members were elected unopposed to Rajya Sabha, the upper house of the Parliament on September 27, 2021, on the last date for withdrawals. The seven new members are- Sarbananda Sonowal (BJP) – Assam, L Murugan (BJP) - Madhya Pradesh, S Selvaganapathy (BJP) – Puducherry, Rajani Patil (INC)- Maharashtra, Sushmita Dev (TMC)- West Bengal, Dr Kanimozhi NVN Somu (DMK)-Tamil Nadu, KRN Rajeshkumar (DMK)-Tamil Nadu.



Union Minister Mansukh Mandaviya launches delivery of COVID-19 vaccine by drone :-

The Union Minister for Health and Family Welfare Mansukh Mandaviya launched delivery of COVID-19 vaccine by Unmanned Aerial Vehicle (UAV) or drone in Bishnupur district of Manipur. Shri Mandaviya launched the initiative through virtual mode from Nirman Bhawan, New Delhi on 04 October. The delivery of COVID-19 vaccine by drone is being taken up by Indian Council of Medical Research (ICMR) under its project- Drone Resource and Outreach in North East India (i-DRONE).



Supreme Court questions Rs8 lakh income limit for EWS quota :-

The Supreme Court on October 07 asked the government to explain how it zeroed in on the figure of 'Rs 8 lakh' as the annual income criterion to identify Economically Weaker Sections (EWS) among forward classes of society for grant of 10% reservation in medical admissions under the all India quota (AIQ). The Supreme Court's query is significant as the One Hundred and Third Constitutional Amendment of 2019, which introduced the 10% EWS quota, is itself under challenge before a larger Bench. The amendment is under question for making economic criterion as the sole ground for grant of reservation benefits.



Railways extends Covid guidelines, Rs 500 fine on passengers without masks :-

The Ministry of Railways on October 7 extended the COVID-19 guidelines for six months, or till further order, adding that not wearing a mask on railway premises or in trains can attract a fine of up to Rs 500. "To ensure wearing of face masks/ face cover by all persons at railway premises including trains, fines upto Rs 500 under Indian Railways (Penalties for Activities Affecting

Cleanliness at Railway Premises) Rules, 2012 shall be imposed by Railway officials authorized for this purpose from persons not wearing face masks/cover in Railway premises (including trains) for a period of six months till further instruction is issued in this regard," from the notification issued by Ministry of Railways.



K V Subramanian steps down as govt's chief economic adviser :-

K V Subramanian on Friday, October 8 stepped down as Chief Economic Adviser after a 3-year tenure. He said he has decided to return to academia. The government had appointed Subramanian, a ISB Hyderabad professor, as the CEA in December 2018. He had succeeded Arvind Subramanaian. In a statement, Subramanian thanked Prime Minister Narendra Modi and Finance Minister Nirmala Sitharaman for their support and inspiring leadership. "I have decided to return back to academia following the completion of my 3-year fulfilling tenure," he said.



New version of the song 'Mile Sur Mera Tumhara' launched :-

The Ministry of Railways recreated the iconic song, Mile Sur Mera Tumhara by Bhimsen Joshi, which brought about a sense of integrity and unity to anyone who listened to it. In the new version, scenes from the Tokyo Olympics can be witnessed. The winning moments of Mirabai Chanu, Neeraj Chopra and Ravi Dahiya, among others, could also be seen. Shuttler PV Sindhu made a brief appearance and at the end of the video, Minister of Railways Ashwini Vaishnaw was seen singing the National anthem with a couple of officials.



PM Narendra Modi Addresses 28th NHRC Foundation Day Programme :-

Prime Minister Narendra Modi has addressed the 28th National Human Rights Commission (NHRC) foundation day programme on 12 October. The Prime Minister has said that NHRC plays an important role in our nation in protecting the human rights and dignity of the marginalised.



Centre notifies new rules that allow abortion till 24

weeks of pregnancy :-

The government has notified new rules under which the upper limit for termination of a pregnancy has been increased from 20 to 24 weeks for certain categories of women. According to the Medical Termination of Pregnancy (Amendment) Rules, 2021, these categories include survivors of sexual assault or rape or incest, minors and women whose marital status changes during an ongoing pregnancy (widowhood and divorce) and women with physical disabilities.



AIIMS launched 'Healthy Smile' mobile app :-

A bi-lingual mobile application 'Healthy Smile' has been launched to spread awareness about maintaining oral hygiene among children, the AIIMS said on 13 October. The initiative of the Department of Pediatric and Preventive Dentistry, through the AIIMS intramural research grant, aims to spread awareness about maintaining oral hygiene of children right from infancy, and also motivate them to brush thoroughly twice a day, according to a statement by AIIMS. It also gives information on how one can keep dental decay under control by simple home care measures, it said.



Mount Harriet in Andaman to be named Mount Manipur :-

As a tribute to the freedom fighters of Manipur, the Union government has decided to rename Mount Harriet, an island peak in Andaman and Nicobar islands. It will now be known as Mount Manipur, officials said. Union home minister Amit Shah made an announcement in this regard while addressing a public function at Port Blair in Andaman and Nicobar islands



UIDAI to host "Aadhaar Hackathon 2021" :-

The Unique Identification Authority of India (UIDAI) will host the 'Aadhaar Hackathon 2021' to identify young innovators in the field of information technology. The event will start from the midnight of October 28 and continue till October 31, the Ministry of Electronics and IT said.



Railways shuts down Indian Railway Stations Development Corporation (IRSDC) :-

Based on the recommendation of Principal Economic Advisor of Finance Ministry Sanjeev Sanyal for rationalisation of railway bodies by closing down or merging multiple organisations, the Indian Railways has ordered to dissolve Indian Railway Stations

Development Corporation (IRSDC), a letter issued by the Railway Board said on 18 October.



UPSC launched helpline for govt. job aspirants from economically weaker section, backward classes :-

The Union Public Service Commission (UPSC) on 20 October launched a toll-free helpline to help government job aspirants from economically weaker sections and backward classes among others. The commission has opened a helpline, toll-free number-1800118711, with the objective to assist candidates belonging to Scheduled Castes (SC), Scheduled Tribes (ST), Other Backward Classes (OBC), Economically Weaker Sections (EWS) and Persons with Benchmark Disabilities (PwBD).



Centre approves 3% DA hike for Central govt employees :-

The central government decided to raise the dearness allowance (DA) to employees and the dearness relief (DR) to pensioners by 3% to 31% from July to cushion them from the rise in cost of living. It will benefit more than 4.7 million central government employees and 6.8 million pensioners, minister explained.



Supreme Court says farmers have right to protest, but can't block roads :-

The Supreme Court saw the farmers' side and the government engage in a verbal clash during a physical hearing. Farmers, represented by senior advocate Dushyant Dave and advocate Prashant Bhushan, said roads were deliberately blocked in order to turn public sentiments against them. The protesters should be allowed to enter the Ram Lila Maidan and Jantar Mantar to continue their protests against the agricultural laws.



39 women army officers get permanent commission after winning legal battle :-

Thirty-nine women officers of the Indian Army have got Permanent Commission (PC) after winning a legal battle in the Supreme Court. The apex court ordered the Centre to ensure their new service status is granted within seven working days. During the hearing on 22 October, ASG Sanjay Jain and senior advocate R Balasubramanian, appearing for the Centre, told the bench of Justice D Y Chandrachud and Justice B V Nagarathna that out of 72, only one woman officer had appealed for release from service and the government considered the other 71 cases.



Goa Became The 1st State To Achieve open defecation free And electricity For every household :-

India set a target to become open defecation free (ODF), and Goa achieved that. India set a target of connecting every household with electricity, Goa achieved that. Under Har Ghar Jal Mission, Goa became the first state to achieve the feat. it successfully provides 100% Functional Household Tap Connections (FHTCs) in the rural areas covering 2.30 lakh rural households.

10: Obituaries



Pakistan's comedy legend Umer Sharif passes away at 66 :-

Pakistan's celebrated comedian Umer Sharif passed away on October in Germany where he was admitted to a hospital after his condition deteriorated while being flown to the US on an air ambulance to undergo a life-saving heart procedure. He was 66. The veteran comedian, actor, producer and television personality had been battling for his life and was critically ill since last year. His death was met with immediate shock and

grief in Pakistan with Prime Minister Khan leading the condolence messages for the comedian legend.



"Taarak Mehta Ka Ooltah Chashmah" actor Ghanashyam Nayak dies :-

Veteran actor Ghanashyam Nayak, best known for his work as Nattu Kaka on the popular sitcom "Taarak Mehta Ka Ooltah Chashmah", passed away on 03 October after a long battle with cancer, producer Asit Kumarr Modi said. The actor, who was in his late 70s, was diagnosed with cancer earlier this year. Nayak appeared in nearly 100 Hindi and Gujarati films, apart from featuring on more than 300 TV serials.



Shakti Sinha, former bureaucrat and private secretary to Atal Bihari Vajpayee, passes away :-

Well-regarded former bureaucrat Shakti Sinha, who was private secretary to late Prime Minister Atal Bihari Vajpayee, and more recently held the post of director of the Nehru Memorial Museum and Library passed away in Delhi on 04 October. He was 64.



Arvind Trivedi, Best Known As Raavan Of Ramayan, Dies At 82 :-

Veteran actor Arvind Trivedi, best known for portraying the role of Raavan in Ramanand Sagar's Ramayan, died at the age of 82. Ramayan, which first aired on Doordarshan in 1987 and gained instant popularity, made stars out of Arun Govil, Deepika Chikhlia and Sunil Lahri, known to fans as Lord Ram, Sita and Lakshman.



Ex-diplomat V.M.M. Nair passes away :-

Vallilath Madathil Madhavan Nair, popularly known as Ambassador VMM Nair, India's oldest surviving diplomat, breathed his last late October 05 night. He was 102 and was suffering from age related issues. Ambassador Nair, born on October 8, 1919 and joined the elite Indian Civil Service in 1942. As a diplomat, he held various interesting positions in many countries representing India and had exciting and unforgettable experiences.



Abolhassan Banisadr: Iran's first president after revolution dies at 88 :-

Abolhassan Banisadr, Iran's first president after the country's 1979 Islamic Revolution who fled Tehran after being impeached for challenging the growing power of clerics as the nation became a theocracy, died Saturday, October 09. He was 88-years-old.



IFFCO chairman Balvinder Singh Nakai passes away at 87 :-

Fertiliser major IFFCO's Chairman Balvinder Singh Nakai, 87, passed away on Monday, 11 October. He was born on December 5, 1934, IFFCO said. Nakai was an eminent farmer - cooperator, and was deeply involved in providing strength to Indian cooperative movement for the last three decades, it said.



Veteran Tamil actor Srikanth dies in Chennai at the age of 82 :-

Veteran Tamil actor Srikanth died at the age of 82 in Chennai on Tuesday, 12 October, news agency PTI reported. Srikanth made his acting debut with the 1965 film Vennira Aadai with J Jayalalithaa. In a career spanning over 4 decades, he starred in several critically-acclaimed films. He famously starred in the 1974 super hit Thanga Pathakkam.



First African-American U.S. Secretary of State Colin Powell dies at 84 :-

Colin Powell, the first Black US secretary of state whose leadership in several Republican administrations helped shape American foreign policy in the last years of the 20th century and the early years of the 21st, has died from complications from Covid-19, his family said on Facebook. He was 84.



Sri Lanka's first-ever Test cricket captain Bandula Warnapura dies at 68 :-

Bandula Warnapura, Sri Lanka's first Test captain and a former coach and administrator, has died aged 68 at a private hospital in Colombo. He was understood to have been struggling with diabetes and was rushed to the ICU last week following a spike in his blood sugar levels.



Former New Zealand test cricket umpire Fred Goodall dies, aged 83 :-

New Zealand cricket umpire Fred Goodall, who was at the center of a famously ill-tempered Test series between New Zealand and the West Indies in 1980, has died. He was 83. His death was announced by New Zealand Cricket, which did not specify a cause. Goodall stood in 24 Test matches and 15 one-day internationals between 1965 and 1988.



Former international hockey player Saranjeet Singh passes away :-

Former hockey international Saranjeet Singh passed away. He was 59. The former State Bank of India hockey player who played for Coronation Club in local league, represented Hyderabad juniors and seniors in the late 70s and 80s and also played for the Indian team that toured Germany in 1983.

11: Ranks & Reports



Mukesh Ambani tops Hurun Rich list 2021 :-

Reliance Industries Limited (RIL) Chairman Mukesh Ambani continues to be India's richest man for the 10th straight year with a net worth of Rs 7,18,000 crore, according to the IIFL Wealth Hurun India Rich List 2021. The 64-year-old businessman has topped the 10th Anniversary Edition of IIFL Wealth Hurun India Rich List, with a nine per cent increase in his total net worth this year. His fortunes grew sharply from 2020 as the conglomerate made huge gains in its retail and telecom operations.



NITI Aayog released its "State Nutrition Profile" report :-

Nineteen States and Union Territories have got their nutrition profiles which analyse data on wasting (low weight-for-height), stunting, anaemia, underweight and overweight, besides diabetes and high blood pressure. Called the State Nutrition Profiles (SNPs), the documents have been prepared by Niti Aayog, and contain a comprehensive compilation of crucial data that can positively affect policy decisions and facilitate research in the area. The reports highlight the best and

worst performing districts, highest burden districts and top coverage districts of the country. The SNPs are based on the headcount-based analyses and use of data from the National Family Health Survey (NFHS)-5 in 2019-20.



Report on Crypto Ecosystem by IMF :-

The rapid growth of the crypto ecosystem presents new opportunities, the IMF has said, but also cautioned that the digital currency assets pose financial stability challenges. Cryptocurrencies are digital or virtual currencies in which encryption techniques are used to regulate the generation of units and verify the transfer of funds, operating independently of a central bank.



Mukesh Ambani joins \$100 Billion Club :-

Mukesh Ambani, Asia's richest person, joined Jeff Bezos and Elon Musk in the world's most exclusive wealth club with a fortune of at least \$100 billion. The chairman of Reliance Industries entered the rarefied group of 11 men as his conglomerate's stock climbed to a record on Friday, 08 October.



India slips to 101st rank in Global Hunger Index 2021 :-

India's position lowered on the Global Hunger Index (GHI) 2021 to 101 from its position at 94 in 2020 with Pakistan, Bangladesh and Nepal moving ahead. The website of the Global Hunger Index tracks hunger and malnutrition also showed that 18 countries, including China, Brazil and Kuwait, shared the top rank with GHI score of less than five.



Reliance Industries Tops In Forbes World's Best Employer 2021 Ranking :-

Reliance Industries tops India in World's Best Employer rankings 2021 published by Forbes. Reliance Industries Ltd, the country's largest company by revenues, profits and market value, has topped Indian corporates in the World's Best Employers rankings 2021 published by Forbes.



WHO Global TB Report For 2021: India Worst-Hit Country In TB Elimination :-

India continues to have the highest number of tuberculosis (TB) cases in the world, the Global TB Report 2017 released by World Health Organization (WHO) revealed. According to the report, in India, an estimated 27.9 lakh patients were suffering from TB in 2016 and up to 4.23 lakh patients were estimated to have died during the year.



India Ranks 40th In 2021 Mercer CFS Global Pension Index Survey :-

India has ranked 40th out of 43 pension systems across the world in the 2021 Mercer CFS Global Pension Index survey, suggesting the need for strategic reforms in India to revamp the pension system so as to ensure adequate retirement income. India had stood at 34th position out of 39 pension systems rated in 2020.



Lancet report: India more vulnerable to heat extremes :-

India has become 15% more vulnerable to extremes of heat than in 1990, according to 'the Lancet Countdown on Health and Climate Change', a flagship report of the medical journal The Lancet that provides periodic updates on the scientific literature on the relationship between climate change and public health. In 2020, the elderly (over 65) were affected by 3.1 billion more days of heatwave exposure, compared to the 1986-2005 baseline average. Chinese, Indian, American, Japanese and Indonesian senior citizens were the most affected.



India Ranks 71st On 2021 Global Food Security Index :-

India stood at the 71st position out of the 113 countries, with an overall score of 57.2 points in this year's Global Food Security Index (GFSI). The report was released by Economist Impact and is sponsored by Corteva Agriscience. The report analyses the food security status of countries on the factors of affordability, availability, quality and safety, and natural resources and resilience. Though its overall score is better than other developing countries like Pakistan and Sri Lanka, it lags in food affordability.



India ranked 79 out of 139 countries on rule of law, dropping three positions :-

India's overall rule of law score decreased 1.9% in this year's Index. At 79th place out of 139 countries and jurisdictions worldwide, India fell three positions in global rank. India's score places it at 3 out of 6 countries in the South Asia region and 9 out of 35 among lower-middle income countries. Regionally, South Asia's top performer in the Index is Nepal (70th out of 139 countries globally).



Turkey joins Pakistan in FATF Grey list :-

The Financial Action Task Force (FATF) has retained kept Pakistan on its grey list and added its ally Turkey to the list, in a double blow for Islamabad which depended on Ankara's support to avoid entry into the blacklist earlier. Jordan and Mali were also added to the grey list.

12: Schemes & Committees



Prime Minister Narendra Modi chaired the 38th PRAGATI meeting :-

On September 29 Prime Minister Narendra Modi chaired the 38th PRAGATI meeting, the ICT based multi-modal platform for Pro-Active Governance and Timely Implementation, involving Centre and State governments. In the meeting, eight projects were reviewed. Four of these projects were from the Ministry of Railways, two from the Ministry of Power and one each from Ministry of Road Transport & Highways and Ministry of Civil Aviation. Having a cumulative cost of around Rs 50,000 crore, the projects pertain to seven states viz. Odisha, Andhra Pradesh, Bihar, Jharkhand, Madhya Pradesh, Maharashtra and Haryana.



'Sabki Yojna Sabka Vikas' campaign :-

Union Minister for Panchayati Raj and Rural Development Giriraj Singh launched People's Plan Campaign 2021- Sabki Yojana Sabka Vikas and Vibrant Gram Sabha Dashboard 30 September. He also released a booklet on People Plan Campaign-2021 for preparation of plans for FY 2022-23 and the 10th issue of Gramoday Sankalp Magazine. Addressing the launching event, Giriraj Singh said that Panchayats are the centre points of grassroots democracy.



Minister Bhupender Yadav launched 'DigiSaksham' programme :-

Union Labour and Employment Minister Bhupender Yadav on September 30 launched DigiSaksham, a digital skills programme to enhance the employability of youth by imparting digital skills that are required in an increasingly technology driven era. This joint initiative with Microsoft india is an extension of the government's ongoing programmes to support the youth from rural and semi-urban areas, a labour ministry statement said. Through DigiSaksham initiative, free of cost training in digital skills including basic skills as well as advance computing will be provided to more than 3 lakh youths in the first year.



Swachh Bharat Mission-Urban 2.0 (SBM-U) 2.0 and Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0 :-

Prime Minister Narendra on Friday October 01 launched Swachh Bharat Mission-Urban 2.0 (SBM-U) 2.0 and Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0 at Dr Ambedkar International Centre in New Delhi. Swachh Bharat Mission-Urban 2.0 and Atal

Mission for Rejuvenation and Urban Transformation 2.0 have been designed to realise the aspiration to make all our cities 'Garbage Free' and 'Water Secure'. Union Housing and Urban Affairs Minister was also present at the event. The aim of Swachh Bharat Mission 2.0 is to make the cities garbage-free.



Chacha Chaudhary declared mascot for Namami Gange Programme :-

THE CENTRE will use Chacha Chaudhary, the popular comic book character, for sensitising children and youths about the cleaning of Ganga and other rivers, a top official of the National Mission for Clean Ganga (NMCG) said on 01 October. The National Mission for Clean Ganga (NMCG), which has been focusing on the youth as part of its outreach and public communications efforts as they are the impellers of change, has tied-up with Diamond Toons to develop and distribute comics, e-comics and animated videos. The content will be designed with the objective of bringing about behavioural change among children towards the Ganga and other rivers, according to an official statement.



Environment Minister started tiger rallies across 51 reserves :-

Union Environment Minister Bhupender Yadav on October 2 started tiger rallies in 18 tiger range States across 51 reserves in the country as part of 'Azadi ka Amrit Mahotsav' and Wildlife Week celebrations. The rallies will cover a distance of over 7,500 km in seven days (October 2 to October 8) traversing the diverse and picturesque landscapes spanning across India.



Jal Jeevan Mission mobile application :-

Prime Minister Narendra Modi on 02 October launched the Jal Jeevan Mission mobile application- which aims to improve awareness among stakeholders and for greater transparency and accountability of schemes under the initiative. The Prime Minister said that the Jal Jeevan Mission has been empowering women of the country by saving their time and efforts which was earlier consumed in covering long distances to fetch drinking water.



Union Minister Amit Shah flags off 'Sudarshan Bharat Parikrama' :-

Union Home Minister Amit Shah on 02 October flagged off the all-India car rally 'Sudarshan Bharat Parikrama'

of National Security Guard (NSG) from the Red Fort in Delhi as part of 'Azadi Ka Amrit Mahotsav' to mark the 75th year of India's Independence. He also welcomed cycle rallies of Central Armed Police Forces (CAPFs), which started from different parts of the country, such as Dandi, the North East and Leh to Kanyakumari, and concluded at Rajghat here in the national capital. With Shah flagging off the NSG car rally, the country's elite force started a 29-day long journey that will cover 7,500 km at historical places associated with the freedom movement and freedom fighters on the occasion of 'Azadi Ka Amrit Mahotsav'.



SVAMITVA Yojna :-

The SVAMITVA Yojna, a scheme towards establishment of clear ownership of property, has enhanced strength of the rural economy and it will write a new chapter of development of villages in the country, Prime Minister Narendra Modi said on October 06. Launched in April 2020, the SVAMITVA scheme aims at establishment of clear ownership of property in rural areas by mapping of land parcels using drone technology.



Cabinet approves Rs 4,445-cr PM MITRA Yojana to set

up 7 mega textile parks :-

The Union Cabinet on 06 October approved the setting up of 7 Mega Integrated Textile Region and Apparel parks with a total outlay of Rs 4,445 crore for five years to position India strongly on the global textiles map.



Centre organises Buddhist Circuit Train FAM Tour and Conference to promote religious tourism :-

The Ministry of Tourism has aggressively started tourism promotion after the dramatic improvement of COVID-19 situation in the country. In an attempt to boost Buddhist tourism, Union Minister of State for Tourism Ajay Bhatt flagged off the "Buddhist Circuit Train FAM Tour" from Safdarjung railway station on October 04 and appealed to people to explore Indian destinations first before visiting global tourist spots.



ICMR releases MUDRA Toolbox in 5 Indian languages :-

"The validated MUDRA Toolbox is available now in various Indian languages Hindi, Bengali, Telugu, Kannada and Malayalam. This was one of the crucial needs for undertaking uniform, standardized dementia research in the country," Dr Balram Bhargava, Director General of ICMR said in an official statement.



Guidelines for PM-CARES for Children scheme :-

The union government has issued guidelines for PM-Cares for children scheme, which will provide comprehensive support for children who have lost their parents due to Covid-19 pandemic. The scheme will provide monthly stipend from age of 18 years and Rs 10 lakh on attaining 23 years of age.



