

# CURRENT AFFAIRS



**SEPTEMBER 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 September 2021.*

*The Magazine is divided into three sections:*

*Section 1: Topic Wise Current Affairs in Short .....Page 04 to Page 83*

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

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

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## *Section 3: Detailed Analysis of important events .....Page 120 to Page 171*

*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



### Poshan 2.0.

Beginning September 1, 2021, the Union Ministry of Women and Child Development has planned to celebrate the POSHAN MAAH throughout the month of September. As part of the Azadi Ka Amrit Mahotsav, this will be commemorated. To improve Holistic Nutrition and ensure rapid and intensive outreach, the entire month has been separated into weekly themes for a focused and integrated approach.



### World Coconut Day :02 September

World Coconut Day is observed on September 02 every year since 2009. It is observed for promoting this tropical fruit and bringing awareness regarding its health benefits. The theme of World Coconut Day 2021 is 'Building a Safe Inclusive Resilient and Sustainable

Coconut Community Amid COVID-19 Pandemic & Beyond'.



### Shikshak Parv-2021: 05 September

From September 5, 2021, the Shikshak Parv-2021 was observed. On September 7, Prime Minister Narendra Modi had address teachers, students, and other education stakeholders during the Shikshak Parv-2021. This event was commemorated to honour teachers' contributions.



### International Day of Charity 05 September

Every year on September 5th, along with Teacher's Day, the International Day of Charity is commemorated. On this day, all kinds of philanthropic and humanitarian actions are recognised. The goal of charity is to alleviate

problems that plague a community.



## Food Processing Week

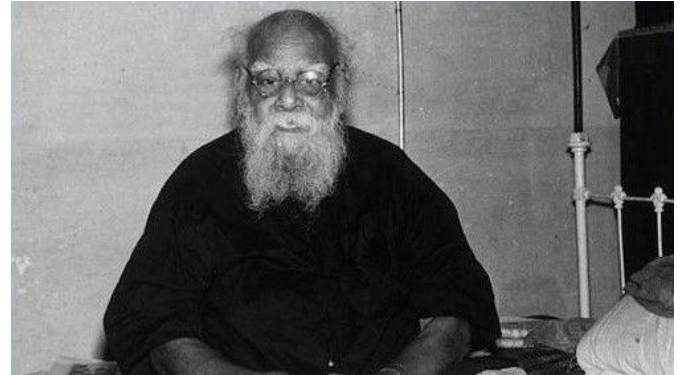
To commemorate 75 years of India's independence, the Government of India is celebrating the 'Azadi Ka Amrit Mahotsav.' As a part of the celebration, the Ministry of Food Processing Industries is observing 'Food Processing Week' from 6th to 12th September 2021, under which, the Ministry is organizing various programs.



## Clean Air for Blue Skies : 07September

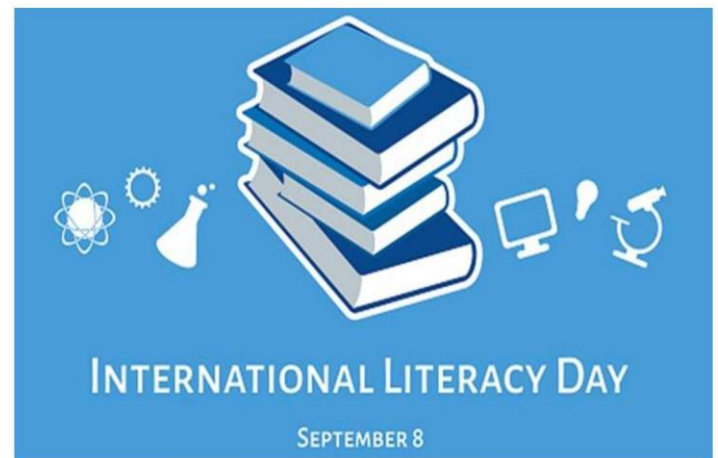
Every year on September 7, the International Day of Clean Air for Blue Skies is honoured. The United Nations Environment Programme is hosting the event (UNEP). The day was commemorated in 2021 with the theme

"Healthy Air, Healthy Planet."



## Periyar's birth anniversary – Social Justice : 17 September

The Tamil Nadu government has declared the day of reformist politician E V Ramasamy Periyar's birth "Social Justice Day." On September 17, E V Ramasamy Periyar was born. Every year, this day will be commemorated as "Social Justice Day." Social justice, equality, self-respect, and rationalism were central to Periyar's ideology.



## International Literacy Day :08 September

International Literacy Day is observed globally on 8th September every year. The day spread awareness about the importance of literacy for individuals, communities, and societies and the need for intensified efforts towards more literate societies. The theme of 55th International Literacy Day is Literacy for a human-

centred recovery: Narrowing the digital divide.



## Protect Education from Attack: 09 September

On September 9, 2021, the United Nations marked the International Day to Protect Education from Attack. On September 9, 2020, the United Nations marked the first-ever 'International Day to Protect Education from Attack.' The adoption of UN General Assembly Resolution 74/275 established this day.



## World EV day; 09 September

Every year on September 9th, World EV Day commemorates the celebration of e-mobility. Special awareness initiatives are being held around the world to educate people about the benefits of electric vehicles on this occasion. It's a social media campaign aimed at convincing drivers of the advantages of electric

automobiles.



## Himalaya Day 2021 :09 September

As part of the 'Azadi ka Amrit Mahotsav,' the National Mission for Clean Ganga organised Himalaya Diwas in conjunction with Naula Foundation on September 9, 2021. The topic for Himalayan Day 2021 was 'Contribution of the Himalayas and Our Responsibilities.'



## World Suicide Prevention Day:10 September

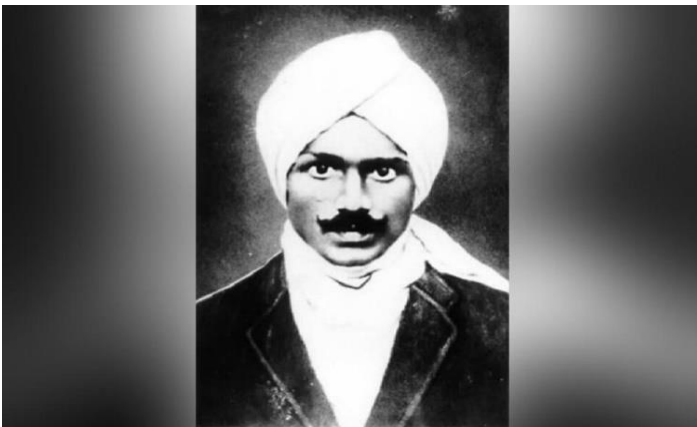
On September 10, 2021, World Suicide Prevention Day was marked. The day is commemorated every year to raise awareness about the various ways in which suicide might be avoided. It was originally commemorated on September 10, 2003, as a joint initiative of the International Association for Suicide Prevention (IASP)

and the World Health Organization (WHO).



## 9/11 attacks' 20th anniversary:09 September

The attack on the World Trade Center buildings in New York, often known as the "9/11 attack," will be commemorated on September 9, 2021. This episode, which occurred 20 years ago, sent shockwaves around the world. It revealed the ugliness of terror, aided and encouraged by Al Qaeda and perpetrated in the name of radical Islam.



## Mahakavi Day:11 September

The Tamil Nadu government has declared Mahakavi Day to celebrate the death anniversary of Subramania Bharathi, a fiery poet and freedom warrior. The 11th of September marks the anniversary of Subramania

Bharati's death. The poet's death will be commemorated in 2021, on his 100th birthday.

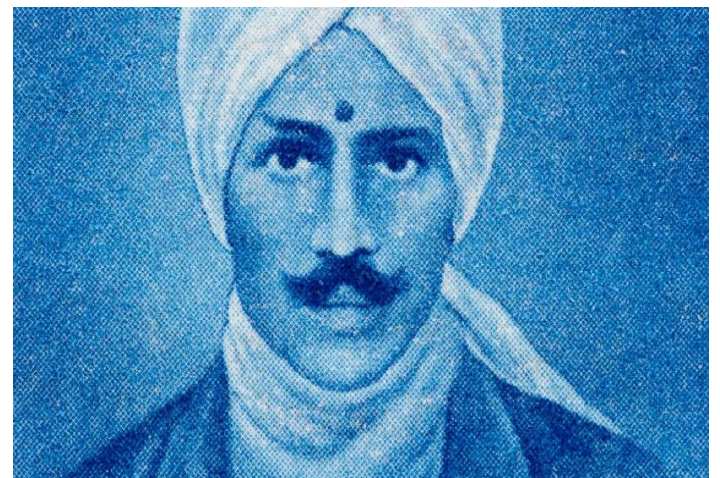


## United Nations Office for South-South Cooperation

### United Nations Day for South-South Cooperation:

#### 12 September

International Day for South-South Cooperation is observed globally on 12th September every year. The day celebrates the economic, social and political developments made in recent years by regions and countries in the south. It also highlights the UN's efforts to work on technical cooperation among developing countries.



### Subramania Bharat honour at BHU.

Prime Minister Narendra Modi said that a chair in Tamil studies will be established at Banaras Hindu University

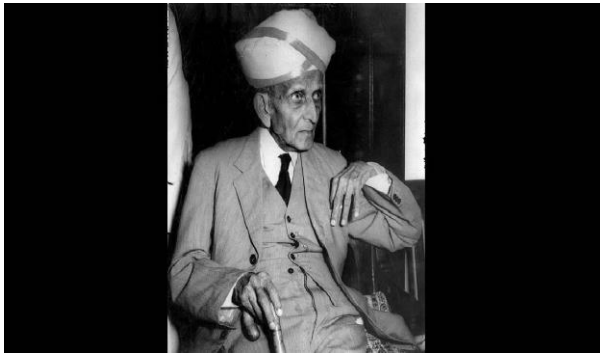


(BHU) in memory of Tamil poet Subramania Bharati. At BHU, the Chair will be established in the arts faculty. In 1921, the Tamil poet died away.



## Hindi Diwas:14 September

Hindi Diwas or Hindi Day is observed every year on 14 September to mark the popularity of Hindi as an official language of India. The language was adopted under Article 343 of the Indian Constitution. The first Hindi day was celebrated on 14th September 1953.



## Engineers Day 2021: 15 September

Engineers Day 2021 will be held on September 15 to commemorate Sir Mokshagundam Visvesvaraya's birthday. Sir Mokshagundam Visvesvaraya's contributions to engineering and education are commemorated on this day. Visvesvaraya is a man with noble ideals.



## International Day of Democracy: 15 September

On September 15, 2021, the International Day of Democracy was marked to reflect on the state of democracy around the world. "Strengthening democratic resilience in the face of future crises" is the theme of the International Day of Democracy in 2021.



## World Ozone Day: 16 September

On September 16, 2021, the globe commemorated World Ozone Day, also known as the International Day for the Preservation of the Ozone Layer. Every year, this day is commemorated in honour of a cause that may not be immediately apparent, but is critical to the preservation of the ozone layer.



## World Patient Safety Day: 17 September

World Patient Safety Day is observed on September 17 to create a global awareness for patient safety and urge people to show their commitment to making healthcare safer. The Day brings together patients, families, caregivers, communities, health workers, health care leaders and policy-makers to show their commitment to patient safety. The theme for 2021 WPSD is 'Safe maternal and newborn care'.



## World Patient Safety Day: 17 September

On September 17, 2021, the World Patient Safety Day was observed around the world to create global awareness about patient safety. Individuals are also encouraged to participate in the day in order to show their dedication to making healthcare safer. The World Health Organization (WHO) and its international partners commemorate this day.



## 36th International Coastal Clean-Up Day: 18 September

For the tenth year in a row, September 18, 2021, was designated as International Coastal Clean-up Day. Eastern Naval Command (ENC) in Visakhapatnam commemorated the occasion. ENC organised a Coastal Clean-up Drive at Yarada Beach, Bheemili Beach, and other seafronts in the vicinity of Visakhapatnam Naval Units as part of the day's activities.



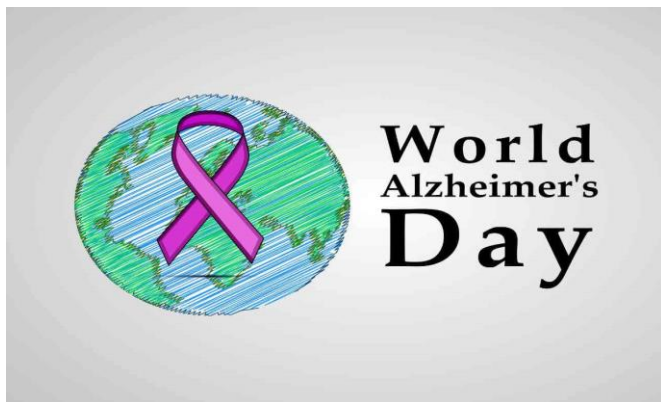
## International Equal Pay Day: 18 September

Every year on September 18, the International Equal Pay Day (IEPD) is commemorated with the goal of raising awareness and encouraging action toward attaining equal pay for equal labour. The United Nations commemorated the first-ever (IEPD) in 2020.



## International Day of Peace: 21 September

Every year on September 21, the International Day of Peace is commemorated all across the world. The United Nations General Assembly has designated this day as a day dedicated to supporting peace principles by observing a 24-hour period of nonviolence and cease-fire. "Recovering Better for an Equitable and Sustainable World" is the theme for the International Day of Peace in 2021.



## World Alzheimer's Day 2021 : 21 September

World Alzheimer's Day is observed on September 21 every year. The day aims to raise awareness about Alzheimer's disease and dementia. Alzheimer's disease is the most common form of dementia, which are degenerative brain diseases that destroy the memory and other brain functions of a person. The theme for World Alzheimer's Month in 2021 is 'Know dementia,

know Alzheimer's'.



## TN to observe Periyar's birth anniversary as Day of Social Justice : 17 September

The birth anniversary of social reformer and Dravidar Kazhagam founder 'Periyar' E.V. Ramasamy's birth anniversary would be observed as 'Day of Social Justice' in Tamil Nadu on September 17 every year, Chief Minister M.K. Stalin on Monday announced in the Legislative Assembly on Monday.



## World Rhino Day: 22 September

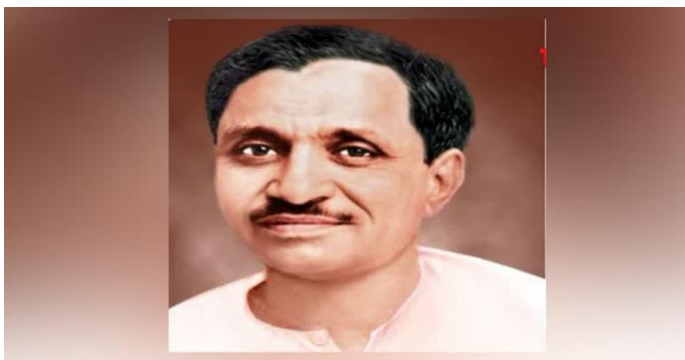
World Rhino Day is observed globally on 22 September every year. This day provides the opportunity for cause-related organizations, NGOs, zoos, and members of the public to celebrate rhinos in their own unique ways. This day is celebrated to raise awareness of the need to protect all the five existing species of Rhinoceros, which

are: Black Rhino, White Rhino, Greater one-horned Rhino, Sumatran Rhino and Javan Rhinos.



## The International Day of Sign Languages : 23 September

The UN General Assembly has proclaimed 23 September as the International Day of Sign Languages in order to raise awareness of the importance of sign language in the full realization of the human rights of people who are deaf. The 2021 theme, declared by the World Federation of the Deaf, is “We Sign For Human Rights,” highlighting how each of us – deaf and hearing people around the world – can work together hand in hand to promote the recognition of our right to use sign languages in all areas of life.



## Antyodaya Diwas On September 25 :-

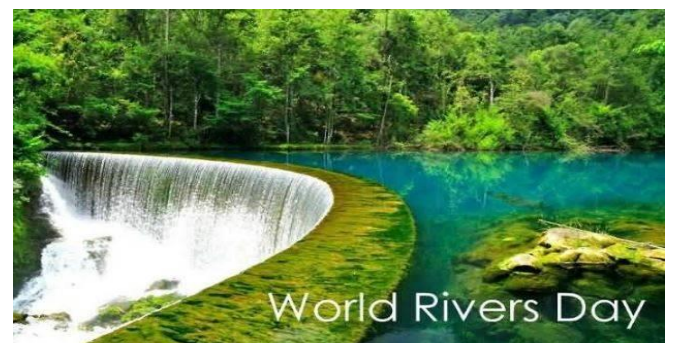
It is celebrated on September 25 to mark the birth anniversary of BJP key ideologue Pandit Deendayal Upadhyaya. He was a humanist, journalist, philosopher,

economist, and political activist. Deendayal Upadhyaya’s philosophical idea of ‘Integral Humanism’ was adopted as the official doctrine of the Jan Sangh.



## World Pharmacist Day 2021 : 25 September

World Pharmacist Day 2021 was celebrated on September 25. The day has been marked to celebrate and recognise the role of pharmacists play. The World Pharmacist Day theme 2021 is "Pharmacy: Always Trusted For Your Health". International Pharmaceutical Federation (FIP) established the World Pharmacist Day. It was on this day FIP was founded in 1912. FIP is the global federation of national associations of pharmacists and pharmaceutical scientists.



## 26 September World Rivers Day :-

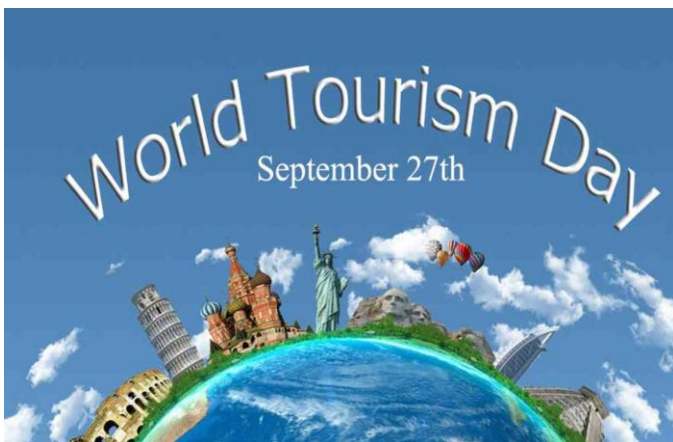
Every year on the fourth Sunday of September, World River Day is observed to raise awareness regarding water bodies and to promote their conservation. This year's theme is 'waterways in our communities', it falls on September 26. Today, rivers face a massive challenge

posed due to climate change and global warming.



## 26 September: The International Day for the Total Elimination of Nuclear Weapons

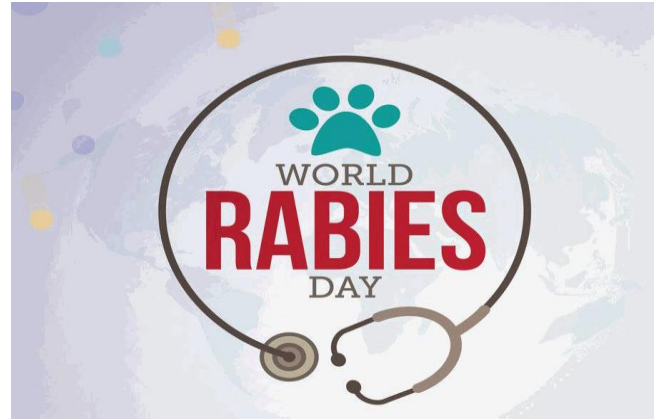
The General Assembly commemorates 26 September as the International Day for the Total Elimination of Nuclear Weapons. This Day provides an occasion for the world community to reaffirm its commitment to global nuclear disarmament as a priority. It provides an opportunity to educate the public - and their leaders - about the real benefits of eliminating such weapons, and the social and economic costs of perpetuating them. Commemorating this Day at the United Nations is especially important, given its universal membership and its long experience in grappling with nuclear disarmament issues.



## World Tourism Day : 27 September

World Tourism Day is observed every year on September 27 to mark the anniversary of the adoption of the Statutes of the Organization in 1970, paving the

way for the establishment of the World Tourism Organization (UNWTO). UNWTO was established on this day in 1980 to create awareness on how tourism affects social-cultural, political and economic values globally and the role of tourism within the international community.



## World Rabies Day: 28 September

World Rabies Day is celebrated annually on September 28 to raise awareness about the impact of rabies on humans and animals, provide information and advice on how to prevent the disease and take efforts to control rabies. 2021 is the 15th edition of World Rabies Day.



## 29 September World Heart Day 2021

Every year, September 29 is observed as World Heart Day to raise awareness of cardiovascular disease, heart disease and stroke. According to the World Health Organization (WHO), over 17 million people die from heart disease worldwide every year. The major cause of

these fatalities is coronary heart disease or strokes. The day is celebrated to make individuals aware about the prevention and control of cardiovascular disease (CVD). Every year, over 90 countries take part in this international observance. Government and non-government organisations conduct public events and concerts to raise public awareness about CVD.



## September 30: World Maritime Day

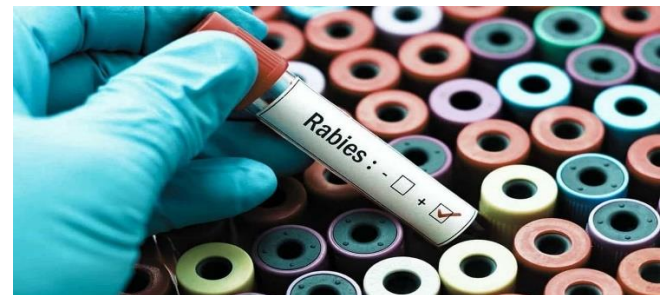
World Maritime Day is celebrated annually to offer an opportunity to focus its attention on the significance of shipping as well as other maritime activities and to emphasize a particular aspect of the work of the International Maritime Organization. The world Maritime Day 2021, this year's theme is, seafarers, at the core of shipping's future.



## 17th Foundation Day of NDMA : 28 September

Union Home Minister Amit Shah, inaugurated the 17th Formation Day of the National Disaster Management Authority (NDMA) in New Delhi on 28 September. The theme of this year's Formation Day is 'Cascading effects

of disaster events in the Himalayan region', the Ministry of Home Affairs said. National Disaster Management Authority, abbreviated as NDMA, is an apex Body of Government of India, with a mandate to lay down policies for disaster management. NDMA was established through the Disaster Management Act enacted by the Government of India on 23 December 2005.



## World Rabies Day 2021 : 28 September

September 28 is World Rabies Day, an international awareness campaign that was started back in 2007 to raise awareness about rabies and bring together partners to enhance the prevention of the disease. This year, the theme for World Rabies day is 'Rabies: Facts, not Fear', based on ending the fear from the people and empowering them with the facts. The theme is aimed at sharing facts about rabies and not spreading fear about the disease by relying on misinformation and myths.

## 2: Agreements



### Air-Launched Unmanned Aerial Vehicle, India-US.

In late July 2021, India and the United States inked a Project Agreement for a "Air-Launched Unmanned Aerial Vehicle." The Defence Technology and Trade Initiative will deploy the Air-Launched Unmanned Aerial Vehicle (ALUAV) (DTTI). Co-chairs of the Joint Working Group (JWG) on Air Systems signed the PA on July 30 between the Ministry of Defence (MoD) and the United States Department of Defense (DoD).

is divided into many factions and splinters.



### Karbi Peace Accord with 5 insurgent groups.

Five Assamese rebel groups, the Centre, and the state administration inked a tripartite deal to halt years of conflict in the Karbi Anglong region. Amit Shah, the Union Home Minister, who was present at the event, stated that the agreement will bring permanent peace and development to Karbi Anglong.



### Karbi Peace Accord, tripartite.

On September 4, 2021, the Centre signed a tripartite "Karbi Peace Accord." This agreement is crucial since the Karbi insurgency has a long history in Assam, defined by killings, ethnic violence, kidnappings, and taxes since the 1980s. In Assam, the Karbi ethnic group



### India-Nepal sign pacts over 100 projects.

India and Nepal signed memorandums of understanding for the rehabilitation of 14 cultural assets and 103 health-care projects that were damaged in Nepal's deadly 2015 earthquake. The Indian Embassy in Nepal said in a statement that these projects will be

reconstructed at a cost of 420 crore Nepalese Rupees (\$36 million).



## Karbi Anglong Peace Accord.

On September 4, 2021, the government of India, the government of Assam, and six Karbi factions signed the historic tripartite Karbi Anglong Accord. Armed groups must abandon their path of violence, surrender their weapons, and liquidate their organisations within one month after the signing of the Karbi Anglong Peace Accord, according to the agreement.



## Russia-India pact, geoscience.

The Union Cabinet, led by Prime Minister Narendra Modi, has approved a Memorandum of Understanding (MoU) between India and Russia on geosciences cooperation. The Russian Joint Stock Company Rosgeologia (State Holding Company) and the Geological Survey of India (GSI), Ministry of Mines,

signed a Memorandum of Understanding.



## Water supply improvement Jharkhand, India-ADB deal.

The Indian government and the Asian Development Bank (ADB) have agreed to a \$112 million loan to help Jharkhand modernise its water delivery infrastructure. The loan would also help boost the capacities of urban local bodies (ULBs) in four Jharkhand municipalities in order to improve service delivery.



## Government and Naga insurgent peace pact.

The National Socialist Council of Nagaland (NSCN) Imphal (K), led by Nikki Sumi, and the Central Government signed a ceasefire agreement, according to the Ministry of Home Affairs. This peace treaty was signed on September 8, 2021, and it will last for one year.





## Strategic Clean Energy Partnership.

Hardeep Singh Puri, Minister of Petroleum and Natural Gas, and Jennifer Granholm, US Secretary of Energy, co-chaired a virtual Ministerial meeting to launch the redesigned US-India Strategic Clean Energy Partnership (SCEP). As both countries work to promote sustainable energy sources, they also announced the addition of a fifth pillar on emerging fuels.



## Agricultural Ministry signs 5 MoUs with Private Companies.

On September 14, 2021, the Union Ministry of Agriculture and Farmers' Welfare signed five memorandums of understanding (MoUs) with private enterprises. Five private firms, CISCO, ITC Limited,

Ninjacart, Jio Platforms Limited, and NCDEX e-Markets Limited (NeML).



## CESL-PEDA pact for EV charging station.

The Punjab Energy Development Agency (PEDA) and Convergence Energy Services Limited (CESL) have signed a Memorandum of Understanding (MoU) for the installation of public charging stations for electric vehicles in Punjab. Energy Efficiency Services Ltd. (EESL) has a subsidiary called CESL.

### 3: Appointment



#### Rajnish Kumar-economic advisor.

Former SBI Chairman Rajnish Kumar has been recruited as an economic advisor to the YS Jagan Mohan Reddy-led Andhra Pradesh government. Rajnish Kumar has been appointed to the cabinet rank position for a two-year term. According to reports, the post entails advising the state administration on how to attract additional investments, particularly private ones, into the state.



#### Bowling coach, Puducherry- Shaun Tait.

According to sources at the Cricket Association of Pondicherry, former Australia pacer Shaun Tait has been appointed as the bowling coach of the Puducherry cricket squad. Tait joins a coaching staff that includes Dishant Yagnik, the head coach, and Kalpendra Jha, the manager and strength and conditioning coach.



#### S.L. Tripathy - CMD of United India Insurance.

S.L.Tripathy has been named Chairman-cum-Managing Director of United India Insurance Company Limited by the central government. At The New India Assurance Company Limited, he is the General Manager and Director. He serves as CMD of United India from the time he takes over the reins of the company until he reaches the age of superannuation.



#### Piyush Goyal as India's Sherpa.

Piyush Goyal, India's Commerce and Industry Minister, has been named as the G20's Sherpa. The G20 is a powerful organisation that brings together the world's leading economies. The next G20 Summit is slated for October 30–31, 2021, under the Italian presidency.



## **Vijay appointed as VC of Gandhi Smriti & Darshan Samiti.**

At a celebration in Gandhi Smriti, New Delhi, where Mahatma Gandhi, the Father of the Nation, was martyred, former Union Minister Vijay Goel was installed as Vice Chairman of Gandhi Smriti and Darshan Samiti. He also emphasised the importance of spreading Mahatma Gandhi's message throughout the country and to every household.



## **Aziz Akhannouch appointed new PM.**

Following the announcement of the legislative election results, Morocco's King Mohammed VI appointed Aziz Akhannouch, the President of the National Rally of Independents (RNI), as the next Prime Minister in compliance with constitutional regulations.



## **Bhupendra Patel, Gujarat's new CM.**

On September 13, 2021, Bhupendra Patel was sworn in as Gujarat's Chief Minister. Governor Acharya Devvrat swore him in at Gandhinagar's Raj Bhavan. He was sworn in as the Bharatiya Janata Party (BJP) legislature party leader a day after being elected.



## **Babul Supriyo joins TMC.**

Babul Supriyo, a former Union Minister, has joined Bengal Chief Minister Mamata Banerjee's Trinamool Congress, two months after being asked to resign as a junior minister in the Environment Ministry and a month after announcing that he would not join any other party and would leave politics. Later, he changed his mind and stated that he will continue to serve in Parliament.



## Facebook India appoints Rajiv Aggarwal as public policy director :-

Facebook India has appointed former IAS officer Rajiv Aggarwal as the Director of Public Policy. He succeeds Ankhi Das, who quit the company in October last year. She was embroiled in a controversy for opposing the enforcement of hate-speech rules against right-wing leaders in the country. Aggarwal has over 26 years of experience as an Indian Administrative Officer (IAS) and worked as a District Magistrate in nine districts across Uttar Pradesh.



## K Kasturirangan to head education ministry's panel :-

The Union education ministry on September 21, formed a 12-member committee to develop new curriculums for school, early childhood, teacher and adult education, officials said. The panel tasked with developing four national curriculum frameworks (NCFs) will be headed by National Education Policy-2020 (NEP-2020) drafting committee chairperson K Kasturirangan. Kasturirangan is also a former chief of the Indian Space Research Organisation (ISRO).



## Lieutenant General Gurbirpal Singh takes charge as new Director General of NCC :-

Lt Gen Gurbirpal Singh on 27 September took over as the new director general of the National Cadet Corps (NCC). He has taken charge of the NCC at a time the Defence Ministry is looking at making it more relevant. The ministry on September 16 appointed a 15-member committee that included cricket icon Mahendra Singh Dhoni and industrialist Anand Mahindra to carry out a comprehensive review of the NCC and suggest ways to improve its overall functioning. Lt Gen Singh was commissioned into The Parachute Regiment in 1987.



## Padmaja Chunduru appointed MD, CEO of National Securities Depositories :-

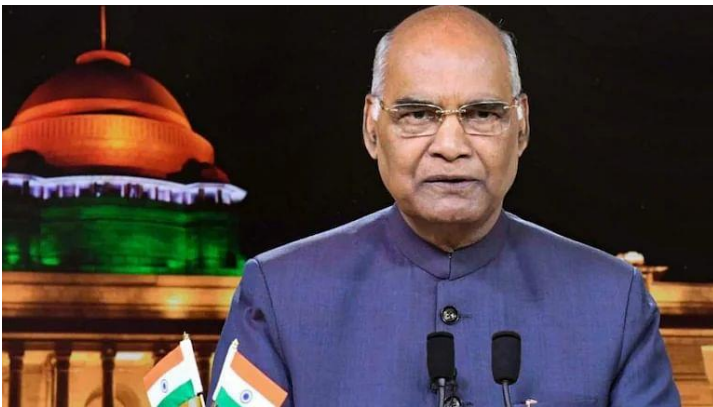
Padmaja Chunduru has been appointed managing director and chief executive officer (MD & CEO) of National Securities Depositories (NSDL). Her appointment has been ratified by the shareholders of NSDL at its meeting held on September 29, the company said in a release. GV Nageswara Rao was the previous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

## 4: Award



### INSPIRE Awards – MANAK.

The INSPIRE Awards - MANAK's 8th NLEPC (National Level Exhibition and Project Competition) will be held in virtual mode on September 8, 2021, with Dr. Jitendra Singh, Minister of State (Independent Charge), Science and Technology & Earth Sciences, presenting the awards to the creatives.



### National Award for Teachers-2021.

President Ram Nath Kovind presented the National Teachers' Award 2021 on September 5, 2021. President Ram Nath Kovind presented the honours to 44 of the country's best teachers for their outstanding contributions. The award is given to people who contribute to improving the quality of education for

students as well as inspiring and enriching their lives.



### Two Indian Projects got selected in Earthshot Prize.

Two Indian projects have been chosen to receive the Environment Prize on September 17, 2021. The Solar-Powered Ironing Cart project, designed by a 14-year-old Tamil Nadu schoolgirl, is one of the selected projects. The second initiative is the Agricultural Waste Recycling Concept, which was created by a Delhi-based entrepreneur.



### Emmy Awards 2021 winners.

The 73rd Emmy Awards were held at LA Live's Event Deck. Unlike the virtual celebration in 2020, the Prime Time Emmy Awards returned to an in-person event this year, with all of your favourite actors gracing the red carpet. The Emmy Awards 2021 were held on September 19, 2021, in New York City (September 20

early morning in India).



### Rithvik becomes 70<sup>th</sup> Grandmaster.

After reaching the ELO rating of 2500, India's R Raja Rithvik became a chess Grandmaster. This GM title was earned by the 17-year-old in the Vezerkepzo Grandmaster Chess Tournament in Budapest, Hungary. As a result, he earned the country's 70th Grandmaster.



### Sahitya Akademi Fellowship 2021 :-

The Sahitya Akademi on Saturday (September 18) announced its fellowship for eight writers, including eminent English author Ruskin Bond, Hindi writer Vinod Kumar Shukla, and Malayalam writer and literary critic M Leelavathy. The others who received the Fellowship are Sirshendu Mukhopadhyay (Bengali), Dr. Bhalchandra Nemade (Marathi), Dr Tejwant Singh Gill (Punjabi), Swami Rambhadracharya (Sanskrit), Indira Parthasarthy (Tamil).



### President gives National Florence Nightingale award 2020 to Brigadier SV Saraswati :-

Deputy Director-General of Military Nursing Service Brig S V Saraswati has been bestowed with the National Florence Nightingale award 2020. President conferred the award in a virtual ceremony for her immense contribution to the MNS as a nurse administrator, read a press statement from the Ministry of Defence on Monday. National Florence Nightingale Award is the highest national distinction a nurse can achieve for selfless devotion and exceptional professionalism.



### Bangladeshi Fairouz Faizah Beether gets 2021 Changemaker Award :-

Fairouz Faizah Beether of Bangladesh has been chosen for the 2021 Changemaker Award for her work promoting good health and well-being by the Bill and Melinda Gates Foundation. The Award celebrates an individual who has inspired change using personal experience or from a position of leadership.



## Prime Minister Sheikh Hasina receives SDGs Progress Award :-

The UN-sponsored Sustainable Development Solutions Network (SDSN) has conferred Prime Minister Sheikh Hasina with "SDG Progress Award" for Bangladesh's steady course in responding to the universal call to action to end poverty, protect the planet and ensure peace and prosperity for all.



## Hunarbaaz Awards :-

As part of Azaadi ka Amrit Mahotsav and on the occasion of Antyodaya Diwas that marks the birth anniversary of Pandit Deen Dayal Upadhyaya on 25th September 2021, the National Institute of Rural Development and Panchayati Raj (NIRD&PR), Hyderabad under the auspices of the Ministry of Rural Development presented Hunarbaaz Awards to 75 diyangjan candidates from 15 states.



## Yemeni humanitarian organization wins 2021 UNHCR Nansen Refugee Award :-

A Yemeni humanitarian organization that has provided a lifeline to tens of thousands of people displaced by the country's conflict is the winner of the 2021 UNHCR Nansen Refugee Award. The Jeel Albena Association for Humanitarian Development, founded in 2017, won the prestigious award for its unwavering support for displaced Yemenis, even as shifting frontlines brought gun battles and explosions to its doorstep. Its founder Ameen Jubran, 37, has himself been displaced by fighting and nearly killed.

**5: Banking News**



**PayU & Bill Desk aquisition.**

PayU, a fintech services firm, is scheduled to buy BillDesk, an Indian digital payments provider, for \$4.7 billion. This will be one of the largest transactions in the Indian fintech industry. Prosus NV, a multinational consumer internet firm and one of the world's top technology investors, made the announcement on August 31, 2021.

**AT1 bonds.**

On September 3, 2021, India's largest lender, State Bank of India (SBI), announced that it has raised Rs 4,000 crore through additional Tier 1 (AT1) bonds. AT1 bonds were issued with a 7.72 percent coupon rate. After the Securities and Exchange Board of India (SEBI) announced new rules, this is the first such offering in the domestic market.



**3.55 billion transactions, Aug UPI.**

In August 2021, the National Payments Corporation of India (NPCI) reported more than 3 billion transactions through its Unified Payments Interface (UPI). For the second month in a row, more over 3 billion transactions were recorded. This demonstrates that, in the face of the Covid-19 outbreak, customers are increasingly adopting digital payments.

**Economic Crisis, Sri Lanka.**

Because to rising food costs, declining currency, and decreasing forex reserves, the government of Sri Lanka declared an economic emergency in the latter week of August 2021. Sri Lanka's President, Gotabaya Rajapaksa, has called in the army to help manage the crisis by rationing vital items.





## NSIC – HDFC, MoU.

The National Small Industries Corporation (NSIC) and HDFC Bank have inked a Memorandum of Understanding (MoU) to provide and strengthen loan support to MSMEs across India. The partnership with NSIC would aid in the growth of the MSME sector, which is India's backbone in terms of economic development and employment generation.



## Revenue Deficit Grants to States.

On September 9, 2021, the Finance Ministry released the sixth monthly tranche of Rs 9871 crores in revenue deficit grant to 17 states. Grants were distributed to 17 states based on the recommendations of the 15th Finance Commission for the years 2021-22. Grants were distributed in accordance with the Indian constitution's Article 275.



## Rural Connectivity in Maharashtra, India-ADB loan.

On September 8, 2021, the Indian government and the Asian Development Bank (ADB) agreed a \$300 million loan to expand rural connectivity in Maharashtra. In order to scale up the improvement of rural connectivity, a loan arrangement was struck as extra financing.



## World Bank cuts back millions on Covid-Induced poverty.

On September 15, 2021, the World Bank reduced the Covid-induced poverty estimates by 21 million people. According to the World Bank, worldwide poverty may be on the verge of becoming pandemic in 2021. It also highlighted that the number of destitute in the Covid background remained unprecedented.



## Special committee be formed by Ujjivan SFB, RBI.

The Reserve Bank has approved the formation of a special committee of directors by the Ujjivan Small Finance Bank (SFB) on September 15, 2021, to oversee operations in the absence of an MD and CEO. The members of the Special Committee of Directors will be three independent directors.



## Decks approval for NARCL.

On September 16, 2021, the Union Government authorised the decks for National Asset Reconstruction Company Limited (NARCL). The government will be required to guarantee Security Receipts (SR) issued by NARCL while purchasing non-performing assets (NPAs) from banks under this proposal.



## No more "Doing Business" report.

Because of suspicions of errors, the World Bank Group has decided to stop publishing its "Doing Business report on country investment climates." This decision was made against the backdrop of an investigation into data discrepancies, purportedly as a result of top bank officials' pressure to improve China's position in 2017.



## HDFC Bank, Paytm to launch co-branded credit cards :-

HDFC Bank and Paytm on September 20 announced plans to launch a range of credit cards powered by global card network Visa in October. The credit cards will be customized to meet distinct needs of retail customers, from new-to-credit users to affluent users and offer one of the best-in-class rewards and cashback for users, it said.



## Federal Bank partners with OneCard to offer mobile-first credit card :-

Federal Bank on 22 September announced a tie-up with OneCard for a mobile-first credit card that targets the country's young, tech-savvy population. It will target young working professionals aged 23-35, primarily representing the millennials and Gen Z, it said in a statement.



## Bharat Petroleum, SBI Card Launch Co-Branded RuPay Credit Card :-

Fuel retailer BPCCL and SBI Card on 23 September announced the launch of a co-branded RuPay contactless credit card, offering fuel and other benefits. Bharat Petroleum Corporation Limited (BPCCL) and SBI Card have joined hands to launch the 'BPCCL SBI Card co-branded RuPay Contactless Credit Card', according to a joint release. The card will provide rewarding fuel savings and other benefits to the customers.



## RBI imposes Rs 2 crore penalty on RBL Bank :-

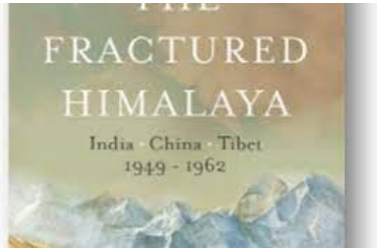
The Reserve Bank on 27 September imposed a penalty of Rs 2 crore on private lender RBL Bank for deficiencies in regulatory compliances and non-compliance of the provisions of the Banking Regulation Act. The RBI later issued a notice to the bank advising it to show cause as to why penalty should not be imposed for contravention of and non-compliance with the provisions of its directions and provisions of the Banking Regulation Act.



## NPCI partners Yes Bank to launch contactless solutions 'RuPay On-the-Go' :-

National Payments Corporation of India (NPCI) has partnered Yes Bank to launch RuPay On-the-Go. The novel contactless payments solutions will allow customers to make small and large value transactions using daily wear accessories. The product was launched at the Global Fintech Festival 2021, in association with fintech infrastructure partner Neokred and manufacturing partner Sessaasai.

## 6: Books and Author



### **“The Fractured Himalaya” by Nirupama Rao:-**

Nirupama Rao, a former Foreign Secretary of India, unknots this intensely complex saga of the early years of the India-China relationship. As a diplomat-practitioner, Rao's telling is based not only on archival material from India, China, Britain and the United States, but also on a deep personal knowledge of China, where she served as India's Ambassador.



### **The Long Game: How the Chinese Negotiate with India by Vijay Gokhale**

This book explores the dynamics of negotiation between the two countries, from the early years after Independence until the current times, through the prism of six historical and recent events in the India-China relationship. The purpose is to identify the strategy, tactics and tools that China employs in its diplomatic negotiations with India, and the learnings for India from its past dealings with China that may prove helpful in future negotiations with the country.

## 7: Defence News



## Navy's Exercise with Algerian Navy.

On August 29, 2021, the Indian and Algerian fleets conducted their first-ever naval drill off the coast of Algeria. The exercise demonstrates the two countries' growing marine cooperation. India was represented by the stealth ship INS Tabar, while Algeria was represented by the navy ship ANS Ezager.



## Anti-Drone System contract with BEL.

The Indian Navy has secured a contract with Bharat Electronics Limited (BEL) for the procurement of the country's first indigenous anti-drone system (NADS). Both 'hard kill' and 'soft kill' capabilities are included in the NADS. On August 31, 2021, a contract was signed in New Delhi in the presence of representatives from the Defence Research and Development Organisation

(DRDO) and top naval officers.



## Exercise ZAPAD 2021.

A detachment of the Indian Army will take part in 'ZAPAD 2021,' a two-week multi-national military exercise. This exercise will take place in Nizhny, Russia, starting on September 3rd. The goal of the exercise is to improve anti-terrorist cooperation. ZAPAD 2021 is a 13-day training programme.



## India Africa Defence Dialogue.

During the subsequent DefExpos, which would be conducted once every two years, India has proposed to institutionalise the "India Africa Defence Dialogue." The establishment of the India-Africa Defence Dialogue will aid in the strengthening of current African-Indian

partnerships.



## **AUKUS, security partnership, Indo-Pacific.**

The administration of US President Joe Biden has established a new trilateral security relationship for the Indo-Pacific region. Australia, the United Kingdom, and the United States formed a security relationship. This security alliance, known as AUKUS, will work to advance strategic interests in the Indo-Pacific.



## **SCO Peaceful Mission 2021, 6<sup>th</sup> Edition.**

The Indian military contingent is participating in the Exercise PEACEFUL MISSION -2021 with an all-arms combined force of 200 personnel, including 38 personnel from the Indian Air Force. From September 13 to 25, 2021, this exercise will take place in the

Orenburg Region of South West Russia.



## **Defence Ministry places order for 118 indigenous Arjun Mk-1A tanks :-**

The Ministry of Defence has placed an order worth ₹7,523 crore to procure 118 Main Battle Tanks (MBTs) Arjun for the Indian Army. The defence ministry has placed an order with Heavy Vehicles Factory (HVF), Avadi, Chennai for the supply of 118 Arjun Mk-1A tanks. According to Defence Ministry, the tank has been designed and developed by Defence Research & Development Organisation (DRDO).



## **DRDO tests Akash Prime missile :-**

The Defence Research and Development Organisation (DRDO) on 27 September successfully tested a new version of Akash Surface to Air missile Akash Prime from the Integrated Test Range at Chandipur, Odisha. The Defence Research and Development Organisation (DRDO) Chairman G Satheesh Reddy said the Akash

Prime system will further boost the confidence of the Indian Army and the Indian Air Force as the Akash

system is already inducted and now getting improved with more lethal missiles.

## 8: Economy



### Union Minister Nirmala Sitharaman addressed 74th Annual General Meeting of IBA :-

Union Finance Minister Nirmala Sitharaman on 26th September addressed the 74th Annual General Meeting of the Indian Banks' Association (IBA) in Mumbai. The FM spoke about a slew of issues regarding the banking sector. She said the economy is in a critical stage and banks are the backbone. "I wish IBA rises to this occasion and provides India the best of financial services," she added.

## 9: International News



### End of 20-year war, US-Afghanistan.

Before the deadline of August 31, 2021, the United States announced the end of its 20-year-old war in Afghanistan. After the last American military flight left

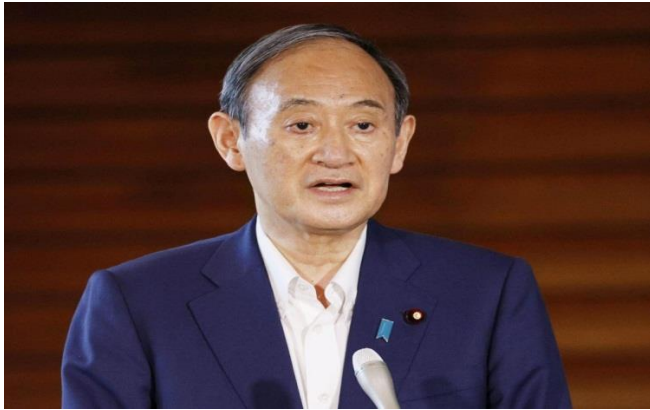
Hamid Karzai International Airport in Kabul before the August 31 deadline, this declaration was made.



### Taliban VS Panjshir Valley.

On September 4, 2021, the Taliban and opposition troops fought bitterly for control of Afghanistan's

Panjshir Valley. To the north of Kabul is the Panjshir Valley. Both sides claimed control of Panjshir, but none could present conclusive evidence to back up their claims.



### **Yoshihide Suga, Japan's PM, is stepping down.**

Yoshihide Suga, Japan's Prime Minister, will not seek re-election as the party's leader in September. Following Shinzo Abe's resignation in 2020, Yoshihide Suga was appointed Prime Minister. Suga's approval ratings had plummeted to an all-time low when he announced his resignation.



### **CO2 sucking world's largest plant.**

Iceland has begun construction of the world's largest facility to absorb carbon dioxide (CO2) from the atmosphere and convert it to rock. There are four units in the factory. Each unit is comprised of two metal boxes. In appearance, they replicate the containers

used for maritime cargo. The plant, named Orca.



### **Lebanon gets new cabinet.**

Lebanon's 13-month wait for a new administration came to an end with the announcement of a cabinet that would face the difficult challenge of rescuing the country from financial ruin. The president's office and later the Secretary-General of the Council of Ministers, Mahmoud Makkieh, announced a new government of 24 ministers led by Najib Mikati, a millionaire businessman.



### **Climate Action and Finance Mobilisation Dialogue.**

On September 13, 2021, India's Environment Minister Bhupender Yadav and US Special Presidential Envoy for Climate Change, John Kerry, began the India-US Climate Action and Finance Mobilization Dialogue. This conversation was initiated as part of the India-US



Climate and Clean Energy Agenda 2030 Partnership.



### Paynow & UPI linkage, India-Singapore.

The Unified Payments Interface (UPI) and PayNow have been linked by India and Singapore to allow customers to make quick, low-cost fund transactions. The Reserve Bank of India (RBI) and the Singapore Monetary Authority (MAS) announced a proposal to integrate the countries' quick payment systems (MAS).



### 1.2 billion for Afghanistan Humanitarian Crisis.

The international world has pledged \$1.2 billion in relief for the humanitarian catastrophe in Afghanistan. U.N. Secretary-General Antonio Guterres spoke at the event, emphasising the significance of working with the Taliban in order to ensure the continuation of humanitarian aid in India.



### Third Foreign office Consultations, India-El Salvador.

On September 17, 2021, India and El Salvador had their third Foreign Office Consultations in San Salvador. Riva Ganguly Das, Secretary (East), led the Indian delegation, while Ambassador Adriana Maria Mira, Vice Minister of Foreign Affairs, Integration, and Economic Promotion, led the El Salvadoran delegation.



### Indian & Indonesian Navy Bilateral Exercise :-

The Indian Navy and the Indonesian Navy are taking part in a bilateral maritime exercise, known as 'Samudra Shakti'. The two-day exercise is being held near to Sunda Strait from 20 to 22 September. Indian Naval Ships Shivalik and Kadmat had already arrived in Jakarta, Indonesia in the preparedness of this one of a kind exercise aimed at improving bilateral ties between

India and Indonesia.



## Geeta Samota Becomes 'Fastest Indian' to Summit Two Peaks :-

Central Industrial Security Force (CISF) officer Geeta Samota created history on 11 September as she became the "fastest Indian" to summit two peaks located in Africa and Russia, the Indian High Commissioner to Tanzania Binaya Pradhan said. Geeta joined CISF back in 2011 and started working with the unit in 2012. CISF is a central paramilitary force working under the command of the Union home ministry.



## UN releases funds to save Afghanistan health system from collapse :-

The United Nations aid chief said 22 September he had released \$45 million in emergency funds to help prevent Afghanistan's battered healthcare system from collapsing. Afghanistan's healthcare system was plunged into crisis after the Taliban swept into power last month, complicating aid deliveries and leaving

many health facilities understaffed.



## Justin Trudeau wins 3rd term as Prime Minister of Canada :-

Prime Minister Justin Trudeau won a third term in Canada's snap election but fell short of regaining the majority he was seeking, faced with relying on smaller parties in another fragmented parliament. Trudeau's Liberal Party was elected or leading in 156 of the 338 seats in the House of Commons as of 1:40 a.m.



## 76th Session of the UN General Assembly (UNGA 76) :-

The 76th session of the United Nations General Assembly (UNGA) began on September 14, with the General Debate — a chance for representatives from all 193 member states to speak in front of the chamber — starting the following week. The week-long General

Debate, which will draw diplomats from all over the world to New York, will be the highlight of the event.



## Biden doubles US global donation of COVID-19 vaccine shots :-

President Joe Biden announced 22 september that the United States is doubling its purchase of Pfizer's COVID-19 shots to share with the world to 1 billion doses as he embraces the goal of vaccinating 70% of the global population within the next year. The stepped-up U.S. commitment marks the cornerstone of the global vaccination summit Biden convened virtually on the sidelines of the U.N. General Assembly, where he encouraged well-off nations to do more to get the coronavirus under control.



## Cryptocurrency banned in China :-

China's central bank said on 24 September that all cryptocurrency-related transactions are illegal in the country and they must be banned, citing concerns around national security and "safety of people's assets." The world's most populated nation also said that foreign exchanges are banned from providing services to users in the country. In a joint statement, 10 Chinese

government agencies vowed to work closely to maintain a "highpressure" crackdown on trading of cryptocurrencies in the nation.



## North Korea tests new hypersonic weapon: reports :-

Seoul — North Korea has successfully tested a new hypersonic gliding missile, state media reported 29 September, in what would be the nuclear-armed nation's latest advance in weapons technology. Tuesday's launch was of "great strategic significance," the official Korean Central News Agency said, as the North seeks to increase its defense capabilities a "thousand-fold." Hypersonic missiles move much faster and are more agile than standard ones, making them much harder for missile defense systems — on which the U.S. is spending billions — to intercept.



## Tunisia: Najla Bouden appointed as first female prime minister :-

Tunisia's president named geologist Najla Bouden as the country's first ever female prime minister-designate on Wednesday 29 September, to form a government

with limited executive clout after the president seized wide-ranging powers two months ago. Bouden, a university lecturer and political unknown, will take office after President Kais Saied on 25 July sacked the

government of Hichem Mechichi, suspended parliament, lifted MPs' immunity and took over the judiciary.

## 10: Miscellaneous News



### Supertech Twin Tower case, Noida.

The Supreme Court of India recently ordered the Supertech Ltd Group's two 40-story skyscrapers in Noida, which include 850 apartments, to be demolished. The Supreme Court issued this order after concluding that Supertech had violated regulations concerning the required spacing between buildings and fire safety.



### Petrol eradicated.

According to the United Nations Environment Programme (UNEP), leaded gasoline is no longer used anywhere on the planet. According to UNEP, this milestone will save over USD 2.4 trillion annually for world economies and save more than 1.2 million premature deaths.



## The Missing Piece of the Puzzle: Caste Discrimination and Stunting.

Children from Scheduled Castes (SCs), Scheduled Tribes (STs), and Muslim families are more prone to stunting, according to a study published in July 2021 titled "The Missing Piece of the Puzzle: Caste Discrimination and Stunting." Stunting is a condition in which a person's body height is below the normal range for his or her age.



## UK to sanction new sanctions against Myanmar.

Dominic Raab, the UK Foreign Secretary, announced fresh sanctions against Myanmar on September 2, 2021. Myanmar has been hit with new restrictions aimed at enterprises that help the military rulers financially. New sanctions have been imposed on Myanmar billionaire U Tay Za and his Htoo Group, according to the UK government.



## India's SDR allocation raised by IMF.

The International Monetary Fund (IMF) has boosted India's Special Drawing Rights (SDR) allocation to match its current quota in the fund. The IMF issues the SDR as an alternative reserve currency. Instead of relying on a single country's currency, SDR can be freely transferred between member countries.



## BRICS Bank admits 3 new members.

On September 2, 2021, the BRICS group of nations' New Development Bank (NDB) welcomed the United Arab Emirates, Uruguay, and Bangladesh as new members. As part of the bank's expansion plan, this first group of new members was welcomed. The BRICS members—Brazil, Russia, India, China, and South Africa—launched

the New Development Bank in 2015.



## **Kisan Store launch, India Amazon.**

Kisan Store has been launched by Amazon India. On September 2, 2021, Union Minister for Agriculture and Farmers Welfare, Narendra Singh Tomar, opened the store. Kisan Store is an online portal that provides access to over 8,000 agriculture products such as farm tools and accessories, seeds, plant protection, nutrition, and more to Indian farmers.



## **Jaishankar meets with Croatian counterpart in Zagreb.**

India and Croatia share a lot of common stances on topics including the Indo-Pacific, the situation in Afghanistan, and the two nations' will to confront terrorism in all its forms and manifestations, said External Affairs Minister S Jaishankar on Friday,

September 3, 2021.



## **Manjula Chellur to oversee SIT probe.**

The Calcutta High Court nominated Manjula Chellur, a former Chief Justice of the High Court, to oversee the Special Investigation Team (SIT) probe into West Bengal's post-poll violence. The court ordered that the SIT be led by a retired Supreme Court judge in an order issued on August 19.