Shipping Minister Sonowal launches 'MyPortApp' for digital monitoring of port operations :-

Union Minister for Ports, Shipping and Waterways Sarbananda Sonowal launched a port mobile application dubbed 'MyPortApp' in Kolkata on 08 October. The App's purpose is to promote transparency and simple access to port-related information. According to a statement by the Ministry of Ports, Shipping, and Waterways, the app is aimed at port users who want to make use of various port services. It incorporates all port facts digitally and virtually monitors operations.



CM Arvind Kejriwal launched 'Desh Ke Mentor'

Programme :-

Chief Minister Arvind Kejriwal on Monday, 11 October launched a programme under which students of classes 9 to 12 of Delhi government schools will be guided by dedicated mentors in exploring diverse career and life options. The 'Desk ke mentor' programme, which has Bollywood actor Sonu Sood as its brand ambassador, entails "adopting" up to 10 government school students to be mentored by citizens who are successful in their respective fields.



Affiliation of 100 Schools in Government and private sector with Sainik School Society :-

Prime Minister Narendra Modi on Tuesday, 12 October approved the proposal of affiliating Sainik Schools under Sainik Schools Society, the Ministry of Defence (MoD). These schools will function as an exclusive vertical which will be distinct and different from existing Sainik Schools of MoD. In the first phase, 100 affiliate partners are proposed to be drawn from states/NGOs/ private partners.



Gati Shakti: PM Modi launches 100-lakh crore national master plan :-

In a landmark event marking a milestone for the infrastructural landscape of India, Prime Minister

Narendra Modi on 13 October launched the 'PM GatiShakti - National Master Plan' for multi-modal connectivity to economic zones in the country. The plan is an important part of Prime Minister Modi's 'Aatmanirbhar Bharat' (self-dependent India) vision.



Govt. of India accorded 'Maharatna' status to the state-owned Power Finance Corporation Ltd (PFC) :-

The Centre on Tuesday, 12 October accorded 'Maharatna' status to the state-owned Power Finance Corporation Ltd (PFC), giving it greater operational and financial autonomy. Incorporated in 1986, PFC is the largest Infrastructure Finance Company, exclusively dedicated to Power Sector under the administrative control of the Ministry of Power.



India's First Atal Community Innovation Center Launched In Jaipur :-

India's 1st Atal Community Innovation Center (ACIC) was inaugurated on Saturday, 09 October at Vivekananda Global University, Jaipur (VGU). Shri Onkar Bagaria, CEO - VGU, greeted all the guests and, in his address, said that it will be the first center in the country to be set up by the Government of India, Atal Innovation Mission (AIM) and NITI Aayog. It is a matter of great pride for VGU.



Union Minister Anurag Thakur Launches MyParkings App :-

Union Minister for Information and Broadcasting Anurag Thakur on 14 October launched the 'MyParkings' app, a first-of-its-kind initiative where people can book parking slots online in areas under the jurisdiction of the South Delhi Municipal Corporation (SDMC). With an aim to tackle the issue of congestion the of vehicle parking, the app will tell about the total capacity of vehicles to be parked, used spaces and space available for parking in each parking site.



Vishwakarma Vatikas at Hunar Haats (talent fairs) in poll-bound Uttar Pradesh :-

The Central government will set up Vishwakarma Vatikas at Hunar Haats (talent fairs) in poll-bound Uttar Pradesh to showcase traditional skills and craftsmanship, officials said. Minority Affairs Minister Mukhtar Abbas Naqvi and Union Ministers Dharmendra Pradhan and Arjun Ram Meghwal will inaugurate the first such Vishwakarma Vatika and Hunar Haat in Rampur district – which has a population of over 50 percent Muslims – on October 16.



PM Narendra Modi Dedicates 7 New Defence PSUs To The Nation :-

Prime Minister Narendra Modi on Friday dedicated the seven defence public sector undertakings (PSUs), created through the restructuring of the Ordnance Factory Board (OFB), to the nation, at a function organized by the ministry of defence. He said the firms will help develop India into a military industrial power, which is self-reliant in developing and manufacturing strategic weapons and platforms.



Punjab CM Charanjit Channi launched 'Mera Ghar Mere Naam' scheme :-

Punjab CM Charanjit Channi launches 'Mera Ghar Mere Naam' scheme, Punjab chief minister Charanjit Singh Channi said the 'Mera Ghar Mere Naam' scheme providing proprietary rights to people living in the houses within the 'lal lakir' of villages and towns will give much-needed succour to the needy and the underprivileged.



Centre extends Pradhan Mantri Garib Kalyan Package

insurance scheme for 180 days :-

The central government extended the Pradhan Mantri Garib Kalyan Package (PMGKP), the insurance scheme for healthcare workers fighting covid-19 for another six months. The scheme was launched on 30 March 2020 to provide comprehensive personal accident cover of Rs. 50 Lakh to 22.12 lakh health care providers including community health workers and private health workers.



Madhya Pradesh govt announces implementation of Mukhyamantri Ration Aapke Dwar Yojana :-

Madhya Pradesh authorities has introduced the implementation of Mukhyamantri Ration Aapke Dwar Yojana in the state from next month. Under the scheme, ration will now be transported by autos in these villages the place there are not any honest worth retailers. The goal of Mukhyamantri Ration Aapke Dwar Yojana is to offer ration materials to Divyanga and senior residents close to their houses



Chhattisgarh Launched "Shri Dhanwantri Generic Medical Store" Scheme :-

Chief minister Bhupesh Baghel virtually launched the Shri Dhanwantri Generic Medical Store Scheme from his official residence here. Under this scheme, the chief minister inaugurated 84 Dhanwantri Generic Medical Stores in the state where medicines will be made available at low and affordable rates to consumers.



Online building permission system in all cities by March next year :-

The online building permission system will be implemented across all cities by March next year from about 2,500 cities currently to facilitate ease of doing business in the real estate sector, Housing and Urban Affairs Secretary Durga Shanker Mishra said on 21 October.



Prime Minister Narendra Modi has launched the "Ayushman Bharat Health Infrastructure Mission" :-

Prime Minister Narendra Modi launched the Ayushman Bharat Health Infrastructure Mission, one of the largest

pan-India schemes for strengthening healthcare infrastructure, in his parliamentary constituency Varanasi in Uttar Pradesh on 25 October. The Pradhan Mantri Ayushman Bharat Health Infrastructure Mission is one of the largest pan-India schemes for strengthening healthcare infrastructure across the country. It is in addition to the National Health Mission.



National Steering Committee Formed To Implement NIPUN Bharat Mission :-

A National Steering Committee (NSC) has been formed for the implementation of NIPUN Bharat Mission October 25. The Department of School Education and Literacy had launched the National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN) Bharat Mission in July this year with the aim to achieve the goal of universal proficiency in foundational literacy and numeracy for every child by end of Class 3 by 2026-27.

13: Science & Technology



India's First Gender-Neutral HPV Vaccine Launched :-

MSD Pharmaceuticals India on 29 September launched India's first gender-neutral Human Papillomavirus or HPV Vaccine, which is expected to help reduce HPV-related disease burden among both girls and boys. The vaccine, named GARDASIL 9, is a 9-valent Human Papillomavirus (HPV) Vaccine.



BPCL Launched Automated Fuelling Technology UFill :-

The Bharat Petroleum Corporation Limited (BPCL) has launched an automated fuelling technology -UFill- to ensure that its customers have a better experience at outlets. The technology obviates the need for looking at zero or final reading and such offline manual interventions, the company said in a statement. UFill functionality, which has been described as swift, secure and smart, has been launched in 65 cities and will soon be launched across the country.



Telangana develops India's first smartphone-based eVoting solution :-

Telangana on Wednesday said it has developed the country's first smartphone-based eVoting solution considering the Covid-19 pandemic that has rushed the world into all-digital operations. The solution has been successfully developed and tested and its dry run in the form of a dummy election is being conducted in Khammam district with the registration on the application open from October 8-18 and the dummy voting on October 20, an official release said.



Nasa launches Lucy mission to study 'solar system's evolution' :-

Nasa's Lucy, the agency's first mission that will fly by a total of eight ancient asteroids to study about "solar system's evolution", was launched. Lucy is Nasa's "first single spacecraft mission in history to explore so many different asteroids". Lucy, which embarked on a 12-year-long mission to fly by one main-belt asteroid and seven Jupiter Trojan asteroids, was launched on a United Launch Alliance (ULA) Atlas V rocket.



NITI Aayog launches Geospatial Energy Map of India :-

NITI Aayog has launched a Geographic Information System (GIS)-based Energy Map of India. "NITI Aayog in collaboration with Indian Space Research Organisation (ISRO) has developed a comprehensive Geographic Information System (GIS) Energy Map of India with the support of Energy Ministries of Government of India," a statement issued by the Aayog said.



Microsoft Launches Program To Support AI Startups In

India :-

With the third-largest ecosystem for startups in the world, India held opportunities for emerging businesses to accelerate innovation across industries, said Microsoft on 20 October. To support the startup ecosystem in the country, the company has launched a programme, Microsoft AI Innovate, for nurturing and scaling startups that are leveraging Artificial Intelligence (AI). Microsoft AI Innovate was aimed at bringing together startups, corporates, industry bodies, governments, and venture capital firms, to create a shared platform for learning and innovation.



India's First Banni Buffalo IVF Calf Born :-

The first IVF calf of "Banni" breed of buffaloes, found primarily in Gujarat's Kutch region, was born at a farmer's house in the state's Gir Somnath district, an

official said on 23 October. The process was carried out to enhance the number of genetically superior buffaloes to increase milk production, the official said. Banni buffalo is known for its resilience and higher milk producing capacity in an arid environment.



India's First Radio Over Internet Protocol (ROIP) System Inaugurated :-

In view of a much needed solution for providing effective long-range marine communications, the Radio over Internet Protocol (ROIP) System at Syama Prasad Mookerjee Port, Kolkata was inaugurated on 25 October, an official statement said. According to the statement released on 26 October, the ROIP system is being introduced as a marine communication mode, for the first time in any major Indian port.

14: Sports



Olympic medalist Rupinder Pal Singh announced retirement from hockey :-

Rupinder Pal Singh, the star hockey player who was part of the India team that won the bronze medal at the

2020 Tokyo Olympics, announced on September 30 said that he will retire from the sport. The 30-year-old hockey player, who has been representing India for the past 13 years and has played 223 matches, took to social media early on Thursday 30 September to break the news. Singh had scored three important goals for the India hockey team in the bronze-medal winning match at Tokyo Olympics, including a penalty stroke against Germany.



Manny Pacquiao announced retirement from professional boxing :-

Former world champion Manny Pacquiao announced his retirement on 30 September from professional boxing after 26 years and 72 professional matches. Pacquiao made his professional debut in 1995 at age 16 and became the first boxer to win the lineal championship in five different weight classes. He is also the only boxer to hold world championships across four different decades. Pacquiao held the welterweight title as recently as 2019 at age 40, making him the oldest boxer to ever do so. He last fought in Las Vegas on Aug. 21, which was his first match in over two years.



Indian men's team won bronze in Asian table tennis championships:-

The Indian men's table tennis team signed off with a bronze medal in the Asian Championships after losing to formidable South Korea 0-3 in the semifinals on 01 October. The Indian team was on Wednesday, 29 September assured of a medal after beating Iran 3-1 in the quarterfinals. Both the semifinalists secure a bronze. In the semifinals, the clinical South Koreans proved too tough for the Indians who failed to win a single tie. With a medal already in their pocket, the

Indian paddlers took on the Koreans head-on. But the rampaging Koreans, also the top seeds, were a far better side.



Veteran striker SV Sunil announced retirement from international hockey :-

Veteran India men's hockey team striker SV Sunil on 01 October announced his international retirement, bringing the curtains down on a 14-year-long career during which he was a part of the 2014 Asian Games gold-winning side. Sunil's decision to take retirement came a day after drag-flicker Rupinder Pal Singh and defender Birendra Lakra, who played starring roles in the Indian hockey team's historic bronze medal-winning Tokyo Olympics campaign, announced their international retirements on 01 October.



India won silver in World Women's Team Chess Championship Held in Spain:-

India clinched a silver medal after going down 0-2 to Russia in the final of the FIDE on 02 October. After losing the first match 1.5.-2-5 despite a brilliant win for D Harika on the board, the Indians were outclassed 3-1 in the second as a strong Russian team stormed to a title triumph. It was India's first ever medal in the world team championship.



Smriti Mandhana became the first Indian woman to score a century in a pink-ball Test :-

Indian women's cricket team opener Smriti Mandhana became the first Indian woman to score a century in a pink-ball Test on 01 October when she played a 127-run knock against Australia in the one-off Pink Ball Test. This is also the first century by an Indian woman on Australian soil.



Hockey: India sweeps FIH annual awards :-

India swept the International Hockey Federation's (FIH) annual awards on October 06, claiming the top honours in all the categories based on a system of voting. Five Indian players and the head coaches of both the men's and women's teams in Tokyo claimed the top honours across different categories after fetching the maximum votes.



Anshu Malik: 1st Indian woman wrestler to Win World

Championships Silver :-

Wrestler Anshu Malik became the first Indian woman to win silver in World Championships as she went down fighting against Helen Maroulis in women's 57kg final in Oslo on October 07.



Hockey India Withdraws From 2022 Commonwealth Games :-

India on Tuesday, October 05 pulled out of next year's Birmingham Commonwealth Games' hockey competition, citing COVID-19 concerns and UK's discriminatory quarantine rules for travellers from the country. The UK recently refused to recognise India's COVID-19 vaccination certificates and imposed a 10-day hard quarantine on travellers from the country even if they were fully vaccinated.



Valtteri Bottas Wins Turkish Grand Prix :-

Valtteri Bottas ended his year-long drought with a dominant victory in Turkey on Sunday, October 10 while unhappy Mercedes team mate Lewis Hamilton finished fifth and lost the Formula One championship lead to Red Bull's Max Verstappen.



Youth Affairs and Sports Minister Anurag Thakur launches Delhi Hockey Weekend League 2021-22 :-

Union Minister of Youth Affairs & Sports Shri Anurag Singh Thakur launched the 'Delhi Hockey Weekend League 2021-22' which was took place at the iconic Major Dhyanchand National Stadium on October 10. The Hockey League, which is being organised by the Sports Authority of India (SAI) in association with the Delhi Hockey Federation, will have a total of 36 teams competing for the trophy and more teams can also participate in later stages.



FIFA unveils 'Ibha' - official mascot of U-17 2022 Women's World Cup :-

FIFA on Monday, 11 October unveiled the official mascot of the U-17 Women's World Cup India 2022 -- Ibha -- an Asiatic lioness representing women power. According to a release issued by the global body, Ibha aims to inspire women and girls across India and around the world to realise their potential. The tournament will be held in India from October 11-30 next year.



Indian Shooters Win 43 Medals At ISSF Junior World

Championship :-

India won a whopping 43 medals, including 17 gold, to nish on top of the pecking order in the justconcluded ISSF Junior World Championship in Lima. The country's shooters won all the available 12 medals on the nal competition day of the top junior tournament at the Las Palmas Shooting range in the Peruvian capital of Lima.



Fire-Boltt announced Virat Kohli as its brand ambassador :-

Fire-Boltt on Tuesday, 12 October announced the appointment of Virat Kohli as its new brand ambassador. Kohli will participate in different marketing, ad, and endorsement campaigns of the homegrown brand.



Ireland's Amy Hunter becomes world's youngest batter to score an ODI century:-

Ireland's Amy Hunter on Monday, 11 October became the youngest player to score an ODI century, striking an unbeaten 121 to take her side to a win against Zimbabwe on her 16th birthday here, bettering the record previously held by India's Mithali Raj.



SAFF Championship: India Beat Nepal 3-0 To Win 8th Title :-

India crushed Nepal 3-0 to win its eighth SAFF Championship title after second-half goals from Sunil Chhetri, Suresh Singh and Sahal Abdul Samad in the final. Chhetri scored in the 49th minute of the match, which put him level with Lionel Messi on 80 international goals.



Fencer Bhavani Devi wins French title :-

Fencer Bhavani Devi, who made history at the Tokyo Olympics by becoming the first Indian to compete in the sport at the Games, has won the Charlellville National Competition in France in the individual women's sabre event. Bhavani is currently ranked 50th in the world and is the top-ranked fencer from India.



India's R. Praggnanandhaa (15) wins Julius Baer Challengers Chess Tour :-

16-year-old Indian prodigy Praggnanandhaa was in supreme form as he defeated Christopher Yoo 3:0 to win the Julius Baer Challengers Chess Tour, taking the top prize of \$12,500 and earning a regular spot on the 2022 Meltwater Champions Chess Tour. 14-year-old Christopher Yoo took the \$7,500 second prize.



Thomas Cup 2021: Indonesia beat China in final :-

Indonesia lifted the Thomas Cup trophy for the first time since 2002 after sweeping past defending champions China 3-0 in the final. Indonesia are the most successful nation in the history of the team championship of men's badminton with 14 titles, but had endured a nineteen year winless drought before this victory. China settled for silver while Japan and hosts Denmark shared the bronze.



Uber Cup 2021: China clinch title by beating Japan :-

China beat defending champions in the Uber Cup final with a 3-1 victory. This is the 15th time China have won the competition. The match pivoted on the longest match in the Uber Cup history when Chen Qing Chan/Jia Yi Fan won their doubles match. In the second doubles match China sealed the victory, having to save four game points to take the trophy, with the third singles match not needing to be contested.



Harbhajan Singh and Javagal Srinath awarded life membership of the Marylebone Cricket Club :-

India's Harbhajan Singh and Javagal Srinath have been awarded life membership of the Marylebone Cricket Club (MCC), joining 16 other cricketers who were given the honour this year. The MCC, based at Lord's, is the custodian of cricket laws.



Viktor Axelsen And Akane Yamaguchi Won Denmark Open 2021 :-

Danish Olympic champion Viktor Axelsen won the Mens' single 2021 Denmark Open Badminton held at the Odense Sports Park, Denmark. He defeated world number 1 Momota Kento of Japan. Akane Yamaguchi of Japan won her second title in women's category defeating An Se-young (South Korea).



Fabio Quartararo Wins The 2021 MotoGP World Championship :-

Round 16 of the 2021 MotoGP season came to an end at Misano, Italy, and it happened to be the deciding track for the 2021 MotoGP World Championship as well. Fabio Quartararo sealed the 2021 rider's championship with 267 points after finishing P4. He started from P15 on the grid after failing to get into Q2 for the first time in his MotoGP career.

15: State



Rajasthan Government bans sale, bursting of crackers :-

The Rajasthan government has banned the sale and bursting of firecrackers in the state from October 1 to January 31. The Ashok Gehlot-led government issued an advisory regarding the same. The home department has asked licensing authorities not to issue licences for the sale of firecrackers from October to January, in view of the possible third wave of Covid-19 and to protect the health of the people, an official statement said.



Tamil Nadu & Arunachal Pradesh integrated under One Nation One Ration Card :-

Two more States, Tamil Nadu and Arunachal Pradesh have been integrated on 01 October with existing national portability cluster of 26 States/UTs under One Nation One Ration Card. The Department of Food & Public Distribution under Ministry of Consumer Affairs, Food & Public Distribution is implementing nation-wide portability of the benefits under NFSA through "One Nation One Ration Card" plan, which aims to provide an option to all NFSA beneficiaries.



Assam: Chief Minister Sarbananda Sonowal launched a portal 'Kritagyata' :-

To lend convenience to the pensioners to dispose their pension related claims, Chief Minister Sarbananda Sonowal launched a portal 'Kritagyata' an online pension submission and tracking system at a function held at Assam Administrative Staff College here on 30 September. With the help of the portal, the retired government employee, besides submitting pension related papers online will get opportunity to check the status of their pension.



West Bengal launched "Pathashree Abhijan" scheme :-

West Bengal government has launched the "Pathashree Abhijan" scheme. It is a road repair scheme, where more than 7,000 stretches of roads comprising 12,000 kilometers across the state will be repaired in a mission mode and in a time-bound manner.



Ladakh: World's Largest khadi national flag unveiled in Ladakh :-

A 1,000 kg handwoven khadi tricolour, the largest in the country, was unfurled atop a high mountain overlooking the Leh valley on 02 October to commemorate Gandhi Jayanti and the 75th anniversary of India's Independence, a defence spokesman said. The grand ceremony was held to celebrate the 152nd birth anniversary of Mahatma Gandhi along with 'Azadi ka Amrit Mahotsav', commemorating the 75th anniversary of India's Independence, the defence spokesman said.



Mamata Banerjee wins Bhabanipur bypoll :-

Trinamool supremo Mamata Banerjee won the Bhabanipur assembly seat with a record margin of 58,835 votes, surpassing all her past records. In 2011, Banerjee got a margin of 54,213 votes over CPM's Nandini Mukherjee, which she broke this time. Trinamool Congress' vote share in the Bhabanipur bypoll was 71.9% with 85,263 votes, followed by that of the BJP candidate Priyanka Tibrewal who received 22.29%. She got 26,428 votes. CPM candidate Shrijeeb Biswas received 4,201 votes with a 3.56% vote share. For Banerjee, Bhabanipur is as important as Nandigram, which brought her to power in 2011. But she lost the election from Nandigram this year.



Gujarat: Union Minister Kiren Rijju Inaugurates India's First Sports Arbitration Centre :-

Union Law Minister Kiren Rijju on 26 September inaugurated the country's first "Sports Arbitration Centre of India" in Gujarat which will serve as an independent body to fast track disputes in the sports sector. Rijju said this centre will have "a far-reaching impact" and play an important role in expanding the country's sports sector.



First consignment of GI tagged sweet dish Mihidana from West Bengal exported to Bahrain :-

In an effort to promote indigenous and Geographical Identification (GI) tagged products, the first consignment of GI tagged sweet dish Mihidana, which was sourced from West Bengal's Bardhaman, has been exported to the Kingdom of Bahrain, the Ministry of Commerce said on Tuesday (5 October).



Vice President Venkaiah Naidu inaugurates Heritage Centre in Guwahati :-

Vice President Venkaiah Naidu, on 03 October, inaugurated the Mahabahu Brahmaputra River Heritage Centre at Panbazar in Guwahati, Assam. The heritage-cum-cultural centre has been set up at the site of the old DC Bungalow in Guwahati. The new heritage centre in Guwahati is now home to antique articles showcasing Assam's "rich heritage".



India's newest Tiger Reserve in Chhattisgarh :-

On Tuesday (October 5), the National Tiger Conservation Authority (NTCA) approved the Chhattisgarh government's proposal to declare the combined areas of the Guru Ghasidas National Park and Tamor Pingla Wildlife Sanctuary as a Tiger Reserve. The new Reserve is located in the northern part of the state, bordering Madhya Pradesh and Jharkhand. This will be the fourth Tiger Reserve in Chhattisgarh.