## **Raising Tourism, Varanasi-Chunar Cruise service.**

The Varanasi-Chunar Cruise service began on September 5, 2021, and has brought a new dimension to Varanasi's tourism offerings. This Ganga River cruise service will sail from Varanasi to Mirzapur's famous Chunar fort. Tourists visiting Varanasi can now travel along the Ganga for about 30 kilometres.



## Auction of Big John.

Big John, a massive triceratops, will be auctioned in France in October 2021 and is expected to fetch a high price. Big John's skeleton dates back over 66 million years and is 60% complete. It is the largest triceratops ever discovered, measuring around 26 feet long.



## IAF chief attends Pacific Air Chiefs Symposium.

Air Chief Marshal RKS Bhaduria attended the Pacific Air Chiefs Symposium 2021, which lasted three days and was held at Joint Base Pearl Harbor-Hickam in Hawaii. Air chiefs from countries in the Indo-Pacific region attended the event, which was titled "Enduring Cooperation Toward Regional Stability." The symposium's Dean was nominated by Bhaduria.



## Deity – owner of temple attached land.

Deity is the owner of land attached to a temple, according to a supreme court bench led by Justices Hemant Gupta and A S Bopanna. A priest, according to the court, cannot be treated as a Bhumiswami (owner of land). The priest just owns the land in order to administer the temple's holdings.



## First functional Smog Tower.

Bhupender Yadav, the Union Minister for Environment, Forests, and Climate Change, virtually inaugurated India's first operational smog tower on September 7, 2021. In Delhi's Anand Vihar, a smog tower was unveiled. The ministry will now monitor the results to see if India requires more of these initiatives in the future.



## Rabi crops, MSP increased.

On September 8, 2021, the Cabinet Committee on Economic Affairs (CCEA) approved a rise in Minimum Support Prices (MSP) for all Rabi crops that are mandated. For the Rabi Marketing Season (RMS) 2022-23, MSPs were raised in order to realign MSPs in favour of pulses, oilseeds, and coarse cereals.



## Procurement of 56 transport aircraft.

On September 8, 2021, the Cabinet Committee on Security (CCS) approved the purchase of 56 transport aircraft from Airbus. This decision will provide the Indian Air Force's transport fleet a huge boost. The purchase of the C-295MW cargo aircraft is expected to cost more than Rs 20,000 crore.



## Gyanvapi mosque-Kashi Vishwanath temple title issue.

The decision of a Varanasi court requesting a "full archaeological physical assessment" of the contentious Gyanvapi mosque-kashi Vishwanath temple complex was put on hold by the Allahabad High Court on September 9, 2021. Varanasi was known as Kashi in ancient times. As a result, this temple is known as Kashi Vishwanath Temple.



## Shivani Meena, 1<sup>st</sup> woman to join as Coalfields excavation engineer.

Shivani Meena started as an Excavation Engineer at Central Coalfields Limited (CCL). Meena became the first woman Excavation Engineer to work in a CCL Open Cast Mine as a result of this. Union Minister for Coal, Mines and Parliamentary Affairs Pralhad Joshi thanked her and CCL Management on her appointment as Excavation



Engineer.



## Largest licenced NFT, Colexion.

The formal public lunch will be held on September 10, 2021, by Colexion, the largest licenced NFT (non-fungible tokens) platform. Colexion is a Next-Generation Television (NFT) platform for Sports, Entertainment, and Art. Collectors and investors all across the world have diverse collections of artefacts that have been highly valued for decades.



## Swarnim Vijay Varsh Mashaal.

On September 12, 2021, the Swarnim Vijay Varsh Mashaal, or victory flame, arrived in Dahung, Arunachal Pradesh, after travelling the country. The triumph flame was carried across the country to commemorate the 50th anniversary of India's victory over Pakistan in the 1971 Indo-Pak War. It was received with full military

honours in Sessa, Arunachal Pradesh.



## Employee can't insist on transfer, SC.

The Supreme Court has declared that an employee cannot demand on being transferred to a specific location, and that only the employer has the authority to change the personnel after examining the requirements. The Supreme Court made this observation while dismissing a plea filed by a lecturer challenging the Allahabad High Court's October 2017 judgement.



## WPI inflation to 11.39% in Aug.

Due to higher prices of manufactured goods, the wholesale price-based inflation (WPI) increased somewhat to 11.39 percent in August 2021, despite lower prices of food products. Inflation reversed its

two-month downward trend in August (June and July).



## Innovative ways for Waste Collection, Noida.

Greater Noida Authority intends to implement innovative rubbish collection methods for residents. High-tech features such as putting QR codes on dwellings, installing GPC, and installing CCTV on garbage trucks are among the innovative techniques.



## Relief Package for Telecom companies.

On September 15, 2021, the Union cabinet agreed a relief package for the telecom sector. A four-year freeze on telecom businesses paying statutory dues is part of the relief package. Through the automatic procedure, the Cabinet has also permitted 100 percent foreign investment (FDI).



## 7<sup>th</sup> Foreign Office Consultations, India-Chile.

On September 14, 2021, the 7th Foreign Office Consultations between India and Chile were conducted in Santiago. Riva Ganguly Das, Secretary (East) at the Ministry of External Affairs, represented India. Ms. Carolina Valdivia Torres, Vice-Minister of the Ministry of Foreign Affairs, represented Chile.



## ASEAN assured by India for post Pandemic Period.

India has told ASEAN partners that it will assist in the recovery efforts following the pandemic. During the 18th ASEAN-India Economic Ministers Consultations, this guarantee was provided. Ministers also ensured the region's supply lines were stable.



## MoU with Italy approved for Disaster Risk Reduction.

On September 15, 2021, the Union Cabinet, chaired by Prime Minister Narendra Modi, adopted a Memorandum of Understanding (MoU) with Italy on Disaster Risk Reduction and Management. The MoU aims to establish a system in which both India and Italy benefit from each other's disaster management procedures.



## Customs Notified Airport, as Kushinagar Airport.

Kushinagar Airport has been designated as a Customs recognised airport by the Central Board of Indirect

Taxes and Customs (CBIC). This would also make international passenger travel easier, especially for Buddhist pilgrims. The Kushinagar International Airport is a 600-acre international terminal.



## Asia-Pacific Free Trade, China applied.

China has applied to join the Asia-Pacific Free Trade Association, a club of 11 nations with the goal of gaining more influence over international policies. The inaugural group did not include China. In 2017, Donald Trump withdrew from the club, and current US President Joe Biden has yet to rejoin it.

## 11: National News



## India's GDP growth raises to 20.1%

India's economic growth advanced to a record high in the quarter through June 2021, according to figures from the Ministry of Statistics and Programme Implementation. In the second wave of Covid cases, it represents a very low base in 2020, a rebound in consumer expenditure, and stronger manufacturing.



## Diesel-LNG replacement.

On September 1, 2021, state-owned Coal India Ltd. (CIL) will begin a trial project to replace diesel with LNG. According to CIL, it has begun the process of installing LNG kits into its dumpers, which are large trucks used for coal delivery. CIL will save roughly Rs 500 crore each year as a result of this decision.



## Royal jelly of India.

Indian Royal Jelly, according to Pune-based academics, outperforms top-quality suppliers such as Thai and Taiwanese Royal Jelly. Royal jelly is well-known for its antioxidant properties. It aids in the treatment of infertility in women. In 2019, the Food Safety and Requirements Authority of India (FSSAI) issued ISO-specified standards for Indian Royal Jelly.



## CORBEVAX' gets DCGI approval.

For two clinical trials, the Drug Controller General of India (DCGI) has approved CORBEVAX, an indigenous COVID-19 vaccine candidate. Biological E, a vaccine developer, has got authorisation to conduct phase two and three clinical trials on children aged five to eighteen.



## Record 68 names for 12 High Courts, Supreme court.

A three-member Supreme Court collegium, led by Chief Justice N V Ramana, cleared 68 names to be appointed as judges for 12 high courts in an attempt to replace a huge number of vacancies. The collegium, which included CJ Ramana, Justices U Lalit and A M Khanwilkar, vetted 113 names thoroughly.



## New AC-3 economy class.

In the AC 3-tier trains, Indian Railways added a new economic class. The trains will be able to carry more passengers with the new carriages. New coaches will have an 8% lower tariff or ticket price than standard AC 3-tier rates. The service is available for the first time in the Prayagraj-Jaipur train (train number 02403).



## Emergency Landing, National Highway in Rajasthan.

On September 9, 2021, Union Defense Minister Rajnath Singh and Union Highways Minister Nitin Gadkari opened the Emergency Landing Facility on a National Highway in Rajasthan. On the Satta-Gandhav segment of National Highway (NH) 925A in Barmer, Rajasthan, this emergency landing site was built.



## Late Railways to pay compensation.

The Indian Railways must compensate passengers if trains are late, according to the Supreme Court. The Indian Railways was chastised by the Supreme Court for running trains late and was compelled to pay a compensation of Rs 30,000 to a man who missed his flight as a result of the delay.



## IROAF closed by Railways Ministry.

The Indian Railways Organization of Alternate Fuel (IROAF) has been closed by the Railway Ministry, with effect from September 7, 2021. IROAF is a different company that specialises on green transportation fuels. It has issued a request for proposals for hydrogen fuel cell-based technology to power the trains.



## Sardardham Bhavan at Ahmedabad.

On September 11, 2021, Prime Minister Narendra Modi used video conferencing to officially open the state-of-the-art Sardardham Bhavan in Ahmedabad. On the occasion, he also placed the foundation stone for Sardardham Phase-II Kanya Chhatralay. The Sardardham Bhavan was built at a cost of 200 crore rupees.



## MoS for Health & Family Welfare.

Bharati Pravin Pawar, Union Minister of State for Health and Family Welfare, inaugurated the "Digital Population Clock" on September 10, 2021. The Seminar on Population, Human Capital, and Sustainable Development was also presided over by Minister. The Institute for Economic Growth at the University of Delhi launched the Digital Population Clock.



## 2+2 Ministerial Dialogue.

India and Australia began a high-level foreign and defence ministers talks aimed at bolstering their overall defence and strategic cooperation, particularly in the Indo-Pacific, in the face of China's growing military aggression in the region. The Australian Ministers will also call on Prime Minister Narendra Modi at his residence at 7, Lok Kalyan Marg.



## Probe under UAPA can't be extend.

The Supreme Court has ruled that magistrates cannot arbitrarily extend the term of investigation in instances involving the Unlawful Activities Prevention Act (UAPA). The investigation must be finished within 90 days under UAPA. Otherwise, the offender is eligible for default bail.



## Railways policy to lease.

According to a policy being developed by the Indian Railways, private parties may soon be permitted to lease and own railway coaches to run theme-based cultural, religious, and other tourism circuit trains. According to sources, interested parties will be required to purchase or lease a train with a minimum of 16 carriages.



## Swachhata Paktwada.

On September 16, 2021, the Cochin Port Trust inaugurated Swachhata Paktwada 2021, and the Swachhata pledge was administered in all departments. Shramdaan cleaning efforts were also initiated in the Port regions to commemorate the occasion. During this time, all department heads will be in charge of the programmes.



## Sansad TV.

On September 15, 2021, Vice President and Rajya Sabha Chairman M. Venkaiah Naidu, Prime Minister Narendra Modi, and Lok Sabha Speaker Om Birla will jointly launch Sansad TV. Sansad Tv debuted on September 15, which also happens to be International Day of Democracy.



## Nagaland's new UDA.

In Kohima, the political parties represented in the Nagaland Legislative Assembly (NLA) finalised the formation of an all-party government. The new government would be known as the United Democratic Alliance. Legislators will write to the assembly speaker in the coming days to form the UDA, according to Neiba Kronu.



## Over 2.5 crore Vaccinations on PM's Birthday.

On the occasion of Prime Minister Narendra Modi's 71st birthday, India gave a record number of COVID-19 vaccination doses, which Union Health Minister Mansukh Mandaviya characterised as a "golden chapter in world history." NITI Aayog CEO Amitabh Kant said that India has created a world record in administering daily COVID-19 vaccine doses.



## Pan and Aadhaar linking deadline.

The government extended the deadline for linking one's PAN to Aadhaar by six months, until March 2022. The Central Board of Direct Taxes (CBDT) said in a statement that the deadline has been extended to accommodate the hardships suffered by many stakeholders as a result of the COVID-19 outbreak.



## World's largest expressway in India.

On September 17, 2021, Union Minister for Road, Transport and Highways Nitin Gadkari said that the Delhi-Mumbai Express Motorway will be built as the world's longest highway in India. By March 2023, the project should be completed. By March 2022, the first stretch from Delhi to Jaipur (Dausa)-Lalsot and Vadodara to Ankleshwar should be open to traffic.



## Indigenous cruise liner, IRCTC.

The Indian Railway Catering and Tourism Corporation (IRCTC) and Cordelia Cruises, which is run by M/s Waterways Leisure Tourism Pvt. Ltd, have joined forces to promote and sell India's first indigenous luxury cruise. This is another incredible luxury travel offering under IRCTC's umbrella of tourism services to the public.





## Govt. issued 12-digit unique IDs for farmers.

As part of the government's Digital Agriculture Mission to build a single Farmers Service Interface, the national government has begun generating 12-digit unique IDs for farmers. The unique ID will provide smooth access to all farm-related services provided by various agricultural programmes and financial facilities.



## Minister releases commemorative postal stamp on Rao Jaimal Rathore :-

In the run up to the celebrations of 75th Azadi ka Amrit Mohatsav, Union Minister of State (MoS) for Communications, Devusinh Chauhan Friday launched a commemorative postal stamp in the honour of Rao Jaimal Rathore on his 515th birth anniversary. Rathore was a Rajput warrior general of Chittorgarh who put up a defiant resistance against vast Mughal army during its siege in 1567-1568.



## Supreme Court turns down Centre's plea :-

The Supreme Court on 22 September refused to accept the Centre's request to allow women candidates to appear for the entrance exam to the NDA from next year, saying it doesn't want women to be denied their right. The induction of women cannot be postponed by one year, it said. The Centre had told the top court that a notification allowing women candidates to appear for the entrance exam to the National Defence Academy will be out by May next year.



## DRI seizes 3004 kg of Heroin at Mundra :-

New Delhi [India], September 22 : In its continued crackdown on smuggling of Heroin into India, the Directorate of Revenue Intelligence (DRI) detained two containers on September 13 for examination that had arrived at Mundra Port from Kandhar, Afghanistan via Bandar Abbas, Iran and seized 3004 kg of Heroin, said the Ministry of Finance. According to the official statement issued by the ministry today, a total of eight

persons including four Afghan nationals, one Uzbek National, and three Indian nationals have been arrested in the case so far, said in a Ministry statement.



## Vaniya Saptah being celebrated from 20-26 September :-

The Department of Commerce will observe the 'Vaniya Saptah' (Trade & Commerce Week) during the period 20-26 September, 2021. A slew of programmes and events are being organized across the country highlighting Aatmanirbhar Bharat, Showcasing India as a Rising Economic Force and Green & Swachh SEZs besides handholding sessions focusing on 'From Farm to Foreign Lands' and exporter conclaves, 'Vaniya Utsav', covering all 739 districts of the country.



## PMO: PM-CARES not a fund of Government of India :-

The Union government and the Prime Minister's Office (PMO) have told the Delhi high court that the PM CARES Fund can neither be brought under the ambit of Right

to Information (RTI) Act as a "public authority", and nor can it be listed as a "State". The Centre, in response to pleas seeking to know the legal status of the Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund (PM CARES), told a bench of chief justice DN Patel and Jyoti Singh in an affidavit that the Fund was set up as a public charitable trust, and not created by or under the Constitution of India, or by any law made by Parliament or any state legislature.



## UPSC allows unmarried women to apply for NDA and Naval Academy exam :-

The Union Public Service Commission (UPSC) has allowed unmarried women to apply for the National Defence Academy & Naval Academy Examination, an official statement said on 24 September. The move follows a Supreme Court directive on the issue last month. The examination is scheduled to be held on November 14, an official said.



## Shubham Kumar tops UPSC civil services exam :-

Shubham Kumar made his district as well as his state proud by topping the most coveted Union Public Service Commission (UPSC) exam, 2020. A B.Tech in civil engineering from IIT Bombay, this exam was Subham's

third attempt. In 2019 he had secured 268th rank. Bihar chief minister Nitish Kumar congratulated Shubham Kumar for his success.



### Kargil: High power transmitters at world's highest radio station :-

Union Minister of Information and Broadcasting Anurag Thakur on 25 September launched highpower transmitters of Doordarshan and All India Radio at Hamboting La near Kargil in Ladakh. Located at the height of 4,054 metres above the mean sea level, these are the highest altitude TV and radio transmitters in the country. The range of the 10 kilowatt transmitters is over 50 km in radius. The existing transmitters at Leh are at the altitude of 3,501 metres (about 11,450 feet).



### Kerala CM Pinarayi Vijayan Announces Welfare Fund for IT, ITES Sector :-

Kerala chief minister Pinarayi Vijayan on 26 September said that the state government has announced a welfare fund for employees of the Information Technology (IT) and information technology-enabled

services (ITES) that ensures a pension of Rs 3000.



### HAL signs pact with Alliance Air to supply 2 civil Do-228 aircraft in Arunachal Pradesh :-

Boosting regional connectivity in Arunachal Pradesh, Hindustan Aeronautics Ltd (HAL) signed a lease agreement with Alliance Air Aviation Ltd for the supply of two Civil Do-228 aircraft for regional operations in the state on Sunday. The HAL Do- 228 is an aircraft well-suited for operations in northeast India. It has the capability of short take-off and landing and can land and take-off from semi-prepared runways.



### Bombay HC issued new guidelines for sexual harassment at workplace cases :-

The Bombay High Court on Tuesday September 28 issued guidelines for cases under the Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act and Rules. One of the new rules says that the names of the parties will not be mentioned in

the order sheets. Justice GS Patel passed an order to protect the interest of both accused and victim parties in cases of sexual harassment at the workplace.



**Amazon India launched Amazon future engineer program :-**

E-commerce major Amazon India on Tuesday, 28 september announced the launch of Amazon Future Engineer, its global computer science education programme, in India. According to the company, the programme will enable access to quality computer science education and career opportunities for students from underrepresented and underserved communities. In the first year of its launch, Amazon aims to enable and deliver learning opportunities to more than 1 lakh students from 900 government and aided schools across seven states in India.

## 12: Obituaries



**Michael K Williams passes away.**

Michael K Williams, the actor who played Chalky White in Boardwalk Empire, died, on September 7, 2021. He was 54 years old at the time. The actor was discovered dead in his home. "there is no foul play indicated, no forced entry, the apartment was in order." according to a police source.



**Prof Thanu Padmanabhan Died.**

Professor Thanu Padmanabhan, a well-known theoretical physicist and cosmologist, died of a major heart attack on September 17th morning. He passed out at his home in Pune and was transported to the hospital, but he was unable to be revived. He was 64 years old at the time.



### Manorama Mohapatra died.

Manorama Mohapatra, an eminent Odia poet, social worker, and journalist, died recently. She was previously the editor of the Odia daily 'The Samaja.' In 1984, she received the Sahitya Academy Award, in 1988, the Soviet Nehru Award, in 1990, the Critic Circle of India Award, in 1991, the Iswar Chandra Vidyasagar Samman, and in 1994, the Rupambara Award.



### Women's rights activist Kamla Bhasin dies at 75 :-

Eminent women's rights activist, poet and author Kamla Bhasin passed away on Saturday. She was 75. Bhasin has been a prominent voice in the women's movement. A noted feminist and author, she had been working on issues related to gender, development, peace and human rights for over three decades in India and other South Asian countries.

## 13: Ranks & Reports



### World's highest motorable road.

On August 31, 2021, Ladakh MP Jamyang Tsering Namgyal opened a route connecting Leh and the Pangong Lake. At 18,600 feet, the length crossing across the Kela Pass is the world's highest motorable road. The road was built by the Indian Army's 58 Engineer

Regiment.



### 5-star 'Eat Right Station' certification.

The Food Safety and Standards Authority of India (FSSAI) awarded the Chandigarh Railway Station a 5-star "Eat Right Station" certification on September 2, 2021. This certification was given for supplying passengers

with high-quality, nutritional cuisine.



## Protected Areas in Central Africa 2020.

Central Africa can develop sustainably if resources are shared equally and the environment is conserved, according to a paper titled "Protected Areas in Central Africa 2020." The Central African Forest Observatory (OFAC), a specialised arm of the Central African Forests Commission, produced the report (COMIFAC).



## Plastics pact launched, India.

On September 3, 2021, India became the first Asian country to sign a plastics agreement. The World Wide Fund for Nature-India (WWF India) and the Confederation of Indian Industry collaborated to create this new platform (CII). It will aid in the promotion of a circular plastics system.



## Rating of PM Narendra Modi.

Prime Minister Narendra Modi had the highest approval rating among thirteen foreign leaders surveyed, according to morning consult, a US-based global leader approval tracker. The results of this survey are updated on a weekly basis. Prime Minister Narendra Modi has a 70% approval rating.



## Sharks and Rays extinction.

Sharks and rays around the world have been declining in population since 2014, according to a new IUCN red list, and are now endangered with extinction. IUCN presented a new red list during a global convention with the goal of safeguarding endangered species.



## National Institutional Ranking Framework, Indian Ranking.

On September 9, 2021, Union Education Minister Dharmendra Pradhan announced the National Institutional Ranking Framework (NIRF), which lists India's top institutions and colleges. For all of the categories, NIRF India Ranking criteria and weighted averages were used to rank colleges and institutions.



## Booster Doses, not appropriate, Lancet Report.

Vaccine effectiveness against severe Covid-19 is so great, according to a paper published in the Lancet, that booster doses for the general population are "not appropriate" at this point of the pandemic. Scientists from the World Health Organization (WHO) and the US Food and Drug Administration (FDA) contributed to the review.



## Indian Economy expands by 7.2% in 2021.

On September 15, 2021, the United Nations Conference on Trade and Development (UNCTAD) released its Trade and Development report. India's economic growth rate would improve to a four-year high of 7.2 percent in 2021, up from a fall of 7% in 2020, according to the analysis.



## 100 most influential list, PM Modi.

Time Magazine has chosen Prime Minister Narendra Modi as one of the top 100 most influential people in the world for 2021. Adar Poonawalla, the CEO of the Serum Institute of India, and West Bengal Chief Minister Mamata Banerjee have also been recognised among the world's 100 most influential individuals.



## 90% Mumbai citizens have COVID antibodies.

In anticipation of a third wave of covid-19 infection, a fresh sero survey was done between August 12 and September 9, 2021. The Brihanmumbai Municipal Corporation is conducting its fifth sero survey. According to the survey, Covid-19 antibodies were discovered in 86.64 percent of persons in the Greater Mumbai area.



## India scores 46th rank in the Global Innovation Index 2021 :-

India has climbed two spots to 46 in the Global Innovation Index (GII) 2021 prepared by the World Intellectual Property Organization (WIPO). The country's rank has been consistently rising in the last few years. From 81 in 2015, it has moved to 46 in 2021. It added that India has been portrayed as successful in developing sophisticated services that are technologically dynamic and can be traded internationally.



## India likely to become world's 3rd largest importer by 2050: Report :-

India could become the world's third-largest importer by 2050, according to a report released by the UK's Department of International Trade. With a 5.9 per cent share of global imports by 2050, the country will become the third-largest importer, following China and the United States. At present, India occupies the eighth spot on the list of the largest importing countries with a 2.8 per cent share. The country's position on the list will jump to the fourth position by 2030 with a 3.9 per cent share.



## OECD trims India's economic growth forecast to 9.7% for FY22 :-

The Organisation for Economic Co-operation and Development (OECD) has pared its growth forecast for India by 20 basis points to 9.7% for this fiscal, citing continuing risks from the pandemic. The Paris-based organization also raised its inflation forecast for India by 50 basis points to 5.9% for this fiscal and by 70 basis



points to 5.5% for the year after.



## HDFC Bank most outstanding company in India :-

HDFC Bank Ltd. has been voted 'Overall Most Outstanding Company in India,' in a poll conducted by reputed publication Asiamoney. The poll, known as Asia's Outstanding Companies Poll, is designed to acknowledge listed companies that have excelled in areas such as financial performance, management team excellence, investor relations, and CSR initiatives.

## 14: Schemes & Committee



### CBDC Scheme.

On August 2, 2021, the central banks of Australia, Singapore, Malaysia, and South Africa announced the Central Bank Digital Currencies (CBDC) Scheme. The CBDC scheme is a cross-border payments trial that uses various central bank digital currencies (CBDC) to see if transactions can be processed quickly and cheaply.



### Saath, Jammu & Kashmir.

Jammu and Kashmir Lieutenant Governor Manoj Sinha launched Rural Enterprises Acceleration Programme titled 'Saath' for Self Help Group women on 8 August Wednesday. Syed Sherish Asgar, the Mission Director of the Jammu and Kashmir Rural Livelihoods mission said that the initiative was aimed at transforming the lives of rural women associated with Self Help Groups (SHG).



## IMPunjab, Innovation Mission Punjab.

On September 1, 2021, Punjab Chief Minister Amarinder Singh inaugurated the 'Innovation Mission Punjab' (IMPunjab). IMPunjab is a public-private partnership mission that will bring in international investors and expertise to help start-ups get off the ground. This Mission will increase Punjab's growth potential and foster a healthy economy by creating jobs and attracting investment.



## Two Agri schemes, Arunachal Pradesh.

Chief Minister of Arunachal Pradesh, Pema Khandu, launched two ambitious schemes on September 3, 2021. One scheme was launched in agriculture sector, called 'Atmanirbhar Krishi Yojana', and Second scheme was launched in horticulture sector, called 'Atmanirbhar Bagwani Yojana'. Both the schemes are part of the Atmanirbhar programme that was announced by central government during the budget session of 2021.



## AYUSH AAPKE DWAR campaign.

On September 3, 2021, the Ayush Ministry launched the "AYUSH AAPKE DWAR" campaign in 45 sites across India. Minister of State for Ayush, Ayush Bhawan, kicked off the campaign by giving medicinal plants to employees. Around 21 states are taking part in the launch celebrations, which will see over 2 lakh seedlings given across India.



## Vatan Prem Yojana.

The Vatan Prem Yojana's governing body met for the first time on September 4, 2021. On August 7, 2021, the Vatan Prem Yojana was inaugurated. The meeting was place in Gandhinagar, and it was chaired by Chief Minister Vijay Rupani. The chief minister was given a presentation of the scheme's details.



## Vidyanjali Portal.

On September 7, 2021, Prime Minister Narendra Modi unveiled the Vidyanjali Portal and several other education-related projects. These initiatives were started with the expectation that they would have a substantial impact on India's future. While inaugurating the 'Shikshak Parv' conference, several initiatives were launched.



## PRANA Portal.

On September 7, 2021, Union Environment Minister Bhupendra Yadav unveiled the PRANA platform. The PRANA Portal will be used to track the success of India's National Clean Air Programme (NCAP) in order to meet the country's promise to provide everyone with clean air and blue sky.



## Business Blasters.

On September 7, 2021, Manish Sisodia, the Deputy Chief Minister of Delhi, launched the 'Business Blasters' initiative. This programme was created with the goal of encouraging young people to become entrepreneurs at a young age by providing them with seed money to start a firm.



## PLI scheme for Textile Sector.

On September 8, 2021, the central government authorised a Rs 10,683 crore production-linked incentive (PLI) scheme for the textiles sector. This PLI programme was approved to help improve domestic production and exports. More than 7.5 lakh individuals would be directly employed as a result of the scheme, as well as a variety of supporting activities.



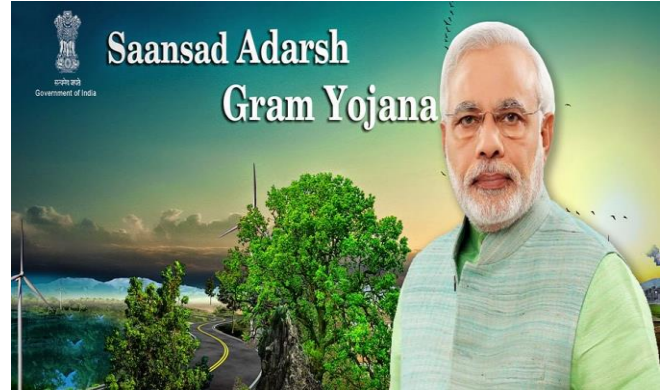
## 100-day plan-Civil Aviation Sector.

On September 9, 2021, Union Civil Aviation Minister Jyotiraditya Scindia presented a 100-day strategy for India's civil aviation sector. The minister also announced policy changes and the expansion of airports and heliports. This strategy would be divided into 16 sections. Eight of them are policy-related, while four are reform-related.



## Centre of Excellence on Offshore Wind.

On September 9, 2021, R. K. Singh, Union Minister for Power and New & Renewable Energy, met Dan Jorgensen, Danish Minister for Climate, Energy & Utilities, in New Delhi. During the discussion, it was stressed that India's policy on energy transition to green is critical.



## Adarsh Gram Yojana in 36000 villages.

Pradhan Mantri Adarsh Gram Yojana would be launched in 36000 villages across India, according to Union Tribal Affairs Minister Arjun Munda. Villages with a tribal population of 50% or more would be given precedence under the concept. The Ministry of Tribal Affairs will initiate this programme.



## PLI Scheme approval.

On September 15, 2021, the Union Cabinet approved a Rs. 26058 crore production linked incentive (PLI) scheme for the auto, auto-components, and drone industries to improve India's manufacturing capacity. The PLI programme will aid in the development of a global supply chain for sophisticated automotive technology in India.



## Shoonya Campaign launch.

On September 15, 2021, NITI Aayog, in collaboration with RMI and RMI India, launched the Shoonya campaign. The Shoonya campaign is a collaboration between customers and businesses to promote pollution-free delivery vehicles. India's freight-related CO2 emissions are accounted for by 10% by urban freight vehicles.



## Planetarium Innovation Challenge.

The "Planetarium Innovation Challenge" has been launched by MyGov India for Indian start-ups and tech entrepreneurs. This Planetarium Challenge was created with the goal of bringing together Indian IT corporations and start-ups with the potential to develop an indigenous planetarium software system.



## Rail Kaushal Vikas Yojana.

Under the umbrella of Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Indian Railways took a step forward in the Skill India Mission by creating the "Rail Kaushal Vikas Yojana (RKVY)". With the support of 75 railway training institutes across India, this Mission will equip railways with entry-level training in industry-relevant skills.



## Ek Pahal Campaign.

On September 17, 2021, the Ministry of Law and Justice announced a Pan-India Special Campaign named "Ek Pahal Drive" for Justice Delivery at the Doorstep. The campaign was established in order to stimulate widespread Tele-Law registration. The Department of Justice and NALSA started the campaign.



## 4<sup>TH</sup> GST council Meeting.

Finance Minister Nirmala Sitharaman presided over the 45th GST Council Meeting in Lucknow on September 17, 2021. Several major choices were made after discussions about bringing gasoline and diesel under the GST framework. The issue of petrol and diesel was considered after the Kerala High Court raised concerns about it.



## Piyush Goyal launches National Single Window System for investors :-

New Delhi [India], September 22 : Union Minister of Commerce and Industry Piyush Goyal on Wednesday launched the National Single Window System (NSWS) for investors and businesses, the ministry said in a statement. The system, as per Goyal, would bring transparency, accountability and responsiveness in the ecosystem and all information will be available on a single dashboard.



## PM Ujjwala Yojana 2.0.

In Jabalpur, Madhya Pradesh, Union Home Minister Amit Shah launched the Pradhan Mantri Ujjwala Yojana 2.0, providing free LPG gas connections to over five lakh women. The PM Ujjwala Yojana 2.0 plan intends to provide clean cooking fuel or LPG gas connections to millions of people from low-income families, particularly in rural areas.



## National Pension System (NPS) Diwas :-

Pension regulator PFRDA has kickstarted a campaign under 'Azadi Ka Amrit Mahotsav' to promote pension and retirement planning. The pension regulator on Thursday said it will observe October 1, 2021 as the National Pension System (NPS) Diwas for a carefree 'azad' retirement. The Finance Ministry in a release said, "The pension regulator aims to encourage every citizen to plan towards creating a financial cushion to ensure for oneself a financially sound future after retirement."



## Modi to launch Pradhan Mantri Digital Health Mission September 27 :-

Prime Minister Narendra Modi will be announcing a nationwide rollout of the Pradhan Mantri Digital Health Mission on September 27. Under this mission, a unique digital health ID will be provided to the people. The National Digital Health Mission is currently in its pilot phase across the union territories of Andaman & Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, and Daman and Diu, Ladakh, Lakshadweep, and Puducherry.



## SAUBHAGYA household electrification scheme completes 4 yrs :-

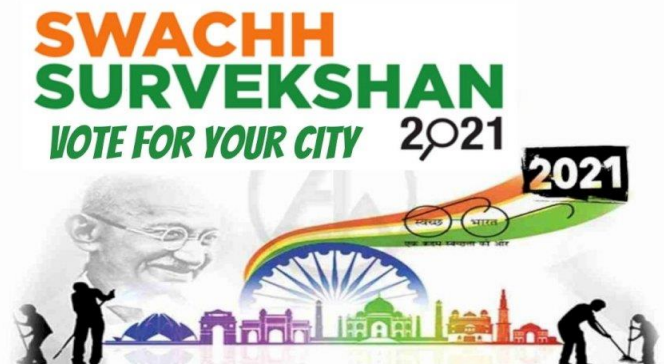
Kick-started on 25th September 2017 by Prime Minister Narendra Modi, Saubhagya scheme has completed successful four years. As many 2.82 crore households have been electrified since the launch of Saubhagya

scheme, said the ministry of power on 25 September.



## Centre to launch month-long Clean India Drive from 1 Oct :-

The Government will launch a month-long nationwide Clean India Drive to clean waste, mainly single-use plastic from 1st October to 31st October this year. Youth Affairs and Sports Minister Anurag Thakur has said that it is our resolve to create a plastic-free India, an India of Gandhiji's dreams and as per the vision of Prime Minister Narendra Modi in which Swachhata occupies the topmost priority



## Swachh Survekshan 2022 :-

Union Housing and Urban Affairs Minister Hardeep Singh Puri on September 27 launched the Swachh Survekshan 2022, the seventh edition of the annual cleanliness survey in the urban areas, under which district rankings have been introduced for the first time.

The Mission is also committed to continuously engage with citizens to improve the quality of public sanitation infrastructure and services.



## Elder Line: Country's first Pan-India helpline for senior citizens :-

The Government has started a pan-India helpline for the elderly population of the country, Elder Line, to address its problems concerning pension, legal issues or even cases of abuse. The toll-free helpline 14567 will provide free information and guidance on various issues, extend emotional support, and even take steps to rescue the homeless elderly. An announcement by the Ministry of Social Justice and Empowerment 28 September said the Elder Line is intended to provide all senior citizens, or their well-wishers, with a single platform to connect and share their concerns and get the guidance, without having to struggle for it.



## Amrit Grand Challenge Programme :-

On September 28, 2021 Union Science and Technology Minister Jitendra Singh launched 'Amrit Grand Challenge Programme' to identify 75 startup

innovations in telemedicine, digital health, health with big data, artificial intelligence, blockchain and other technologies. Launching the programme, he said young startups and entrepreneurs must come out with innovative ideas and solutions for India's healthcare challenges.



## NIDHI 2.0 scheme (National Integrated Database of Hospitality Industry) :-

Lok Sabha Speaker Shri Om Birla launched NIDHI 2.0 (National Integrated Database of Hospitality Industry) in the Programme "Tourism for Inclusive Growth" organized by the Ministry of Tourism, Government of India, to mark the World Tourism Day, 2021 on 27 September, 2021. The NIDHI scheme was launched by the Ministry of Tourism to facilitate the digitalization of the tourism sector and promote ease of doing business for the hospitality & tourism sector, by encouraging all accommodation units to register themselves on the platform to become part of the hospitality industry.





## Cabinet approves continuation of 'PM POSHAN in Schools' scheme :-

The Cabinet Committee on Economic Affairs (CCEA) has approved the continuation of 'National Scheme for PM POSHAN in Schools' for the five year period 2021-22 to 2025-26 with the financial outlay of Rs 54061.73 crores from the Central Government and Rs 31,733.17 crore

from State Governments & UT administrations. Central Government will also bear additional cost of about Rs 45,000 crore on foodgrains. Therefore, the total scheme budget will amount to Rs 1,30,794.90 crore. The CCEA cleared the PM POSHAN Scheme for providing one hot cooked meal in Government and Government-aided schools from 2021-22 to 2025-26.

## 15: Science & Technology



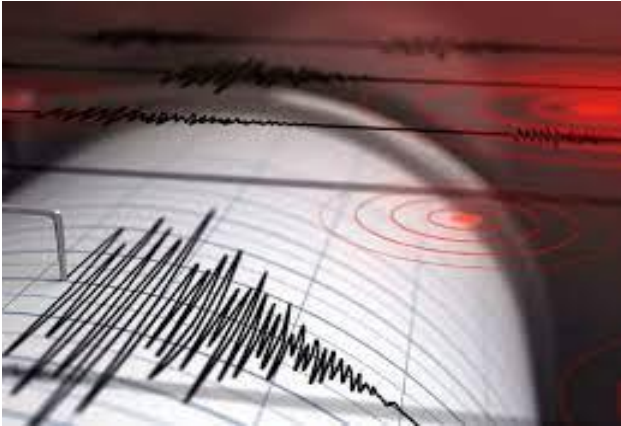
### e-Source, Marketplace.

IIT Madras is working on e-Source, an online platform that will be utilised to deal with electronic garbage (e-waste). E-Source will be utilised to combat e-waste by bringing together formal and informal sector stakeholders. e-Source will serve as an online marketplace for waste electrical and electronic equipment by acting as an exchange platform (WEEE).



### Toy-train safari.

On the Darjeeling Himalayan Railway Route, the Northeast Frontier Railways (NFR) has launched a regular Jungle Tea Toy Train Safari. In West Bengal, a toy-train safari will run from Siliguri junction to Rongtong station. This is the NRF's second attempt to recruit tourists and develop the Darjeeling Himalayan Railway's tourism sector (DHR).



## Natural Disaster App.

In a joint initiative, the National Disaster Management Authority (NDMA) and IIT Roorkee have created an app that can predict natural disasters. The app will warn users ahead of time about potential natural disasters. In Lansdowne, a third Doppler Radar will be installed.



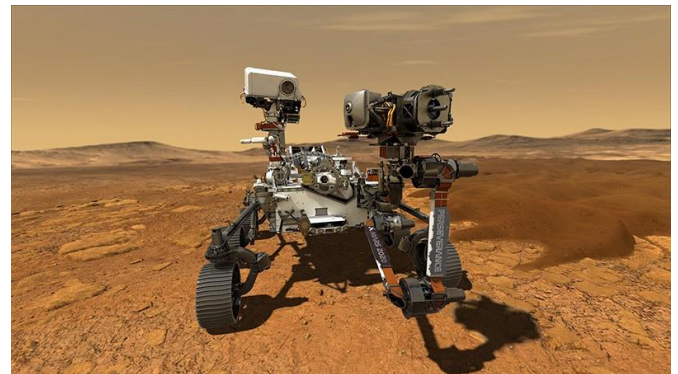
## Smart Air-Purifier, Ubreathe Life.

Scientists from the Indian Institutes of Technology, Ropar and Kanpur, and the Faculty of Management Studies at Delhi University have developed the world's first plant-based smart air purifiers, dubbed "Ubreathe Life." Indoor locations such as schools, hospitals, workplaces, and households benefit from Ubreathe Life's air filtration technology.



## Super follows, Twitter new feature.

On September 1, 2021, Twitter finally implemented the long-awaited "Super Follows" function. Creators can charge subscriptions to access the premium material using the 'Super follow' feature. This function was introduced as part of Twitter's effort to become a favoured online destination for clickable celebrities while also attempting to increase revenue without cluttering the platform with advertisements or promotions.



## MARS' First Rock Sample.

The American Space Agency's newest Mars rover, NASA's Curiosity, has successfully collected the first rock sample for return to Earth. Adam Steltzner, the Perseverance rover's principal engineer, described the rock sample as "the perfect core sample." Perseverance had already attempted to crumble the sample by drilling through much softer rock, but it had failed to get

inside the titanium tube.



## Helicopter for Mars.

China has created a prototype micro chopper that will be used to conduct surveillance on future Mars expeditions. This little helicopter was constructed after the historic landing of a robotic rover on Mars, according to the Chinese space scientific organisation. In 2033, China plans to launch its first crewed expedition to Mars.



## Microbial experiments in outer space.

Indian Institute of Science (IISc) and Indian Space Research Organisation (ISRO) researchers have devised a gadget to conduct microbiological investigations in space. This self-contained, modular apparatus can be used to cultivate microorganisms, allowing scientists to

conduct biological research even in space.



## New software for enhancing coal resource assessment.

Under the Ministry of Coal, Coal India Ltd (CIL) has released a new programme called "Spectral Enhancement" (SPE) that will aid in the identification of thin coal seams beneath the earth's crust and improve the assessment of coal resources utilising seismic survey during the coal exploration process.



## ISRO, Chandrayaan-2.

On September 6, 2021, the Indian Space Research Organization (ISRO) announced that its Chandrayaan-2 spacecraft has completed 9,000 orbits around the moon. ISRO authorities further stated that through remote sensing, the spacecraft found small elements of

manganese and chromium.



## 1,000 Asteroid around earth, NASA.

The National Aeronautics and Space Administration (NASA)'s Propulsion Laboratory (JPL) recognised the 1,000th Near-Earth Asteroid dubbed '2021 PJ1' when it passed Earth at a distance of around 1.7 million kilometres on August 14, 2021. Although the asteroid posed no danger to Earth, it was a historic occurrence.



## Increase Production of PV cells, Vice President.

M. Venkaiah Naidu, India's Vice President, has urged states to enhance solar PV sales and modules production in the country. He advocated for the establishment of manufacturing units to increase the production of solar PV cells and modules. He emphasised the need of states' active participation in

solar energy as "Atma Nirbharta."



## Centre's e-portal and Land records.

Most states, with the exception of three, have connected their land records with the central government's e-portal, according to the union government. The government also stated that in the Kharif Marketing Season 2021-22, procurement will be done using a new mechanism.



## Space Sector, FDI policy.

India will soon issue a new foreign direct investment (FDI) policy for the space sector, according to K Sivan, the chief of the Indian Space Research Organisation. The president stated India's space FDI policy is being reviewed while speaking at the International Space Conference organised by the Confederation of Indian Industry (CII).



## SpaceX launched 4 amateurs.

On September 15, 2021, SpaceX launched four amateurs on its first-ever private trip. Onboard two contest winners, a health care professional, and their wealthy sponsor, SpaceX began its first ever "Earth-circling voyage." This is the most significant step forward in space tourism.



## Reusable GSLV Mk-III launch vehicle.

The Indian Space Research Organisation (ISRO) is developing technology to make the GSLV Mk-III launch vehicle reusable. ISRO will be able to land its GSLV Mk-III launch vehicles vertically thanks to this innovative technology. It will be similar to the work of Elon Musk's SpaceX.



## NIELIT centres in Northeast State.

On September 16, 2021, Rajeev Chandrasekhar, Union minister of state for electronics and information technology, launched three National Institute of Electronics and Information Technology (NIELIT) centres in northeastern states. Two existing centres in Mizoram's Imphal and Aizawl districts were updated on this occasion.



## Statue of Satoshi Nakamoto revealed.

On September 16, 2021, Hungary unveiled a statue of Bitcoin creator Satoshi Nakamoto. Budapest, Hungary's capital, hosted the unveiling of the enormous bronze statue. This is the first statue of its kind in the world to

honour the inventor of the Bitcoin digital money.



## Twitter agreed to pay \$800 million+.

Twitter has agreed to pay \$809.5 million (approximately Rs. 5,960 crores) to resolve a shareholder class action lawsuit alleging that the social media corporation misled investors about how frequently users utilised its platform. The settlement brought an end to a case that was about to go to trial.



## Oldest human footprints found in North America :-

:-

Fossilized footprints discovered in New Mexico indicate that early humans were walking across North America around 23,000 years ago, researchers reported Thursday. The first footprints were found in a dry lake bed in White Sands National Park in 2009. Scientists at the U.S. Geological Survey recently analyzed seeds stuck in the footprints to determine their approximate age, ranging from around 22,800 and 21,130 years ago. The findings may shed light on a mystery that has long intrigued scientists: When did people first arrive in the Americas, after dispersing from Africa and Asia?

## 16: Sports News



## Asian Youth Championships.

In the Asian Youth Championship, Indian boxers won six

gold medals, nine silver medals, and five bronze medals. Due to pullouts due by COVID-19-related travel restrictions, the women's competition was drastically reduced. In the women's draw, Preeti Dahiya, Sneha Kumari, Khushi, and Neha won gold medals.



## **Avani Lekhara, won 2 medals.**

On September 3, 2021, Avani Lekhara became the first Indian woman to win two Paralympic medals in a single edition of the Paralympics. In the women's 50m Rifle 3 Positions (SH1) event, Avani Lekhara took bronze. With a third-place result, she created history.



## **Pramod Bhagat wins gold.**

Manoj Sarkar, Bhagat's compatriot, earned the bronze medal in the men's singles SL3 after defeating Daisuke Fujihara 22-20, 21-13. Bhagat, the current World No. 1, defeated Fujihara of Japan 21-11, 21-16 in the first men's singles SL3 class semifinal, which lasted 36 minutes.



## **Manish Narwal wins gold.**

In the P4 Mixed 50m Pistol SH1 event, shooter Manish Narwal won India's third gold medal at the 2020 Paralympics, while compatriot Singhraj Adana took silver. Sergey Malyshev of the Russian Olympic Committee won bronze with a time of 196.8.



## **Tokyo Paralympics Closing Ceremony.**

India's marketing effort at the Tokyo Paralympics 2020 ended with a total of 19 medals, including five gold, eight silver, and six bronze. For India, a single iteration of the Paralympic Games, this is a great medal tally. Out of a total of 162 countries, India is ranked 24th in the standard medal tally.



## Durand Cup, 130<sup>TH</sup> Edition.

The Vivekananda Yubabharati Krirangan in Kolkata hosted the 130th edition of the Durand Cup. Mamata Banerjee, the Chief Minister of West Bengal, booted the ball to start the event. This year's edition of Asia's oldest club football tournament features 16 teams, with two clubs East Bengal and Mohun Bagan opting out.



## Harmilan Kaur broke 19-yr-old record.

Harmilan Kaur Bains of Punjab broke a 19-year-old national record in the women's 1500m race at the 60th National Open Athletics Championships in Warangal, clocking 4:05. Harmilan's time, however, fell short of the qualifying time for the World Championships, which is set at 4:04.20.



## Pankaj Advani wins his 24th world title :-

Star Indian cueist Pankaj Advani grabbed his 24th world title when he triumphed at the IBSF 6-Red Snooker World Cup with a victory over Pakistan's Babar Masih in the final. Advani, who also won his 11th Asian title, started the final with a comfortable 42-13 win in the opening frame. Babar drew parity by winning the second 38-14.



## 2021 Junior Men's Hockey World Cup to be held in Bhubaneshwar :-

Odisha Chief Minister Naveen Patnaik announced on September 23 that Odisha will host the Junior Men's World Cup Hockey at Kalinga Stadium in Bhubaneswar from November 24 to December 5. The event will see 16 countries taking part—India, Korea, Malaysia, Pakistan, South Africa, Egypt, Belgium, England, France, Germany, the Netherlands, Spain, the United States, Canada, Chile and Argentina.





## Sania Mirza & Zhang Shuai Win Ostrava Open WTA Doubles Title :-

India's Sania Mirza and her Chinese partner Zhang Shuai won the women's doubles title at the Ostrava Open WTA Tennis Tournament, beating Kaitlyn Christian and Erin Routliffe in straight sets on Sunday. Indian ace Sania bagged her first WTA title in 20 months as she and Zhang beat Kaitlyn Christian of the United States and Erin Routliffe of New Zealand 6-3, 6-2 in an hour and four minutes.



## Virat Kohli becomes first Indian to reach 10,000 runs in T20 cricket :-

Virat Kohli became the first Indian batsman to notch up 10,000 runs in Twenty20 cricket during his side Royal Challengers Bangalore's (RCB) game against the Mumbai Indians in Dubai on Sunday. The 32-year-old is the second man after West Indies' Chris Gayle to reach the landmark in both T20 and one-day international cricket.



## Jyothi Surekha Vennam wins a silver medal at World Archery Championships :-

Indian compound archer Jyothi Surekha Vennam finished with three silver medals to her name at the World Championships in Yankton, USA on 25 September, adding the individual event second-place finish to the same in women's team and mixed team events. Jyothi lost a nerve-wracking final to Colombian superstar Sara Lopez to clinch a silver in the compound women's individual section.

## 17: State News



### 3 Crocodile Species, Odisha.

The Odisha district of Kendrapara, which is crisscrossed by rivers, creeks, and water inlets, has become the only district in India to be home to all three species of crocodiles: saltwater, gharial, and mugger. At the Bhitarkanika National Park, the district is well known for its excellent conservation effort for saltwater or estuarine crocodiles.



### India's first Dugong Conservation Reserve, Tamil Nadu.

The Tamil Nadu government 03 September announced plans to establish India's first dugong conservation reserve at Palk Bay, on the state's southeast coast. The dugong, sometimes known as the sea cow, is a critically endangered marine mammal. It is on the verge of extinction because to habitat degradation, pollution, and the lack of seagrass.



### Ladakh's New State animal and State bird.

On September 1, 2021, Ladakh designated two endangered species, the snow leopard and the black-necked crane, as its state animals and birds, respectively. Ladakh adopted these species two years after it was formed as a distinct Union Territory (UT) from the former state of Jammu and Kashmir (J&K).



### CM Vijay Rupani resigns.

Gujarat's Chief Minister, Vijay Rupani, resigned from his job, in a momentous political development. The BJP leader is said to have gone to Gandhinagar's Raj Bhavan today to offer his resignation. Rupani, on the other hand, did not say what led him to resign.



## No Liquor, meat, UP.

The Uttar Pradesh government designated a 10-square-kilometer region around Lord Krishna's birthplace in Mathura-Vrindavan as a "teerth sthal" (pilgrimage site) and prohibited the sale of liquor and meat in the area, which includes 22 Mathura Nagar Nigam wards. The local government oversees 70 wards in the city.



## Raja Mahendra Pratap Singh State University.

On September 13, 2021, Prime Minister Narendra Modi will lay the foundation for the Raja Mahendra Pratap Singh State University in Aligarh, Uttar Pradesh. The State Government is establishing this institution in memory of Raja Mahendra Pratap Singh, a famous independence fighter, social reformer, and educationist.



## MP- Food Processing Unit inaugurated.

Prahlad Singh Patel, Union Minister of State for Food Processing Industries, inaugurated an M/s Sahara Frozen Foods Food Processing Unit at Morena, Madhya Pradesh, on September 11, 2021. The Pradhan Mantri Kisan SAMPADA Yojana, a central sector cold chain scheme, was launched with the opening of the Food Processing Unit.



## Four states over impact of Farmer's protest, NHRC.

On September 14, 2021, the National Human Rights Commission (NHRC) filed a notice to four states over complaints from industrial entities and transit disrupted by farmers' protest at the Delhi border. The governments of Delhi, Uttar Pradesh, Haryana, and Rajasthan have all been given notice.



## Gov. allowed 11 states to borrow extra funds.

Because they met the capital spending target set by the finance ministry for the June quarter of fiscal year 2021-22, the central government has authorised 11 states to borrow an additional Rs 15,721 crore from the market. An additional 0.25 percent of their Gross State Domestic Product (GSDP) in open market borrowing licence was allowed.



## Child Marriage Registration Bill.

After a bill making child marriage registration mandatory in the state was passed, hungama erupted in the Rajasthan Assembly. In the state legislature, the Rajasthan Compulsory Registration of Marriages (Amendment) Bill, 2021 was enacted. A provision in the bill mandates that child marriages be recorded within 30 days.



## Banned for public transport, Ahmedabad.

On September 17, 2021, the Ahmedabad Municipal Corporation (AMC) in Gujarat issued an order declaring that citizens who have not received one of the two Coronavirus vaccine doses will be denied access to public transportation and civic buildings in Ahmedabad beginning September 20, 2021.



## Assam govt burns 2,500 seized rhino horns :-

On the occasion of World Rhino Day, the Assam government 22 September burned 2,479 rhino horns to bust myths associated with it and prevent poaching of the animal. The government will be burning the stockpiles of the 2,479 rhinos' horns in six giant furnaces on Wednesday. The rhinos horns were burned at Bokakhat, Assam's Golaghat district, near Kaziranga National Park and Tiger Reserve (KNPTR).



## THE HIMALAYAN FILM FESTIVAL 24 - 28 SEPT 2021, LEH, LADAKH

### Ladakh to host the first Himalayan film festival from September 24 :-

The union territory of Ladakh is hosting the first edition of The Himalayan Film Festival 2021 (THFF) from September 24 to 28 in Leh capital city. The five-day festival also aims to create an interactive and exposure platform to promote aspiring local filmmakers and to showcase Ladakh as an attractive film destination, Secretary Information Padma Angmo said.



### Govt accepts RN Ravi's resignation :-

The Government has accepted the resignation of Ravindra Narayan Ravi, the interlocutor for the Naga peace process, officials said on Thursday. Ravi, who was governor of Nagaland and on September 9 transferred to Tamil Nadu, where he took the gubernatorial post on

Saturday.



### CM Arvind Kejriwal launches 'Dekho Meri Dilli' mobile app :-

Chief Minister Arvind Kejriwal on 27 September launched Delhi Tourism mobile app "Dekho Mere Dilli" to boost tourism on the occasion of World Tourism Day. Addressing the media at the event, Kejriwal said, "The tourists who want to visit Delhi can now plan their tour by using the "Dekho Mere Dilli" mobile app. They can plan their entire tour on one platform. They can even buy tickets for the places they want to visit in the national capital." The Chief Minister said that the app has all the information about restaurants, fun places, historic sites, entertainment venues in the national capital while adding that the tourist can also locate places within 5 km with the help of the app.



### Weaver service, design resource centre to open in Kullu :-

Union Minister Piyush Goyal announced the setting up of Weaver Services and Design Resource Centre in Kullu district of Himachal Pradesh on 26 September. Goyal

announced the setting up of Weaver Services and Design Resource Center while speaking at an interaction programme with handicrafts and handloom artisans organized under 'Seva and Samarpan Abhiyan' in Kullu, informed the Ministry of Textiles in a release.



## Jammu & Kashmir : Union minister lays foundation stone of ZPEO :-

Union minister for information and broadcasting, youth affairs, and sports, Anurag Thakur laid foundation stone of zonal physical education office (ZPEO) and zonal playfield and inaugurated PMGSY road at Kichpora Kangan on 26 September. The minister visited Kichpora

Kangan where he laid foundation stone of ZPEO and development of zonal level playfield approved at Rs 1.14 crore.



## Nimaben Acharya: First woman Speaker of Gujarat Assembly :-

Senior BJP MLA from Bhuj constituency of Kutch district, Nimaben Acharya, became the first woman Speaker of Gujarat Legislative Assembly after she was elected to the post unanimously on 27 September. Chief Minister Bhupendra Patel proposed the name of Acharya for the post of Speaker and it was supported by Leader of Opposition Paresh Dhanani.