Delhi: 10-point action plan against air pollution :-

Announcing the winter action plan for pollution, Kejriwal said that Delhi's biggest problem in the coming weeks will be pollution from paddy stubble burning in neighbouring states such as Punjab and Haryana. Kejriwal identified ten areas of focus for the season ahead. These include measures to mitigate dust pollution, garbage burning, paddy straw burning and control through the Pusa Bio Decomposer, ban on firecrackers, installing smog towers, monitoring pollution hotspots, controlling vehicular pollution, effective operations of the green war room and the Green Delhi app.



Bathukamma festival begins in Telangana :-

After a quiet year hampered by the pandemic, Bathukamma and Navratri festivals are set to be

celebrated with fervour this year. Special pujas and dandiya mahotsavs are lined up at temples and residential areas across the city. While Bathukamma kicked off on October 6, Navratri celebrations are set to start from Thursday with private Dandiya festivals being organised.



Varanasi to Become First City in India to Use Ropeway Services for Public Transportation :-

The Varanasi Development Authority Vice Chairman Isha Dutta on Sunday said that India will be the third country in the world after Bolivia and Mexico City, to have a ropeway for public transport. The city of Varanasi will soon become the first Indian city to use ropeway services in public transportation.



'Prashasan Gaon Ke Sang' Campaign Launched in Rajasthan :-

The state government would run the campaign to enable people living in remotest areas to get access to 22 local government offices for services such as land deed allotment, land deed transfers, and the issuance of various certificates. With 'Prashasan Gaon Ke Sang' initiative, people in Rajasthan's most distant villages will be able to access services offered by 22 local government offices.



Kashmir: Piyush Goyal inaugurates 250mm Seer Water supply scheme :-

The union minister inaugurated 250mm Seer Water supply scheme. The project will benefit around 10000 people and will be completed under the ambit of Jal Jeevan Mission within three months. The minister appreciated the rapid pace of developmental works and commended the frontline workers for working towards realizing the Prime Minister's dream of tap water for all households.



Nagaland to host SAAF Cross Country on January 15 :-

Nagaland will host the South Asian Athletics Federation (SAAF) Cross Country Championship in the state capital Kohima on January 15 next year. Making the announcement during a press conference here on 23 October, Nagaland Athletic Association (NAA) President Abu Metha said the biggest international event ever hosted by the state will be held along with the 56th National Cross Country Race on January 15.



India's 1st State-Wildlife DNA Testing Analysis Lab

Inaugurated In Nagpur :-

Chief minister Uddhav Thackeray and state home minister Dilip Walse-Patil on 22 October inaugurated country's first state government-owned Wildlife DNA analysis laboratory at Regional Forensic Science Laboratory (RFSL) in city. There are two central government-owned Wildlife DNA laboratory at Dehradun and Hyderabad.



Hyderabad Cricket Association Unveiled World's Biggest Cricket Bat :-

Former India captain and now Hyderabad Cricket Association (HCA) president Mohd Azharuddin unveiled what is certified by the Guinness Book of World Records to be the biggest cricket bat, designed by Pernod Ricard India (P) Ltd, on Tank Bund 23 October. The bat measures 56.10 feet, weighs nine tonnes and is made of poplar wood.



U.P. Govt Renames Faizabad Station As Ayodhya Cantt :-

The Uttar Pradesh government has decided to rename the Faizabad railway station, a tweet by the office of Chief Minister Yogi Adityanath said on 23 October. It will be called the Ayodhya Cantt railway station, the tweet said, adding that the decision was taken by the Chief Minister. Earlier in 2018, the Adityanath government had renamed Faizabad as Ayodhya.

16: Summits & Conferences



PM Modi, Denmark’s PM Mette Frederiksen hold bilateral talks :-

India and Denmark signed two agreements on research in climate change, while another MoU on setting up a “green hydrogen” electrolyser plant was signed between Reliance Industries and Danish company Stiesdal Fuel Technologies as Prime Minister Narendra Modi met with Prime Minister of Denmark Mette Frederiksen on Saturday, 09 October.

Nepali Congress delegation arrived in India :-

A high-level delegation representing the ruling Nepali Congress arrived in New Delhi on 07 October. The delegation led by former Foreign Minister of Nepal Prakash Sharan Mahat is expected to interact with the leading figures of the Bharatiya Janata Party (BJP) and is being viewed as an outreach from Prime Minister Sher Bahadur Deuba towards the Indian government.



3rd India – UK Energy for Growth Partnership Ministerial Energy Dialogue :-

India and the United Kingdom have set in motion concrete action plans for driving clean energy transition in power sector. The 3rd India-U.K. Energy for Growth Partnership Ministerial Energy Dialogue was co-chaired by Union Minister for Power and New and Renewable Energy R.K. Singh from the Indian side and the Rt Hon Kwasi Kwarteng MP, Secretary of State for Business, Energy and Industrial Strategy (BEIS) from the U.K. side.

4th G20 Finance Ministers and Central Bank Governors Washington Meeting on 13 October 2021 :-

On 13 October 2021, G20 Finance Ministers and Central Bank Governors (FMCBG) met for their fourth official meeting under the Italian G20 Presidency. This meeting was held on the occasion of the International Monetary Fund (IMF) – World Bank Group (WBG) Annual Meetings.



PM Modi participates in G20 Extraordinary Summit on Afghanistan :-

Prime Minister Narendra Modi on Tuesday, 12 October said that “every Indian feels the pain of Afghan people” and called on the international community to forge a unified response to bring about desired changes to the situation in Afghanistan. He also stated that Afghanistan’s territory must not become a source of radicalisation and terrorism, regionally or globally.



8th ministerial meeting of India-U.S.A. Economic & Financial Partnership Dialogue :-

Finance Minister Nirmala Sitharaman and her American counterpart, Treasury Secretary Janet Yellen, met on Thursday, October 14, 2021 for the eight Ministerial meeting of the U.S.-India Economic and Financial partnership. Also in attendance, were Federal Reserve Chair Jerome Powell and RBI Governor Shaktikanta Das (attended virtually). The Ministerial held a session dedicated to climate finance for the first time, as per a joint statement.



India gets re-elected to UN Human Rights Council for 2022-24 term :-

India was re-elected to the United Nations Human Rights Council (UNHRC) for the 2022-24 term on 14 October and vowed to continue to work for the promotion and protection of human rights through “Samman, Samvad and Sahyog”.



4th General Assembly Of International Solar Alliance :-

US Special Presidential Envoy for Climate (SPEC) John Kerry will address the fourth general assembly of International Solar Alliance (ISA) on 20 October. India has urged the US to join the International Solar Alliance (ISA), co-founded by India and France. ISA has become a significant public policy tool for India and is considered a counter to China’s ambitious ‘One Belt One Road’ initiative.



External Affairs Minister S. Jaishankar meets WTO Director General Okonjo-Iweala in New Delhi :-

External Affairs Minister S Jaishankar met World Trade Organization Director General Ngozi Okonjo-Iweala here and spoke about the need for reformed multilateralism. The Global South has critical interests in agriculture, vaccines, climate action and fishing, he said. In another meeting, Jaishankar exchanged views on issues such as climate action challenges, Indo-Pacific and Afghanistan with Frans Timmermans, executive vice-president of the European Commission in-charge of the European Green Deal.



Finance Minister Smt. Nirmala Sitharaman participates in 6th Annual Meeting of Board of Governors of Asian Infrastructure Investment Bank :-

Union Minister of Finance & Corporate Affairs Smt. Nirmala Sitharaman participated in the 6th Annual Meeting of the Board of Governors of Asian Infrastructure Investment Bank (AIIB) via video conference from New Delhi. Every year at the Annual Meeting, the Board of Governors meets to take key decisions on important matters relating to AIIB, and its future vision. India is a Founding Member and the second largest shareholder in AIIB. This year's Annual Meeting has been jointly organized by AIIB and the Government of United Arab Emirates on the theme of "Investing Today and Transforming Tomorrow".

SECTION 2

Practice Questions with Answers



PRACTICE QUESTIONS

1. Which state has received the GI tag for Judima, a home-made rice wine?

- A) Kerala
- B) Odisha
- C) Assam
- D) Nagaland

2. Sojat Mehndi of which state has received the GI tag?

- A) Punjab
- B) Rajasthan
- C) Uttarakhand
- D) Maharashtra

3. Ryder Cup is a tournament related to which sport?

- A) Badminton
- B) Golf
- C) Tennis
- D) Hockey

4. On September 21 who was appointed as the head of the newly set-up 'Task Force' to enhance sustainable finance architecture of India?

- A) Ajay Seth
- B) Tarun Bajaj
- C) Ajay Bhushan Pandey.
- D) Urjit Patel

5. The Central government has recently started work for the development of 'Parshuram Kund'. In which state Parshuram Kund is situated?

- A) Arunachal Pradesh
- B) Tripura

C) Assam

D) Nagaland

6. NIDHI 2.0 scheme launched by which Ministry ?

- A) Ministry of Tourism
- B) Ministry of Youth Affairs and Sports
- C) Ministry of Power
- D) Ministry of Environment, Forest and Climate Change

7. NPCI has partnered with _____ bank to launch 'RuPay On-the-Go' contactless payments solutions.

- A) Kotak Mahindra Bank
- B) HDFC Bank
- C) Yes Bank
- D) Axis Bank

8. International Translation Day is observed on which date in September?

- A) 30 September
- B) 29 September
- C) 28 September
- D) 27 September

9. India's first Pan-India helpline for senior citizens named 'Elder Line' was launched by which ministry?

- A) Ministry of Social Justice & Empowerment
- B) Ministry of Minority Affairs
- C) Ministry of Electronics and Information Technology
- D) Ministry of Food Processing Industries

10. What is the new limit that government had enhanced the income limit of disabled dependents to be eligible for family pension for life from Ministry of

Defence from September?

- A) less than 30% of the last pay drawn
- B) less than 40% of the last pay drawn
- C) less than 20% of the last pay drawn
- D) less than 10% of the last pay drawn

11. When is the International Day of Older Persons observed annually?

- A) October 04
- B) October 03
- C) October 02
- D) October 01

12. Who is the newly appointed MD & CEO of National Securities Depositories (NSDL)?

- A) Rajani Gupta
- B) G. Sivakumar
- C) Padmaja Chunduru
- D) Priya Singh

13. Who has topped the IIFL Wealth Hurun India Rich List 2021?

- A) Mukesh Ambani
- B) SP Hinduja
- C) Shiv Nadar
- D) Gautam Adani

14. Who is the chairperson of the expert committee formed by IFSCA on Sustainable Finance Hub at IFSC?

- A) Amit Garg
- B) V Balasubramaniam
- C) C.K. Mishra
- D) Sujoy Bose

15. The World Vegetarian Day is marked every year on which day?

- A) First Friday of September
- B) September 30
- C) October 01
- D) September 29

16. When is National Wildlife Week observed?

- A) 2nd Oct – 8 Oct
- B) 4th Oct – 10th Oct
- C) 1st Oct – 7th Oct
- D) 3rd Oct – 9th Oct

17. What is the theme of the 2021 National Wildlife Week?

- A) Water is Life: For People And Planet
- B) Forests and Livelihoods: Sustaining People and Planet
- C) Save Water
- D) None

18. S V Sunil announced retirement from which sports event?

- A) Golf
- B) Hockey
- C) Cricket
- D) Tennis

19. Who is appointed as the brand ambassador for its One District One Product (ODOP) scheme by the UP govt?

- A) Akashy Kumar
- B) C K Ranganathan
- C) Kangana Ranaut

D) Sonu Sood

20. The Zojila tunnel will connect between_____.

- A) Ladakh & Leh
- B) Jammu & Srinagar
- C) Ladakh & Jammu
- D) Srinagar & Leh

21. Which company has acquired 100% stake in digital lending startup CreditMate?

- A) Paytm
- B) Facebook
- C) ICICI Bank
- D) State Bank of India

22. When is World Animal Day observed?

- A) October 01
- B) October 02
- C) October 03
- D) October 04

23. The World Habitat Day is marked annually on _____ of October.

- A) 1st Saturday
- B) 1st Sunday
- C) 1st Monday
- D) 1st Tuesday

24. When is World Space Week observed annually?

- A) 2nd Oct – 8 Oct
- B) 1st Oct – 7th Oct
- C) 4th Oct – 10th Oct

D) 3rd Oct – 9th Oct

25. Which of the following country Najla Bouden Romdhane has been appointed as the first female Prime Minister?

- A) Algeria
- B) Turkey
- C) Tunisia
- D) Syria

26. Who is the winner of the 2021 Nobel Prize for Medicine?

- A) Ardem Patapoutian
- B) David Julius
- C) Both A & B
- D) None

27. On which day Ganga River Dolphin Day observed in India?

- A) 7th October
- B) 6th October
- C) 5th October
- D) 4th October

28. When is World Teachers' Day observed annually around the world?

- A) 7th October
- B) 6th October
- C) 5th October
- D) None

29. What is the theme of the 2021 International Teachers Day?

- A) Teachers: A build a Man
- B) Teachers: The future

- C) Teachers: Leading in crisis, reimagining the future
- D) Teachers at the heart of education recovery

30. Colonel Mamady Doumbouya took sworn in as the Interim President of which country?

- A) Guinea
- B) Iran
- C) Liberia
- D) None

31. What is the new extended deadline of the Credit Guarantee Scheme for Subordinate Debt by the Union Government?

- A) 31 January 2022
- B) 31 March 2022
- C) 30 November 2021
- D) 31 December 2021

32. Which airport retained the third spot in handling international traffic?

- A) Indira Gandhi International Airport
- B) Chhatrapati Shivaji International Airport
- C) Kempegowda International Airport
- D) Cochin International Airport

33. Which organisation launched a three-week cyber security awareness campaign in October 2021?

- A) Reserve Bank of India (RBI)
- B) Interpol
- C) International Monetary Fund (IMF)
- D) World Bank

34. Which country has partnered with India for a programme by Tax Inspectors Without Borders?

- A) The Maldives

- B) Malaysia
- C) Seychelles
- D) Singapore

35. For the highway development of Bangladesh, how much funds were approved by the Asian Development Bank (ADB)?

- A) \$400 million
- B) \$325 million
- C) \$300 million
- D) \$250 million

36. Which organization has released its report "The State of the World's Children 2021; On My Mind" in October 2021?

- A) UNICEF
- B) UNO
- C) WHO
- D) WTO

37. In October 2021 Which Ministry recently approved to continue its 'Comprehensive Handicrafts Cluster Development Scheme' till March 2026?

- A) Ministry of Textiles
- B) Ministry of Skill Development and Entrepreneurship
- C) Ministry of Commerce and Industry
- D) Ministry of Micro, Small and Medium Enterprises

38. Which IT enabled payment and accounting system was developed by Defence Accounts Department under the Ministry of Defence, launched In October 2021?

- A) SAKSHAM
- B) PRABAL
- C) e-Nirman

D) DASTAK

39. For 'Oil and Gas Projects' in Northeast India, how much Investment was approved by the Central Government?

- A) Rs 4 lakh
- B) Rs 2.5 lakh Crore
- C) Rs 2 lakh Crore
- D) Rs 1 lakh Crore

40. Who is the winner of the Meltwater Champions Chess Tour (MCCT)?

- A) Fabiano Caruana
- B) Wesley So
- C) Magnus Carlsen
- D) Sergey Karjakin

41. Who is the author of the book titled "Economist Gandhi: The Roots and the Relevance of the Political Economy of the Mahatma"?

- A) Sanjeev Bikhchandani
- B) Ashish Dhawan
- C) Deep Kalra
- D) Jaithirth Rao

42. Who won the 2021 Nobel Prize in Literature?

- A) Kazuo Ishiguro
- B) Abdulrazak Gurnah
- C) Louise Gluck
- D) Peter Handke

43. When was the World Investor Week (WIW) was observed in 2021?

- A) October 4 to 10, 2021
- B) October 5 to 11, 2021

C) October 6 to 12, 2021

D) October 7 to 13, 2021

44. As per the World Bank in the fiscal year 2021-22, What is the estimated GDP growth rate of the Indian economy?

- A) 7.2%
- B) 9.1%
- C) 7.5%
- D) 8.3%

45. How many awardees have won the DRDO Young Scientists awards for the year 2019?

- A) 21
- B) 16
- C) 11
- D) 6

46. Which year did Mother Teresa win the Nobel Peace Prize?

- A) 1999
- B) 1981
- C) 1983
- D) 1979

47. Who has topped the Forbes India Rich List 2021 for the 14th consecutive year?

- A) Mukesh Ambani
- B) Gautam Adani
- C) Cyrus Poonawalla
- D) Lakshmi Mittal

48. Who among the following Indian pharma billionaires saw a fall in their wealth in 2021?

- A) Cyrus Poonawalla

- B) Dilip Shanghvi
- C) Murali Divi
- D) Kiran Mazumdar-Shaw

49. The Reserve Bank of India has retained real GDP growth at how much for FY 2021-22?

- A) 10.5 %
- B) 11 %
- C) 9.5 %
- D) 8.7 %

50. The RBI has retained policy repo rate at how much percentage?

- A) 3.35 %
- B) 4.0 %
- C) 4.25 %
- D) 4.5 %

51. In October 2021 which was the 1st country of the BRICS group to join 'High Ambition Coalition (HAC) for Nature and People'?

- A) Russia
- B) India
- C) China
- D) Brazil

52. Which defence exercise that was held in October between India & UK to strengthen bilateral defence cooperation?

- A) Ajeya Warrior 2021
- B) Shakti 2021
- C) Surya Kiran 2021
- D) Vijay Prahar 2021

53. India's 'Ministry of Textiles' signed an MoU to boost sustainable Cotton production with which

country in October?

- A) Germany
- B) France
- C) Denmark
- D) Belgium

54. Which Festival that is annually celebrated in 'Telangana' to give attention to the relationship between earth, water and humans?

- A) Bathukamma
- B) KarthigaiDeepam
- C) Onam
- D) Thirivathirai

55. To use the core banking software named 'TCS BaNCS' for another five years, which Bank extended its partnership with 'Tata Consultancy Services'?

- A) Canara Bank
- B) HDFC Bank
- C) Punjab National Bank
- D) State Bank of India

56. Atomic scientist Dr. Abdul Qadeer Khan, who was passed away on October 2021 was from which of the following country?

- A) Sri Lanka
- B) Pakistan
- C) Iran
- D) Afghanistan

57. How much percent of stake in the Chinese-owned REC Group that Reliance Industries Limited (RIL) has acquired through its subsidiary Reliance New Energy Solar Ltd (RNE SL)?

- A) 60%

- B) 70%
- C) 80%
- D) 100%

58. When is the International Day of Girl Child observed?

- A) 09 October
- B) 12 October
- C) 11 October
- D) 08 October

59. Which of the following edition of the annual exercise The Exercise MALABAR was held on 2021?

- A) 21
- B) 25
- C) 27
- D) 23

60. What is the theme of the 2021 International Day of the Girl Child?

- A) With Her: A Skilled GirlForce
- B) My voice, our equal future
- C) GirlForce: Unscripted and Unstoppable
- D) Digital generation. Our generation

61. When is World Arthritis Day observed annually?

- A) 13 October
- B) 12 October
- C) 11 October
- D) 10 October

62. The Multidimensional Poverty Index (MPI) Report 2021 was released by which organization?

- A) World Bank

- B) UNDP
- C) UN
- D) ADB

63. Which Indian state has received a GI tag for Kanyakumari clove?

- A) Chhattisgarh
- B) Kerala
- C) Maharashtra
- D) Tamil Nadu

64. The book titled 'The Custodian of Trust – A Banker's Memoir' is written by?

- A) Harish Kumar
- B) Rajnish Kumar
- C) RamDas Kumar
- D) None

65. Who is the first Chairman of the newly set up Indian Space Association (ISpA)?

- A) Jayant Patil
- B) Rahul Vatts
- C) Rajesh Tope
- D) None

66. As per IMF's World Economic Outlook October 2021, Indian economy is expected to grow at how much percent in 2021?

- A) 10.5 percent
- B) 7.8 percent
- C) 8.7 percent
- D) 9.5 percent

67. For the global economy in 2021, what is IMF's growth projection?

- A) 5.9 percent
- B) 5.1 percent
- C) 5.0 percent
- D) 4.9 percent

68. Who is the winner of 22nd Lal Bahadur Shastri National Award for Excellence?

- A) Dr Arvind Kumar
- B) Dr Indira Reddy
- C) Dr Naresh Trehan
- D) Dr Randeep Guleria

69. Which country will be building a 20kg lunar rover for NASA?

- A) US
- B) France
- C) Australia
- D) India

70. Ibha is the official mascot of which sports tournament?

- A) T20 Men's Cricket World Cup
- B) FIFA Women's World Cup 2022
- C) FIFA U-17 Women's World Cup 2022
- D) FIFA Men's World Cup 2022

71. Who is the new Chairman of BharatPe?

- A) Sanjay Kumar
- B) Rajnish Kumar
- C) Dinesh Kumar
- D) None

72. Which organization has launched The 2021 State of the Education Report (SOER) for India: "No Teacher,

No Class"?

- A) Google India
- B) Niti Aayog
- C) UNESCO India
- D) None

73. When the International Day for Disaster Reduction is observed annually?

- A) 15th October
- B) 14th October
- C) 13th October
- D) 12th October

74. Which Indian state launched the 'Desh Ke Mentor' programme, for its school children studying in Classes IX to XII?

- A) UP
- B) Kerala
- C) Delhi
- D) Bihar

75. In October 2021 Sardar Balvinder Singh Nakai died at 87, he served as the Chairman of which organization?

- A) BharatPe
- B) IFFCO
- C) RBI
- D) None

76. What is the rank of India according to the Global Hunger Index 2021?

- A) 100th
- B) 101st
- C) 102nd

D) 94th

77. Which company has signed an agreement with the All India Chess Federation for the title sponsorship of various national championships, In October 2021?

- A) Nippon Paint
- B) Mobile Premier League (MPL)
- C) Herbalife Nutrition
- D) Coco Cola

78. Which company has topped Indian corporates in the World's Best Employers rankings 2021?

- A) Infosys
- B) Mahindra and Mahindra
- C) Rajesh Exports
- D) Reliance Industries Ltd.

79. Which countries has been elected to United Nations Human Rights Council for the term beginning from 1 January 2021?

- A) Zimbabwe
- B) United States of America (USA)
- C) United Kingdom
- D) Australia

80. Who has been appointed as Managing Director of Axis Bank for the term 2022-24?

- A) Atanu Kumar Das
- B) Amitabh Chaudhry
- C) Pallav Mohapatra
- D) S.Hari Shanker

81. When is World Food Day observed annually?

- A) 16th October
- B) 15th October

C) 14th October

D) 13th October

82. Which following is the theme of the 2021 World Food Day?

- A) Safe food – Live a healthy life
- B) Our actions are our future- Better production, better nutrition, a better environment and a better life.
- C) Safe food: A Need for a healthy tomorrow
- D) None

83. Which organization releases the Global Hunger Index (GHI) every year?

- A) Institute for Economics & Peace (IEP)
- B) Welthungerhilfe and Concern Worldwide
- C) WHO
- D) World Bank

84. By which minister the 'MyParkings' app has been launched?

- A) Rajnath Singh
- B) Piyush Goyal
- C) Anurag Singh Thakur
- D) Amit Shah

85. India's first Atal Community Innovation Center (ACIC) has been launched in which city of Rajasthan?

- A) Bikaner
- B) Jaipur
- C) Jaisalmer
- D) Kota

86. On which day of October World Sight Day is observed?

- A) 2nd Friday
- B) 2nd Saturday
- C) 2nd Sunday
- D) 2nd Thursday

87. Which of the following is the theme of World Sight Day 2021?

- A) Love Your Eyes
- B) Hope on Sight
- C) Donate Your Eyes
- D) Care Your Eyes

88. When is World Anaesthesia Day observed annually?

- A) 13th October
- B) 14th October
- C) 15th October
- D) 16th October

89. On which day the International Day for Eradication of Poverty observed annually?

- A) 19th October
- B) 18th October
- C) 17th October
- D) 16th October

90. Who took an additional charge as Chairperson of IBBI?

- A) Amitabh Chaudhry
- B) Navrang Saini
- C) P Jayarama Bhat
- D) Pradeep Kumar Panja

91. When the National Security Guard is celebrates its

Raising Day every year?

- A) 13 October
- B) 14 October
- C) 15 October
- D) 16 October

92. Where the Union Minister Anurag Thakur launched the 'My Parkings app' to book parking slots online?

- A) New Delhi
- B) Mumbai
- C) Indore
- D) Chennai

93. Kullu Dussehra festival is celebrated by which state?

- A) Himachal Pradesh
- B) Jammu and Kashmir
- C) Maharashtra
- D) Manipur

94. India hold the 8th edition of 'Mitra Shakti' a joint military exercise with which country?

- A) Maldives
- B) Thailand
- C) Sri Lanka
- D) Bangladesh

95. India gifted ambulance and medical supplies to Kumudini Hospital of which country?

- A) Sri Lanka
- B) Nepal
- C) Bhutan
- D) Bangladesh

96. Who is the newly appointed Prime Minister of Norway?

- A) Sher Bahadur Deuba
- B) Pushpa Kamal Dahal
- C) Jonas Gahr Stoere
- D) Askar Mamin

97. To win the South Asian Football Federation (SAFF) Championship for the eighth time, which team did India beat in 2021?

- A) Australia
- B) Bangladesh
- C) Nepal
- D) The Maldives

98. Which of the following countries held naval exercise 'Joint Sea 2021' in the Sea of Japan?

- A) Russia and China
- B) India and Russia
- C) India and Bangladesh
- D) China and Bangladesh

99. The second edition of the five-day Naval Commanders Conference was held in which state?

- A) New Delhi
- B) Punjab
- C) Rajasthan
- D) Uttarakhand

100. When is the International Day for the Eradication of Poverty observed every year?

- A) 14 October
- B) 15 October
- C) 16 October

D) 17 October

101. Which of the following is the NASA's first space probe to study the Trojan asteroids of Jupiter?

- A) Rucy
- B) Ruby
- C) Qucy
- D) Lucy

102. First solar exploration satellite aboard a Long March-2D rocket, launched by which country into space?

- A) China
- B) India
- C) Japan
- D) Russia

103. Saranjeet Singh who passed away in October 2021, which sport does he belongs to?

- A) Football
- B) Cricket
- C) Basketball
- D) Hockey

104. With which ministry, NITI Aayog has launched Handbook on Sustainable Management of Plastic Waste?

- A) Finance Ministry
- B) Home Ministry
- C) UNDP
- D) None

105. 'Mera Ghar Mere Naam' scheme was launched by which of the following state?

- A) UP

- B) Rajasthan
- C) Punjab
- D) Gujarat

106. NITI Aayog has collaborated with which organisation to launch the Geographic Information System (GIS) based 'energy map of India'?

- A) Indian Space Research Organisation
- B) International Maritime Organisation
- C) International Meteorological Organisation
- D) National Health Authority

107. A credit line of \$500 million from India for its fuel purchases was requested by which country?

- A) Malaysia
- B) Singapore
- C) Sri Lanka
- D) The United States

108. How much amount that the Reserve Bank of India (RBI) imposed as a monetary penalty on the State Bank of India?

- A) Rs. 2 crores
- B) Rs. 1.5 crores
- C) Rs. 1.25 crores
- D) Rs. 1 crore

109. An endowment plan named 'Saral Bachat Bima' was introduced by which insurance company?

- A) Aditya Birla Life Insurance
- B) IDFC First Life Insurance
- C) IndiaFirst Life Insurance
- D) Max Life Insurance

110. Which of the following did A. Balasubramanian succeed as the Chairman of the Association of Mutual

Funds in India (AMFI)?

- A) Radhika Gupta
- B) Nilesh Shah
- C) Neeta Gupta
- D) Mridhul Singh

111. According to the International Monetary Fund (IMF) what is India's potential GDP forecast for 2021?

- A) 7.25%
- B) 7.00%
- C) 6.75%
- D) 6.00%

112. Which company launched an OTC desk facility for institutional clients?

- A) BitCash
- B) CoinDCX
- C) Bitcoin
- D) Gari

113. Who was appointed as the Chairman and MD of the National Research Development Corporation?

- A) Aravind Kumar
- B) Amit Singh
- C) Amit Rastogi
- D) Amit Kumar

114. Phanimohan Kalagara was appointed as Chief Technology Officer (CTO) by which organisation?

- A) CoinDCX
- B) PayPal
- C) PhonePe
- D) Pine Labs

115. What is the place of India in the Global Food Security Index 2021?

- A) 71
- B) 65
- C) 62
- D) 56

116. When is the 'Aadhaar Hackathon' hosted by the Unique Identification Authority of India (UIDAI) is set to start?

- A) 19–21 October
- B) 28–30 October
- C) 22–25 October
- D) 25–28 October

117. The Reserve Bank of India (RBI) has imposed how much amount as a monetary penalty on Standard Chartered Bank?

- A) Rs. 3 crores
- B) Rs. 2.5 crores
- C) Rs. 1.95 crores
- D) Rs. 1 crore

118. Which of the following is the regulator of the Association of Mutual Funds of India (AMFI)?

- A) RBI
- B) NABARD
- C) SIDBI
- D) SEBI

119. Who begs the Julius Baer Challengers Chess Tour 2021?

- A) Lei Tingjie
- B) R. Pragganandhaa

- C) Vicent Keymer
- D) Volodar Murzin

120. Which of the following is the author of the book titled 'Actually...I Met Them: A Memoir'?

- A) Vikram Seth
- B) Sudha Murthy
- C) Jhumpa Lahiri
- D) Gulzar

121. Tamil Nadu FiberNet Corporation Limited (TANFINET) has signed an agreement with which organisation for the BharatNet project to ensure the availability of high-speed internet connectivity in Tamil Nadu?

- A) L&T
- B) BECIL
- C) ITI Limited
- D) All the above

122. How much amount was imposed as a monetary penalty on the Paytm Payments Bank by the Reserve Bank of India (RBI)?

- A) Rs. 2 crores
- B) Rs. 1.5 crores
- C) Rs. 1.25 crores
- D) Rs. 1 crore

123. How much amount was approved as funds for the rural infrastructure projects in Assam by the National Bank for Agriculture and Rural Development (NABARD)?

- A) Rs. 608 crores
- B) Rs. 579 crores
- C) Rs. 546 crores

D) Rs. 525 crores

124. To assist small Indian businesses (MSMEs) how much amount has been released as funds by HDFC Bank, Mastercard, DFC and USAID?

- A) \$142 million
- B) \$136 million
- C) \$120 million
- D) \$100 million

125. What is the position of India in the World Justice Project (WJP)'s Rule of Law Index 2021?

- A) 82
- B) 79
- C) 74
- D) 72

126. For offering low-cost medicines which state has launched the Shri Dhanwantri Generic Medical Store scheme?

- A) Chattisgarh
- B) Jharkhand
- C) Karnataka
- D) Rajasthan

127. Which of the following countries are latest addition to the Financial Action Task Force's Grey List in October 2021?

- A) Turkey
- B) Pakistan
- C) Mali
- D) All of the above

128. To expand its point-of-sale devices (PoS) services which bank has partnered with Pine Labs?

- A) Kotak Mahindra Bank
- B) Karur Vysya Bank
- C) ICICI Bank
- D) HDFC Bank

129. The Government of India has decided to issue Sovereign Gold Bonds in how many tranches in consultation with the Reserve Bank of India, from October 2021 to March 2022?

- A) Four
- B) Six
- C) Three
- D) Two

130. Dame Sandra Prunella Mason was appointed as the President of which of the following country in October 2021?

- A) Barbados
- B) Brazil
- C) Lithuania
- D) Uruguay

131. Bandula Warnapura the first test cricket captain of which country passed away in October 2021?

- A) West Indies
- B) Sri Lanka
- C) Pakistan
- D) Australia

132. Which of the following is the first homegrown rocket of South Korea that was launched into space?

- A) Liru
- B) Niru
- C) Nuri

D) Peru

133. Kalyan Kumar was appointed as the Executive Director of which of the following Bank?

- A) Punjab National Bank
- B) Indian Bank
- C) Canara Bank
- D) Bank of Baroda

134. When is International Snow Leopard Day observed annually?

- A) 22 October
- B) 21 October
- C) 23 October
- D) 19 October

135. Which of the following state has launched new web portals 'e-munnetram' and 'IT Nanban'?

- A) Karnataka
- B) Kerala
- C) Maharashtra
- D) Tamil Nadu

136. Who became the brand ambassador of Realme?

- A) Virender Sehwag
- B) Virat Kohli
- C) Rohit Sharma
- D) KL Rahul

137. Who bags the Miss International World 2021 title?

- A) Dr. Akshara Prabhu
- B) Dr. Akshata Prabhu
- C) Dr. Jacqueline Prabhu

D) Dr. Rakshita Prabhu

138. In the Oscars 2022 for the Best International Feature Film which Indian film is the India's official entry?

- A) Shershaah
- B) Sherni
- C) Mandela
- D) Koozhangal

139. Which of the following will be honoured with the Satyajit Ray Lifetime Achievement Award 2021?

- A) Istvan Szabo
- B) Martin Scorsese
- C) Shanti Roy
- D) Both (A) and (B)

140. Who has won the gold medal in 100 m backstroke for group II girls at the 37th Sub Junior and 47th Junior National Championships?

- A) Shalini Dixit
- B) Sadhana Veerendrakumar
- C) Ridhima Veerendrakumar
- D) Nitya Sago

141. When is World Development Information Day observed annually?

- A) 24 October
- B) 22 October
- C) 21 October
- D) 20 October

142. Which of the following is the theme of World Polio Day 2021 that was observed on 24 October?

- A) Delivering the promotion

- B) Delivering on a promise
- C) Defining the promotion
- D) Defining on a promise

143. Prime Minister Narendra Modi launch the Ayushman Bharat Health Infrastructure Mission for strengthening healthcare infrastructure from which of the following state?

- A) Kolkata
- B) Lucknow
- C) Mumbai
- D) Varanasi

144. India's first state-owned wildlife DNA testing lab was inaugurated in which of the following state?

- A) West Bengal
- B) Uttar Pradesh
- C) Maharashtra
- D) Gujarat

145. According to the Reserve Bank of India's newly introduced revised regulatory framework for NBFCs scale-based regulation what is the upper ceiling of the initial public offering?

- A) 1 crore
- B) 2 crores
- C) 20 lakhs
- D) 50 lakhs

146. The Reserve Bank of India (RBI) has gave an extension of the Basel-III capital framework to which of the following institutions?

- A) Urban Co-operative Banks

- B) Scheduled Commercial Banks
- C) Regional Rural Banks
- D) All India Financial Institutions

147. A sound box for payment alerts was launched by which of the following bank?

- A) AU Small Finance Bank
- B) HDFC Bank
- C) ICICI Bank
- D) Jana Small Finance Bank

148. Who was honoured with the 51st Dadasaheb Phalke Award at the 67th National Film Awards?

- A) Shahrukh Khan
- B) Rajnikanth
- C) Kamal Haasan
- D) Amitabh Bachchan

149. A new satellite named 'Shijian-21' was launched by which of the following country?

- A) China
- B) India
- C) Japan
- D) Pakistan

150. Fabio Quartararo of which country won the 2021 MotoGP World Championship title?

- A) Spain
- B) Russia
- C) France
- D) England

ANSWERS

1. Correct Answer: C

On September 26, judima of the Dimasa tribe from the Dimasa Hasao district of Assam won the GI tag. A local fermented drink made with rice, Judima derives its name from ju which means wine and Dima means 'belonging to the Dimasa'. For the Dimasa people, judima is an important part of their tradition, to be used in ceremonies that celebrate birth and mourn death.

2. Correct Answer: B

Sojat Mehndi from Rajasthan has received the geographical indication (GI) tag from the government, a move that helps growers of this product get a premium price as no other producer can use the name to market similar goods. A GI tag is used for an agricultural, natural or a manufactured product (handicraft and industrial goods) originating from a definite geographical territory.

3. Correct Answer: B

The Ryder Cup is a biennial men's golf competition between teams from Europe and the United States. The competition is contested every two years with the venue alternating between courses in the United States and Europe. The Ryder Cup is named after the English businessman Samuel Ryder who donated the trophy.

4. Correct Answer: A

The central government has nominated economic affairs secretary Ajay Seth in the Ministry of Finance as a director on the Central Board of Reserve Bank of India. Seth will replace the earlier nominee of government Tarun Bajaj who has been appointed as the revenue secretary.

5. Correct Answer: A

The Modi Government has commenced work for the development of 'Parshuram Kund', a Hindu pilgrimage

site on the Brahmaputra plateau within the lower reaches of the Lohit river in Arunachal Pradesh.

6. Correct Answer: A

On 27 September 2021, the Speaker of Lok Sabha, Om Birla has inaugurated the NIDHI 2.0 scheme. National Integrated Database of Hospitality Industry (NIDHI) 2.0 scheme has been launched on the occasion of 2021 World Tourism Day (27 September 2021). The event regarding this was organised by the Ministry of Tourism.

7. Correct Answer: C

National Payments Corporation of India (NPCI) has partnered with YES BANK to launch first-of-its-kind RuPay On-the-Go contactless payments solutions. RuPay On-the-Go will allow customers to make small and large value transactions from the accessories they wear every day.

8. Correct Answer: A

International Translation Day is observed on September 30 every year to spread awareness about the translation profession and to pay tribute to the work of language professionals. It helps in promoting cultural heritage and mutual respect in our changing world.

9. Correct Answer: A

The Ministry of Social Justice and Empowerment on September 28, 2021, launched the Elder Line, the first Pan-India toll-free helpline number 14567 for senior citizens. The helpline number for senior citizens is called the 'Elder Line'.

10. Correct Answer: A

The government has increased the income limit of disabled dependents for family pension. In a statement, the Ministry of Defence said that "Accordingly, such child/sibling shall be eligible for family pension for life, if

his/her overall income from sources other than family pension remains less than the entitled family pension at an ordinary rate that is 30 per cent of the last pay drawn by the deceased government servant/pensioner concerned plus the dearness relief admissible thereon".

11. Correct Answer: A

The International Day of Older Persons is observed on October 1 each year. On December 14, 1990 the United Nations General Assembly voted to establish October 1 as the International Day of Older Persons as recorded in Resolution 45/106. The holiday was observed for the first time on October 1, 1991.

12. Correct Answer: A

Padmaja Chundurur has been appointed managing director and chief executive officer (MD & CEO) of National Securities Depositories (NSDL). Her appointment has been ratified by the shareholders of NSDL at its meeting held on September 29, the company said in a release. GV Nageswara Rao was the previous MD & CEO of NSDL. Chundurur has served as MD & CEO of Indian Bank between September 2018 and August 2021.

13. Correct Answer: A

Mukesh Ambani continued to be the wealthiest Indian with a networth of USD 83 billion. The head of Reliance Industries witnessed a 24 per cent jump in fortunes and climbed up one spot to be the eighth richest globally, as per the Hurun Global Rich List.

14. Correct Answer: C

International Financial Services Centres Authority (IFSCA) on September 30 constituted an Expert Committee to recommend approach towards development of Sustainable Finance Hub and provide road map for the same. The expert committee will be chaired by CK Mishra, former Secretary to Government of India, Ministry of Environment, Forest and Climate

Change.

15. Correct Answer: C

October 1 is celebrated as World Vegetarian Day. The occasion is an annual celebration aimed at promotion of the joy, compassion and life-enhancing possibilities of vegetarianism, according to the official website of World Vegetarian Day.

16. Correct Answer: A

The Wildlife Week is celebrated between October 2 and 8 annually, and aims to create wide awareness on the importance of all forms of wildlife and its conservation. The first Wildlife Week was observed in 1957.

17. Correct Answer: B

The Theme of 67th Wildlife Week in 2021 is "Forests and Livelihoods: Sustaining People and Planet".

18. Correct Answer: B

Veteran India men's hockey team striker SV Sunil on 01 October announced his international retirement, ending his 14-year-long career during which he was a part of the 2014 Asian Games gold-winning side.

19. Correct Answer: C

The Uttar Pradesh government on 01 October named actor Kangana Ranaut as the brand ambassador of its ambitious 'one district-one product' programme.

20. Correct Answer: D

The government is building 20 tunnels of a total length of 32 km in Jammu and Kashmir and 11 tunnels of a total length of 20 km in Ladakh. The total cost of these 31 tunnels will be around Rs 1.4 lakh crore. The Zojila tunnel between Baltal and Minamarg on the Srinagar-Leh section will provide all-year connectivity between Leh and Srinagar.

21. Correct Answer: A

Digital payments major, Paytm, has now acquired a 100% stake in Urja Money Pvt. Ltd., which provides a loan management system through its proprietary solution, CreditMate. With this, the founders of CreditMate have sold their stake to Paytm, CreditMate founder and chief commercial officer Aditya Singh said on professional website, LinkedIn.

22. Correct Answer: D

World Animal Day is an international day of action for animal rights and welfare celebrated annually on October 4. First held in 1925, the day is a means of drawing attention to animal welfare issues across the globe by encouraging businesses, schools, clubs and others to organise and participate in various World Animal Day events, with the goal of improving the lives of all animals through recognition and awareness.

23. Correct Answer: C

World Habitat Day is marked on the first Monday of October each year, and is recognized by the United Nations to reflect on the state of towns and cities, and on the basic right of all to adequate shelter.

24. Correct Answer: C

World Space Week is held annually from 4 to 10 October to celebrate the scientific and technological advancements that have been instrumental to the benefit of human lives. World Space Week is considered the largest space event on the planet and commemorates the contributions and achievements of thousands of people in the fields of space science and technology.

25. Correct Answer: C

On September 29, Tunisia's embattled President Kais Saied, faced with growing criticism of his power grab, made a surprise move by appointing a little-known geologist as the country's first woman Prime Minister. Mr. Saied had dismissed the Prime Minister and

suspended Parliament in July.

26. Correct Answer: C

The Nobel Prize in Physiology or Medicine was awarded jointly on 04 October to David Julius and Ardem Patapoutian, two scientists who independently discovered key mechanisms of how people sense heat, cold, touch and their own bodily movements.

27. Correct Answer: C

National Ganga River Dolphin Day: The National Mission for Clean Ganga celebrates 5th October as National Ganga River Dolphin Day.

28. Correct Answer: C

World Teachers' Day, also known as International Teachers Day, is an international day held annually on 5 October.

29. Correct Answer: D

The theme of World Teacher's Day 2021 is, 'Teachers at the Heart of Education Recovery.' The theme recognizes teachers for their tireless efforts to keep teaching even during hardships like COVID-19 Pandemic.

30. Correct Answer: A

Colonel Mamady Doumbouya was sworn in 01 October as Interim President of coastal West African country of Guinea. Colonel Doumbouya, who led the overthrow of President Alpha Conde on 5th of last month was sworn in by Supreme Court Head Mamadou Sylla for a transition period of unspecified length.

31. Correct Answer: B

In order to keep the avenues of assistance to stressed MSME Units open, the Government had earlier decided to extend this scheme for six months from March 31, 2021 to September 30, 2021, the Ministry of Micro, Small & Medium Enterprises. On the basis of the requests received from the stakeholders of the scheme,

the Government has decided to further extend it by a period of another six months beyond September 30, 2021. The scheme will now remain operational till March 31, 2022.

32. Correct Answer: D

The Cochin International airport Limited (CIAL) has retained its third position in the country in terms of international traffic for the third consecutive month from July 2021, airport authorities said on 03 October.

33. Correct Answer: B

The Interpol has launched an online campaign to apprise people of major cyber threats in order to help them protect their computer systems, networks and personal information from cyber criminals. The three-week awareness campaign, from October 4 to 22, will be run primarily through social media.

34. Correct Answer: C

The Seychelles' Tax Inspectors Without Borders (TIWB) programme was launched in partnership with India on 04 October, the Income-Tax Department said. This programme is expected to be of 12-month duration during which India, in collaboration with the TIWB Secretariat and support of the UNDP Country Office in Mauritius and Seychelles.

35. Correct Answer: A

The Asian Development Bank (ADB) and the Government of Bangladesh signed the agreement worth USD 400 million in loan for the construction of the Dhaka-Sylhet highway to improve road safety, mobility, and regional trade in the northeast economic corridor in Bangladesh.

36. Correct Answer: A

The COVID-19 pandemic has raised concerns about the mental health of a generation of children. But the pandemic may represent the tip of a mental health

iceberg – an iceberg we have ignored for far too long. “The State of the World’s Children 2021 examines child”, adolescent and caregiver mental health.

37. Correct Answer: A

The Ministry of Textiles has approved continuation of Comprehensive Handicrafts Cluster Development Scheme (CHCDS) with a total outlay of ₹160 crore. The scheme will now continue up to March 2026.

38. Correct Answer: B

The Defence Accounts Department under the aegis of the Ministry of Defence has developed an IT-enabled payment and accounting system called PRABAL to ensure that the domestic defence suppliers get payments without any delay.

39. Correct Answer: D

Union Petroleum and Natural Gas Minister Hardeep Singh Puri on 24 September said the Centre has approved Rs one lakh crore for oil and gas projects of the North-eastern region and these were expected to be completed by 2025.

40. Correct Answer: C

Magnus Carlsen is the winner of the Meltwater Champions Chess Tour (MCCT).

41. Correct Answer: D

Entrepreneur and writer Jaithirth Rao's book Economist Gandhi: The Roots and the Relevance of the Political Economy of the Mahatma examines Mahatma Gandhi's economic philosophy, shedding light on why he needs to be looked at as a management guru and explains his positive approach toward business.

42. Correct Answer: B

The Nobel prize in literature has been awarded to the novelist Abdulrazak Gurnah, for his “uncompromising and compassionate penetration of the effects of

colonialism and the fate of the refugee in the gulf between cultures and continents”.

43. Correct Answer: A

The World Investor Week (WIW) was observed in October 4 to 10, 2021.

44. Correct Answer: D

India's real Gross Domestic Product (GDP) in the current fiscal year is estimated to grow by 8.3%, the World Bank said as it released a South Asia economic focus report ahead of its annual meetings which start next week in Washington.

45. Correct Answer: B

Sixteen DRDO scientists, under the age of 35 years have won the DRDO Young Scientists awards for the year 2019.