## 18: Summits & Conferences



### Resolution on Afghanistan adopted by UNSC.

On August 30, 2021, the United Nations Security Council

adopted a resolution on the situation in Afghanistan under the Presidency of India. The resolution requested that Afghanistan, a war-torn country, not be used to threaten or attack any country or to harbour terrorists.



## India and Taliban first meet.

On August 31, 2021, the MEA's Ambassador to Qatar, Deepak Mittal, met with Sher Mohammad Abbas Stanekzai, the leader of the Taliban's political office, according to the MEA. The Indian government has changed its attitude on the Taliban as a result of this meeting.



## National Conference, WCD Minister chairs.

Smriti Zubin Irani, Minister of Women and Child Development (WCD), presided over the National Conference 2021. The conference took place at Kevadia, Gujarat, on the 30th and 31st of August. During the National Conference, ministers deliberated on improving the implementation and governance of the ministry's schemes and programmes.



## 8th Meeting of Agricultural Experts of BIMSTEC.

On August 31, 2021, India held the 8th Meeting of Agricultural Experts of BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) Countries. Agriculture ministers from Bangladesh, Bhutan, Nepal, Sri Lanka, India, Myanmar, and Thailand attended the meeting.



## FM chairs 24th meeting of FSDC.

Nirmala Sitharaman, the Finance Minister, presided over the 24th meeting of the Financial Stability and Development Council (FSDC) at Vigyan Bhavan in New Delhi. The FSDC is an apex-level organisation established by the Indian government to serve as a super regulatory body. In 2008, the Raghuram Rajan

Committee suggested that it be established.



## **BRICS proposes vaccine access, consumer safety.**

On September 3rd, 2021, the 11th BRICS Trade Ministers Meeting was conducted virtually under the chairmanship of India. The meeting was held under the chairmanship of Indian commerce minister Piyush Goyal, members agreed to work on newer areas such as consumer protection, e-commerce, genetic resources, traditional knowledge and cooperation in professional services.



## **BRICS Summit, Virtually.**

On September 9, 2021, Prime Minister Narendra Modi virtually chaired the 13th BRICS Summit. The theme of the Summit has been chosen by India as "BRICS@15:

Intra-BRICS Cooperation for Continuity, Consolidation, and Consensus." During the meeting, Indian Prime Minister Narendra Modi praised the BRICS members' cooperation during India's year as Chair.



## **Protectors of Emigrants, 4<sup>th</sup> conference.**

On September 10, 2021, the Protectors of Emigrants held their fourth conference. This date is the same as the enactment of the Emigration Act of 1983. He stated that now is the time to prepare for the chances that await us in a world that is slowly returning to normalcy.



## **India-Japan Sixth Maritime Affairs.**

On September 10, 2021, India and Japan held their sixth Maritime Affairs Dialogue in a virtual mode. The discussion covered recent advances in regional cooperation initiatives, the maritime security



environment, and potential for cooperation between the two countries in the Indo-Pacific region.



### **Peter Dutton-Rajnath Singh bilateral meeting.**

On September 10, 2021, Union Defence Minister Rajnath Singh met with his Australian colleague Peter Dutton in New Delhi. Peter Dutton is in India for the first time, accompanied by a high-level group, for a 2+2 ministerial dialogue.



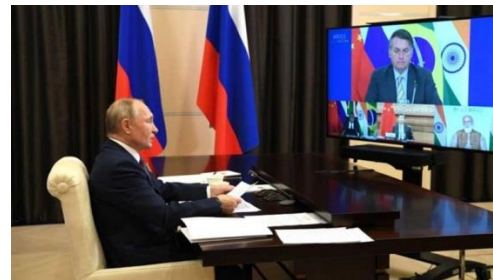
### **High-level donors conference, UN.**

On September 13, 2021, the United Nations will organise a high-level donors conference to seek emergency financing for Afghanistan following the Taliban's control of the country. The United Nations conference was led by UN Secretary General Antonio Guterres, who requested more than \$600 million in a "flash appeal" for Afghans.



### **Quad summit on 24 sept, Modi presence.**

Prime Minister Narendra Modi will attend the Quad Leaders Summit in Washington on September 24, according to the Ministry of External Affairs (MEA). PM Modi will also speak at the 76th session of the United Nations General Assembly (UNGA) in New York on September 25 during the General Debate of the high-level segment.



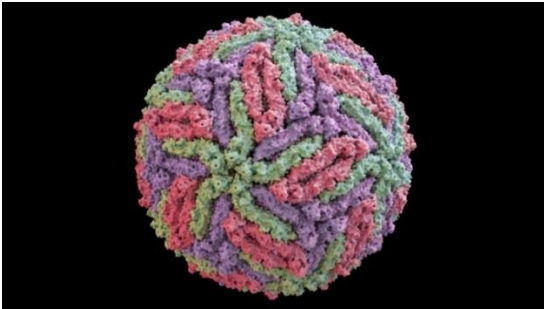
### **Tax Matters, BRICS Meeting.**

From September 13 to 14, 2021, the heads of tax authorities from the BRICS countries, including Brazil, Russia, India, China, and South Africa, met virtually to discuss tax issues. India was the host country for the meeting. Tarun Bajaj, Secretary of Revenue and Head of India's Tax Authorities, presided over the meeting.



## SCO at virtual meeting.

At the virtual summit on September 17, 2021, Prime Minister Narendra Modi requested that the Shanghai Cooperation Organisation (SCO) draught a framework. To successfully deal with the difficulties of extremism and radicalisation, a template was required.



## Centre asks 11 states to take action, Serotype -2 dengue.

On September 18, 2021, the Centre organised a high-level meeting to tackle the increasing threat of Serotype-2 dengue fever, which has wreaked havoc in 11 states throughout the country. Cabinet Secretary Rajiv Gauba presided over the high-level meeting, which was attended by delegates from states and UTs.



## PM speaks on telephone with President of France :-

Prime Minister Narendra Modi on September 21 had a telephonic conversation with President of France Emmanuel Macron. The two leaders discussed regional issues including recent developments in Afghanistan. In

this context, they shared their concerns about possible spread of terrorism, narcotics, illicit weapons and human trafficking, as well as the need to ensure human rights, rights of women and minorities.



## UAE Minister meets FM Nirmala Sitharaman :-

Minister of State for Foreign Trade of UAE Dr. Thani meets Finance Minister Nirmala Sitharaman in New Delhi on September 23. Both leaders discussed the strong economic and commercial engagement between the India and UAE and the comprehensive strategic partnership which is driving the multi-faceted bilateral relations. Dr. Thani and a high-level UAE delegation are in New Delhi to hold talks aimed at improving bilateral economic relations, including expanding the existing trade and investment relationship. The first round of Comprehensive Economic Partnership Agreement, CEPA negotiations is underway.



## First India-United Kingdom Consular Dialogue :-

India hosted the first India-United Kingdom (UK) Consular Dialogue on Wednesday, September 22, 2021, through video conferencing. The Indian delegation was

led by Shri Devesh Uttam, Joint Secretary (CPV), Ministry of External Affairs and the UK side was led by Ms Jennifer Anderson, Director Consular Services, Foreign, Commonwealth & Development Office.



## PM Modi Leaves For 3-day Visit to US :-

Prime Minister Narendra Modi has embarked on a three-day visit to the United States ON 22 September. He is accompanied by a high-level delegation consisting of National Security Advisor Ajit Doval and senior officials including Shringla. This is Prime Minister Modi's first visit abroad beyond the neighbourhood since the Covid-19 pandemic outbreak. He will address the UN General Assembly and attend the Quad Summit as well as hold a bilateral meet with US President Joe Biden at the White House.



## PM Modi'S address 76th session of UN General Assembly in New York :-

Addressing the 76th session of the United Nations General Assembly (UNGA), Prime Minister Narendra Modi raised several issues on the global platform. PM Modi pitched a slew of issues, like terrorism, poverty,

environmental crisis, etc in his over 22-minute speech at the UNGA session on 25 september.



## First ever QUAD leaders' summit in person held in Washington :-

On September 24, President Biden hosted Prime Minister Scott Morrison of Australia, Prime Minister Narendra Modi of India, and Prime Minister Yoshihide Suga of Japan at the White House for the first-ever in-person Leaders' Summit of the Quad. The leaders have put forth ambitious initiatives that deepen our ties and advance practical cooperation on 21st-century challenges: ending the COVID-19 pandemic, including by increasing production and access to safe and effective vaccines.



## Minister S Jaishankar met Mexican President Andres Manuel Lopez Obrador :-

External Affairs Minister S Jaishankar met Mexican President Andres Manuel Lopez Obrador on September 27 Monday (local time) and discussed expanding practical cooperation in pharmaceuticals, information and communication technology (ICT) and energy. Earlier

on Monday (local time), Jaishankar also met Mexican Foreign Minister Marcelo Ebrard C. Both India and Mexico are members of the United Nations Security Council as non-permanent members for a two-year term. Jaishankar is participating in the commemorative events of the 200th anniversary of the consolidation of Mexican independence along with other world leader.

# SECTION 2

## Practice Questions with Answers

## PRACTICE QUESTIONS

**1. Which organisation began the #FollowPaymentDistancing campaign?**

- A) PhonePe
- B) RuPay
- C) SBI
- D) RBI

**2. Buddhadeb Guha, who recently died, was a well-known writer in which language?**

- A) Hindi
- B) Sanskrit
- C) English
- D) Bengali

**3. What is the age limit for investing in the National Pension System (NPS)?**

- A) 18-70
- B) 18-80
- C) 18-65
- D) 18-75

**4. Which country did Stuart Binny play for before announcing his retirement from cricket?**

- A) Canada
- B) USA
- C) Australia

D) India

**5. What percentage of IDBI's investment in Asset Reconstruction Company (India) Limited (ARCIL) would be sold?**

- A) 19.18%
- B) 15.19%
- C) 20.03%
- D) 11.12%

**6. Which business is acquiring BillDesk, an Indian digital payments company?**

- A) PhonePe
- B) Google
- C) PayU
- D) Paytm

**7. Which institution is developing the digital platform e-Source to combat the problem of e-waste?**

- A) IIT Delhi
- B) IIT Kanpur
- C) IIT Hyderabad
- D) IIT Madras

**8. Mariyappan Thangavelu, an Indian para-athlete, won silver in which event in the Tokyo 2020 Paralympics?**

- A) High Jump
- B) Shooting
- C) Wrestling
- D) Discus Throw

**9. Which day has been designated as the International Day for People of African Descent by the United Nations?**

- A) 31 Aug
- B) 30 Aug
- C) 1 Sept
- D) 2 Sept

**10. Vasudeo Paranjape, who recently died away, was a well-known Indian coach in which sport?**

- A) Cricket
- B) Football
- C) Karate
- D) KungFu

**11. Which state has launched the Mera Kaam Mera Maan (MKMM) scheme to help unemployed youths improve their skills?**

- A) Punjab
- B) Bihar
- C) Kerala
- D) Chhattisgarh

**12. Which bank just launched the world's first floating ATM on a houseboat in Srinagar's Dal Lake?**

- A) SBI
- B) Kotak Mahindra
- C) United Bank
- D) Union Bank

**13. Which institute invented the Ubreath Life, a living-plant-based air purifier?**

- A) IIT Kharagpur
- B) IIT Kolkata
- C) IIT Bombay
- D) IIT Ropar

**14. Which day is celebrated around the world as World Coconut Day?**

- A) 31 Aug
- B) 30 Aug
- C) 1 Sept
- D) 2 Sept

**15. What will be the theme of the 2021 World Coconut Day?**

- A) A Healthy Wealthy Life with Coconut Amid COVID-19 Pandemic & Beyond
- B) Invest in Coconut to save the world Amid COVID-19 Pandemic & Beyond
- C) Building a Safe Inclusive Resilient and Sustainable Coconut Community Amid COVID-19 Pandemic & Beyond
- D) Coconut For Family Wellness Amid COVID-19 Pandemic & Beyond

**16. How many honorees for the Ramon**

**Magsaysay Award in 2021 have been chosen?**

- A) 3
- B) 4
- C) 5
- D) 6

**17. Who will lead the Central Board of Direct Taxes (CBDT) as its new Chairman?**

- A) K.M. Prasad
- B) Rajendra Singh
- C) JB Mohapatra
- D) Anuja Sarangi

**18. Which field was Sidharth Shukla, who recently passed away, engaged with?**

- A) Television
- B) Rider
- C) Artist
- D) Sports

**19. Which of the following is the winner of the Bird Photographer of the Year (BPOTY) in 2021?**

- A) Maofeng Shen
- B) Felipe Foncueva
- C) Alejandro Prieto
- D) Jonas Classon

**20. What was Chandan Mitra's occupation before he died recently?**

- A) Politician
- B) Journalist
- C) Sportsman
- D) Singer

**21. PM Modi recently gave a virtual presentation at the 6th Eastern Economic Forum (EEF). What country hosted the EEF Summit in 2021?**

- A) Russia
- B) Nepal
- C) Germany
- D) Australia

**22. In the Hurun India Future Unicorn List 2021, where does India rank?**

- A) 6th
- B) 10th
- C) 2nd
- D) 3rd

**23. Who has been named as the Rajya Sabha's next Secretary General?**

- A) Dr. Parasaram Pattabhi Kesava Ramacharyulu
- B) Harsh Patel
- C) Rishi satya
- D) Rajkumar

**24. Which country came out on top of Hurun India's Future Unicorn List for 2021?**

- A) UK



B) Singapore

C) United States

D) China

**25. According to Hurun India's Future Unicorn List 2021, how many unicorns are there in India?**

A) 102

B) 53

C) 51

D) 65

**26. On which day is the International Day of Charity observing every year?**

A) 3 September

B) 4 September

C) 5 September

D) 6 September

**27. SIMBEX 2021 was India and Singapore's annual bilateral maritime exercise. Which edition of the annual event was the subject of the exercise?**

A) 26th

B) 30th

C) 28th

D) 23rd

**28. When is National Teachers' Day observed in India?**

A) 3 September

B) 4 September

C) 5 September

D) 6 September

**29. From India, who has been named Vice-President of the Asian Squash Federation (ASF)?**

A) Cyrus Poncha

B) Ranjendra Dubey

C) Rohit Patel

D) Rocky Singh

**30. With which country has India recently signed a Project Agreement (PA) for an Air-Launched Unmanned Aerial Vehicle (ALUAV)?**

A) Germany

B) United state

C) Indonesia

D) Russia

**31. Which motorist won the 2021 F1 Dutch Grand Prix?**

A) Max Verstappen

B) Sebastian Vettel

C) Lewis Hamilton

D) Valtteri Bottas

**32. India has earned how many medals in the Tokyo Paralympics 2020?**

A) 26

B) 30

C) 11

D) 19

**33. Which bank's shares were recently purchased**

**by LIC for 3.9 percent?**

- A) Bank Of India
- B) United Bank
- C) Punjab National Bank
- D) Union Bank

**34. Which state and the central government just signed the Karbi Anglong Peace Agreement?**

- A) Assam
- B) Tamil Nadu
- C) Haryana
- D) Sikkim

**35. Which of these organisations did Jacques Rogge, who died recently at the age of 79, serve as President?**

- A) UNICEF
- B) International Olympic Committee
- C) World Anti-Doping Agency
- D) WHO

**36. Which state is planning to build India's first dugong conservation reserve?**

- A) Tamil Nadu
- B) Bihar
- C) Maharashtra
- D) Gujarat

**37. On which day does the International Day of Clean Air for Blue Skies take place around the**

**world?**

- A) September 06
- B) September 03
- C) September 05
- D) September 07

**38. What is the theme for the Blue Skies 2021 International Day of Clean Air?**

- A) Reduce Pollution, Increase Life span
- B) Clean Breathe, clean life
- C) Healthy Air, Healthy Planet
- D) Clean Air

**39. Where was India's first building composed of bio-bricks manufactured from agro-waste inaugurated?**

- A) IIT Madras
- B) IIT Kanpur
- C) IIT Hyderabad
- D) IIT Kolkata

**40. Jean-Pierre Adams, a legendary football player who recently passed away, represented which country?**

- A) Germany
- B) Russia
- C) Japan
- D) France

**41. Which city hosted the Pacific Air Chiefs**

## Symposium 2021 (PACS-21)?

- A) Hawaii
- B) New York
- C) Sweden
- D) California

## 42. Every year on \_\_\_\_\_ International Literacy Day is commemorated.

- A) September 06
- B) September 08
- C) September 05
- D) September 07

## 43. The "Shikshak Parv-2021" was inaugurated by Prime Minister Modi. What will the event's theme be?

- A) Transforming the System of Assessment: Holistic Progress Card
- B) Culture of Innovation in our Schools
- C) Quality and Sustainable Schools: Learnings from Schools in India
- D) Innovative Pedagogy to Promote Enjoyable and Engaging Learning

## 44. What would be the theme of the 2021 International Literacy Day?

- A) Literacy and Skills Development
- B) Literacy teaching and learning in the COVID-19 crisis and beyond
- C) Literacy for a human-centred recovery: Narrowing the digital divide

D) Literacy and Multilingualism

## 45. At the Pacific Air Chiefs Symposium 2021 (PACS-21), who represented India?

- A) Manoj Sharma
- B) RKS Bhadauria
- C) Karambir Singh
- D) Birender Singh

## 46. According to S&P Global Ratings, what is India's anticipated GDP growth rate for FY22?

- A) 10.5%
- B) 9.5%
- C) 8.5%
- D) 7.5%

## 47. What is the name of the author of "Gita Govinda: Jaydeva's Divine Odyssey"?

- A) Utpal K. Banerjee
- B) Aman Aggarwal
- C) Ruchi Singh
- D) Vikram Seth

## 48. According to S&P Global Ratings, India's sovereign rating is?

- A) CCC-
- B) BB-
- C) BBB-
- D) CC-

## 49. Which state's governor, Rani Maurya, has

**announced her resignation?**

- A) Haryana
- B) Jharkhand
- C) Uttarakhand
- D) Tamil Nadu

**50. In 2021, which country will hold the G20 presidency?**

- A) Japan
- B) China
- C) USA
- D) Italy

**51. Which day has been designated as World Suicide Prevention Day every year around the world?**

- A) Sept 08
- B) Sept 09
- C) Sept 10
- D) Sept 11

**52. Which financial institution recently authorised a USD 112 million loan to strengthen Jharkhand's water supply infrastructure?**

- A) RBI
- B) World Bank
- C) Asian Development Bank
- D) European Bank

**53. How many Boards for Advance Rulings (BAR) has the CBDT established to expedite the**

**resolution of tax disputes?**

- A) 1
- B) 2
- C) 3
- D) 4

**54. Which bank's PCA limitations were just lifted by the RBI?**

- A) UCO Bank
- B) Asian Bank
- C) London Bank
- D) None

**55. What amount of extra finance has the Asian Development Bank (ADB) recently granted to scale up the upgrading of rural connectivity in Maharashtra?**

- A) USD 100 million
- B) USD 200 million
- C) USD 300 million
- D) USD 400 million

**56. On which day is the World Electric Vehicle Day observed around the world?**

- A) Sept 08
- B) Sept 09
- C) Sept 10
- D) Sept 11

**57. On which day of the year does Uttarakhand**

**celebrate the Himalayan Diwas?**

- A) Sept 09
- B) Sept 10
- C) Sept 11
- D) Sept 12

**58. Who has been appointed as the new Governor of Punjab?**

- A) Pravin Verma
- B) Banwarilal Purohit
- C) Sourav Barnwal
- D) Moumita Dutta

**59. What is the new deadline for filing income tax returns for the 2020-21 fiscal year (AY2021-22)?**

- A) Sept 30
- B) Dec 31
- C) Oct 31
- D) Nov 30

**60. Which country has launched the Gaofen-5 02 Earth observation satellite?**

- A) Nepal
- B) China
- C) Indonesia
- D) Philippines

**61. The United Nations Day for South-South Cooperation is an annual international commemoration that takes place on \_\_\_\_\_**

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

**62. When is World First Aid Day honoured around the world?**

- A) Second Saturday of September
- B) Sept 10
- C) Second Sunday of September
- D) Sept 13

**63. The Centre has named who as the Vice-Chairman of the Gandhi Smriti and Darshan Samiti (GSDS)?**

- A) Navin Sinha
- B) Vijay Goel
- C) Gaurav Choudhary
- D) Tapasi Pramanik

**64. Which of these countries did India hold its first 2+2 ministerial dialogue with recently?**

- A) Australia
- B) Japan
- C) Nigeria
- D) Canada

**65. What will be the theme for World First Aid Day in 2021?**

- A) First aid live saver

- B) First aid and road safety
- C) First aid to save injury
- D) First aid first

**66. What is the name of India's first satellite tracking and nuclear-missile tracking ship?**

- A) INS Track
- B) INS Trace
- C) INS Dhruv
- D) INS Tez

**67. Who won the F1 Italian Grand Prix in 2021?**

- A) Daniel Ricciardo
- B) Jordan Jorge
- C) Luis Milton
- D) Lando Norris

**68. Which player has won the women's singles title at the US Open in 2021?**

- A) Jodie Burrage
- B) Emma Raducanu
- C) Jack Wilson
- D) Danial William

**69. With which country has India launched a 'Centre of Excellence on Offshore Wind'?**

- A) Denmark
- B) Japan
- C) Malaysia

- D) Nepal

**70. Who has been named as Gujarat's new Chief Minister to succeed Vijay Rupani?**

- A) Sekhar Patel
- B) Bhupendra Patel
- C) Manish Choudhary
- D) Sultan Singh

**71. Oscar Fernandes, who died at the age of 80, was a well-known \_\_\_\_\_**

- A) Dancer
- B) Actor
- C) Sportsman
- D) Politician

**72. Who has been named the National Company Law Appellate Tribunal's (NCLAT) new Acting Chairperson?**

- A) Justice M. Venugopal
- B) Justice Vivek Rora
- C) Justice Bansi Lal Bhat
- D) Justice A I S Cheema

**73. When does India commemorate the National Forest Martyrs Day?**

- A) 11 September
- B) 12 September
- C) 13 September
- D) 14 September

**74. Which of these space-tech businesses is the first private company to sign a formal deal with ISRO to use its expertise and facilities?**

- A) Skyroot Aerospace
- B) Virgin Galactic
- C) NASA
- D) SpaceX

**75. Which of these football players has etched his name in the Guinness World Records as the highest goalscorer in the history of men's international football?**

- A) Cristiano Ronaldo
- B) Lionel Messi
- C) Neymar
- D) Mohamed Salah

**76. Who was named ICC Men's Player of the Month for August 2021?**

- A) Joe Root
- B) Shakib Al Hasan
- C) Jasprit Bumrah
- D) Shaheen Afridi

**77. Who won the Women's Prize for Fiction in 2021?**

- A) Barbara Kidd
- B) Marleen Beaulieu
- C) Susanna Clarke
- D) Josee Vallee

**78. What is the name of the author of the book "Human Rights and Terrorism in India"?**

- A) Shashi Tharoor
- B) Jairam Ramesh
- C) Nitin Gadkari
- D) Subramanian Swamy

**79. Which bank made it possible for India's first FASTag-based metro parking facility to open?**

- A) Mahendra Kotak Bank
- B) State Bank of India
- C) BOI
- D) Paytm Payments Bank

**80. Who has been chosen as Chairperson of the Indian National Space Promotion Authorization Centre (In-SPACe)?**

- A) Pawan Kumar Goenka
- B) Rajan Wadhera
- C) Prajesh Singh
- D) Arvind Mathew

**81. Which company has launched India's first CO2 capture plant, which harvests CO2 directly from blast furnace gas?**

- A) BHEL
- B) ONGC
- C) Tata Steel
- D) Larsen and toubro

**82. Which organisation has initiated the Shoonya**

**campaign to promote zero-pollution delivery vehicles?**

- A) IIT Bombay
- B) IIT Kolkata
- C) NITI Aayog
- D) ISRO

**83. From September 13 to 25, 2021, India will take part in the SCO member states' 6th Exercise PEACEFUL MISSION -2021. Which country will be hosting the competition?**

- A) Canada
- B) Nepal
- C) Russia
- D) Australia

**84. Which country did Lasith Malinga represent before announcing his retirement from all forms of cricket?**

- A) New Zealand
- B) Afghanistan
- C) Sri Lanka
- D) Indonesia

**85. According to the United Nations Conference on Trade and Development (UNCTAD), what is the projected GDP growth rate for the Indian economy in calendar year 2021?**

- A) 6.5%
- B) 8.3%

C) 7.2%

D) 10.4%

**86. How much money has the Union Cabinet set aside for the automobile sector's PLI scheme?**

- A) Rs 26,058 crores
- B) Rs 36,058 crores
- C) Rs 46,058 crores
- D) Rs 56,058 crores

**87. Who among them isn't on Time Magazine's list of the 100 most powerful people in the world in 2021?**

- A) Narendra Modi
- B) Adar Poonawalla
- C) Sonu Sood
- D) Mamta Banerjee

**88. Which organisation published the report titled "Reforms in Urban Planning Capacity in India"?**

- A) NABARD
- B) NITI Aayog
- C) TERI
- D) NASA

**89. To encourage financial services in distant parts of the state/UT, which state has established the "One Gram Panchayat-One DIGI-Pay Sakhi" mission?**

- A) Delhi
- B) Kerala



C) Tamil Nadu

D) Jammu and Kashmir

**90. Which company has issued India's first Euro-denominated Green Bond?**

A) Power Finance Corporation Ltd (PFC)

B) NLC India Limited

C) NHPC Limited

D) Mahindra Finance

**91. In 2021, where will the Surya Kiran-XV exercise be held?**

A) Pune

B) Mumbai

C) Pithoragarh

D) Ratnagiri

**92. What is the name of the author of the book "Translating Myself and Others?"**

A) Rishita Desai

B) Rohit Dubey

C) Vikram Seth

D) Jhumpa Lahiri

**93. Which organisation has partnered with NITI Aayog to offer tech-driven learning programmes for children in the country's 112 Aspirational districts?**

A) Byjus

B) Unacademy

C) Instagram India

D) ISRO

**94. On which day of the year is World Bamboo Day observed?**

A) 17 September

B) 18 September

C) 19 September

D) 20 September

**95. Which city hosted the SCO Council of Heads of State meeting in 2021?**

A) Gurugram

B) Pune

C) Dushanbe

D) Beirut

**96. What is the name of the Punjab Chief Minister who recently resigned?**

A) Rabindra Singh

B) Charlie Patel

C) Ram Sharma

D) Amarinder Singh

**97. Who has been appointed as the Fino Payments Bank's first brand ambassador?**

A) Tiger Sharroff

B) Sneha nehwal

C) Pankaj Tripathi

D) Pankaj Kapur

**98. At the 60th National Open Athletics Championships in Warangal, Harmilan Kaur Bains set a national record in which event?**

- A) 900m
- B) 1000m
- C) 100m
- D) 1500m

**99. When will be the last date to link PAN and Aadhaar?**

- A) October 31, 2021
- B) March 31, 2022
- C) January 31, 2022
- D) December 31, 2021

**100. Due to data anomalies, the annual Doing Business report will no longer be published. Which organisation published the report?**

- A) Central Bank
- B) United Nations Development Programme
- C) World Bank
- D) ICO

**101. Who was the winner of the Asian Snooker Championship in 2021?**

- A) Mayank Raj
- B) Pankaj Advani
- C) Sneha Romina
- D) Aditya Mehta

**102. Which of the following automakers has**

**announced that it will cease operations in India?**

- A) Ford
- B) TATA
- C) Volkswagen
- D) Fiat

**103. What is the name of the LIC mobile app for its development officers?**

- A) PRATIK
- B) VIKAS
- C) PRAGATI
- D) BHASKAR

**104. What was the name of the SpaceX mission that launched the world's first all-citizen crew into orbit around the Earth?**