46. Correct Answer: D

In 1979, Mother Teresa (26 Aug 1910 - 5 Sep 1997) was awarded the Nobel Peace Prize. She was the Leader of Missionaries of Charity in Calcutta, India.

47. Correct Answer: A

Mukesh Ambani tops Forbes India rich list with \$92 billion net worth. With a total wealth of \$92 billion, Mukesh Ambani, Chairman of Reliance Industries, topped the rich list for the 14th year in a row.

48. Correct Answer: D

Forbes India Rich List 2021: While most of India's rich gained wealth during 2021, four pharma billionaires saw a fall in their wealth including Biocon's Kiran Mazumdar-Shaw, Reddy Family from Dr. Reddy's Laboratories, Aurobindo Pharma's P.V. Ramprasad Reddy and Lupin's Gupta Family.

49. Correct Answer: C

The Reserve Bank of India has retained real GDP growth

at 9.5 % for FY 2021-22.

50. Correct Answer: B

Repo rate has been maintained at 4 per cent, and reverse repo rate at 3.35 per cent in October policy.

51. Correct Answer: B

India is the first of the BRICS bloc of major emerging economies (Brazil, Russia, India, China and South Africa) to join the HAC. India's announcement comes in the lead up to a high-level biodiversity meeting, hosted by China.

52. Correct Answer: A

India and the UK kickstarted a two-week military exercise 'Ajeya Warrior' at Chaubatia in Uttarakhand to further strengthen bilateral defence cooperation between the two countries, the Indian Army said on Thursday, 07 October.

53. Correct Answer: A

India's 'Ministry of Textiles' signed an MoU to boost sustainable Cotton production with Germany in October.

54. Correct Answer: A

Bathukamma celebrates the inherent relationship between earth, water and the human beings. Bathukamma is a colourful and vibrant festival of Telangana and celebrated by women, with flowers that grow exclusively in each region.

55. Correct Answer: D

IT service provider Tata Consultancy Services (TCS) on Wednesday, October 06 announced that its partnership with India's largest lender State Bank of India (SBI) has been extended for another five years to drive innovation and tech solutions.

56. Correct Answer: B

Abdul Qadeer Khan, considered to be the father of Pakistan's nuclear weapons programme and later accused of smuggling technology to Iran, North Korea and Libya, has died aged 85.

57. Correct Answer: D

Reliance Industries subsidiary acquires 100% of REC Solar Holdings from China National Bluestar for \$771M. Reliance will strongly support for REC's planned expansions including 2-3 GW Cells and Module capacity in Singapore, brand new 2 GW Cells and Module unit in France and another 1 GW Modules plant in the US.

58. Correct Answer: C

International Day of the Girl Child is an international observance day declared by the United Nations; it is also called the Day of Girls and the International Day of the Girl. October 11, 2012, was the first Day of the Girl Child.

59. Correct Answer: B

25th edition of the annual exercise The Exercise MALABAR was held on 2021.

60. Correct Answer: D

The theme for International Day of Girl Child 2021 is 'Digital generation'. Our generation'.

61. Correct Answer: B

World Arthritis Day, referred to as WAD, is a global awareness day held every year on 12 October.

62. Correct Answer: B

The Multidimensional Poverty Index (MPI) Report 2021 was released by organization UNDP.

63. Correct Answer: D

Tamil Nadu has received a GI tag for Kanyakumari clove.

64. Correct Answer: B

The book titled 'The Custodian of Trust – A Banker's Memoir' is written by Rajnish Kumar.

65. Correct Answer: A

Jayant Patil has been appointed as the first chairman of the newly set up Indian Space Association (ISpA).

66. Correct Answer: D

India's economy, which contracted by 7.3 per cent due to the COVID-19 pandemic, is expected to grow by 9.5 per cent in 2021 and 8.5 per cent in 2022, according to latest projections released by the International Monetary Fund on 12 October.

67. Correct Answer: A

The IMF projected the global economy to grow 5.9% in 2021, a downward revision from July 2021 update, and 4.9% in 2022.

68. Correct Answer: D

Dr Randeep Guleria bags 22nd Lal Bahadur Shastri National Award for Excellence.

69. Correct Answer: C

Australia has agreed to build a 20kg semi-autonomous lunar rover for Nasa to take to the moon as early as 2026 in search of oxygen

70. Correct Answer: C

Ibha is the official mascot of the FIFA U-17 Women's World Cup 2022.

71. Correct Answer: B

Rajnish Kumar, former chief of State Bank of India, has joined the Board of BharatPe, a fintech firm, as chairman.

72. Correct Answer: C

UNESCO launched its 2021 State of the Education Report (SOER) for India: "No Teacher, No Class".

73. Correct Answer: C

The International Day for Disaster Reduction, held each year on 13 October, celebrates how people and communities around the world are reducing their exposure to disasters.

74. Correct Answer: C

Delhi launched the 'Desh Ke Mentor' programme, for its school children studying in Classes IX to XII.

75. Correct Answer: B

Sardar Balvinder Singh Nakai was the chairman IFFCO.

76. Correct Answer: B

India was ranked 101 in the Global Hunger Index (GHI) for 2021 from 94 in the previous year.

77. Correct Answer: B

The All India Chess Federation (AICF) signed a historic agreement with the MPL Sports Foundation for a sponsorship amount of Rs. 10,000,000 for the Indian National Championships over the next five years, with a 20% increase every year.

78. Correct Answer: D

Reliance Industries, the country's largest company by revenues, profits and market value, has topped Indian corporates in the World's Best Employers rankings 2021 published by Forbes.

79. Correct Answer: C

United Kingdom was elected to United Nations Human Rights Council for the term beginning from 1 January 2021.

80. Correct Answer: B

Axis Bank board approves re-appointment of Amitabh Chaudhry as MD & CEO.

81. Correct Answer: A

World Food Day is an international day celebrated every year worldwide on 16 October.

82. Correct Answer: B

The theme for World Food Day 2021 is "Our actions are our future- Better production, better nutrition, a better environment and a better life".

83. Correct Answer: B

The Global Hunger Index (GHI) is released by Welthungerhilfe and Concern Worldwide every year.

84. Correct Answer: C

'MyParkings' app has been launched by the Union Minister Anurag Singh Thakur.

85. Correct Answer: B

Atal Community Innovation Center was inaugurated on Saturday, 27 October at Vivekananda Global University, Jaipur, Jagatpura.

86. Correct Answer: D

World Sight Day is an annual day of awareness held on the second Thursday of October, to focus global attention on vision impairment, including blindness.

87. Correct Answer: A

The theme of World Sight Day 2021 is "Love Your Eyes".

88. Correct Answer: D

World Anaesthesia Day is celebrated on October 16, to mark the first successful demonstration of diethyl ether anaesthesia in 1846. The discovery made it possible for patients to obtain the benefits of surgical treatment without pain.

89. Correct Answer: C

The International Day for the Eradication of Poverty is an international observance celebrated each year on October 17 throughout the world.

90. Correct Answer: B

Navrang Saini has been given the additional charge as the Chairperson of the Insolvency and Bankruptcy Board of India (IBBI).

91. Correct Answer: D

Every year on October 16th, the National Security Guard (NSG) celebrates its Raising Day. This year celebrates the 37th anniversary of the formation of the National Security Group, also known as the 'Black Cats'.

92. Correct Answer: A

Union Minister for Information and Broadcasting Anurag Thakur launched the 'MyParkings' app, a first-of-its-kind initiative where people can book parking slots online in areas under the jurisdiction of the South Delhi Municipal Corporation (SDMC).

93. Correct Answer: A

Kullu Dussehra is the renowned International Mega Dussehra festival observed in the month of October in Himachal Pradesh state in northern India.

94. Correct Answer: C

The 8th Edition of joint military exercise between the Indian Army and the Sri Lankan Army, Exercise MITRA SHAKTI which was conducted from 04 - 16 October 2021, culminated at Combat Training School, Ampara.

95. Correct Answer: D

A life support ambulance and essential medical supplies were gifted to Kumudini Hospital, Mirzapur, Bangladesh on 14 October 2021.

96. Correct Answer: C

Jonas Gahr Stoere becomes new Prime Minister of Norway.

97. Correct Answer: C

India crushed Nepal 3-0 to win its eighth SAFF Championship title after second-half goals from Sunil Chhetri, Suresh Singh and Sahal Abdul Samad in the final.

98. Correct Answer: A

Russia and China held naval exercise 'Joint Sea 2021' in the Sea of Japan.

99. Correct Answer: A

The second edition of the five-day Naval Commanders Conference was held in New Delhi.

100. Correct Answer: D

The International Day for the Eradication of Poverty is an international observance celebrated each year on October 17 throughout the world.

101. Correct Answer: D

Lucy will be the first space mission to study Jupiter's Trojan asteroids.

102. Correct Answer: A

China launched its first solar exploration satellite aboard Long March-2D rocket country into space.

103. Correct Answer: D

Former hockey international Saranjeet Singh passed away in October 2021. He was 59.

104. Correct Answer: C

NITI Aayog and UNDP India launched a handbook to promote sustainable management of plastic waste in the country. The report, titled 'NITI Aayog-UNDP

Handbook on Sustainable Urban Plastic Waste Management', was released on 11th October, 2021.

105. Correct Answer: C

Chief Minister of Punjab, Charanjit Singh Channi, launched "Mera Ghar Mere Naam" scheme on October 17, 2021.

106. Correct Answer: A

NITI Aayog in collaboration with Indian Space Research Organisation (ISRO) has developed a comprehensive Geographic Information System (GIS) Energy Map of India with the support of Energy Ministries of Government of India.

107. Correct Answer: C

A credit line of \$500 million from India for its fuel purchases was requested by Sri Lanka.

108. Correct Answer: D

The Reserve Bank of India (RBI) has, by an order dated October 18, 2021, imposed a monetary penalty of Rs 1 crore (Rupees One Crore) on State Bank of India.

109. Correct Answer: C

An endowment plan named 'Saral Bachat Bima' was introduced by IndiaFirst Life Insurance.

110. Correct Answer: B

Balasubramanian will succeed Nilesh Shah, managing director of Kotak Asset Management Company (AMC).

111. Correct Answer: D

The International Monetary Fund (IMF) said it has pared down India's potential growth forecast by 25 basis points to 6% due to the impact of the pandemic which hit investments and labour market badly.

112. Correct Answer: C

CoinDCX has launched an over-the-counter (OTC) desk to facilitate bulk trades by institutional investors, at a time when the country is fuelling one of the fastest-growing crypto regions in the world.

113. Correct Answer: C

Retired commodore Amit Rastogi, after spending 34 years in Indian Navy, took over as the chairman and managing director of the National Research Development Corporation.

114. Correct Answer: D

Pine Labs has announced the appointment of Phanimohan Kalagara as its new Chief Technology Officer.

115. Correct Answer: A

India is ranked at 71st position in the Global Food Security (GFS) Index 2021 of 113 countries.

116. Correct Answer: B

As a part of the 'Azadi ka Amrit Mahotsav', the Unique Identification Authority of India (UIDAI) will host the Aadhaar Hackathon 2021 from October 28, 2021, to October 30.

117. Correct Answer: C

The Reserve Bank of India (RBI) imposed a monetary penalty of Rs 1.95 crore on Standard Chartered Bank.

118. Correct Answer: D

The Association of Mutual Funds of India (AMFI) is a non-profit government organisation and a regulator under the purview of SEBI.

119. Correct Answer:

Indian Grandmaster R. Praggnanandhaa won the Julius Baer Challengers Chess Tour 2021.

120. Correct Answer:

The book titled 'Actually...I Met Them: A Memoir' is written by Gulzar.

121. Correct Answer: D

Tamil Nadu FibreNet Corporation Ltd (TANFINET) signed the Master Service Agreement for the implementation of BharatNet Project in Tamil Nadu, with L&T, ITI Ltd. and Third-Party Agency BECIL in the presence of Information Technology minister T Mano Thangaraj and IT Secretary Neeraj Mittal.

122. Correct Answer: D

The Reserve Bank of India (RBI) imposed a monetary penalty of Rs 1 crore on Paytm Payments Bank for submitting information that did not reflect the factual position, which, according to the central bank, is an offence under Section 26 (2) of the Payments and Settlement Act.

123. Correct Answer: A

Nabard approves Rs 608 cr for the rural infrastructure projects in Assam.

124. Correct Answer: D

HDFC Bank, Mastercard, U.S. International Development Finance Corporation (DFC), and U.S. Agency for International Development (USAID) launched a \$100 million credit facility to promote and encourage small businesses in India to digitize, while also helping Indian businesses.

125. Correct Answer: B

India ranks 79th in World Justice Project's Rule of Law Index 2021.

126. Correct Answer: A

Chattisgarh government has launched the Shri Dhanwantri Generic Medical Store scheme for offering

low-cost medicines.

127. Correct Answer: D

Turkey, Pakistan and Mali were the latest addition to the Financial Action Task Force's Grey List in October 2021.

128. Correct Answer: A

Kotak Mahindra Bank Limited (KMBL) has announced that it has entered into a partnership with Pine Labs to expand its point-of-sale devices (PoS) services.

129. Correct Answer: A

Government of India, in consultation with the Reserve Bank of India, has decided to issue Sovereign Gold Bonds. The Sovereign Gold Bonds will be issued in four tranches from October 2021 to March 2022.

130. Correct Answer: A

Dame Sandra Prunella Mason has become the first elected president of the Barbados in October 2021.

131. Correct Answer: B

Sri Lanka's first-ever Test cricket captain Bandula Warnapura died at the age of 68 at a city hospital on 18 October.

132. Correct Answer: C

The rocket is called Nuri. It launched from the country's Naro Space Center, which is on a small island off South Korea's southern coast.

133. Correct Answer: A

Punjab National Bank (PNB) has announced the appointment of Kalyan Kumar as Executive Director.

134. Correct Answer: C

October 23 is recognised as International Snow Leopard Day.

135. Correct Answer: D

Chief Minister M.K. Stalin launched web portals developed by the Information Technology Department for reviewing the progress of all major infrastructure projects in the State, as well as to enable all IT/ITES companies in Tamil Nadu to interact with the State government and contribute to policy making.

136. Correct Answer: D

Chinese smartphone brand Realme said it has appointed international cricketer KL Rahul as its brand ambassador. The cricketer will endorse its smartphone category, the company said in a statement.

137. Correct Answer: B

Dr. Akshata Prabhu of India bags the Miss International World 2021 title.

138. Correct Answer: D

"Koozhangal" (Pebbles), a Tamil drama directed by filmmaker Vinothraj PS, has been selected as India's official entry for the 94th Academy awards.

139. Correct Answer: D

Hollywood veteran Martin Scorsese and Hungarian filmmaker Istevan Szabo will be honoured with the Satyajit Ray Lifetime Achievement award at this year's International Film Festival of India (IFFI).

140. Correct Answer: C

Ridhima Veerendrakumar broke Maana Patel's seven-year-old record in the 100m backstroke event at the 37th Sub-Junior and 47th Junior National Aquatic Championship

141. Correct Answer: A

The United Nations on October 24 every year celebrates the World Development Information Day. The main aim of this day is to propagate information and mobilise

public opinion in order to draw their attention and create awareness of the problems surrounding development, promoting efforts in the field of international cooperation for growth and development.

142. Correct Answer: B

The theme for World Polio Day 2021 is "Delivering on a Promise."

143. Correct Answer: D

Prime Minister Narendra Modi launched the Ayushman Bharat Health Infrastructure Mission, one of the largest pan-India schemes for strengthening healthcare infrastructure, in his parliamentary constituency Varanasi in Uttar Pradesh.

144. Correct Answer: C

Chief Minister Uddhav Thackeray and state home minister Dilip Walse-Patil inaugurated country's first state government-owned Wildlife DNA analysis laboratory at Regional Forensic Science Laboratory (RFSL) in Nagpur, Maharashtra.

145. Correct Answer: A

The upper ceiling of the initial public offering Rs 1 crore, According to the Reserve Bank of India's newly introduced revised regulatory framework for NBFCs scale-based regulation.

146. Correct Answer: D

The Reserve Bank of India (RBI) decided to extend Basel-III Capital framework to All India Financial Institutions (AIFIs).

147. Correct Answer: A

AU Small Finance Bank launched a sound box that will provide instant voice-based payment alerts to merchant partners.

148. Correct Answer: B

Veteran actor Rajnikanth was honoured with the 51st Dadasaheb Phalke Award at the 67th National Film Awards.

149. Correct Answer: A

The satellite named Shijian-21, after the Chinese word "practice," was propelled into space atop of Long March

3B rocket launched from the Xichang Satellite Launch Center, China.

150. Correct Answer: C

Fabio Quartararo is a French Grand Prix motorcycle rider racing in MotoGP for Monster Energy Yamaha MotoGP.

SECTION 3

Detailed Analysis of Important Events

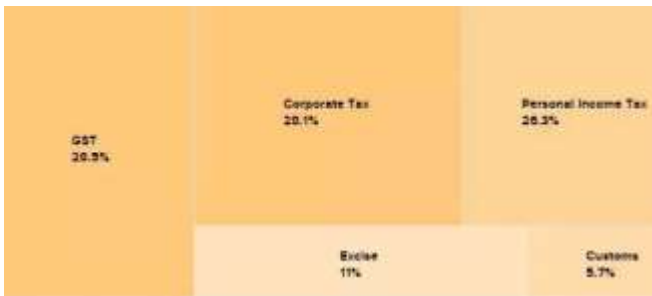


Economics

GST collections hit 5-month high

India's gross Goods and Services Tax (GST) revenues crossed ₹1.17 lakh crore in September, hitting a five-month high.

Take a look towards the share of GST in government earnings for the previous fiscal:



UPSC can ask about the majority component of the Revenue Receipts of the govt. See how Corporate tax is nearing the GST revenues.

Do you think it will surpass GST revenue when the economy is fully recovered?

What is the news?

- September revenues were 27.3 percent greater than pre-pandemic September 2019 receipts and 23 percent higher than a year ago.
- In September, compared to the same month in 2020, revenues from imports of products were 30% higher, while indirect taxes collected on domestic transactions, including the import of services, were 20% higher.
- GST revenues increased by 29 percent in Karnataka, 28 percent in Gujarat, 22 percent in Maharashtra, and 21 percent apiece in Tamil Nadu and Andhra Pradesh among the main states.
- Revenues in Telangana increased by 25%, while

revenues in Odisha increased by 40%.

Significance

- This certainly suggests that the economy is rapidly rebounding.
- Anti-evasion operations, particularly action against false billers, have also contributed to increased GST receipts when combined with economic growth.

Issues underlying

- Despite the fact that GST revenues are increasing following the impact of the Covid-19 epidemic, revenue buoyancy under GST is being viewed as a source of concern.
- This is particularly true until the constitutionally mandated compensation to states for income shortfalls resulting from the GST implementation expires in June 2022.

RBI suspends G-Sec Acquisition Programme (GSAP)



The Reserve Bank of India (RBI) has decided to halt its bond-buying under the G-Sec Acquisition Programme (GSAP).

Why such move?

- The GSAP had succeeded in ensuring adequate

liquidity and stabilising financial markets.

- Coupled with other liquidity measures, it facilitated congenial and orderly financing conditions and a conducive environment for the recovery.

What is GSAP?

- The G-Sec Acquisition Programme (G-SAP) is basically an unconditional and a structured Open Market Operation (OMO), of a much larger scale and size.
- G-SAP is an OMO with a 'distinct character'.
- The word 'unconditional' here connotes that RBI has committed upfront that it will buy G-Secs irrespective of the market sentiment.

What are Government Securities?

- These are debt instruments issued by the government to borrow money.
- The two key categories are:
 1. Treasury bills (T-Bills) – short-term instruments which mature in 91 days, 182 days, or 364 days, and
 2. Dated securities – long-term instruments, which mature anywhere between 5 years and 40 years

Why G-Secs?

- Like bank fixed deposits, g-secs are not tax-free.
- They are generally considered the safest form of investment because they are backed by the government. So, the risk of default is almost nil.
- However, they are not completely risk-free, since they are subject to fluctuations in interest rates.
- Bank fixed deposits, on the other hand, are guaranteed only to the extent of Rs 5 lakh by the Deposit Insurance and Credit Guarantee Corporation (DICGC).

Other decisions

- The RBI, however, remained ready to undertake G-SAP as and when warranted by liquidity conditions.

Q.Consider the following statements:

1. The Reserve Bank of India manages and services the Government of India Securities but not any State Government Securities.
2. Treasury bills are issued by the Government of India and there are no treasury bills issued by the State Governments.
3. Treasury bills offer are issued at a discount from the par value.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 3 Only
(c) 2 and 3 only
(d) 1, 2 and 3

What is a Small Finance Bank?



The Reserve Bank of India has issued a small finance bank (SFB) license to a consortium of fintech companies

BharatPe and Centrum Financial Services Ltd.

permitted under Indian FDI guidelines for private banks

What is a SFB?

- In India, small finance banks (SFBs) are a form of specialty bank.
- Individuals, corporations, trusts, and societies can all promote them.
- The Reserve Bank of India Act, 1934, the Banking Regulation Act, 1949, and other related statutes govern them.
- Under the Companies Act of 2013, they are formed as public limited companies in the private sector.
- SFB-licensed banks can offer basic banking services such as deposit acceptance and lending.

Objectives of setting-up an SFB

- To provide financial inclusion to sections of the economy not being served by other banks, such as small business units, small and marginal farmers, micro and small industries and unorganized sector entities

Key features of SFBs

- Small finance banks can be formed by existing non-banking financial firms (NBFCs), microfinance institutions (MFIs), and local area banks (LABs).
- There will be no geographical restrictions on the banks.
- 75 percent of its net credits should be in priority sector lending, and 50% of its portfolio loans must be under \$25,000.
- The companies must have a minimum capital of Rs. 200 crore.
- The promoters should have a minimum of ten years of banking and finance experience.
- Foreign ownership of these institutions will be

India's First Banni Buffalo IVF Calf Born



With the birth of first IVF calf of a Buffalo breed namely Banni in the country, India's Ovum Pick-Up (OPU) – IVF work has reached to next level.

Banni Buffalo

- Buffaloes from Banni are also called as "Kutchi" or "Kundi."
- The breeding tract comprises the Kutchchh region of Gujarat's Banni area.
- In its breeding tract, the breed is largely maintained by Maldharis using a locally adapted typical extended production technique.

What makes them unique?

- Banni buffaloes are taught to graze on Banni grassland at night and then be taken to the settlements for milking in the morning.
- This traditional buffalo-raising system has been modified to reduce heat stress and high daytime temperatures.
- It possesses unusual adaption features such as the ability to tolerate water scarcity, travel large distances during droughts, and disease resistance. Indigenous buffalo breeds in India

12	Murrah	Haryana and Delhi
13	Nagpuri	Maharashtra
14	Nili Ravi	Punjab
15	Pandharpuri	Maharashtra
16	Surti	Gujarat
17	Toda	Tamil Nadu

S. No.	Breed	Breeding state
1	Banni	Gujarat
2	Bargur	Tamil Nadu
3	Bhadawari	Uttar Pradesh and Madhya Pradesh
4	Chhattisgarhi	Chhattisgarh
5	Chilika	Odisha
6	Gojri	Himachal Pradesh and Punjab
7	Jaffarabadi	Gujarat
8	Kalahandi	Odisha
9	Luit (Swamp)	Assam
10	Marathwadi	Maharashtra
11	Mehsana	Gujarat

Gov Floating Rate Bonds



The Government of India has announced the Sale (Re-issue) of Floating Rate Bonds, 2028'.

What are Bonds?

- Bonds are financial instruments in which an investor lends money to a corporation or government for a specific length of time in exchange for regular interest payments.
- Bonds typically have a predetermined coupon or interest rate. For example, you can purchase a Rs 10,000 bond with a 5% coupon rate.
- The bond issuer returns the investor's money

when the bond matures.

- Bonds are sometimes referred to as fixed income because your investment earns fixed payments for the life of the bond.

Why are bonds launched?

- Companies sell bonds **to finance ongoing operations**, new projects or acquisitions.
- Governments sell bonds **for funding purposes**, and also to supplement revenue from taxes.

What are Floating Rate Bonds?

- A floating rate bond is a debt instrument with no set coupon rate and a variable interest rate based on the benchmark against which it is drawn.

- Benchmarks are market instruments that have an impact on the economy as a whole.
- Repo rate or reverse repo rate, for example, can be used as benchmarks for a variable rate bond.

How do floating rate bonds work?

- Floating rate bonds, which are mostly issued by the government, make up a considerable portion of the Indian bond market.
- In 2020, the RBI, for example, issued a floating rate bond with six-monthly interest payments. The interest rate is re-fixed by the RBI after six months.

Enviro & Diversity

First Nobel for Climate Science



Three scientists received the Nobel Prize in Physics for work that is essential to understanding how the Earth's climate is changing, pinpointing the effect of human behaviour on those changes and ultimately predicting the impact of global warming.

Who are the laureates?

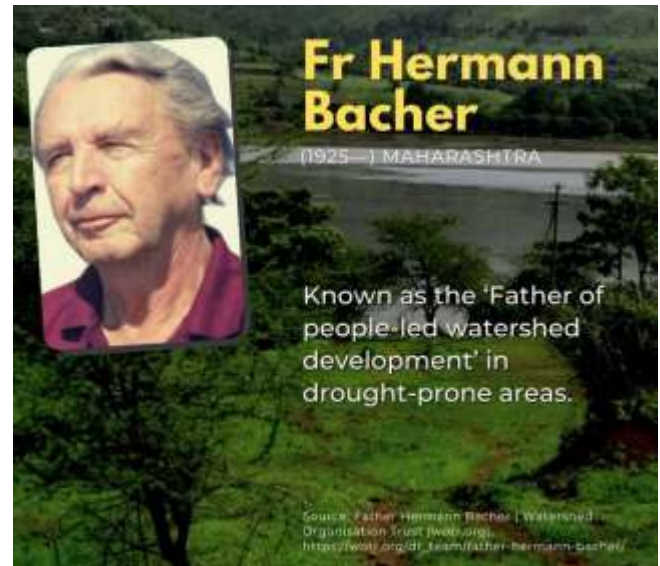
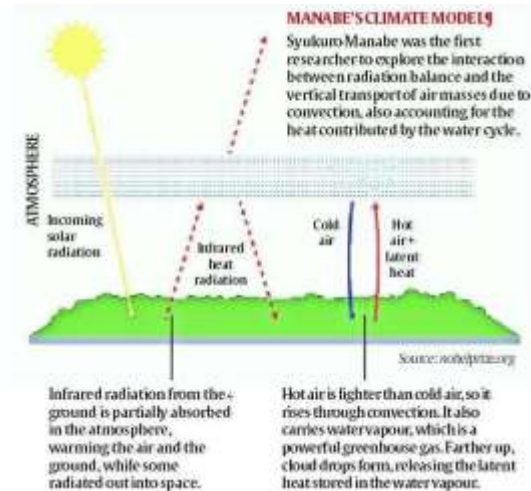
- Syukuro Manabe, Klaus Hasselmann of Germany, and Giorgio Parisi of Italy were the winners.

- The three most impactful climate change research publications ever published were identified in 2015 by a UK-based climate-focused online journal.
- The paper by Syukuro Manabe and Richard Wetherald, published in 1967, earned the most votes.
- These publications described the impact of carbon dioxide and water vapour on global warming for the first time.

Citation for their Climate Model

- At Princeton University, Manabe is a senior meteorologist and climatologist.
- He pioneered research into how increasing amounts of carbon dioxide lead to higher temperatures on the Earth's surface in the 1960s.
- This created the groundwork for the current generation of climate models.

- Hasselmann is a German physicist and oceanographer who developed a model that connects climate and chaotic weather systems, which considerably aided public comprehension of climate change.
- Parisi's research interests have been in quantum field theory and complex systems.



Hermann Bacher

- Bacher, who was born in 1924, arrived in India at the age of 24 in 1948.
- He would spend the next 60 years of his life in this city, the majority of them in Maharashtra.
- He committed his life to the upliftment of the impoverished, landless, and rural women after being struck by poverty in rural Maharashtra.
- In 1994, Bacher was awarded Germany's highest civilian honour, the Federal Cross of the Order of Merit, for his remarkable accomplishments.
- WOTR received the coveted 'Land for Life Award 2017' from the United Nations Convention to Combat Desertification (UNCCD) in 2017.
- He is generally regarded and admired as a true 'man of God,' for whom selfless service to the impoverished was the highest form of religion. He was affectionately known as 'Bacher Baba.'

Why it is significant feat?

- This is the first time a Nobel Prize in Physics has been given to a climate scientist.
- In 2007, the IPCC was awarded the Nobel Peace Prize in recognition of its efforts to raise awareness about climate change.
- Paul Crutzen received a Nobel Prize in Chemistry in 1995 for his work on the ozone layer, which is the only other occasion someone from the field of atmospheric sciences has received this honour.

Who was Hermann Bacher?

Hermann Bacher, popularly known as the 'father of community-led watershed development in India', passed away at the ripe old age of 97 years in Switzerland September 14, 2021.

Notable works

- Droughts in Maharashtra in 1972 prompted him to rethink his development strategy.
- This meant that in Maharashtra's rain-fed rural

areas, a shift from "resource exploitation" to "sustainable resource use," or "resource mobilisation," as he put it, was required.

- Beginning in 1965, he assisted thousands of landless labourers in obtaining title to land under the Land Reforms Act of 1957.
- He also helped tens of thousands of farmers enhance their fields and raise their agricultural production by providing them with irrigation, improved and hybrid seeds, and other resources.

Pioneering water harvest

- Because rain fell in the villagers' watersheds and landscapes, the only method to capture and preserve rainwater was to implement watershed development techniques.
- "Running water must be made to walk; walking water must be made to stop and sink underground," the notion went.
- This included things like planting trees and grasses, preserving forests, and performing soil and water conservation projects like constructing contour trenches and erecting farm bunds, among other things.
- It also involved systematically constructing water harvesting facilities on the streams (check dams, earthen bunds, and so on) throughout the village's terrain, commencing at the top.

Establishing the IGWDP

- Through his efforts, the idea for the large-scale Indo-German Watershed Development Program (IGWDP), which he conceived and launched in Maharashtra in 1989, was born.
- This was done in partnership with and with the help of the Indian, Maharashtra, and German governments, as well as NABARD and the non-profit sector.
- Its one-of-a-kind and ground-breaking

characteristic was that it put the communities in charge of the programme, allowing them to plan, implement, and maintain the watershed's assets.

- They would be handed large sums of money that they would have to manage and account for.

Amendments to the Forest Conservation Act, 1980



The Ministry for Environment, Forests and Climate Change (MoEFCC) has published proposed amendments to the Forest Conservation Act, 1980.

The Forest (Conservation) Act, 1980

The FCA is the principal legislation that regulates deforestation in the country.

- It forbids the felling of trees for any "non-forestry" use without first obtaining permission from the national government.
- Local forest rights holders and wildlife authorities are consulted as part of the clearance procedure.
- The Centre has the authority to either deny or approve such requests under legally enforceable circumstances.

- The Supreme Court, in a historic ruling in 1996, enlarged the scope of the FCA to include any areas that met the dictionary definition of a forest; previously, the FCA only applied to territories that were officially notified as forests.

The FCA is brief legislation with only five sections of which-

- Section 1 defines the extent of coverage of the law,
- Section 2 restrictions of activities in forest areas and the rest deals with the creation of advisory committees, powers of rule-making and penalties.

Why is the Act being amended now?

- The present concept of forest has effectively enslaved land across the country; even private property owners are unable to use their land for non-forestry uses.
- Forest land diversion has been under pressure from ministries such as Rail and Roads.
- Any diversion of forest land for any purpose, including lease assignment, requires prior clearance from the Centre under the Act.

What defines 'Forest' under this act?

- Previously, the Act only applied to national parks and reserve forests.
- The Supreme Court enlarged the definition and scope of forest land in the T N Godavarman Thirumulpad v Union of India case in 1996.
- As a result, it would include any places classified as forest in any government record, regardless of ownership, recognition, or classification.
- In addition, the court broadened the concept of forest to include the "dictionary connotation of forest."
- This would mean that, regardless of ownership,

a forested patch would immediately become a "deemed forest" even if it had not been reported as protected.

- Plantations on non-forest land will also be covered by the Act.

What are the proposed amendments?

(A) Exemptions for Road and Railways

- All land bought by the Railways and Roads Ministries previous to 1980 should be exempted from the Act, according to the MoEFCC.
- The properties were once purchased for growth, but trees have developed in these places, and the government can no longer use the land for expansion.
- The Ministries will no longer require clearance for their projects, nor will they be required to pay compensatory levies in order to construct there.

(B) Relaxation

- It distinguishes individuals whose lands fall within a state-specific Private Forests Act or comes within the dictionary meaning of forest as specified in the 1996 Supreme Court order.
- The government proposes to allow the "construction of structures for bona fide purposes" including residential units up to 250 sq m as a one-time relaxation.

(C) Defense and other projects

- Defence projects near international borders will be exempted from forest clearance.
- Oil and natural gas extraction from forested lands will be permitted, but only if technologies such as Extended Reach Drilling are used.
- Strip plantations alongside roads that would fall under the Act will be exempted.

What are the concerns?

- **Legalizing private ownership of forests:** The rules will facilitate corporate ownership.
- **Deforestation:** The exemption of forests on private land will lead to the disappearance of large tracts of forests.
- **Fragmentation:** Exemption for private residences on private forest will lead to fragmentation of forests, and open areas such as the Aravalli mountains to real estate.
- **Tribal concerns:** The amendments do not address what will happen to tribals and forest-dwelling communities over the cleared lands.
- **Threat to wildlife:** Exemption for roads and railways on forest land acquired prior to 1980 will be detrimental to forests as well as wildlife – especially elephants, tigers and leopards.

Positives with the amendment

- It has proposed tightening forest rules for notified forests, including making offences non-bailable and increasing punishments to include up to a year in prison.
- In some forests, it has outlawed all forms of diversion.
- It has made an attempt to definitively describe and identify forests, which has been a difficult task in the past.

Podu Land issue in Telangana

The Telangana government has decided to move landless, non-tribal farmers engaged in Podu shifting cultivation inside forests to peripheral areas as it looks to combat deforestation.

What is Shifting Cultivation?

- Shifting cultivation is a type of agriculture or a cultivation method in which a minority of 'fields' are under cultivation at any given moment, while the majority are in varying stages of natural re-growth.
- Fields are cultivated for a brief period of time and then allowed to recover, or fallow, for a longer period of time.
- A previously cultivated field will eventually be cleared of natural vegetation and replanted with crops.
- Cultivated and fallowed fields are cultivated and fallowed cyclically in established and stable shifting agriculture systems.
- In India, this style of farming is known as jhumming.

What is Podu?

- Podu is a traditional system of cultivation used by tribes in India, whereby different areas of jungle forest are cleared by burning each year to provide land for crops.
- The word comes from the Telugu language.
- Podu is a form of shifting agriculture using slash-and-burn methods.

Issue in Telangana

- Despite state discouragement and multipronged initiatives, shifting cultivation is a common agricultural practise in many parts of India.
- The Telangana government has issued a warning about non-tribals encroaching on

forests and engaging in shifting cultivation (podu).

- Shifting agriculture and deforestation, in which encroachers clear a piece of land, have been highlighted by several political figures.
- The government now aims to relocate all farmers from the forests to the outskirts by giving them land to cultivate.

Impact of the move

- This campaign against unlawful encroachers would not harm tribal farmers who have been growing for decades.
- Tribals have been issued land ownership titles by the government.
- Other farmers who are infringing on the land will be relocated.

Governance

Mullaperiyar Dam Issue



The Supreme Court has directed the Supervisory Committee to take an immediate and firm decision on the maximum water level that can be maintained at Mullaperiyar dam amidst torrential rains in Kerala.

What is the news?

- According to a UN report, the Mullaperiyar dam, which is located in a seismically active area, is at risk of failure.
- Earlier this year, the Supreme Court warned the TN Chief Secretary against failing to provide information on the dam's rule curve, which determines when excess water is discharged.

Mullaperiyar Dam

- It's a masonry gravity dam on Kerala's Periyar River.
- It is situated in Thekkady, Idukki District, in the Cardamom Hills of the Western Ghats.
- It was built by John Pennycuik between 1887 and 1895 as part of an arrangement to move water eastwards to the Madras Presidency territory.
- From the foundation, it rises to a height of 53.6 m (176 ft) and a length of 365.7 m. (1,200 ft).

Operational issue

- Although the dam is in Kerala, it is managed and maintained by Tamil Nadu.
- The Mullaperiyar Dam's catchment region is entirely within Kerala, hence it is not an interstate river.
- For the first time in 35 years, the water level reached 142 feet in November 2014.
- Following heavy rainfall in Kerala, the reservoir reached its maximum capacity of 142 feet in August 2018.
- Indeed, water managers around the country are increasingly storing water to nearly full capacity in reservoirs.

The dispute: Control and safety of the dam

- Tamil Nadu was granted permission by the Supreme Court in February 2006 to raise the dam's level to 152 feet (46 metres) after fortifying it.
- The Kerala Government responded by declaring the Mullaperiyar dam a "endangered" scheduled dam under the contentious Kerala Irrigation and Water Conservation (Amendment) Act, 2006.
- The Mullaperiyar dam and diverted Periyar waters provide a lifeline to the districts of Theni, Madurai, Sivaganga, Dindigul, and Ramnad in Tamil Nadu.
- Based on the 1886 lease agreement, Tamil Nadu has insisted on exerting unrestricted colonial rights to control the dam and its waters.

Rule of Curve issue

- A rule curve, also known as a rule level, indicates how much storage or empty space should be kept in a reservoir at different times of the year.
- It determines how a reservoir's storage levels fluctuate.
- The rule curve is used to determine when a dam's gates will open. It's a part of a dam's "core safety" mechanism.
- Kerala is frequently blamed by the TN government for delaying the rule curve's finalisation.

History

Chola inscriptions on qualifications for civic officials



In the Kancheepuram district of Tamil Nadu, some Chola-era inscriptions on Kanthaleeswarar Temple bear testimony to the qualifications required for members of the village administrative council.

Inscription details: Kudavolai System

- The Kudavolai system was a crucial and unique

component of Chola village governance.

- In this system, each ward elects one delegate, and each village has 30 wards.
- Variyam was the name given to the village administration committee.
- The election was unusual in that the candidates' names were written on palm leaves and placed in a pot.

Taxation details

- The rulers were considerate while taxing agricultural produce.
- For areca nuts, only 50% tax would be collected for the first 10 years after cultivation. Farmers would pay full tax only after the trees started yielding fruits.
- Similarly, 50% tax was imposed on banana crops until the yield.

Q. In the context of the history of India, consider the

following pairs:

Term: Description

1. Eripatti: Land revenue from which was set apart for the maintenance of the village tank
2. Taniyurs: Villages donated to a single Brahmin or a group of Brahmins
3. Ghatikas: Colleges generally attached to the temples

Which of the pairs given above is/are correctly matched?

- (a) 1 and 2
- (b) 3 only
- (c) 2 and 3
- (d) 1 and 3

International Relations

China’s new land border law and Indian concerns



China has recently passed a new land law for the “protection and exploitation of the country’s land border areas”.

Land Border Law: Key Takeaways

- According to the law, China's sovereignty and territorial integrity are sacred and untouchable.
- It asks the government to take steps to protect territorial integrity and land borders, as well as to prevent and resist any conduct that

jeopardises them.

- The government can take steps to improve border defence, boost economic and social development, and open up border areas.
- It aims to strengthen public services and infrastructure in these areas, as well as encourage and support people's daily lives and work.

Other features

- In effect, this suggests a push to settle civilians in the border areas.
- The law also asks the state to follow the principles of equality, mutual trust, and friendly consultation, handle land border related-affairs with neighbouring countries.

China’s land borders

- China shares its **22,457-km land boundary with 14 countries** including India, the third-longest after the borders with Mongolia and Russia.
- Unlike the Indian border, however, China’s borders with these two countries are not disputed.
- The only other country with which China has

disputed land borders is Bhutan (477 km).

Why is it significant for India?

- In the eastern region of Arunachal Pradesh, China claims up to 90,000 square kilometres.
- It has illegally invaded 38,000 square kilometres of Aksai Chin in Jammu and Kashmir's western region.
- While the western sector's recent hostilities have been focused on Ladakh, both sides have recently battled in Uttarakhand.

A signal to India

- The law does not apply only to the border with India.
- This, however, could obstruct the conclusion of the 17-month military impasse at LAC.
- There is also a clear demarcation that the PLA will oversee the border, which will make negotiations more difficult.

Science Tech Art & Culture

What is Computer Tomography?



The first computed tomography image – a CT scan – of the human brain was made 50 years ago, on Oct. 1, 1971.

A few months back, almost all of us have heard about the High-resolution computed tomography (HRCT) scan being conducted on our relatives for diagnosing the damage of lungs caused due to the Wuhan Virus.

About Computer Tomography (CT)

- A CT scan is a diagnostic imaging technology used in radiology to provide detailed images of

the body without causing any pain.

- The tomographic (cross-sectional) images (virtual "slices") of a body are created by processing several X-ray data taken from various angles on a computer using reconstruction methods.

How does it work?

- A small X-ray beam circles around one region of your body. This generates a sequence of photos from various perspectives.
- This data is used by a computer to build a cross-sectional image. This two-dimensional (2D) scan reveals a "slice" of the inside of your body, similar to one piece of bread.
- This procedure is repeated in order to obtain a large number of slices.
- To build a detailed image of your organs, bones, or blood vessels, the computer layers these images one on top of the other.
- A surgeon, for example, would utilise this type of scan to examine all sides of a tumour in

preparation for a surgery.

Its development

- CT has proven to be a versatile imaging method since its inception in the 1970s.
- CT is mostly utilised in diagnostic medicine, but it can also be used to create images of non-living objects.
- Allan M. Cormack, a South African-American physicist, and Godfrey N. Hounsfield, a British electrical engineer, were jointly awarded the Nobel Prize in Physiology or Medicine in 1979 “for the creation of computer-assisted tomography.”

Threats

- X-rays, which create ionising radiation, are used in CT scans.
- Such radiation has the potential to harm your DNA and cause cancer.
- Every CT scan we have increases the danger.
- Children may be more vulnerable to ionising radiation.

Langa-Manganiyar Folk Music



Considered the repository of the Thar region’s rich history and traditional knowledge, the ballads, folklore and songs of the Langa-Manganiyar artistes are being preserved through an initiative for documentation and digitisation.

Who are the Langa-Manganiyar?

- The Langas and Manganiyars are hereditary Muslim musicians who live primarily in Jaisalmer and Barmer districts in western Rajasthan, as well as Tharparkar and Sanghar districts in Sindh.
- Before Independence, affluent landlords and merchants sponsored the two marginalised populations, and their music is an important element of Thar desert's cultural environment.
- Marwari, Sindhi, Saraiki, Dhatti, and Thareli are among the languages and dialects used in the performances.
- Legendary lovers such as Umar-Marvi, Heer-Ranjha, Sohni-Mahiwal, Moomal-Rana, and Sorath-Rao Khangar have enthralled audiences for centuries.

Instruments used

- The sindhi sarangi is the principal traditional instrument of the Langa, while the kamaicha is the major instrument of the Manganiyar.
- Both of these instruments are bowed stringed instruments with skin membrane sounding boards and a large number of sympathetic strings.
- The dholak (double-headed barrel drum), the kartal (wooden clappers), the morchan (jaws harp), and the ubiquitous harmonium are all played by Langas and Manganiyars.

Q. Consider the following pairs:

Tradition: State

1. Chapchar Kut: festival Mizoram
2. Khongjom Parba ballad: Manipur
3. Thang Ta dance: Sikkim

Which of the pairs given above is/are correct?

- (a) 1 only
- (b) 1 and 2
- (c) 3 only
- (d) 2 and 3

IAO Hanle: A promising astronomical observatory



A new study shows that the Indian Astronomical Observatory (IAO) located in Hanle is one of the emerging sites for infrared and optical astronomy studies.

About IAO Hanle

- The International Astronomical Observatory (IAO), which is based at Hanle on Mount Saraswati near Leh in Ladakh, contains one of the world's highest optical, infrared, and gamma-ray telescope sites.
- It was founded in 2001 and is run by Bangalore's Indian Institute of Astrophysics.
- At 4,500 metres above sea level, it is now the world's tenth tallest optical telescope.

Note: University of Tokyo Atacama Observatory (TAO) located in the Atacama desert of Chile is the highest at an elevation of 5,640 m.

Major telescopes at Hanle include:

1. Himalayan Chandra Telescope (An optical-infrared telescope named after India-born Nobel laureate Subrahmanyam Chandrasekhar)
2. GROWTH-India Telescope (A robotic optical telescope)
3. High Altitude Gamma Ray Telescope

Distinct factors of IAO Hanle

- Among all observatories around the world, IAO Hanle provides a clear view of space.
- This is owing to the benefits of clearer evenings, less light pollution, lower background aerosol concentrations, highly dry air, and a monsoon that never stops.
- Hanle is as dry as Chile's Atacama Desert and much dryer than Devasthal, with roughly 270 clear nights per year and is one of the most promising infrared and submillimetre optical astronomy sites.
- This is due to the fact that water vapour absorbs electromagnetic impulses and weakens them.

Physiology Nobel for work on temperature and touch



U.S. scientists David Julius and Ardem Patapoutian have won the Nobel Medicine Prize for discoveries on receptors for temperature and touch.

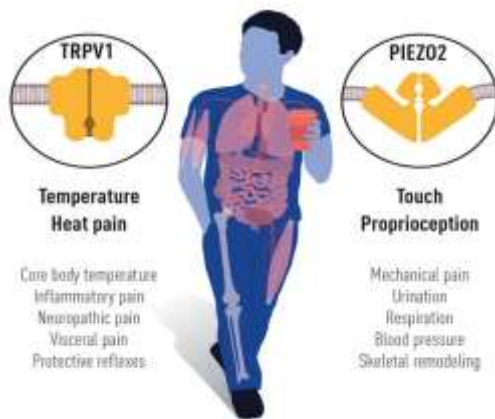
Who are the Laureates?