- A) Dragon CRS-4
- B) Inspiration-4
- C) Transporter-4
- D) Crew-4

**105. For the ICC T20 World Cup 2021, who has been chosen as the Indian cricket men's team's coach?**

- A) MS. Dhoni
- B) Sachin Tendulkar
- C) Virendra Sehwag
- D) Virat Kohli

**106. What is the rank of India in the Global**

## Innovation Index 2021?

- A) 40
- B) 46
- C) 44
- D) 42

## 107. Which country became the 9th member of the Shanghai Cooperation Organisation (SCO)?

- A) Iran
- B) Iraq
- C) Pakistan
- D) Australia

## 108. When was World Alzheimer's Day observed?

- A) 16 September
- B) 21 September
- C) 19 September
- D) 20 September

## 109. The International Week of the Deaf (IWD) is being observed in which week of the month of September 2021?

- A) September 21 to 27
- B) September 20 to 26
- C) September 15 to 21
- D) September 14 to 20

## 110. IRCTC has launched India's first indigenous cruise liner in partnership with which company?

- A) Cordelia Cruises
- B) Angriya Cruises

- C) Nefertiti Cruises
- D) MV Paramhansa Cruises

## 111. Which institution releases the 'Crime India' report every year?

- A) Narcotics Control Bureau
- B) NITI Aayog
- C) National Crime Records Bureau
- D) Central Board of Investigation

## 112. Which state recently issued circular against bureaucrats holding press conferences?

- A) Meghalaya
- B) Karnataka
- C) Kerala
- D) Manipur

## 113. Which two countries are set to participate in the Defence Exercise 'Samudra Shakti'?

- A) India and Bhutan
- B) India and Nepal
- C) India and China
- D) India and Indonesia

## 114. When is World Rhino Day observed?

- A) 22 September
- B) 19 September
- C) 20 September
- D) 21 September

## 115. Which of the following Indian beaches were awarded the 'Blue Flag' certification?

- A) Kovalam

- B) Thiruvannamiyur
- C) Eden
- D) Both (A) and (C)

**116. Who is appointed as SDG Advocate by the UN Secretary-General in 2021?**

- A) Sonam Satyarthi
- B) Rajesh Satyarthi
- C) Harish Satyarthi
- D) Kailash Satyarthi

**117. On which date, the International Day of Sign Languages observed?**

- A) 22nd September
- B) 21st September
- C) 23rd September
- D) 25th September

**118. In India, How many Indian beaches get the Blue Flag Certification in total?**

- A) 8
- B) 10
- C) 9
- D) None

**119. Yes Bank partners with ----- to offer the credit card to its customers.**

- A) American Express
- B) Mastercard
- C) Visa
- D) None

**120. The ZEE Entertainment Enterprises Limited is**

**being merged with which media company to become the biggest entertainment industry in India?**

- A) Sony Pictures Networks India
- B) Star India Private Limited
- C) National Dastak
- D) Asianet Star Communications

**121. "BIJOYA SANSKRITIK MAHOTSAV" was celebrated by the Indian Army to celebrate with the remembrance of which war?**

- A) Sri Lankan Civil War(1987–1990)
- B) Tajikistani Civil War (1992–1997)
- C) Kargil war
- D) 1971 Indo-Pak War

**122. Arogya Manthan 3.0 was going to conducted for which of the following reasons?**

- A) 2 years of Pradhan Mantri Jeevan Jyoti Bima Yojana
- B) 3 years of Pradhan Mantri Jan Arogya Yojana
- C) 4 years of Atal Pension Yojana (APY)
- D) 3 years of Pradhan Mantri Mudra Yojana

**123. Who among the following has been chosen for the 2021 Changemaker Award?**

- A) Fairouz Faizah Beether
- B) Isaiah Nathaniel
- C) Linda Reed
- D) Aysha Al Mahri

**124. Who has grabbed his 24th World title at the IBSF 6-Red Snooker World Cup in Doha?**

- A) Geet Sethi
- B) Pankaj Advani
- C) Babar Masih
- D) Aditya Mehta

**125. Who is the author of the book '400 Days'?**

- A) Chetan Bhagat
- B) Ravinder Singh
- C) Amish Tripathi
- D) Durjoy Datta

**126. Which state got the opportunity to host the 12th Junior World Cup Hockey Tournament in India?**

- A) Uttar Pradesh
- B) Gujarat
- C) Karnataka
- D) Odisha

**127. In which state is the world's largest electric vehicle charging station opened?**

- A) Uttarakhand
- B) Rajasthan
- C) Himachal Pradesh
- D) Uttar Pradesh

**128. Which country is currently naming the newly formed Gulab storm in the Bay of Bengal?**

- A) Iran
- B) Oman
- C) Pakistan
- D) India

**129. 'World Pharmacist Day' observed on which of the following days?**

- A) September 24

- B) September 25
- C) September 22
- D) September 23

**130. Who is the new chief of Indian Air Force?**

- A) B.R.Krishna
- B) VR.Chaudhari
- C) H.S.Arora
- D) Sandeep singh

**131. Name the author of the audiobook title 'Jungle Nama'.**

- A) Arundhati Roy
- B) Amitav Ghosh
- C) Salman Rushdie
- D) Vikram Seth

**132. What is the paid-up capital of India Debt Resolution Company Ltd (IDRCL), set up by the government for managing bad loans?**

- A) Rs. 50.5 lakh
- B) Rs. 80.5 lakh
- C) Rs. 60.5 lakh
- D) Rs. 70.5 lakh

**133. The Antyodaya Diwas is observed on which day in India?**

- A) September 25
- B) September 23
- C) September 22
- D) September 24

**134. The celebration of Antyodaya Diwas marks the birth anniversary of which Indian leader?**

- A) Syama Prasad Mukherjee
- B) Janeshwar Mishra
- C) Pandit Deendayal Upadhyaya
- D) Ram Manohar Lohia

**135. Which Apple's co-creator that has launched a new space start-up called Privateer Space?**

- A) Richard Branson
- B) Steve Wozniak
- C) Jeff Bezos
- D) Elon Musk

**136. Which organization has developed an indigenous charger for electric vehicles named AC001?**

- A) DRDO
- B) CSIR
- C) ISRO
- D) ARAI

**137. Which state has recently passed a bill to ban online "Games of chance"?**

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

**138. Which tech initiative of India has bagged CIPS Excellence in Procurement Awards 2021, under the "Best Use of Digital Technology" category?**

- A) Champions Portal
- B) SDG Dashboard

- C) GeM
- D) GST Portal

**139. The report titled "Climate Indicators and Sustainable Development: Demonstrating the Interconnections" was released by which organization?**

- A) UNFCCC
- B) UNICEF
- C) NITI Aayog
- D) WMO

**140. To what value, industrially produced trans-fat should be limited, As per FSSAI?**

- A) 10%
- B) 1%
- C) 5%
- D) 2%

**141. What is the theme of World Rabies Day 2021?**

- A) Rabies: Share the message, save a life
- B) Rabies: Vaccinate to eliminate
- C) Rabies: Facts, not Fear
- D) End Rabies: Collaborate, Vaccinate

**142. When is International Day for Universal Access of Information?**

- A) 25th September
- B) 28th September
- C) 26th September
- D) 27th September

**143. Where the 2021 World Archery**

## Championships was held?

- A) France
- B) USA
- C) China
- D) Russia

- A) 11.00%
- B) 10.00%
- C) 09.00%
- D) 08.00%

## 144. Moeen Ali announces retirement from Test cricket, he plays for which country?

- A) Pakistan
- B) South Africa
- C) Bangladesh
- D) England

## 148. How many medals have been won by Indian contingent at the 2021 World Archery Championships?

- A) 2 silver and 1 bronze
- B) 3 bronze
- C) 1 gold and 3 silver
- D) 3 silver

## 145. Who is the newly appointed Director-General of the National Cadet Corps (NCC)?

- A) Lt Gen Gurbalpal Singh
- B) Lt Gen Harpreet Singh
- C) Lt Gen Gurbirpal Singh
- D) Lt Gen Gurpreet Singh

## 149. The maiden successful test flight of a new advanced version of the Akash Missile was carried out by DRDO. What is the name of the new missile?

- A) Akash Delux
- B) Akash Attack
- C) Akash Prime
- D) Akash A1

## 146. World Rabies Day is celebrated annually on September 28. The day is observed to mark death anniversary of whom?

- A) Edward Wright
- B) Emile Roux
- C) Richard Pfeiffer
- D) Louis Pasteur

## 150. Who is the author of the book 'Battle of Rezang La', that deals with 1962 Indo-China war?

- A) Kulpreet Yadav
- B) Amrita Pritam
- C) Chetan Bhagat
- D) Jhumpa Lahiri

## 147. What is the GDP projection of India in 2021-22 as per ICRA?

## ANSWERS

**1. Correct Answer: B**

To promote and encourage contactless payments among customers, RuPay has developed a strategic campaign called #FollowPaymentDistancing. Customers have followed numerous standards and actions to be safe as a result of COVID-19, including healthy habits, self-care routines, and social distancing.

**2. Correct Answer: D**

Buddhadeb Guha, a well-known Bengali writer who wrote works such as Madhukari (Honey Gatherer), has died. He was 85 years old at the time. Guha died of post-Covid problems in a private hospital here around 11.25 p.m. on Sunday, according to family members, after suffering a severe heart attack.

**3. Correct Answer: A**

The National Pension System (NPS) entry age has been raised from 65 to 70 years by the Pension Fund Regulatory and Development Authority (PFRDA). Previously, the age limit for investing in NPS was 18-65 years, however this has since been raised to 18-70 years.

**4. Correct Answer: D**

Stuart Binny, the India all-rounder who holds the record for the best ODI bowling stats, has announced his retirement from domestic and international cricket. Stuart, 37, began his career with Karnataka and went on to play for India in six Tests, 14 One-Day Internationals, and three Twenty20 Internationals.

**5. Correct Answer: A**

IDBI Bank, a public sector lender, has announced that it will sell its entire 19.18% interest in Asset

Reconstruction Company (India) Limited (ARCIL). The bank's board of directors approved the plan. In June of this year 2021, IDBI Bank issued a request for proposals for the takeover of its stake in the asset rehabilitation company.

**6. Correct Answer: C**

Prosus MV, a Dutch firm, has announced the acquisition of digital payments platform BillDesk by its fintech subsidiary PayU for \$4.7 billion. This is one of the largest consumer internet deals in India. With the deal, the Netherlands-incorporated Prosus NV's investment in India will jump to more than USD 10 billion.

**7. Correct Answer: D**

The Indian Institute of Technology (IIT) Madras is creating a cutting-edge digital approach to handle the e-waste problem (electronic wastes). The e-Source digital platform will serve as an exchange platform and an online marketplace for waste electrical and electronic equipment (WEEE).

**8. Correct Answer: C**

Mariyappan Thangavelu was denied a second consecutive gold medal at the Paralympics as he took silver in the Men's High Jump T63 event at the Tokyo Paralympics. With a best leap of 1.88m, world record holder Sam Grewe of the United States won gold, while India's Sharad Kumar got bronze.

**9. Correct Answer: A**

The UN on 31 August celebrated the enormous contributions the African diaspora has made in every field of human endeavour, marking the first-ever International Day for People of African Descent. So, The inaugural International Day for People of African



Descent is being celebrated on August 31, 2021 by the United Nations.

## 10. Correct Answer: A

Vasudeo Paranjape, a former Indian cricketer and famous coach who was instrumental in moulding the careers of countless Indian cricketers, has died. He was 82 years old at the time. Vasoo was the popular name for Paranjape.

## 11. Correct Answer: A

The Punjab administration, led by Captain Amarinder Singh, has introduced the 'Mera Kaam Mera Maan (MKMM)' plan to help unemployed youngsters in the state and empower them by enhancing their competence and aptitude so that they may easily get jobs in their respective fields.

## 12. Correct Answer: A

SBI has said that the floating ATM in the popular Dal Lake fulfils a long-standing need and will also be an added attraction to the charm of Srinagar. "SBI opened an ATM on a Houseboat at #DalLake, Srinagar for the convenience of locals and tourists. It was inaugurated by the Chairman, SBI, on August 16.

## 13. Correct Answer: D

Scientists from the Indian Institutes of Technology (IIT) Ropar and Kanpur, as well as the Faculty of Management Studies at Delhi University, have collaborated to launch "Ubreathe Life," a living-plant-based air purifier that will improve air purification in indoor spaces such as hospitals, schools, offices, and homes. Urban Air Laboratory, an IIT Ropar incubated firm, produced Ubreathe Life.

## 14. Correct Answer: D

Every year, September 2, 2021, is observed as World

Coconut Day. This day is celebrated to emphasize and raise awareness about the importance as well as benefits of coconuts. Coconut, also known as 'Nariyal' in Hindi, is one of the most loved and versatile fruits.

## 15. Correct Answer: C

The theme of World Coconut Day 2021 is "Building a Safe Inclusive Resilient and Sustainable Coconut Community Amid COVID-19 Pandemic & Beyond". On September 2, every year, this day is organised to highlight APCC's policies and mark promoting this tropical fruit.

## 16. Correct Answer: C

On August 31, 2021, five awardees have been chosen for the 2021 Ramon Magsaysay Award. The annual award is now in its 63rd year. Roberto "Ka Dodoy" Ballon (Philippines), Muhammad Amjad Saqib (Pakistan), Firdausi Qadri (Bangladesh), Steven Muncy (Southeast Asia), and Watchdoc Indonesia are among them (Indonesia).

## 17. Correct Answer: C

Senior bureaucrat J.B. Mohapatra has been appointed the chairman of the Central Board of Direct Taxes (CBDT), the Personnel Ministry said in an order. Mr Mohapatra, a 1985-batch Indian Revenue Service (Income Tax) officer, is currently the member in the board that frames the policy for the Income Tax department.

## 18. Correct Answer: A

Sidharth Shukla, a well-known television actor and model who rose to prominence thanks to his role in the successful TV drama Balika Vadhu, died of a major heart attack. He was 40 years old at the time. Season 13 of Bigg Boss was won by Sidharth Shukla in 2019.

## 19. Correct Answer: C

Alejandro Prieto, a Mexican photographer, has been named the winner of the Bird Photographer of the Year (BPOTY) 2021 competition. He won for taking an image of a larger roadrunner peering up at the barbed-wire-encrusted border wall between the United States and Mexico, almost bemused.

## 20. Correct Answer: B

Chandan Mitra, a former Rajya Sabha MP and a distinguished journalist, has died. He was 65 years old at the time. Mitra was the Editor and Managing Director of New Delhi's The Pioneer newspaper. Chandan's death was confirmed by his son Kushan Mitra.

## 21. Correct Answer: A

Prime Minister Shri Narendra Modi delivered a virtual address to the 6th Eastern Economic Forum (EEF) plenary session in Vladivostok, Russia, on September 3, 2021. The EEF Summit 2021 in Russia is being attended by an Indian delegation led by Minister of Petroleum and Natural Gas Shri Hardeep Singh Puri and includes top Indian oil and gas firms.

## 22. Correct Answer: D

According to Hurun Research Institute's Hurun India Future Unicorn List 2021, India has the world's third largest unicorn/startup ecosystem. The report also stated that India added three 'unicorns' per month in 2021 to nearly double the overall number of startups valued at over \$1 billion to 51 as of end-August.

## 23. Correct Answer: A

With effect from August 31, 2021, Rajya Sabha Chairman M Venkaiah Naidu has chosen Dr. Parasaram Pattabhi Kesava Ramacharyulu as the new Secretary General of the Upper House of Parliament. Ramacharyulu has been working as secretary in the

Rajya Sabha Secretariat since 2018 and succeeds Desh Dipak Verma, who demitted office after serving for four years.

## 24. Correct Answer: C

According to Hurun Research Institute's Hurun India Future Unicorn List 2021, India has the world's third-largest unicorn/startup ecosystem. The United States is in first place, followed by China in second. According to the list, India has 51 unicorns. The United States possesses 396 unicorns, whereas China has 277.

## 25. Correct Answer: C

According to the list, India has 51 unicorns. With a total funding of USD 310, Zilingo is the top unicorn in India. Zilingo's headquarters are in Singapore. In terms of the number of Unicorns headquartered in a city, Bengaluru is the most populous city in India. Bengaluru has 31 unicorns, with Mumbai having 12 unicorns.

## 26. Correct Answer: C

Every year on September 5th, the International Day of Charity is commemorated. The United Nations General Assembly declared it in 2012. The date of September 5 was chosen to mark Mother Teresa's death anniversary, as she was always involved in humanitarian activities.

## 27. Correct Answer: C

From September 2 to 4, 2021, the 28th edition of the Singapore-India Maritime Bilateral Exercise (SIMBEX) took place. The Republic of Singapore Navy (RSN) sponsored the SIMBEX-2021 annual bilateral maritime exercise on the southern margins of the South China Sea.

## 28. Correct Answer: C

Teachers' Day has been observed in India on September 5th since 1962. Dr. Sarvepalli Radhakrishnan, an Indian

philosopher, scholar, and statesman, defined the function of the teacher as someone who serves not only as an educator but also as a moral mentor and instils ideals in children on this day.

### 29. Correct Answer: A

Cyrus Poncha, Secretary-General of the Squash Rackets Federation of India (SRFI), was unanimously chosen as Vice-President of the Asian Squash Federation (ASF) at the ASF's 41st annual general meeting on September 04, 2021.

### 30. Correct Answer: B

Under the Joint Working Group Air Systems in the Defence Technology and Trade Initiative, the Ministry of Defence, the Government of India, and the US Department of Defense have signed a Project Agreement (PA) for Air-Launched Unmanned Aerial Vehicles (ALUAV) (DTTI). On July 30, 2021, the PA was signed.

### 31. Correct Answer: A

The Formula One Dutch Grand Prix 2021 was won by Max Verstappen (Red Bull – Netherlands). Valtteri Bottas (Mercedes-Finland) finished third, while Lewis Hamilton (Mercedes-Great Britain) finished second.

### 32. Correct Answer: D

What started with Bhavina Patel's historic table tennis medal for India at the Tokyo Paralympics a week ago ended with a flourish - a gold and silver in badminton by the spirited Krishna Nagar and Suhas Yathiraj, swelling India's medal count to 19 - five gold, eight silver and six bronze.

### 33. Correct Answer: A

On September 2, 2021, the Life Insurance Corporation of India (LIC) purchased 3.9 percent (15,90,07,791

shares) of the Bank of India through an open market transaction. LIC had a 3.17 percent ownership in Bank of India prior to this transaction. After this buy, LIC currently owns 7.05 percent of Bank of India, or 28,92,87,324 shares.

### 34. Correct Answer: A

A tripartite agreement among five insurgent groups of Assam, the Centre and the state government was signed to end years of violence in the Karbi Anglong region. Union Home Minister Amit Shah, who was present on the occasion, said the accord will bring lasting peace and all round development in Karbi Anglong.

### 35. Correct Answer: B

Former International Olympic Committee President Jacques Rogge has died at the age of 79, the organization announced. Rogge served as president from 2001 to 2013, overseeing three summer Games and three winter Games, as well as creating the Youth Olympics.

### 36. Correct Answer: A

The state government of Tamil Nadu has declared the establishment of India's first dugong conservation reserve in Palk Bay's northern section. Sea cows are the common name for dugongs. Only 200-250 Dugongs remain in the wild, according to the Wildlife Institute of India (WII), with 150 being discovered in Tamil Nadu's Palk Bay and Gulf of Mannar.

### 37. Correct Answer: D

The International Day of Clean Air for Blue Skies is celebrated across the world every year on 7 September. Facilitated by the United Nations Environment Programme (UNEP), the day aims to create awareness about the significance of air quality, which is essential to

all living things on Earth.

### 38. Correct Answer: C

The online campaign was launched to mark the International Day of Clean Air for Blue Skies. In its second year since its inception, the theme for 2021 is 'Healthy Air, Healthy Planet', which emphasises the health aspects of air pollution, especially considering the Covid pandemic.

### 39. Correct Answer: C

Researchers at the IIT demonstrated that agricultural waste can be converted into sustainable materials which, in turn, can be used to build eco-friendly, cost-effective structures. The Indian Institute of Technology (IIT) in Hyderabad on Thursday inaugurated India's first building made of bio-bricks from agro-waste.

### 40. Correct Answer: D

Jean-Pierre Adams, former France defender, dies 39 years after falling into coma. The former France defender Jean-Pierre Adams has died at the age of 73, almost 40 years after falling into a coma as a result of a medical error, his former clubs, Paris St-Germain and Nîmes, said.

### 41. Correct Answer: A

The Pacific Air Chiefs Symposium 2021 (PACS-21) was held in Hawaii from August 30 to September 2, 2021, at Joint Base Pearl Harbor-Hickam. The conference's theme was "Enduring Cooperation towards Regional Stability."

### 42. Correct Answer: B

The day aims to highlight the importance of literacy for individuals, communities and societies and the need for intensified efforts towards more literate societies. 8th of September was proclaimed International Literacy Day

by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1966.

### 43. Correct Answer: C

On September 7, 2021, Prime Minister Narendra Modi launched the "Shikshak Parv-2021" and delivered a video message to the inaugural conclave. "Quality and Sustainable Schools: Learnings from Indian Schools" is the theme of 'Shikshak Parv-2021.' The event, organised by the Ministry of Education, will take place from September 7 to 17, 2021.

### 44. Correct Answer: C

International Literacy Day (ILD) is celebrated on September 8. According to the UNESCO website, this year, the theme for International Literacy Day is 'Literacy for a human-centred recovery: Narrowing the digital divide'.

### 45. Correct Answer: B

Air Chief Marshal RKS Bhadauria PVSM AVSM VM ADC, Chief of the Air Staff (CAS) attended the Pacific Air Chiefs Symposium 2021 (PACS-21) at Joint Base Pearl Harbor-Hickam, Hawaii from 30 Aug to 02 Sep 21.

### 46. Correct Answer: B

The International Monetary Fund (IMF) cut its economic growth forecast for India to 9.5% for the fiscal year to March 31, 2022 as the onset of a severe second COVID-19 wave cut into recovery momentum. For 2022-23, IMF expects economic growth of 8.5%, larger than the 6.9% it had projected in April.

### 47. Correct Answer: A

Dr. Utpal K. Banerjee's book "Gita Govinda: Jaydeva's Divine Odyssey" was launched by Union Minister of Culture Shri Kishan Reddy Gangapuram. The book is the first-ever entirely rhymed translation of great 12th-

century poet Jayadeva's book GeetaGovindam.

## 48. Correct Answer: C

S&P affirms India's sovereign rating at lowest investment grade of 'BBB-' for 14th year in a row with a stable outlook India's strong external setting will act as a buffer against financial strains despite elevated govt funding needs over the next 24 months, said the rating agency.

## 49. Correct Answer: C

Only the second woman to be appointed Uttarakhand governor after Margaret Alva, Baby Rani Maurya resigned from her position, almost two years before completing her term, confirmed Brijesh Kumar Sant, secretary to the governor. She has sent her resignation letter to the President Ram Nath Kovind.

## 50. Correct Answer: D

As of December 2020, Italy has assumed the Presidency of the G20, which will culminate in the Summit of Heads of State and Government (October 30th and 31st 2021). India will hold the G20 presidency from December 1, 2022, and will convene the G20 leaders' summit in 2023 for the first time.

## 51. Correct Answer: C

Every year on 10 September, World Suicide Prevention Day is observed which is aimed to provide worldwide commitment and measures to prevent suicides. As per World Health Organisation (WHO), every 40 seconds there is someone who ends his or her life.

## 52. Correct Answer: C

The Asian Development Bank (ADB) and the Indian government have agreed to a USD 112 million loan to upgrade water supply infrastructure and increase the capacities of urban local bodies (ULBs) in four towns in

Jharkhand.

## 53. Correct Answer: C

To enable faster case resolution and eliminate income tax disputes, the Central Board of Direct Taxes (CBDT) has established three Boards for Advance Rulings (BAR). From September 1, 2021, the BARs will be operational. Two of the three BARs have been established in Delhi, with the third in Mumbai.

## 54. Correct Answer: A

UCO Bank has been exempted from the PCA limitations, according to the Reserve Bank of India. (PCAF) (Prompt Corrective Action Framework) Only the Indian Overseas Bank and the Central Bank of India are still covered by the PCA.

## 55. Correct Answer: C

The Indian government and the Asian Development Bank (ADB) have agreed to a USD 300 million loan as additional funding to help the state of Maharashtra strengthen rural connectivity and boost the rural economy.

## 56. Correct Answer: B

World EV Day is observed on September 9 every year. The day marks the celebration of e-mobility. Special awareness campaigns are organised globally to educate people about the benefits of electric vehicles. World EV Day was an initiative created by sustainability media company Green.TV.

## 57. Correct Answer: A

Himalayan Diwas was held on September 9, 2021, by the National Mission for Clean Ganga in collaboration with the Naula Foundation. The topic for this year is 'Himalayan Contribution and Our Responsibilities.' The celebration was part of the ongoing 'Azadi ka Amrit

Mahotsav.'

## 58. Correct Answer: B

Banwarilal Purohit (born 16 April 1940) is an Indian politician who is the current and 29th Governor of Punjab and Administrator of Chandigarh as of 29 August 2021. He was the former Governor of Tamil Nadu from 2017 to 2021, and former Governor of Assam from 2016 to 2017.

## 59. Correct Answer: B

Individuals have until December 31, 2021 to file income tax returns for assessment year (AY) 2021-22, (FY 2020-21), according to the Central Board of Direct Taxes (CBDT). The deadline had already been extended to September 30, 2021.

## 60. Correct Answer: B

On September 7, 2021, China successfully launched Gaofen-5 02, a new Earth observation satellite, into space on a Long March-4C rocket from the Taiyuan Satellite Launch Centre in Shanxi Province, north China. It was the 387th flight mission of the Long March carrier rocket series, the report said.

## 61. Correct Answer: C

Since 2011, the United Nations Day for South-South Cooperation has been marked on September 12 every year to commemorate the economic, social, and political progress made by regions and governments in the south in recent years.

## 62. Correct Answer: A

World First Aid Day is observed on the second Saturday of September annually. So, this year the day is being celebrated today, 11 September across the globe. The special day is marked to encourage people in first aid training which helps in preventing injuries and saving

lives in critical situations.

## 63. Correct Answer: B

Former Union Minister Shri Vijay Goel has been chosen as the Gandhi Smriti and Darshan Samiti's Vice-Chairman (GSDS). At the function where Mahatma Gandhi, the Father of the Nation, was assassinated on this same spot.

## 64. Correct Answer: A

India will host the first-ever 2+2 Ministerial Dialogue with Australia in New Delhi. Australian Foreign Minister Marise Payne and Defence Minister Peter Dutton from the Australian side will meet with External Affairs Minister (EAM) S Jaishankar and Defence Minister Rajnath Singh.

## 65. Correct Answer: B

Theme this year: The theme for World First Aid Day 2021 is 'First aid and road safety,' according to the International Federation of Red Cross and Red Crescent Societies (IFRC). Moreover, the IFRC also urges people to learn basic first aid services and skills in order to help save lives 'without discrimination'.

## 66. Correct Answer: C

On September 10, 2021, India's first nuclear-missile tracking ship, the INS Dhruv, was commissioned at Visakhapatnam, Andhra Pradesh. The Hindustan Shipyard Limited, in partnership with the DRDO and the National Technical Research Organisation, produced the 10,00-tonne satellite and ballistic missile tracking ship (NTRO).

## 67. Correct Answer: A

McLaren won a Grand Prix for the first time in almost nine years, as Daniel Ricciardo emerged victorious in the Italian Grand Prix on September 12. Adding to their

celebration, McLaren finished with a 1-2 at Monza, with 21-year-old Lando Norris finishing at P2.

## 68. Correct Answer: B

Emma Raducanu, the 18-year-old British phenom, completed a shocking run through the U.S. Open with a straight-sets victory over Leylah Fernandez of Canada, for a title that will surely go down as one of the great underdog journeys in the history of sports.

## 69. Correct Answer: A

As part of the Green Strategic Partnership, the Union Minister for Power and New and Renewable Energy, Shri R.K Singh, and his Danish counterpart, Mr. Dan Jrgensen, Denmark Minister for Climate, Energy and Utilities, together launched the 'Centre of Excellence on Offshore Wind.'

## 70. Correct Answer: B

A day after the exit of Gujarat Chief Minister Vijay Rupani and his cabinet, Ghatlodia MLA Bhupendra Patel was picked to be the next CM of the state. He will take oath as CM on 13 September afternoon. The decision to pick Patel was taken at the BJP legislature party meeting in Gandhinagar on 12 September.

## 71. Correct Answer: D

Oscar Fernandes, a former Union minister and veteran Rajya Sabha MP, has died. He was 80 years old. In Manmohan Singh's UPA government, the senior Congress leader served as the Union Cabinet Minister for Transport, Road and Highways, and Labour and Employment.

## 72. Correct Answer: A

Justice M. Venugopal has been appointed as the Acting Chairperson of the National Company Law Appellate Tribunal (NCLAT), as the key appellate tribunal

continues to be without a permanent head now for more than one-and-a-half years.

## 73. Correct Answer: A

Every year on 11 September, National Forest Martyrs Day is marked and observed in the country. It is a day to pay tribute to those who sacrificed their lives to protect the wildlife, forests, and jungles in India. There are still many communities and villages where the only source of livelihood is forest.

## 74. Correct Answer: A

Skyroot Aerospace, a Hyderabad-based space technology startup, is the first private company to formally enter into an agreement with the Indian Space Research Organisation (ISRO) to gain access to their facilities and expertise for the development and testing of space launch vehicle subsystems and systems.

## 75. Correct Answer: A

Cristiano Ronaldo, a Portuguese footballer, has been recognised by Guinness World Records for being the all-time leading goalscorer in men's international football. The Portugal captain scored in the 89th minute against Ireland in a World Cup qualifier, moving ahead of former Iranian striker Ali Daei.

## 76. Correct Answer: A

England Test skipper Joe Root and Ireland's Eimear Richardson have been voted as the winners of the ICC Players of the Month for August 2021. He beat the competition from Indian pacer Jasprit Bumrah and Pakistan speedster Shaheen Afridi to win the award.

## 77. Correct Answer: C

British author Susanna Clarke has won the 2021 Women's Prize for Fiction for her second novel Piranesi. The fantasy work is the long-awaited follow-up to her

acclaimed 2004 debut Jonathan Strange and Mr Norrell. Piranesi, a mystery about a man living alone in a labyrinthine house, beat five other books to the £30,000 prize.

## 78. Correct Answer: D

A book has titled 'Human Rights and Terrorism in India' authored by BJP MP Subramanian Swamy. He has come out with a book "Human Rights and Terrorism in India" which traces how the combating of terrorism can be harmonised with human and fundamental rights within reasonable restrictions that are permitted by the Constitution and upheld by the Supreme Court.

## 79. Correct Answer: D

Digital payment startup Paytm has partnered with Delhi Metro Rail Corporation (DMRC) to enable the country's first FASTag-based metro parking facility. Paytm Payments Bank Ltd (PPBL), which is the acquiring bank for the parking site at the Kashmere Gate metro station, said that it will collect parking fees via FASTag.

## 80. Correct Answer: A

Pawan Kumar Goenka, a former managing director of Mahindra & Mahindra, has been named Chairperson of the Indian National Space Promotion Authorization Centre (In-SPACe), the country's space sector regulator. IN-SPACe functions as an independent nodal agency under the Department of Space, Government of India.

## 81. Correct Answer: C

On September 14, 2021, Tata Steel will open India's first carbon capture plant, which would extract CO2 straight from blast furnace gas at its Jamshedpur Works. Tata Steel has become the country's first steel manufacturer to use carbon capture technology as a result of this achievement.

## 82. Correct Answer: C

On September 15, 2021, the government think tank Niti Aayog, in conjunction with the Rocky Mountain Institute (RMI) in the United States and RMI India, will launch the Shoonya campaign, which will work with consumers and industry to promote zero-pollution delivery vehicles.

## 83. Correct Answer: C

The Indian military contingent is participating in Exercise PEACEFUL MISSION -2021, a Joint Counter Terrorism Exercise amongst Shanghai Cooperation Organisation (SCO) member states, with an all-arms combined force of 200 troops. From September 13 to 25, 2021, Russia will host the Exercise PEACEFUL MISSION- 2021 in the Orenburg Region of South West Russia.

## 84. Correct Answer: C

Sri Lankan legend Lasith Malinga announced his retirement from all forms of cricket, ending a decorated 16-year international career that began in 2004. Malinga had already ended his Test (2011) and ODI (2019) careers, and by announcing his decision to step away from T20 cricket, the 38-year-old marked his retirement from all forms.

## 85. Correct Answer: C

In its Trade and Development report released on September 15, 2021, the United Nations Conference on Trade and Development (UNCTAD) estimated India's economic growth rate as follows: 7.2 percent in calendar year 2021; 6.7 percent in calendar year 2022.

## 86. Correct Answer: A

The Union Cabinet has approved a Manufacturing Linked Incentive (PLI) programme for the automobile sector, with a budgetary allocation of Rs 26,058 crores, to boost domestic production of components like as



vehicles, auto parts, and other related items.

## 87. Correct Answer: C

For the sixth time since taking power in 2014, Prime Minister Narendra Modi has been included to Time Magazine's list of the 100 most influential people in the world in 2021. (2014, 2015, 2017, and 2020). Along with PM Modi, West Bengal Chief Minister Mamata Banerjee and Serum Institute of India CEO Adar Poonawalla also on the list.

## 88. Correct Answer: B

The NITI Aayog has released a paper titled "Reforms in Urban Planning Ability in India," which outlines steps to improve India's urban planning capacity. The study was jointly released by NITI Aayog Vice Chairman Dr Rajiv Kumar, CEO Shri Amitabh Kant, and Special Secretary Dr K. Rajeswara Rao on September 16, 2021.

## 89. Correct Answer: D

On September 14, 2021, Lieutenant Governor Manoj Sinha of Jammu and Kashmir inaugurated a new mission named "One Gram Panchayat-One DIGI-Pay Sakhi." The DIGI-Pay programme intends to promote door-to-door digital banking and financial services in the Union Territory's rural districts.

## 90. Correct Answer: A

On September 13, 2021, Power Finance Corporation Ltd (PFC), the foremost power sector NBFC, successfully issued maiden Euro Green Bond. The 1.841 percent bond, with seven years and a face value of 300 million euros, has been priced. This Euro Green Bond is India's first ever Euro-denominated Green Bond.

## 91. Correct Answer: C

The 15th edition of Indo–Nepal Joint Military Training Exercise Surya Kiran will be held from September 20,

2021, at Pithoragarh in Uttarakhand. The previous edition of the Exercise Surya Kiran was conducted in Nepal in 2019. The exercise was called off in 2020, due to the Covid-19 pandemic.

## 92. Correct Answer: D

The next book from Jhumpa Lahiri, the Pulitzer Prize-winning fiction writer, will highlight her work as a translator. Princeton University Press announced that Lahiri's 'Translating Myself and Others' will come out next spring.

## 93. Correct Answer: A

Byju's, India's most valued edtech startup, has partnered with NITI Aayog to provide free access to its high-quality and tech-driven learning programmes for children from 112 "aspirational districts" of the country. The project envisages establishment of a dedicated working group that will create a knowledge, innovation, and strategy support system.

## 94. Correct Answer: B

Every year on September 18, World Bamboo Day is commemorated to increase awareness of the benefits of bamboo and to encourage its use in everyday items. Bamboos are mostly employed in East and Southeast Asia for a variety of applications. Bamboo is a tall, tree-like grass belonging to the Poaceae family. There are around 115 genera and 1,400 species in it.

## 95. Correct Answer: C

On September 17, 2021, the Shanghai Cooperation Organisation (SCO) Council of Heads of State met in Dushanbe, Tajikistan, in a hybrid format. President Emomali Rahmon of Tajikistan presided over the meeting. This was the first SCO Summit held in a hybrid format and the fourth Summit in which India participated as a full-fledged member of SCO.

## 96. Correct Answer: D

Ahead of the Congress Legislative Party (CLP) meeting in Punjab, Chief Minister Captain Amarinder Singh submitted his resignation to Governor Banwarilal Purohit. Raveen Thukral, media advisor to Punjab CM, said CM Amarinder Singh has met the Punjab Governor and submitted his and his council of ministers' resignation.

## 97. Correct Answer: C

Fino Payments Bank Limited (FPBL), a fintech for emerging Indian customers will now work with actor Pankaj Tripathi as its brand ambassador. During the two-year engagement effective 1st September 2021, Pankaj Tripathi will be the face of Fino Payments Bank's marketing campaigns across various platforms.

## 98. Correct Answer: D

Harmilan Kaur Bains of Punjab set a new national record in the women's 1500m race at the 60th National Open Athletics Championships in Warangal on September 16, 2021, by clocking 4:05.39 to win gold in the women's 1500m event.

## 99. Correct Answer: B

The Central Board of Direct Taxes (CBDT) has extended the deadline for linking PAN with the biometric ID Aadhaar even again. The deadline has been pushed to March 31, 2022. This deadline had previously been extended to September 30, 2021.

## 100. Correct Answer: C

The World Bank on Thursday announced that it was discontinuing its Ease of Doing Business Report following a review of "irregularities" in its data for 2018 and 2020. The organisation said that irregularities in the data in the two reports emerged after it was flagged

internally in June 2020.

## 101. Correct Answer: B

Pankaj Advani of India defeated Amir Sarkhosh to win the Asian Snooker Championship 2021. In the best of 11 frames final, he triumphed. Pankaj Advani has won the title for the second time in a row. He won the most recent Asian Snooker Championship, which took place in 2019.

## 102. Correct Answer: A

Ford Motor Company has announced the closure of its production facilities in India. In India, Ford operates two integrated manufacturing facilities, one in Chennai, Tamil Nadu, and the other in Sanand, Gujarat. Over the previous ten years, Ford has lost more than USD 2 billion.

## 103. Correct Answer: C

For its Development Officers, the Life Insurance Corporation (LIC) has introduced a new mobile app called "PRAGATI." Performance Review Application, Growth And Trend Indicator (PRAGATI) is an acronym for Performance Review Application, Growth And Trend Indicator.

## 104. Correct Answer: B

The Inspiration4 crew took out to orbit aboard SpaceX's Falcon 9 rocket from NASA's Kennedy Space Center in Florida on September 16, 2021, becoming the world's first all-civilian crew into orbit. A group of four civilians were part of the historic mission, which featured no trained astronauts.

## 105. Correct Answer: A

Iconic former captain Mahendra Singh Dhoni was brought in as mentor of India's 15-member T20 World Cup squad by the BCCI, a move that took everyone by

surprise. The 40-year-old Dhoni retired from international cricket last year, his last India game being the 2019 World Cup semi-final, which the team lost to New Zealand.

## 106. Correct Answer: B

India has improved its position on the Global Innovation Index (GII) 2021 prepared by the World Intellectual Property Organisation (WIPO). India has been ranked 46th this year, marking an improvement from last year when it occupied the 48th position.

## 107. Correct Answer: A

Iran was officially admitted as a full member of the Shanghai Cooperation Organization (SCO). The decision to admit Iran as a full member was declared in the 21st summit of the SCO leaders in Dushanbe, Tajikistan. Iran's bid to become a full member of the Shanghai Cooperation Organisation (SCO) was approved after almost 15 years by the bloc's seven permanent members on Friday.

## 108. Correct Answer: B

World Alzheimer's day is observed on 21 September every year to raise awareness about Alzheimer's disease and dementia. This year's theme will focus on warning signs of dementia. It will encourage people to seek information, advice and support in informing people about the signs and symptoms.

## 109. Correct Answer: B

International Week of the Deaf is celebrated annually by the global Deaf Community on the last week of September each year to commemorate the first World Congress of the World Federation of the Deaf in Rome in 1958. International Week of the Deaf is celebrated through various activities and events by Deaf Communities worldwide and aims to promote human rights for deaf people, provide a platform for them to tell their stories and have their voices heard.

## 110. Correct Answer: A

The indigenous cruise, a luxury vacation option, will take passengers to some of the most popular Indian and worldwide tourist locations, including Goa, Diu, Kochi, the Lakshadweep Islands, and Sri Lanka. Once the coronavirus pandemic has subsided and foreign cruises can resume normal operations, bookings can be made through the IRCTC web platform.

## 111. Correct Answer: C

NCRB was set-up in 1986 to function as a repository of information on crime and criminals so as to assist the investigators in linking crime to the perpetrators based on the recommendations of the Tandon Committee, National Police Commission (1977-1981) and the MHA's Task force (1985). Subsequently, NCRB was entrusted with the responsibility for monitoring, coordinating and implementing the Crime and Criminal Tracking Network & Systems (CCTNS) project in the year 2009.

## 112. Correct Answer: B

After the poignant verbal assault on Indian Administrative Service (IAS) personnel within the legislative Meeting, the Karnataka authorities has issued a round imposing a ban on holding press conferences and issuing statements by the bureaucrats. The order was issued on Saturday.

## 113. Correct Answer: D

Indian Naval Ships Shivalik and Kadmatt arrived at Jakarta, Indonesia on 18 Sep 21 to participate in the 3rd edition of Bilateral Exercise 'Samudra Shakti' with the Indonesian Navy scheduled off the approaches to Sunda Strait from 20 Sep to 22 Sep 21. The exercise aims to strengthen the bilateral relationship, enhance mutual understanding and interoperability in maritime operations between the two navies.

## 114. Correct Answer: A

World Rhino Day is observed every year on September

22. This day celebrates all five species of rhino - black, white, greater one-horned, Sumatran and Javan rhinos. This year marks the 10th anniversary of World Rhino Day.

**115. Correct Answer:**

Two more beaches in India have been awarded "Blue Flag" certification, an international eco-level tag, taking the total number of such beaches in the country to 10, the Environment Ministry said on Tuesday. The two beaches to receive the certification this year are Kovalam in Kerala and Eden in Puducherry, it said.

**116. Correct Answer: D**

Nobel Peace Laureate Kailash Satyarthi has been appointed as Sustainable Development Goals Advocate. UN Secretary-General Antonio Guterres made this announcement ahead of the 76th UN General Assembly. Combatting child labour and taking adequate steps to ensure their rights would be the prime agenda of the appointed SDG Advocate to advance the 2030 agenda for sustainable development.

**117. Correct Answer: C**

International Day of Sign Languages is celebrated annually across the world on 23 September every year along with International Week of the Deaf. The choice of 23 September is the same date that the World Federation of the Deaf was established in 1951.

**118. Correct Answer: B**

Two more beaches in India have been awarded "Blue Flag" certification, an international eco-level tag, taking the total number of such beaches in the country to 10, the Environment Ministry said on Tuesday. The two beaches to receive the certification this year are Kovalam in Tamil Nadu and Eden in Puducherry.

**119. Correct Answer: C**

Yes Bank has announced its partnership with Visa to offer credit cards to its customers on the payment platform. With the partnership, the bank said it is commencing issuance of select credit card variants, consumer as well as commercial, on Visa's payment network.

**120. Correct Answer: A**

Media and entertainment giant Zee Entertainment Enterprises Ltd said on Wednesday its board has given in-principle approval for its merger with Sony Pictures Networks India (SPNI). Zee, which has a presence in television broadcasting and digital media with brands such as Zee TV, has been under pressure from top investors for a management reshuffle, including the exit of chief executive, Punit Goenka, from the board.

**121. Correct Answer: D**

Indian Army will organise 'Bijoya Sanskritik Mahotsav' from September 26 to 29 in Kolkata to mark 50 years of Bangladesh's liberation following India's victory over Pakistan in the 1971 war. According to a release by the Ministry of Defence, the event titled "Bijoya Sanskritik Mahotsav" aimed at showcasing the cultural linkages between India and Bangladesh during the war is being organised by the Eastern Command of the Indian Army.

**122. Correct Answer: B**

The Central Government's Ayushman Bharat scheme, which provides free treatment facility up to five lakh rupees to crores of poor families of the country, has completed three years today. On this occasion 'Arogya Manthan 3.0' was organized. Addressing this, Union Health Minister Mansukh Mandaviya announced that Ayushman cards will be issued to everyone by next 7 September. The virtual inauguration of 'Arogya Manthan 3.0' was done by Minister Mandaviya and

Minister of State for Health Dr. Bharti Praveen Pawar.

### 123. Correct Answer: A

Fairooz Faizah Beether of Bangladesh has been announced the winner of 2021 Goalkeepers Global Goals Changemaker Award by the Bill & Melinda Gates Foundation. The Goalkeepers Global Goals Awards are an annual recognition of remarkable individuals taking action to help achieve the Global Goals by 2030.

### 124. Correct Answer: B

Star Indian cueist Pankaj Advani on Tuesday grabbed his 24th world title when he triumphed at the IBSF 6-Red Snooker World Cup with a victory over Pakistan's Babar Masih in the final. Advani, who won his 11th Asian title last week, started the final with a comfortable 42-13 win in the opening frame.

### 125. Correct Answer: A

Bestselling Indian author Chetan Bhagat is all set to release a new book this October, Chetan's upcoming novel '400 Days' is the third book in the Keshav-Saurabh series, after 'The Girl in Room 105' and 'One Arranged Murder'.

### 126. Correct Answer: D

Odisha was on September 23 named the host of this year's FIH men's hockey Junior World Cup in November-December, reaffirming the state's growing stature as a hub for the sport. The event will be staged at the Kalinga Stadium in Bhubaneswar from November 24 to December 5.

### 127. Correct Answer: C

Himachal Pradesh's Kaza which is located in of Lahaul and Spiti district has got a unique distinction to its name as it now has the world's highest electric vehicle(EV) charging station. The EV charging station was

inaugurated on September 23 in a bid to promote a sustainable environment.

### 128. Correct Answer: C

The Indian Meteorological Department (IMD) on 25 September said that Cyclone Gulab has formed in the Bay of Bengal. As per the satellite observations at 5.30 pm on the day, the cyclone was located over northwest Bay of Bengal and was 370 km east-southeast of Gopalpur, Odisha and 440 km east of Kalingapatnam, Andhra Pradesh.

### 129. Correct Answer: B

The International Pharmaceutical Federation (FIP) Council voted to observe World Pharmacist Day in 2009 during the World Congress of Pharmacy and Pharmaceutical Sciences in Istanbul, Turkey. FIP was founded on this date in 1912, and the major goal of this day is to promote the role and actions of pharmacists in promoting health.

### 130. Correct Answer: B

The Ministry of Defence on September 21 has named present Vice Chief of Air Staff, Air Marshal VR Chaudhari, as the next Chief of the Indian Air Force. The current Chief of Air Staff, Air Chief Marshal RKS Bhadauria, will retire from service on September 30.

### 131. Correct Answer: B

Jungle Nama is Amitav Ghosh's verse adaptation of an episode from the legend of Bon Bibi, a tale popular in the villages of the Sundarban, which also lies at the heart of the novel The Hungry Tide. It is the story of the avaricious rich merchant Dhona, the poor lad Dukhey, and his mother; it is also the story of Dokkhin Rai, a mighty spirit who appears to humans as a tiger, of Bon Bibi, the benign goddess of the forest, and her warrior brother Shah Jongoli.

## 132. Correct Answer: B

The government has set up the India Debt Resolution Company Ltd (IDRCL), an asset management company (AMC) that will work in tandem with the National Asset Reconstruction Company Ltd (NARCL) to clean up bad loans, according to documents available with the Registrar of Companies (RoC). IDRCL has been set up with a paid-up capital of Rs 80.5 lakh on an authorized capital of Rs 50 crore.

## 133. Correct Answer: A

Antyodaya Diwas is celebrated every year on 25 September to mark the birth anniversary of Pandit Deendayal Upadhyaya, one of the most prominent personalities in the history of Indian politics. This year, the Antyodaya Diwas marks the 105th birth anniversary of Upadhyaya. He was the co-founder of Bharatiya Jana Sangh (BJS) and a Rashtriya Swayamsevak Sangh (RSS) thinker.

## 134. Correct Answer: C

Deendayal Upadhyaya was an Indian politician and thinker of right-wing Hindutva ideology espoused by the Rashtriya Swayamsevak Sangh, and leader of the political party Bharatiya Jana Sangh, the forerunner of Bharatiya Janata Party.

## 135. Correct Answer: B

Steve Wozniak on September 13 announced that he is setting up a private space company that is "unlike the others." The new company will be called Privateer Space and its mission would be to keep space safe and accessible to all humankind.

## 136. Correct Answer: D

The Automotive Research Association of India (ARAI) has indigenously developed charger for electric vehicles considering the need to boost the charging mechanism

of electric vehicles in the country, said Reji Mathai, director, ARAI. ARAI has recently signed MoU with Bharat Electronics Limited where ARAI will provide the knowhow of the charges and Bharat Electronics will manufacture the chargers. The cost of the charger is expected to be in the range of Rs 50,000-60,000.

## 137. Correct Answer: A

The Karnataka government on 21 September reportedly passed a bill that bans online "games of chance". Karnataka Chief Minister Basavaraj Bommai reportedly said that the government will deal with gaming operators who run "games of chance" camouflaged as "games of skill". Even those skill games that involve the risk of the player losing money would invite action under the law, he said.

## 138. Correct Answer: C

Government e Marketplace (GeM) was announced as the winner in the "Best Use of Digital Technology" category at the CIPS Excellence in Procurement Awards 2021 (CIPS Awards). GeM emerged the winner in this category after competing with some of the biggest and best names in procurement across the public and private sector globally. GeM was shortlisted as a finalist in two additional categories as well, that was., 'Public Procurement Project of the Year' and 'Best Initiative to Build a Diverse Supply Base'.

## 139. Correct Answer: D

The aim of the WMO report is to demonstrate the connections between the global climate and the SDGs, which go far beyond SDG 13 for climate action. It also champions the need for greater international collaboration, which is essential for achieving the SDGs, and for limiting global warming to less than 2 °C or even 1.5 °C by the end of this century.

## 140. Correct Answer: D

The Food Safety and Standards Authority of India (FSSAI) has stated that all food items should contain less than 2 percent of trans fat from Jan 2022. On December 31, 2020, the food standards authority notified rules that trans fats in oil and fats used for processing food should contain 3 per cent or less trans fats by January 2021, and 2 percent or less trans fats by January 2022.

### 141. Correct Answer: C

World Rabies Day is observed on September 28 every year to raise awareness about the impact of the viral disease and how to prevent it. This year, the theme for World Rabies day is 'Rabies: Facts, not Fear', based on ending the fear from the people and empowering them with the facts. The theme is aimed at sharing facts about rabies and not spreading fear about the disease by relying on misinformation and myths.

### 142. Correct Answer: B

INFORMATION is power and 28 September is the International Day for Universal Access to Information. The day was selected by UNESCO in 2015 and was first held on 28 September, 2016. It was proclaimed by the UN General Assembly as the day of raising awareness of the importance of universal access to information. This year, the day highlights the role of access to information laws and their implementation to build strong institutions for the public good and sustainable development.

### 143. Correct Answer: B

The 2021 World Archery Championships was held from 20 to 26 September 2021 in Yankton, South Dakota, United States

### 144. Correct Answer: D

England all-rounder Moeen Ali announced his retirement from Test cricket on 27 September. The 34-year-old has scored 2,914 runs in 64 Tests at an average

of 28.29 with five centuries and picked up 195 wickets with his off-spin bowling at an average of 36.66.

### 145. Correct Answer: C

Lt Gen Gurbirpal Singh on 27 September took over as the new director general of the National Cadet Corps (NCC). He has taken charge of the NCC at a time the Defence Ministry is looking at making it more relevant.

### 146. Correct Answer: D

World Rabies Day is observed on September 28 every year to raise awareness about the impact of the viral disease and how to prevent it. This day is also observed globally to mark the death anniversary of French biologist, microbiologist and chemist, Louis Pasteur, who developed the first rabies vaccine. This is the only global day of action and awareness for rabies prevention.

### 147. Correct Answer: C

ICRA has revised India's real GDP growth projection for 2021-22 to nine per cent from 8.5 per cent, citing better prospects for the second half of the financial year, benefiting from ramp-up in Covid-19 vaccination, healthy advance estimates of kharif (summer) crop and faster government spending.

### 148. Correct Answer: D

The team India archers settled for three silver medals at the 2021 World Archery Championships, held in Yankton, South Dakota, United States. The three silver medals were won in Women's Compound Individual, Women's Compound Team and Compound Mixed Team competitions.

### 149. Correct Answer: C

Adding more firepower to India's missile arsenal, Defence Research and Development Organisation

(DRDO) on 27 September successfully flight-tested a new version of the Akash missile from the integrated test range at Chandipur in Odisha. The missile 'Akash Prime' intercepted and destroyed an unmanned aerial target mimicking an enemy aircraft in its maiden flight test.

**150. Correct Answer: A**

A new book tells the story of 120 Indian soldiers who put up a valiant fight against the 5,000-strong Chinese military troops in the 1962 Indo-China war, preventing a possible occupation of the entire Ladakh region. The Battle of Rezang La, published under Penguin Random Houses Veer imprint, is written by ex-naval officer and author Kulpreet Yadav.



# SECTION 3

## Detailed Analysis of Important Events

## Economics

### Govt. tells utilities to ship in coal as demand surges

The govt. has urged utilities to import coal despite having the world's fourth-largest reserves, with several power plants on the verge of running out of fuel due to a surge in power demand.

#### Coal Mining in India

- Coal in India has been mined since 1774 and is now the second fastest mined in the world, producing 716 million metric tons (789 million short tons) in 2018.
- Due to high demand and poor average quality, India imports coking coal to meet the requirements of its steel plants.
- Dhanbad city is the largest coal-producing city and is called the Coal Capital of India.
- State-owned Coal India had a monopoly on coal mining between its nationalization in 1973 and 2018.

#### Consumption

- Coal-fired power accounts for more than 70% of India's electricity generation. Electricity generation makes up three-fourths of India's coal consumption.

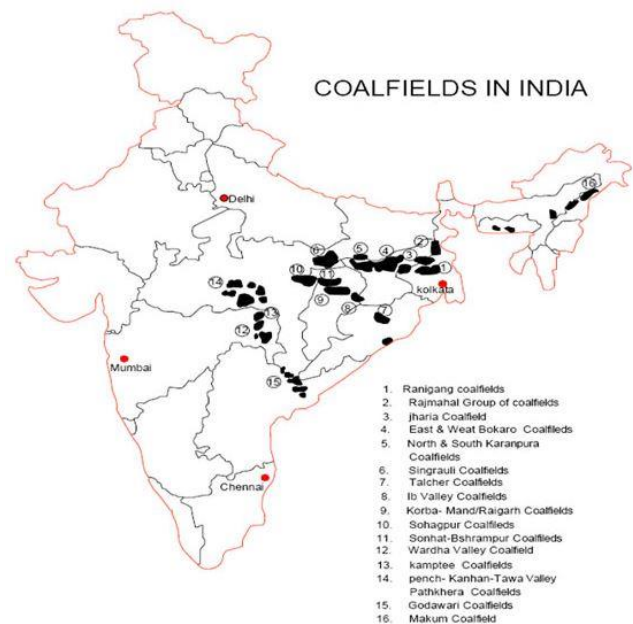
#### Quality of coal

- The ash chemistry of Indian coal is such that it is high in silica and alumina.
- The ash is also highly abrasive because of its high quartz content, which can lead to erosion of the syngas cooling system when it gets fused.
- Indian coal's sulfur content is low, about 0.5

percent.

- So, from a gas clean-up perspective, the flue gas desulphurization (removal of SOx gases) and NOx removal system is not economically justifiable and, therefore, not important.
- Also, in the Indian context, this is unnecessary to meet emission norms.