- David Julius and Ardem Patapoutian, working

independently in the United States, made a series of discoveries in the late 1990s and early 2000s.

- They figured out the touch detectors in our body and the mechanism through which they communicate with the nervous system to identify and respond to a particular touch.

What did they discover?



- They discovered molecular sensors in the human body that are sensitive to heat and mechanical pressure and allow us to "feel" hot or cold, as well as the contact of a sharp object on our skin.
- Dr. Julius and his colleagues published a study in Nature in 1997 that explained how capsaicin, a chemical component found in chilli peppers, creates the burning sensation.
- They built a library of DNA fragments to decipher the corresponding genes and eventually uncovered TRPV1, a new capsaicin receptor.
- Many other temperature-sensing receptors have since been discovered as a result of this discovery.
- They also discovered a novel receptor called TRPM8, which is triggered by cold. It's only found in a small number of pain- and temperature-sensing neurons.

- They discovered a single gene, PIEZO2, that when silenced rendered the cells immune to probing. Piezo1 is the name given to this novel mechanosensitive ion channel.

How do they work?

- The ability of humans to perceive heat, cold, and pressure is similar to the operation of many detectors that we are familiar with.
- When anything hot or cold comes into contact with the body, heat sensors allow certain molecules, such as calcium ions, to flow through the nerve cell membrane.
- It's like a gate that only opens when a specific request is made. The chemical's entry into the cell generates a slight change in electrical potential, which the nervous system detects.
- There are several distinct types of receptors that are sensitive to different temperature ranges.
- Greater channels open up to facilitate the flow of ions when there is more heat, and the brain can perceive higher temperatures.

Therapeutic implications

- Physiological breakthroughs have frequently improved our ability to battle diseases and disorders. This one is no exception.
- There are receptors in our bodies that cause us to feel pain. The participant felt less pain if these receptors could be suppressed or made less effective.
- A variety of illnesses and ailments cause chronic pain. Previously, the sensation of pain was a mystery.
- However, as we learn more about these receptors, it's likely that we'll be able to control them in such a way that pain is reduced.

What is Border Gateway Protocol (BGP) ?

The outages at Facebook, WhatsApp and Instagram occurred because of a problem in the company's domain name system. At the heart of it was a BGP or Border Gateway Protocol issue.

What is BGP?

- Simply described, it is the protocol that runs or makes the internet function.
- BGP is the technology that binds the internet together because it is a network of networks.
- When BGP fails, internet routers are unable to determine what to do, resulting in the internet becoming unavailable.
- The routers, especially the huge ones, maintain track of alternative possible routes for delivering network packets to the last possible source.
- Facebook platforms were the last point of destination in this situation, and the BGP failure meant that Facebook was unable to inform other networks that it was online.

How does it work?

- The BGP is like an entity that is responsible for creating and more importantly updating maps that lead you to sites like Google, Facebook or YouTube.
- So if someone is responsible for making and updating the map, and they make a mistake, then the traffic — or users — will not end up reaching that place.

How did a BGP issue affect Facebook?

- A BGP update message informs a router of any changes you've made to a prefix advertisement or entirely withdraws the prefix.
- There were a lot of routing changes from Facebook last night and then routes were

withdrawn, Facebook's Domain Name Server went offline.

Role of DNS

- DNS is the Internet's phone book.
- Domain names such as timesofindia.com or facebook.com are used to access information on the internet.
- Internet browsers use IP addresses, or Internet Protocol addresses, and DNS converts domain names to IP addresses so that browsers can access Internet resources.
- BGP is the internet's postal service, if DNS is its phone book.
- BGP identifies the best accessible paths for data to travel when a user submits data on the internet.

Mosquirix: First malaria vaccine to get WHO nod



In a historic move, the World Health Organization (WHO) has endorsed the first anti-malarial vaccine, as mankind enters a key turning point in a battle waged relentlessly over decades between man and mosquito, the vector.

Mosquirix

- RTS,S/AS01 (RTS.S), also known as Mosquirix, is an antimalarial drug that works against *P. falciparum*, the most fatal malaria parasite in the world and the most common in Africa.
- Over a four-year period in Africa, the vaccination was able to prevent nearly 4 out of 10 instances of malaria.
- This is the first malaria vaccine to successfully complete clinical trials.
- It is also the first malaria vaccine to be administered by three national ministries of health through their childhood vaccination programmes - over 800,000 children in Ghana, Kenya, and Malawi have been vaccinated as part of a trial programme, and are benefiting from the vaccine's enhanced protection.

How the vaccine can help?

- The World Health Organization's proposal is based on the recommendations of two worldwide advisory committees, one for immunisation and the other for malaria.
- The RTS,S/AS01 malaria vaccine has been recommended by WHO for the prevention of *P. falciparum* malaria in children living in locations with moderate to high transmission, as defined by it, in the context of comprehensive malaria control.
- The malaria vaccine should be given to children starting at the age of 5 months on a four-dose schedule to reduce malaria sickness and burden.

Chemistry Nobel to duo for developing Organo-Catalysis

The Nobel Prize for chemistry has been awarded to German scientist Benjamin List of the Max Planck Institute and Scotland-born scientist David WC MacMillan of Princeton University for their work on developing an organo-catalyst.



David MacMillan



Benjamin List

What are Catalysts?

- Other chemicals that do not change but help speed up the reaction are often used to help two or more compounds react to produce new molecules.
- These catalysts have been around since the middle of the nineteenth century and are currently employed in almost every chemical process.
- Only two types of compounds were known to act as effective catalysts until approximately the year 2000: metals, primarily heavier metals, and enzymes, naturally occurring heavy molecules that facilitate all life-sustaining biochemical processes.
- Both of these catalysts have their drawbacks.

Issues with conventional catalysts

- Heavy metals are costly, difficult to mine, and harmful to persons and the environment.
- Despite the best methods, residues persisted in the final product, posing a challenge in circumstances when extremely pure chemicals were required, such as in the creation of pharmaceuticals.
- Metals also required a dry, oxygen-free atmosphere, which was difficult to achieve on a large scale.
- Enzymes, on the other hand, perform best when the chemical reaction is carried out in

water.

- However, that is not an ideal setting for all chemical reactions.

Nobel invention: Organo-catalysis

Nobel Prize in Chemistry 2021
DEVELOPMENT OF ASYMMETRIC ORGANOCATALYSIS

THE LAUREATES
Benjamin List (Germany) and David MacMillan (UK-US)
for the development of a new tool for molecule building

Their work has helped make chemistry greener and has improved pharmaceutical research

Discovery of a new kind of catalyst: asymmetric catalysis (using small organic molecules), that is more environmentally friendly and more efficient than the other two catalysts, metals and enzymes

CATALYST
Substance that controls and accelerates chemical reactions, without becoming part of the final product

Frequently used, particularly when producing pharmaceuticals

- Allows drug makers to streamline the production of medicines for depression and respiratory infections, among others
- Isolates the active molecules to reduce undesirable effects in drugs

LIST'S CONTRIBUTION
Demonstrated that proline, an amino acid present in enzymes already used as a catalyst, allows the production of asymmetric molecules

MACMILLAN'S CONTRIBUTION
Sought to develop a catalyst less sensitive than metal ones, by elaborating a simple molecule containing two copper atoms, necessary for catalysis

ENZYME
Just the amino acids that catalyse the chemical reaction

METAL CATALYST
Copper atom

ORGANOCATALYST (organic molecule)
Nitrogen atom

PROLINE
Nitrogen atom
Oxygen atoms
Carbon atom

Chemical group that contributes to the reaction being asymmetric

- Both List and MacMillan began working with basic organic molecules.
- Organic molecules are generally found in nature and are made up of carbon atoms with hydrogen, oxygen, nitrogen, sulphur, or phosphorus as minor components.
- Proteins, which are lengthy sequences of amino acids (carbon compounds containing nitrogen and oxygen) that support life, are organic.
- Enzymes are organic substances because they are proteins.
- List and MacMillan began studying individual amino acids in enzymes and discovered gold.

What are asymmetric catalysis?

- Substances with identical chemical composition and molecular formula can have vastly different

characteristics. They're referred to as isomers.

- Isomers that differ in the orientation of individual atoms in three-dimensional space are one sort of isomer.
- Two molecules could be identical if they weren't mirror reflections of each other, as our hands are.
- Scientists commonly refer to these molecules as left-handed or right-handed for ease of understanding.
- When molecules interact with other molecules, this small change can have huge repercussions because it permits them to connect in different places.
- In most chemical reactions, the end product is a mixture of left-handed and right-handed molecules.
- By employing a natural chemical like an amino acid as a catalyst, List and MacMillan realised that they could only get one specific mirror image of the end-product.
- Asymmetric catalysis was eventually coined to describe this process.

Significance of their discovery

- The new catalysts, which were generated from naturally occurring compounds, were more environmentally friendly and less expensive, and they insured that the chemical reaction's final product was of a certain variety.
- To obtain the required sort of compound, the end product does not need to be purified.
- The Nobel Prize in Chemistry 2021 will be awarded to a discovery that has taken molecular construction to a whole new level.
- It has aided in the development of novel medications as well as making chemistry more environmentally friendly.

Linear No-Threshold (LNT) Model for Radiation Safety



The U.S. Nuclear Regulatory Commission (NRC) decisively upheld the Linear No-Threshold (LNT) model to prescribe radiation safety standards, ending the protracted controversy on the topic.

What is the LNT Model?

- The LNT is a dose-response model used in radiation protection to assess stochastic health consequences on the human body due to ionising radiation exposure, such as radiation-induced cancer, genetic changes, and so on.
- According to the LNT model, biological consequences such as cancer and genetic disorders from ionising radiation exposure rise as a linear function of dose with no threshold.
- It establishes a solid regulatory foundation for reducing the danger of unnecessarily high radiation exposure to the general public and radiation workers.

Why in news?

- The LNT model remains a solid foundation for a conservative radiation protection regulation framework that safeguards both the general public and occupational workers.
- The model aids the agencies in regulating

radiation exposures for a wide range of licensees, including commercial nuclear power plants, industrial radiographers, and nuclear medical clinics.

- There are numerous research and findings, including those from national and worldwide authoritative scientific advisory groups, that support the continued use of the LNT paradigm.

Indian meteorite helps study Earth's formation



The researchers from the Geological Survey of India collected about 30 meteorite fragments with the largest weighing around a kilogram near the town of Katol in Nagpur in 2012.

Significance of meteor study

- Now, by studying the composition of these meteorite fragments, researchers have

unraveled the composition expected to be present in the Earth's lower mantle which is at about 660 km deep.

- Studying the meteorite could also tell us more about how our Earth evolved from being a magma ocean to a rocky planet.

Key component of the Meteor: Olivine

- Initial studies revealed that the host rock was mainly composed of olivine, an olive-green mineral.
- Olivine is the most abundant phase in our Earth's upper mantle.
- Our Earth is composed of different layers including the outer crust, followed by the mantle and then the inner core.

How to study a meteorite?

- The researchers took a small sample of the meteorite and examined it using special microscopy techniques.
- The mineralogy was determined using a laser micro-Raman spectrometer.
- These techniques helped the team identify, characterise the crystal structure of the meteorite and determine its chemical composition and texture.

What does the new study show?

- A portion of this extremely shocked meteorite was analysed by an international team of specialists. It resembles the first natural occurrence of bridgmanite, a mineral.
- Prof. Percy W. Bridgman, winner of the Nobel Prize in Physics in 1946, was honoured with the mineral's name in 2014.
- Bridgmanite makes up around 80% of the Earth's lower mantle, according to several computational and experimental research.

- Scientists can interpret how bridgmanite formed during the last phases of our Earth's formation by studying this meteorite sample.

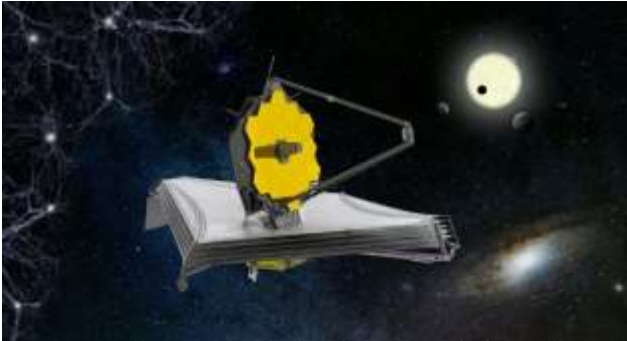
Bridgmanite: On Earth vs. on Meteorite

- The Katol meteorite is a one-of-a-kind specimen and a noteworthy find.
- The bridgmanite in the meteorite was discovered to have developed at shock pressures of roughly 23 to 25 gigapascals.
- Over billions of years, the tremendous temperature and pressure in our Earth's interior have fluctuated, producing crystallisation, melting, and remelting of many minerals until they reached their current state.
- Individual minerals must be studied in order to gain a complete understanding of how and when the Earth's strata evolved.

How does it help understand evolution of Earth?

- Mercury, Venus, Earth, and Mars, often known as terrestrial planets or rocky planets, are produced via accretion or the collision of rocky fragments.
- Increased pressure and high temperature induced by radioactive materials and gravitational forces resulted in their formation as a planet.
- Before the elements crystallised and stabilised, and the distinct strata such as the core and mantle were formed, our Earth was an ocean of magma.
- The heavier metals, such as iron, found their way to the core, while the lighter silicates remained in the mantle.
- We can learn more about the formation by utilising the meteorite as an analogue for Earth.

James Webb: The most powerful space telescope



On Dec 18, 2021, after years of delays, the James Webb Space Telescope is scheduled to launch into orbit and usher in the next era of astronomy.

James Webb Space Telescope

- JWST is a NASA–ESA–CSA space telescope that will take over as NASA's flagship astrophysics mission from the Hubble Space Telescope.
- It is the world's most powerful space telescope.
- It will enable a wide range of astronomical and cosmological investigations, including the observation of some of the universe's most distant events and objects. It will aid in the understanding of events such as the formation of the first galaxies and detailed atmospheric characterization of potentially habitable exoplanets.

Its significance

- Some have called JSWT the “telescope that ate astronomy.”
- It is said to look back in time to the Dark Ages of the universe.

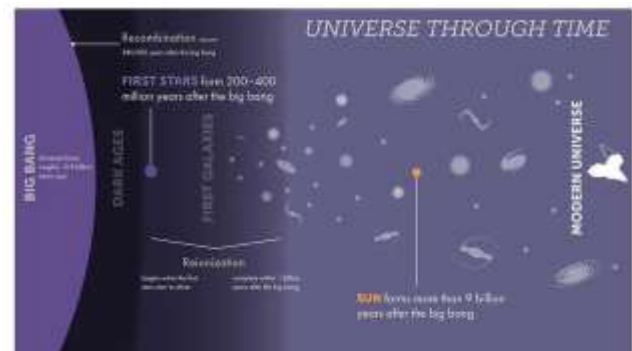
What does the ‘Dark Ages’ of the universe mean?

- Evidence suggests that the universe began 13.8 billion years ago with an event known as the Big Bang, which left it in an ultra-hot, ultra-dense

condition.

- Following the Big Bang, the cosmos began expanding and cooling.
- The universe was a hundred trillion miles across one second after the Big Bang, with an average temperature of an astonishing 18 billion degrees Fahrenheit (10 billion C).
- The universe was 10 million light-years vast and the temperature had dropped to 5,500 degrees Fahrenheit around 400,000 years after the Big Bang (3,000 C).
- Space was filled with a smooth soup of high-energy particles, radiation, hydrogen, and helium throughout this time.
- There was no framework to speak of. The soup thinned out as the expanding universe grew wider and colder, and everything faded to darkness.

This was the start of what astronomers call the Dark Ages of the universe.



How will JWST study this?

Ans. Looking for the first light

- The Dark Ages came to an end when gravity created the first stars and galaxies, which then began to radiate light.
- Astronomers want to learn more about this interesting and significant period of the cosmos, but identifying first light is extremely difficult.
- The initial objects were tiny in comparison to

today's big, luminous galaxies, and they're now tens of billions of light years away from Earth due to the universe's ongoing expansion.

- In addition, the first stars were surrounded by gas left over from their formation, which behaved like fog and absorbed the majority of the light.
- It took hundreds of millions of years for radiation to clear the fog. By the time it reaches Earth, this early light is very dim.

Q. Consider the following phenomena:

1. Light is affected by gravity.
2. The Universe is constantly expanding.
3. Matter warps its surrounding space-time.

Which of the above is/are the predictions of Albert Einstein's General Theory of Relativity, often discussed in media?

- (a) 1 and 2 only
- (b) 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Zeolite Oxygen Concentrators: Chemistry in 3-D

To meet the demand of oxygen supply in the country during the peak of pandemic, the Defence Research and Development Organisation (DRDO) had chartered the Air India to import 'Zeolite' from different countries.

What are Zeolites?

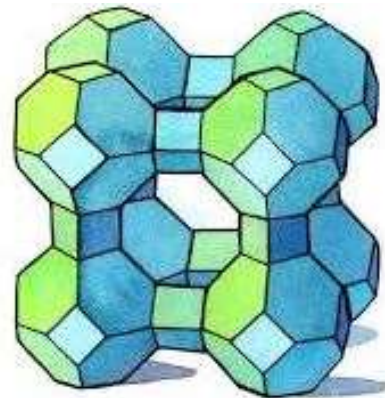
- Zeolites are highly porous, 3-dimensional

meshes of silica and alumina.

- In nature, they occur where volcanic outflows have met water.
- Synthetic zeolites have proven to be a big and low-cost boon.

Uses in Oxygen Concentrator

- The oxygen concentrator is one biological technology that has entered our language as a result of the pandemic.
- The scale of oxygen purification has been reduced from industrial-scale plants to the amounts required for a single person thanks to this equipment.
- Synthetic frameworks of silica and alumina with nanometer-sized pores that are hard and inflexible are at the heart of this technology.
- In an oxygen concentrator, zeolite 13X beads with a diameter of roughly a millimetre are packed into two cylindrical columns.



How does it work?

- The chemistry of separating oxygen from nitrogen in air is performed by zeolite.
- Zeolite beads have a surface area of roughly 500 square metres per gramme due to their porous nature.
- Chemically, nitrogen and zeolite are in a tight

embrace at high pressures in the column.

- Nitrogen is preferentially adsorbed on the zeolite's surface due to interaction between the negatively charged zeolite and the asymmetric nucleus (quadrupole moment) of nitrogen.
- As a result, oxygen remains unrestricted and is thus enhanced.
- After the nitrogen is collected, the column emits 90 percent or more oxygen.
- The nitrogen is then flushed out once the pressure in the column is reduced, and the cycle is restarted with new air.

three continents.

- They are, however, restricted to microhabitats consisting of limestone caves or karst landscapes created by limestone dissolution.



About

Mawsmmai Cave

- The Mawsmmai cave is located in Mawsmmai, a tiny town in the East Khasi Hills area of Meghalaya, about four kilometres from Cherrapunjee (Sohra).
- It is situated at an elevation of 1,195 metres above sea level and is influenced indirectly by the Kynshi River, which originates in the East Khasi Hills.
- In the Khasi language, the name 'Mawsmmai' means 'Oath Stone.' The cave is referred to as 'Krem' by the Khasi people.
- It is known for its fossils, some of which may be seen on the inside walls and formations.
- The longest is 30,957 metres long Krem Liat Prah in the Jaintia Hills (31 km approx.)

Mawsmmai Cave



A micro snail species named *Georissa mawsmmaiensis* has recently been discovered from Mawsmmai, a limestone cave in Meghalaya, 170 years after the last such discovery was made.

Georissa mawsmmaiensis

- *Georissa* can be found in soil or subterranean environments in both lowland tropical and high altitude evergreen forests, as well as on calcium-rich rock surfaces.
- *Georissa* species can be found in Africa, Asia, and the Pacific, and have been reported from all

What is the Lucy Mission?

The NASA has launched Lucy, the spacecraft on a 12-year cruise to look back into the origins of the solar system through Trojans.

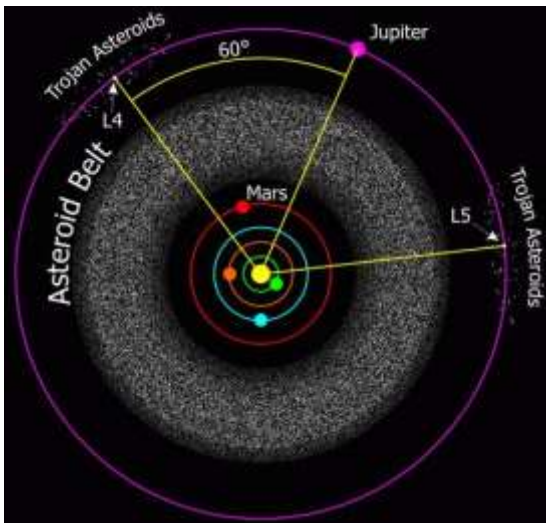
Lucy Mission

- Over the next 12 years, Lucy will pass by eight Jupiter asteroids—seven Trojans and one main-

belt asteroid.

- It is the first time in NASA history that a single spacecraft has explored so many distinct asteroids.
- Lucy will be powered entirely by solar energy and will travel 850 million kilometres from the Sun.
- According to NASA, this makes it the farthest-flung solar-powered spacecraft ever.

What is Jupiter Trojan Asteroids?



- Simply known as Trojans, they are a large group of asteroids that share Jupiter's orbit around the Sun.
- Thousands of such asteroids exist in a gravitationally stable space.
- The swarms lead and follow the planet Jupiter along its orbit around the Sun.

What exactly are Trojans?

- Lucy's Trojan destinations are stranded at Jupiter's Lagrange (L) points, which are gravitationally stable areas where the Sun's and Jupiter's gravity cancels out.
- This indicates that their orbits are steady, and the Trojans are locked between them.

- Asteroids are also the same distance from Jupiter as they are from the Sun.
- The leading and trailing Lagrangian points (L4 and L5) of Jupiter have remained constant throughout the solar system's history.
- This suggests that a large number of asteroids have gathered in their orbits.
- A Trojan is a co-orbital object since it revolves around one of the two stable Lagrangian points.

When and how were they discovered?

- Many scientists struggled to comprehend Trojans and, as a result, label them.
- In 1906, a German astronomer made a significant discovery: an asteroid with a highly unique orbit. This asteroid remained ahead of Jupiter as it travelled.
- The asteroid was about 60 degrees in front of Jupiter when it was discovered.

Lagrange's propositions

- Over a century ago, the Italian-French mathematician Joseph-Louis Lagrange anticipated this particular situation of strange behaviour.
- From the perspective of the planet, Lagrange postulated that if a small celestial body is placed at one of two stable points in its orbit around the Sun (the L4 and L5), the asteroid will remain stationary.
- This is due to the planet's and the Sun's combined gravitational pull.
- As a result, Lagrange's prognosis gained credence. Over the next few months, more asteroids of this type were identified at Jupiter's Lagrange point L5.

Behind the name: Lucy

- It's the remains of a hominid from 3.2 million

years ago.

- She is regarded as one of history's most renowned pre-human fossils.
- A team of paleoanthropologists led by Donald Johanson uncovered nearly 40% of the fossilised skeleton of this hominid in 1974.
- The name was inspired by the Beatles' song "Lucy in the Sky with Diamonds," which Johanson's team was listening to at camp the night of their discovery.

Punjab farmers create Bio-Enzymes from Kinnow



Some farmers in Punjab, especially in the Kinnow belt, have started making Bio-Enzymes (BEs) from this waste fruit — peel and 'D' grade, very small kinnows.

What is a Kinnow?

- The 'Kinnow' is a high-yielding citrus fruit that is widely grown in India and Pakistan's Punjab area.
- It's a crop that lasts all year, with the major harvesting season falling between November and March.
- It has a similar appearance to orange but is

smaller.

Agricultural significance of Kinnows

- Fallen fruit is a huge difficulty for kinnow producers in the state because they must be buried in small trenches or the fruit would decay and attract flies to the healthy fruit still on the bushes.
- However, some farmers are already producing BEs from this waste kinnow to enhance the pH level and soil fertility of their land.

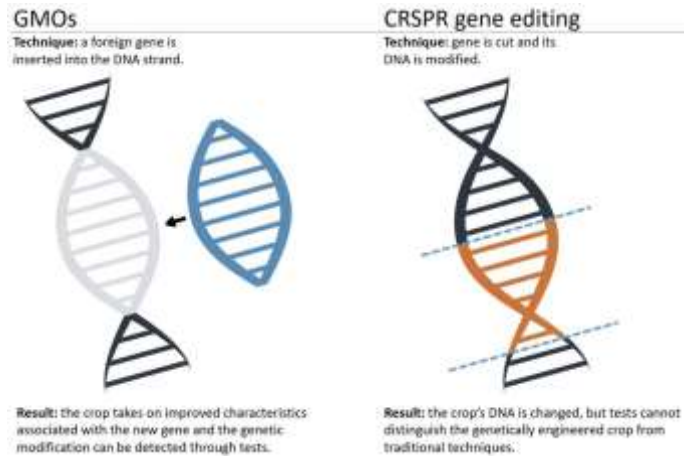
What are Bio-Enzymes?

- Bio Enzymes are a chemical mixture of complex organic components such as proteins, ions, and other elements that are by-products of bacteria and yeast.
- They make it by fermenting organic waste such fruits, vegetable peels, and flowers, then adding sugar, jaggery/molasses, and water.
- BEs are also widely used in our daily life. They can be used to clean naturally.

Benefits offered by BEs

- BEs include a large number of beneficial microorganisms and are one of the most important techniques for improving our ecology as a whole.
- It aids in redressing the imbalance caused by excessive chemical use in our land, air, and water.
- BEs can bring the soil back to life in a state like Punjab, where the water table is rapidly diminishing and water contamination is a big concern.
- It aids in improved water recharging and also prevents water pollution by enhancing soil health.

What are Non-Transgenic Gene Editing techniques?



The Centre is yet to decide on a research proposal from scientists which would allow plants to be genetically modified without the need for conventional transgenic technology.

What is Genome Editing?

- Genome editing (also known as gene editing) refers to a set of technologies that allow scientists to alter an organism's DNA.
- These technologies allow for the addition, removal, or modification of genetic material at specific points in the genome.
- There have been several ways to genome editing developed.

Techs for Genome Editing

The core technologies now most commonly used to facilitate genome editing are

1. Clustered regularly interspaced short palindromic repeats (CRISPR)- associated protein 9 (Cas9)
2. Transcription activator-like effector nucleases (TALENs)
3. Zinc-finger nucleases (ZFNs)

4. Homing endonucleases or meganucleases

Newer technologies

- The Institute has now moved to newer technologies such as **Site-Directed Nuclease (SDN) 1 and 2**.
- They aim to bring precision and efficiency into the breeding process using gene-editing tools such as **CRISPR**, whose developers won the Nobel Prize for Chemistry in 2020.

About CRISPR

- CRISPR-Cas9 is a genome-editing mechanism that evolved naturally in bacteria.
- CRISPR arrays are DNA segments created by bacteria that catch fragments of DNA from invading viruses.
- Bacteria can "remember" viruses thanks to CRISPR arrays (or closely related ones).
- If the viruses resurface, the bacteria synthesise RNA segments from the CRISPR arrays to assault the viruses' DNA.
- The bacteria then rip the virus DNA apart with Cas9 or a similar enzyme, rendering the virus inactive.
- Other genome editing methods are slower, more expensive, less accurate, and inefficient than this technology.

What is Non-Transgenic Gene Editing?

- Unlike the older GM technology which involves the introduction of foreign DNA, the new proposal involves the use of gene editing tools to directly tweak the plant's own genes instead.
- It does not involve inserting any foreign DNA.

Use in India

- Scientists at the **Indian Agricultural Research Institute (IARI)** are in the process of developing resilient and high-yield rice varieties using such

gene editing techniques.

- However, this proposal has been **pending** with the **Genetic Engineering Appraisal Committee (GEAC)** for almost two years.

Why need such technique?

- **Similar to natural mutation:** But in this case, this protein is right there in the plant, and is being changed a little bit, just as nature does through mutation.
- **Faster and cheaper:** It is much faster and far more precise than natural mutation or conventional breeding methods which involve trial and error and multiple breeding cycles.
- **Safe for consumption:** When a protein comes from an outside organism, then you need to test for safety.
- **Pathbreaking:** It is potentially a new Green Revolution.

No approval issues

- When genome-edited plants in the SDN 1 and SDN 2 categories are taken to open field trials, they do not contain any foreign DNA.
- The United States, Canada, Australia, and Japan are among the countries that have already accepted SDN 1 and 2 as non-GM technologies.
- As a result, such rice types can be exported without difficulty.
- The European Food Safety Authority has also stated that these methods do not require the same level of safety assessment as conventional genetic modification.

Ramappa – Kakatiya Rudreshwara Temple

The Union Minister for Culture, Tourism has unveiled the UNESCO World Heritage Listing plaque at Ramappa

– Kakatiya Rudreshwara Temple in Palampet.



Rudreshwara Temple

- Recharla Rudra, a commander of Kakatiya monarch Ganapati Deva, built the Rudreshwara temple in 1213 AD during the rule of the Kakatiya Empire.
- The temple is also known as the Ramappa temple, after the sculptor who worked on it for 40 years.
- The ruined ruins of the Kateshwarayya and Kameshwarayya temples at Palampet, around 220 kilometres from Hyderabad, flank the main temple.
- The temple was built in 1135 Samvat-Saka on the ninth day of Magha, according to an inscription (January 12, 1214).
- It is the 39th UNESCO World Heritage Site in India. (After Dholavira, there were a total of 40 people.)

Its architecture

- The Kakatiyan sculptor's impact may be seen in the temple complexes of Kakatiyas, which have a particular style, technology, and decoration.
- The temple is built on a 6 foot high star-shaped platform, with elaborate carvings on the walls, pillars, and ceilings attesting to the Kakatiyan sculptors' expertise.
- The "sandbox technique" was used to construct the foundation, the flooring is granite, and the pillars are basalt.
- The bottom section of the temple is made of

red sandstone, while the white gopuram is made of light bricks that float on water, according to legend.

- The temple's grandeur enthralled European traders and tourists, with one remarking that it was the "brightest star in the galaxy of mediaeval Deccan temples."

Surviving through ages

- According to the temple priest, some of the temple's iconography was damaged during Malik Kafur's assault in 1310.
- The rest was vandalised by treasure hunters.
- But it was an earthquake in the 17th century that put the temple to the ultimate test (one of the biggest was that of 7.7-8.2-magnitude on June 16, 1819).

Q. Which one of the following was a very important seaport in the Kakatiya kingdom?

- (a) Kakinada
- (b) Motupalli
- (c) Machilipatnam (Masulipatnam)
- (d) Nelluru

What is Hybrid Immunity?

Risky gamble | What is the best way to acquire immunity to SARS-CoV-2?

- Hybrid immunity refers to a combination of natural infection with a single dose of vaccine.
- Several studies now show that hybrid immunity provides greater protection than natural infection without vaccination or full vaccination alone.
- Fully vaccinated people without prior infection showed a steeper decline in neutralising antibodies over a period of three to seven months than those with prior infection.
- A study published in Science observed that boosting of pre-existing immunity from prior infection with vaccination mainly resulted in a transient benefit to antibody titer with little-to-no long-term increase in cellular immune memory.
- The immunological advantage from hybrid immunity arises mostly from memory B cells which evolve in the lymph nodes.
- The bulk of antibodies after infection or vaccination decline after a short while, however, the memory B cells get triggered on subsequent infection or vaccination.

A study has shown that a combination of natural infection with a single dose of vaccine provides greater immunity than either natural infection without

vaccination or full vaccination in individuals.

What is the new study?

- Over the course of three to seven months, people who had never been infected but were fully vaccinated with the Pfizer or AstraZeneca vaccine had a decrease in neutralising antibodies.
- However, in vaccinated patients who had already been infected, the drop was substantially smaller.
- The neutralising antibody response was greater and more lasting in people with hybrid immunity.
- Hybrid immunity is more effective than infection or vaccination alone in providing protection.

What is Hybrid Immunity?

COVID-19 Infection + Vaccination = 'Hybrid Immunity'

- 'Hybrid immunity' protects against different coronavirus strains
- The 'superhuman' immunity prevails in individuals who had prior COVID-19 infection and vaccination

- It is natural immunity from an infection combined with the immunity provided by the vaccine.
- The immunological advantage from hybrid immunity arises mostly from memory B cells.

What are memory B cells?

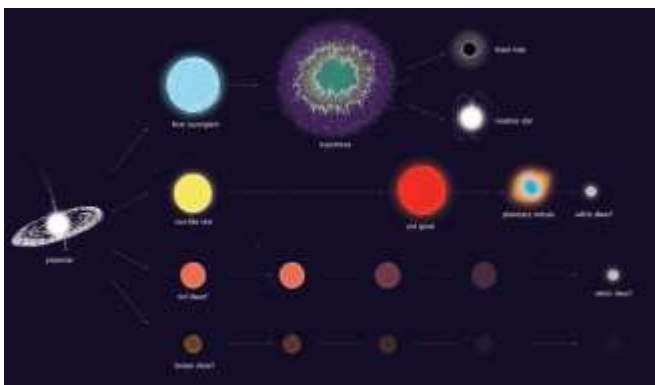
- A memory B cell (MBC) is a type of B lymphocyte that is part of the adaptive immune system in immunology.
- B lymphocytes are immune system cells that produce antibodies to attack infections such as viruses.
- They develop memory cells that remember the

same pathogen in order to produce antibodies faster in the future.

How do they assist hybrid immunity?

- While the majority of antibodies are lost following infection or vaccination, memory B cells are stimulated by recurrent infection or vaccination.
- Virus responses differ between memory B cells triggered by infection and those activated by vaccination.
- The immune system is exposed to the spike protein in dramatically different ways depending on whether it is infected or vaccinated.
- For a year following infection, antibodies created by spontaneous infection grew in potency and breadth against variations after full vaccination.
- Unlike memory B cells created after vaccination, those formed following a spontaneous infection are more likely to produce antibodies that inhibit immune-evading variations.

What is White Dwarf?



Using the Hubble Space telescope and Transiting Exoplanet Survey Satellite (TESS), astronomers have identified several white dwarfs over the years.

Where is this white dwarf?

- When a star, such as the Sun, runs out of nuclear fuel, it becomes a white dwarf.
- This type of star expels most of its outer material near the conclusion of its nuclear burning cycle, forming a planetary nebula.
- Only the star's scorching core remains. With a temperature of above 100,000 Kelvin, this core transforms into a very hot white dwarf.
- The white dwarf cools down during the next billion years or so unless it is accreting stuff from a neighbouring star.

Limits for white dwarf

- White Dwarf is half the size of our Sun and has 100,000 times the gravity of Earth's surface.
- A white dwarf can only have a certain amount of mass.
- This limit was discovered to be 4 times the mass of the Sun by Subrahmanyan Chandrasekhar. The "Chandrasekhar Limit" is suitably named.

Observing white dwarf

- Many nearby, young white dwarfs have been detected as sources of soft, or lower-energy, X-rays.
- Recently, soft X-ray and extreme ultraviolet observations have become a powerful tool in the study the composition and structure of the thin atmosphere of these stars.

What is TESS?

- The Transiting Exoplanet Survey Satellite was used to observe this phenomena (TESS).
- TESS is a NASA Explorer-class satellite telescope that uses the transit method to look for extrasolar planets.
- TESS' primary mission goal is to search for transiting exoplanets over a two-year period by surveying the brightest stars near Earth.

- The TESS project will conduct an all-sky scan with a variety of wide-field cameras. It will look for exoplanets near neighbouring stars.

How does white dwarf 'switch on and off'?

- In these settings, the accretion disc is fed by the donor star's orbit around the white dwarf.
- The accretion disc material becomes brighter as it steadily sinks closer to the white dwarf.
- Donor stars in some systems have been found to quit feeding the disc.

Nationwide Pneumococcal Conjugate Vaccine (PCV) drive launched



Union Health Minister has launched a nationwide expansion of Pneumococcal 13-valent Conjugate Vaccine (PCV) under the Universal Immunisation Programme (UIP).

Why such drive?

- Pneumonia was the main cause of death among children under the age of five in both India and the rest of the world.
- The most common cause of severe pneumonia in children is pneumococcus pneumonia.
- In India, pneumonia is responsible for about 16% of all child mortality.
- PCV will reduce child mortality by 60 percent when it is implemented nationwide.

Pneumococcal Conjugate Vaccine (PCV)

- The PCV is a mixture of bacteria from the pneumococci family, which are known to cause pneumonia—hence the word "conjugate" in the vaccine's name.
- Pneumococcal disease is prevented by PCV. Pneumococcal illness can be prevented in both children and adults.
- Conjugate vaccines are created by mixing two distinct components together.

Pneumonia vs Pneumococcal pneumonia

- Pneumonia is an infection of the lungs.
- Pneumococcal pneumonia is a type of pneumonia that starts in the upper respiratory tract and spreads to the blood, lungs, middle ear, and nerve system.
- Pneumococcal disease refers to any infection caused by *Streptococcus pneumoniae* or pneumococcus bacteria.

Q. What is the importance of using Pneumococcal Conjugate Vaccines in India?

1. These vaccines are effective against pneumonia as well as meningitis and sepsis.
2. Dependence on antibiotics that are not effective against drug-resistant bacteria can be reduced.
3. These vaccines have no side effects and cause no allergic reactions.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 1 and 2 only
- (c) 3 only
- (d) 1, 2 and 3

Security Issues

Exercise Yudh Abhyas 2021

observers to Cope India 2018 for the first time as an observer in 2018.



The 17th edition of the India-U.S. bilateral exercise, Yudh Abhyas 2021, got underway in mountainous terrain and cold climate conditions of Alaska, US.

Yudh Abhyas 2021

- Exercise Yudh Abhyas is the largest running joint military training and defence cooperation endeavour between India and USA.
- The exercise aims at enhancing understanding, cooperation and interoperability between the two armies.

Why it is significant?

- Surprisingly, this is the only bilateral service exercise between India and the United States.
- With the addition of Japan in 2015, the India-US Malabar naval exercise became trilateral, and with the addition of Australia in 2020, it became quadrilateral.
- In 2018, Japan became an observer at the India-US bilateral air exercise Cope India, with plans to make it trilateral in stages.
- Aside from Malabar, Japan had deployed

Exercise Cambrian Patrol



A team from Gorkha Rifles which represented the Indian Army at the prestigious Cambrian Patrol Exercise at Brecon, Wales, UK, has been awarded a Gold medal.

Ex Cambrian Patrol

- This exercise, which is organised by the United Kingdom Army, is regarded as the ultimate test of human endurance and team spirit, and is frequently referred to as the Olympics of Military Patrolling.
- The Cambrian Patrol's mission is to give a rigorous patrols exercise that will improve operational capability.
- The event has evolved into a low-cost, ready-to-use exercise that Commanding Officers can utilise to assess their soldiers' basic training requirements in advance of future operations.
- It's mission-driven and scenario-based, with role players assisting in the learning process.

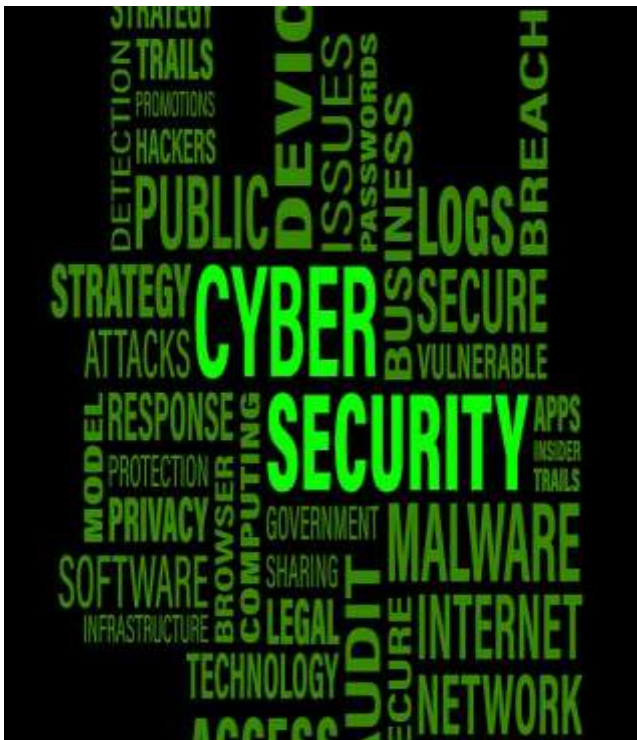
How it is conducted?

- Teams are judged on how well they execute in

difficult terrain and in cold weather during the exercise.

- They face a variety of hurdles in addition to the sophisticated real-world scenarios that are presented to them in order to measure their combat reactions.

National Cyber Coordination Centre (NCCC)



There are cybersecurity organisations in the country but no central body responsible for safety in the online space said the National Cyber Security Coordinator (NCSC).

National Cyber Coordination Centre

Headed by National Cyber Security Coordinator: Lt. Gen. Rajesh Pant (Retd.)

Objective: To help the country deal with malicious cyber-activities by acting as an Internet traffic monitoring entity that can fend off domestic or international attacks.

- In India, the National Cyber Coordination Centre (NCCC) is a functioning cybersecurity and e-surveillance body.
- The Ministry of Home Affairs has control over it.
- It works with a variety of security and surveillance authorities, as well as the Ministry of Electronics and Information Technology's CERT-In.
- A cybercrime prevention plan, cybercrime investigation training, and a review of obsolete laws are all part of the NCCC.

Functions

- It would be India's first layer of cyber threat monitoring, with all contact with the government and private service providers going via it.
- The NCCC will be in virtual touch with all ISPs' control rooms to scan traffic within the country, including traffic flowing at the international gateway.

Cyber-security bottlenecks in India

- India lacks a dedicated cyber-security law and is ill-prepared to deal with cyber-attacks.
- The National Cyber Security Policy of India was drafted in 2013 but has yet to be implemented.
- NCCC has been labelled as an Indian government effort with no legal framework, which could be counterproductive by infringing on civil freedoms and human rights.
- Given the lack of defined privacy legislation in India, some have voiced worry that the NCCC could infringe on residents' privacy and civil freedoms.

Trivia

Economics Nobel for Natural Experiments



The 2021 Nobel Prize in Economic Sciences was awarded to three US-based economists.

Do you know?

The Nobel Prize is officially called as *Sveriges Riksbank Prize!*

Who are the awardees?

- Nobel Committee awarded half the Prize to **David Card** for his "empirical contributions to labour economics"
- Other half to **Guido Imbens** and **Joshua Angrist** "for their methodological contributions to the analysis of causal relationships"

What makes this year's award special?

- This is the first time the economic reward has been split in this way, with half going to one winner and the other half split between two.
- Even if the reward was for diverse topics in the past, as it is this time, the prize money was distributed evenly between the honorees.
- Although the Nobel Prize appears to have been awarded for two separate achievements, there is a unifying theme: "natural experiments."

What are Natural Experiments?

- Economists are frequently interested in causal questions, such as the effect of education on earnings, the effect of COVID-19 on poverty, and so on.
- They're also interested in learning about causality's direction.
- To investigate these concerns of causality and direction of causality, economists have utilised two types of experiments: random experiments and natural experiments.

(I) Random experiments

- Researchers assign medicines to a treatment group in randomised experiments and compare the effects of the medicine to a control group that is not administered the medicine.
- Three scholars were honoured by the Nobel Committee in 2019 for their contributions to the field of randomised experiments.
- However, randomization studies cannot be used to investigate why specific people and locations are more unequal or have fewer educational chances, for example.

(II) Natural experiments

- Economists utilise natural experiments to investigate a policy change or a historical event and try to figure out the cause and effect relationship that explains the changes.
- Natural experiments were employed by the three to make significant contributions to economic growth.
- For two reasons, natural experiments are more difficult. The first step is to figure out what will be a natural experiment.
- Second, the researcher knows and controls the treatment and control groups in a random

experiment, allowing them to analyse the cause and effect of medicine.

Natural experiments conducted by David Card

- Understanding the impact of rising minimum wages on employment is one subject that policymakers are interested in.
- Earlier research has shown that raising minimum wages reduces unemployment.
- Economists were likewise undecided about the causal relationship between minimum salaries and employment.
- Assume that the economy slows, resulting in more unemployment among lower-income groups.
- Lower-income groups may seek greater minimum salaries as a result of this. In this situation, greater minimum wages are the result of higher unemployment.

Contribution of Angrist and Imbens

- Angrist and Imbens demonstrated how natural experiments may be utilised to precisely determine cause and effect.
- As we've seen, natural trials make it impossible to distinguish between control and treatment groups. This makes establishing causal relationships challenging.
- The team created a system called Local Average Treatment Effect (or LATE) in the 1990s that used a two-step process to address these issues in natural studies.
- Let's say you're curious in the effect of an extra year of schooling on people's earnings.
- Using the LATE method, they discovered that an additional year of education has a 9 percent impact on income.

- While it may not be able to identify specific members of the group, the size of the impact can be estimated.

What is the importance of the award today?

- It used to be difficult to find natural trials, and even when they were found, it was difficult to generate data from them.
- It is now easier to not only find natural experiments, but also to obtain data, thanks to growing digitalization and diffusion of archive materials.
- Natural experiments have been used by economists to assist us comprehend the impact of previous actions.
- As the 2020 pandemic approached, economists analysed how previous pandemics impacted different locations and attempted to draw policy lessons using the natural experiments approach.

India context

- The methodology dates back to the early to mid-1990s, and it has already had a significant impact on research in various developing nations, including India.
- Higher minimum wages, for example, are widely believed to be counterproductive for employees in India.
- It's worth noting that, following the Covid-induced lockdowns last year, some states, including Uttar Pradesh, banned several labour rules indefinitely.
- This includes those who argued that controlling minimum wages would increase employment.
- The major takeaway is that in India, minimum wages can be raised without affecting employment.



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