#### Coal reserves



- India has the world's fourth-largest coal reserves. After China, it is the world's second-largest coal producer.
- Eastern and south-central India have the most coal reserves.
- 98.09 percent of India's total known coal reserves were found in Jharkhand, Odisha, Chhattisgarh, West Bengal, Madhya Pradesh, Telangana, and Maharashtra.
- Jharkhand and Odisha had the greatest coal

deposits, with 25.88 percent and 24.76 percent, respectively, as of 31 March 2019.

## Imports

- Steel Authority of India Limited (SAIL) and other steel producing companies import coking coal to bridge the gap between demand and indigenous availability, as well as to improve quality.
- Non-coking coal is imported by coal-fired power plants, cement factories, captive power plants, sponge iron plants, industrial customers, and coal traders.
- Coke is mostly imported by pig-iron producers and iron-and-steel users who use mini-blast furnaces.

### ***Q. Which of the following is/are the characteristics/ characteristics of Indian coal?***

1. *High ash content*
2. *Low Sulphur content*
3. *Low ash fusion temperature*

### ***Select the correct option using the codes given below:***

- (a) 1 and 2 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

## **Taxing interest on Provident Fund**

Following its Budget announcement in February, the Finance Ministry has now notified the rules for taxing interest income on contributions made to the Employees' Provident Fund (EPF) beyond Rs 2.5 lakh (for private-sector employees) and Rs 5 lakh (for

government sector employees).

## **What is Provident Fund?**

- Employees can pay a portion of their savings to their pension fund every month through the Provident Fund, which is maintained by the government.
- These monthly contributions grow over time and can be accessed as a lump sum payment when you retire or leave your job.
- The money in your provident fund can be used to grow your retirement corpus because it has a considerable amount of savings.

## **Types of provident funds**

There are mainly three different types of PFs, which are as follows:

1. **General provident fund:** This is a sort of PF that is maintained by government entities such as municipal governments, railways, and other similar entities. As a result, government bodies are primarily responsible for defining certain types of PFs.
2. **Recognised provident fund:** It is the recognised provident fund that applies to all privately-owned businesses with more than 20 employees. Furthermore, if you have a valid claim to the PF linked with your company, you will be assigned a UAN, or Universal Account Number. This allows you to transfer your PF funds from one employer to another as you transition from one job to another.
3. **Public provident fund:** The definition of a public provident fund is that it is defined by the employee's voluntary investment. A minimum deposit of Rs. 50 and a maximum deposit of Rs. 1.5 lakhs are also linked with the PPF. The PPF has a 15-year lock-in period.

## **What is the tax on EPF contributions?**

- The Budget proposed in February that interest income from PF contributions over Rs 2.5 lakh in a year would not be eligible for tax exemption.
- Although this has been a source of concern for salaried employees who pay to EPF, it will only affect those who contribute more than Rs 2.5 lakh per year.
- It will have no effect on their current corpus or the total annual interest earned on it.
- The government recommended in March to increase the contribution cap for tax-exempt interest income where the employer does not contribute from Rs 2.5 lakh to Rs 5 lakh.
- With this, the government granted assistance for contributions paid to the General Provident Fund, which is solely available to government employees and for which the employer makes no contribution.

## Why tax the PF?

- Some employees have made large contributions to these accounts and have benefited from tax exemption at every stage of the process - contribution, interest accrual, and withdrawal.
- The government has proposed imposing a threshold limit for tax exemption in order to restrict high net worth people (HNIs) from the advantage of significant tax-free interest income on their large contributions.
- Beginning April 1, 2021, this will apply to all contributions.

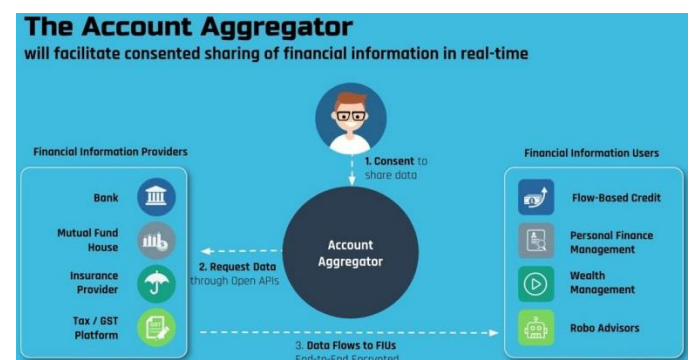
## How will it get taxed?

- Interest income on contributions beyond Rs 2.5 lakh would be taxed at the same marginal tax rate for an individual in the higher tax bracket of 30%.
- This means that if an individual contributes Rs 3

lakh to the provident fund each year (including voluntary PF contributions), the interest on the portion of his contribution beyond Rs 2.5 lakh — that is, Rs 50,000 — is taxed.

- As a result, the Rs 4,250 in interest income (8.5 percent on Rs 50,000) will be taxed at the marginal rate. If the individual falls into the 30% tax category, he or she will be required to pay Rs 1,325.
- The tax on interest income on Rs 9.5 lakh will apply to an individual who contributes Rs 12 lakh in a year (Rs 12 lakh minus Rs 2.5 lakh). The tax liability in this situation would be Rs 25,200. of tax exemption at all phases of contribution, interest accumulation, and withdrawal.
- The government has proposed imposing a threshold limit for tax exemption in order to restrict high net worth people (HNIs) from the advantage of significant tax-free interest income on their large contributions.
- Beginning April 1, 2021, this will apply to all contributions.

## Indian Banks join 'Account Aggregators Network'



Eight of India's major banks — State Bank of India, ICICI Bank, Axis Bank, IDFC First Bank, Kotak Mahindra Bank, HDFC Bank, IndusInd Bank and Federal Bank has joined the Account Aggregator (AA) network that will enable customers to easily access and share their financial

data.

## What is an Account Aggregators (AA)?

- According to the RBI, an AA is a non-banking financial company engaged in the business of providing, under a contract, the service of retrieving or collecting financial information pertaining to its customer.
- It is also engaged in consolidating, organizing, and presenting such information to the customer or any other financial information user as may be specified by the bank.
- The AA framework was created through an inter-regulatory decision by RBI and other regulators.
- These regulators include SEBI, Insurance Regulatory and Development Authority, and Pension Fund Regulatory and Development Authority (PFRDA) through an initiative of the Financial Stability and Development Council (FSDC).
- The license for AAs is issued by the RBI, and the financial sector will have many AAs.
- The framework allows customers to avail themselves of various financial services from a host of providers on a single portal based on a consent method, under which the consumers can choose what financial data to share and with which entity.

## What does an AA do?

- **Reduce bank traffic:** It reduces the need for individuals to wait in long bank queues, use Internet banking portals, share their passwords, or seek out physical notarization to access and share their financial documents.
- **Data security:** An AA is a financial utility for the secure flow of data controlled by the individual.
- **Data flow:** AA is an exciting addition to India's

digital infrastructure as it will allow banks to access consented data flows and verified data.

- **Reduced cost:** This will help banks reduce transaction costs, which will enable us to offer lower ticket size loans and more tailored products and services to our customers.
- **Transaction security:** It will also help us reduce fraud and comply with upcoming privacy laws.

## How does it work?

- It has a three-tier structure:
  1. Account Aggregator
  2. FIP (Financial Information Provider) and
  3. FIU (Financial Information User)
- A FIP is the data fiduciary, which holds customers' data. It can be a bank, NBFC, mutual fund, insurance repository, or pension fund repository.
- An FIU consumes the data from a FIP to provide various services to the consumer.
- An FIU is a lending bank that wants access to the borrower's data to determine if the borrower qualifies for a loan.
- Banks play a dual role – as a FIP and as an FIU.
- An AA should not support transactions by customers but should ensure appropriate mechanisms for proper customer identification.
- An AA should share information only with the customer to whom it relates or any other financial information user as authorized by the customer

## What purpose does it serve?

- AA creates secure, digital access to personal data at a time when Covid-19 has led to restrictions on physical interaction.

- It reduces the fraud associated with physical data by introducing secure digital signatures and end-to-end encryption for data sharing.
- These capabilities in turn open up many possibilities.
- For instance, whereas physical collateral is usually required for an MSME loan, with secure data sharing via AA, 'information collateral' (or data on future MSME income) can be used to access a small formal loan.
- HDFC Bank and Axis Bank have been using AA for auto loans, Lending Kart for MSME loans, and IndusInd Bank for personal finance management.

## What data can be shared?

- An Account Aggregator allows a customer to transfer his financial information pertaining to various accounts such as banks deposits, equity, mutual fund, and pension funds to any entity requiring access to such information.
- There are 19 categories of information that fall under 'financial information, besides various other categories relating to banking and investments.
- For sharing of such information, the FIU is required to initiate a request for consent by way of any platform/app run by the AA.
- Such a request is received by the individual customer through the AA, and the information is shared by the AA, after consent is obtained.
- The AA framework is an excellent initiative that will compile all the digital footprints of the customer in one place and make it easy for lenders like us to access it.
- It will enable us to provide very quick turnarounds to our customers.

## Can an AA see or store data?

- Data transmitted through the AA is encrypted. AAs are not allowed to store, process and sell the customer's data.
- No financial information accessed by the AA from a FIP should reside with the AA.
- It should not use the services of a third-party service provider for undertaking the business of account aggregation.
- User authentication credentials of customers relating to accounts with various FIPs shall not be accessed by the AA.

## Odisha's Manda buffalo gets unique, indigenous tag



The National Bureau of Animal Genetic Resources (NBAGR) has recognized the Manda buffalo, found in the Eastern Ghats and plateau of Koraput region of Odisha, as the 19th unique breed of buffaloes found in India.

## Manda Buffalo

- The Manda are parasite-resistant, disease-resistant, and can live, reproduce, and produce

with low or no input systems.

- These buffaloes have a copper-colored coat with an ash grey and grey coat.
- The bottom half of the legs is light in colour up to the elbow, with copper coloured hair at the knee. Some animals have a silvery white coloration.
- NBAGR has already recognised four cow breeds — Binjharपुरi, Motu, Ghumusari, and Khariar — as well as two buffalo breeds — Chilika and Kalahandi — and one sheep breed, Kendrapada.

(a) 1 and 2 only

(b) 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

## Crypto is not currency, must regulate it as asset: Former RBI DG

Former RBI Deputy Governor R. Gandhi made a case for treating and regulating crypto as a separate asset class with a view to enabling governments around the world to effectively deal with illegal activities associated with virtual currencies.

### Why in news?

- People have realised that crypto cannot be a money after much argument over the years since the key ingredient of a currency, that it should be a legal tender, is missing in this situation.
- Many policymakers agree that it should be classified as an asset rather than a currency, payment instrument, or financial instrument because no obvious issuer has been identified.

### What are Cryptocurrencies?

- Individual coin ownership records are recorded in a ledger that exists in the form of a computerised database, making cryptocurrencies a digital asset designed to act as a medium of trade.
- To secure transaction records, control the creation of extra coins, and verify the transfer of coin ownership, it employs powerful cryptography.
- It is not normally issued by a central authority and does not exist in physical form (like paper

### Their economic significance

- In their native Koraput, Malkangiri, and Nabarangpur districts, the small, strong buffaloes are utilised for ploughing.
- For millennia, over 1,00,000 buffaloes of this breed have roamed the native tract, primarily contributing to household nutrition and assisting in all agricultural operations in the undulated steep terrain.
- These buffaloes produce 2 to 2.5 litres of milk per per milking, with more than 8% fat content. However, a handful of them can produce as much as 4 litres.
- Following a review of the findings, the NBAGR determined that it was an indigenous and distinct buffalo.

### Q. What is/are unique about 'Kharai Camel', a breed found in India?

1. It is capable of swimming up to three kilometres in seawater.
2. It survives by grazing on mangroves.
3. It lives in the wild and cannot be domesticated.

Select the correct answer using the code given below:

money).

- In contrast to centralised digital money and central banking institutions, cryptocurrencies often use decentralised control.

## How does it work?

- Cryptocurrencies work using a technology called the blockchain.
- Blockchain is a decentralized technology spread across many computers that manage and record transactions.

## What is Blockchain Technology?

- Simply put, blockchain is a digital ledger that is decentralised, distributed, and open to the public.
- Blockchains are a new sort of network infrastructure (a way to arrange how information and value travel around the internet) that introduces distributed verifiability, auditability, and consensus to networks, thereby establishing "trust."
- Blockchains establish trust by serving as a distributed database that is dispersed across enormous peer-to-peer networks with no single point of failure and no single source of truth.
- A blockchain network cannot be owned by a single entity, and no single entity may edit the data stored on it without the consent of its peers.

## Govt. mulls allowing local sales by SEZ units sans import tag

The government is considering a proposal to allow producers in Special Economic Zones (SEZs) to sell their output to the domestic market without treating them as imports.

## What are SEZs?

- A Special Economic Zone (SEZ) is a region with different business and trade laws than the rest of the country.
- SEZs are placed within a country's national borders, and its goals include improving the trade balance, raising investment, creating jobs, and ensuring efficient administration.
- Financial policies are in place to attract enterprises to locate in the zone.
- Investing, taxing, commerce, quotas, customs, and labour restrictions are all examples of policies.
- Companies may also be offered tax vacations, in which they are allowed a period of cheaper taxation after establishing themselves in a zone.

## SEZs in India

- The SEZ policy was first implemented in India on April 1, 2000.
- The main goal was to increase foreign investment and create a competitive and hassle-free environment for exports on a global scale.
- The goal was to boost exports from the country while also recognising the importance of providing a level playing field for domestic businesses and manufacturers in order for them to compete globally.
- The SEZ Act of 2005 was enacted as a result to offer an overarching legal framework that covered all major legal and regulatory issues of SEZ development as well as for units operating in SEZs.

## Who can set up SEZs? Can foreign companies set up SEZs?

- Any private/public/joint sector or state



government or its agencies can set up an SEZ.

- Yes, a foreign agency can set up SEZs in India.

### What is the role of state governments in establishing SEZs?

- The establishment of SEZs will include a significant role for state governments.
- While considering the proposal, a representative of the state government who is a member of the inter-ministerial committee on private SEZ is consulted.
- Before recommending any ideas to the ministry of commerce and industry (department of commerce), states must ensure that they can provide basic inputs like as water, electricity, and other necessities.

### Are SEZs controlled by the government?

- In all SEZs, the statutory functions are controlled by the government.
- The government also controls the operation and maintenance function in the central government-controlled SEZs. The rest of the operations and maintenance are privatized.

### Are SEZs exempt from labor laws?

- Normal labor laws are applicable to SEZs, which are enforced by the respective state governments.
- The state governments have been requested to simplify the procedures/returns and for the introduction of a single-window clearance mechanism by delegating appropriate powers to development commissioners of SEZs.

### Who monitors the functioning of the units in SEZ?

- The performance of the SEZ units is monitored by a unit approval committee consisting of a development commissioner, custom, and

representative of the state government on an annual basis.

### What are the special features for business units that come to the zone?

- Business units that set up establishments in an SEZ would be entitled to a package of incentives and a simplified operating environment.
- Besides, no license is required for imports, including second-hand machinery.

### How do SEZs help a country's economy?

- SEZs are critical to a country's rapid economic development.
- It aided China in the early 1990s, and there were hopes that the construction of similar export-processing zones in India would deliver similar benefits – provided, of course, that the zones offered enticing enough incentives.
- High tariffs and taxes, red tape, and severe labour rules have traditionally been the major deterrents to foreign investment in India.
- To date, India has been unable to compete with China's immensely successful light-industrial export machine due to these restrictions.

### National Financial Reporting Authority (NFRA)

Audit regulator National Financial Reporting Authority (NFRA) wants to be positioned as a regulator for the entire gamut of financial reporting, covering all processes and participants in the financial reporting chain.

### What is NFRA?

- Under the Companies Act 2013, NFRA is an independent authority that oversees the auditing profession and accounting standards in

India.

- It was founded in October of 2018.
- In its 21st report, the Standing Committee on Finance presented the notion of the National Financial Reporting Authority (NFRA) for the first time after the Satyam incident in 2009.
- The Companies Act of 2013 established the legal foundation for its formation and composition.

## Functions

- NFRA works to improve the transparency and reliability of financial statements and information presented by listed companies and large unlisted companies in India.

## Powers & duties

- The National Financial Reporting Association (NFRA) is in charge of recommending accounting and auditing regulations and standards across the country.
- It has the authority to conduct investigations and impose punishment on defaulting auditors and audit firms, including monetary penalties and a ban from practising for up to ten years.
- Since 2018, the NFRA's powers have been expanded to encompass the regulation of auditors of firms listed on any stock exchange, whether in India or abroad, as well as unlisted public corporations with revenues exceeding specific benchmarks.

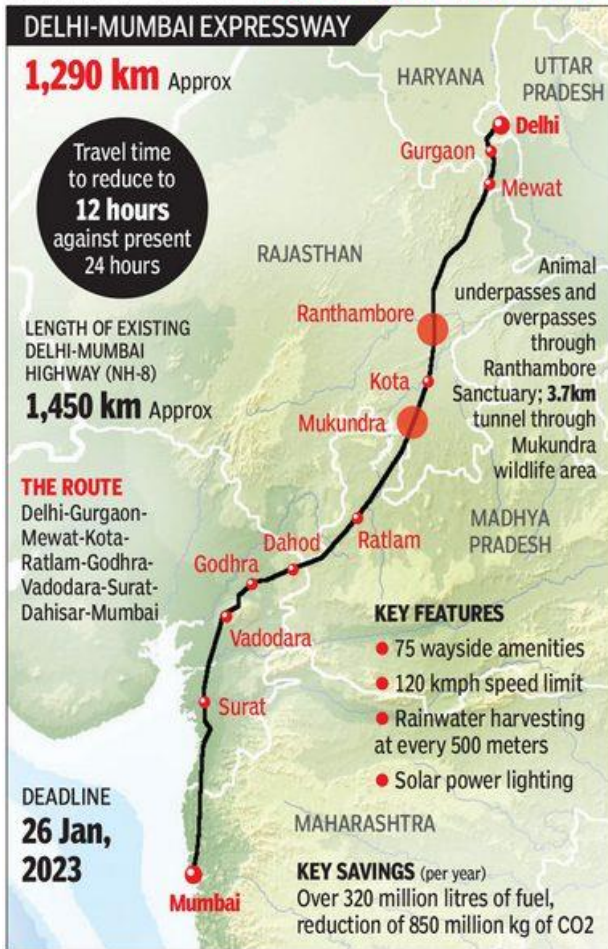
## Delhi-Mumbai Expressway

- The massive infrastructure project, which began in 2018 and is expected to be completed in March 2023, is being built at a cost of Rs 98,000 crore.
- Delhi, Haryana, Rajasthan, Madhya Pradesh, Gujarat, and Maharashtra are the states involved.
- When completed, the expressway will include a spur to Noida International Airport and the Jawaharlal Nehru Port, as well as a spur to Mumbai.
- It will cut the time it takes to travel between specific cities from 24 hours to 12-12.5 hours.
- The project is expected to boost communication between Jaipur, Ajmer, Kishangarh, Chittorgarh, Kota, Udaipur, Ujjain, Bhopal, Indore, Vadodara, Ahmedabad, and Surat, as well as other Indian economic regions.

## Delhi-Mumbai Expressway: World's longest

The Minister for Road Transport and Highways Union Minister Nitin Gadkari concluded the review of the work progress on the Delhi-Mumbai Expressway.

## TRAVEL TIME TO BE CUT TO HALF



world's second to include animal overpasses to allow free passage of wildlife.

- In addition, it will feature two renowned eight-lane tunnels.
- The initiative will save about 320 million litres of gasoline per year and cut carbon dioxide emissions by 850 million kg per year.
- The project will need about 12 lakh tonnes of steel in its construction, which is enough to build 50 Howrah bridges.
- 80 lakh tonnes of cement will be needed for the project, accounting for about 2% of the country's annual cement manufacturing capacity.
- Apart from creating jobs for hundreds of qualified civil engineers, the ambitious Delhi-Mumbai Expressway project has also generated over 50 lakh man-days of work.

## SEBI introduces T+1 Settlement System

**Shifting Gears**

**A T+1 system improves liquidity and reduces risks, feels Sebi**

**A switch to T+1 by one exchange would force the other to follow**

**FPIs fear** time-zone differences could raise cost

**Sebi constituted panel** gave its report few days ago

The Capital markets regulator Securities and Exchange Board of India (SEBI) has introduced T+1 settlement cycle for completion of share transactions on optional basis in a move to enhance market liquidity.

### What is T+1 Settlement System?

- T+1 means that settlements will have to be cleared within one day of the actual transactions taking place.

### Key features of the expressway

- Depending on traffic flow, the eight-lane access-controlled expressway can be enlarged to a 12-lane expressway.
- It will have resorts, food courts, restaurants, fuel stops, logistics parks, and trucker facilities along the way.
- It will provide a helicopter ambulance service for accident victims as well as a heliport that will leverage drone services for business.
- Over two million trees and plants will be planted along the route.
- The highway project is Asia's first and the

- Currently, trades on the Indian stock exchanges are settled in two working days after the transaction is done (T+2).
- In April 2002, stock exchanges had introduced a T+3 rolling settlement cycle. This was shortened to T+2 from April 1, 2003.

## What has Sebi allowed?

- SEBI has allowed stock exchanges to start the T+1 system as an option in place of T+2.
- If it opts for the T+1 settlement cycle for a scrip, the stock exchange will have to mandatorily continue with it for a minimum 6 months.
- Thereafter, if it intends to switch back to T+2, it will do so by giving one month's advance notice to the market.
- Any subsequent switch (from T+1 to T+2 or vice versa) will be subject to a minimum period.
- A stock exchange may choose to offer the T+1 settlement cycle on any of the scrips, after giving at least one month's advance notice to all stakeholders, including the public at large.

## Why T+1 settlement?

- **Reduced settlement time:** A shortened cycle not only reduces settlement time but also reduces and frees up the capital required to collateralize that risk.
- **Quick settlement:** T+1 also reduces the number of outstanding unsettled trades at any instant, and thus decreases the unsettled exposure to Clearing Corporation by 50%.
- **Speedy recovery of assets:** The narrower the settlement cycle, the narrower the time window for a counterparty insolvency/bankruptcy to impact the settlement of a trade.
- **Risk reduction:** Systemic risk depends on the

number of outstanding trades and concentration of risk at critical institutions such as clearing corporations, and becomes critical when the magnitude of outstanding transactions increases.

## How does T+2 work?

- If an investor sells shares, settlement of the trade takes place in two working days (T+2).
- The broker who handles the trade will get the money, but will credit the amount in the investor's account only.
- In effect, the investor will get the money only after three days.
- In T+1, settlement of the trade takes place in one working day and the investor will get the money on the following day.
- The move to T+1 will not require large operational or technical changes by market participants, nor will it cause fragmentation and risk to the core clearance and settlement ecosystem.

## Why are foreign investors opposing it?

- Foreign investors operating from different geographies would face time zones, information flow process, and foreign exchange problems.
- Foreign investors will also find it difficult to hedge their net India exposure in dollar terms at the end of the day under the T+1 system.
- In 2020, SEBI had deferred the plan to halve the trade settlement cycle to one day (T+1) following opposition from foreign investors.

## Rooftop Solar Scheme



India has added 521 megawatts (MW) of rooftop solar capacity in the second quarter (Q2) of the calendar year (CY) 2021, a 53% increase than earlier quarter showing good signs of popularity.

### What is Solar Rooftop?

- A solar photovoltaic (PV) system put on a building's rooftop serves as a backup power source or feed into the grid.
- The size of the installation is determined by the amount of space available, the amount of electricity utilised by the property, and the owner's ability or willingness to invest the necessary funds.

### Why rooftop?

- Rooftop solar combined with a storage system benefits both end users and discoms (power distribution companies).
- A rooftop system with a capacity of one kilowatt (kW) can generate three to five units of power each day.
- In comparison to traditional grid supplies and diesel generators, the combination is becoming increasingly cost-effective for energy generation.
- For most commercial and industrial (C&I) clients, solar and storage will be cheaper than grid power in 2021.
- Increased rooftop solar penetration in the distribution grid will have a substantial impact

on the system's reliability.

### A viable alternative

- For power backup, most housing complexes in metropolitan India rely on diesel generators. Diesel generators, on the other hand, will become obsolete as the country's power supply improves.
- Diesel generators have a high operating cost of R16-18 per unit, compared to Rs 5-6 per unit for solar rooftop systems. As a result, rooftop solar makes economical sense. Solar rooftops are also an excellent choice for commercial and institutional buildings that are primarily used during the day.
- Their rooftops can be used to generate electricity and, in some cases, diesel generators can be replaced entirely. This would also help them save money on their energy expenses.

### Question of energy storage

- The grid must be flexible and smart in order to accommodate rooftop solar and electric automobiles.
- Energy storage devices will be critical in achieving this flexibility by acting as a load when there is excess generation and as generating sources when there is a supply constraint.
- When it comes to integrating battery storage into the electric grid, there are two main approaches:
- FTM (front-of-the-meter): This is a utility-scale solution in which the battery system is connected to the transmission or distribution network, ensuring grid reliability. This takes place on a massive scale (MWh scale).
- The other option, known as behind-the-meter (BTM), is used in both residential and commercial/industrial settings, primarily to

provide backup during a power outage or to store excess locally generated energy from solar rooftop photovoltaic (PV) systems.

## India's storage capacity

- About 34 GW / 136 GWh of battery storage is expected to be installed by 2030, according to the Central Electricity Authority of India.
- This capacity would be used for RE integration, demand-side and peak load management services.

## Storage challenges

- Advanced battery technologies have a tremendous commercial opportunity in the solar sector.
- Manufacturers, on the other hand, still have work to do in terms of overcoming technical limits of batteries, such as charging characteristics, thermal performance, and the need for boost current to charge deep cycle batteries.
- Because solar enterprises may purchase batteries directly from manufacturers and demand after-sales services and technical support, battery makers should have a larger presence to meet these needs.

## Other key challenges

- Rooftop solar doesn't keep pace with India's growing renewable energy sector.
- While industrial and commercial customers account for 70% of total installed capacity, there is still a lot of untapped potential for residential customers to help.
- Solar rooftops also face a number of obstacles, including low consumer awareness, a lack of new government policies or attention, regulatory headaches, and discom support.

## Way forward

- For the sector to reach its full potential, it will require supportive policies and creative technology approaches.
- Rooftop solar with storage, rather than rooftop solar with the grid as storage (net/gross metering), is what Indian policymakers should plan for.
- The Indian power sector's future is anticipated to be altered by the dropping cost of storage options, as well as rooftop solar solutions.
- Several countries have already embraced solar power with battery storage, including Australia, the United States, and Germany, among others.
- As a result, energy storage represents a significant economic opportunity for India.
- India's opportunity for profound economic and industrial transformation in a key and fast-growing global market might be cemented if a favourable battery manufacturing ecosystem can be quickly established.

## Service Exports from India Scheme (SEIS)

The Directorate General of Foreign Trade has imposed a cap on the total entitlement under the Services Exports from India Scheme (SEIS) at Rs 5 crore per exporter for shipments done in 2019-20 (FY20). The move is expected to benefit small businesses in the services sector.

## About SEIS

- The Service Exports from India Scheme (SEIS) attempts to promote service shipments from India by offering duty scrip credit to qualifying exports.
- Service providers in India would be paid under

the SEIS scheme for all qualifying services exported from India.

- Previously, SEIS was known as the Served from India Scheme (SFIS).

## Eligibility

- The Service Exports from India Scheme is open to providers of specified services who are based in India.
- To be eligible for duty credit scrips, a service provider (Company/LLP/Partnership Firm) must have a minimum net free foreign exchange profits of USD 15000 in the previous financial year.
- To be eligible for the plan, proprietorships or individual service providers must have earned a minimum of USD10,000 in net foreign exchange earnings in the previous financial year.
- In addition, in order to be eligible for a reward under the SEIS system, the service provider must hold an active Import Export Code (IE Code) at the time of providing the services for which awards are sought.

## GI in news: Goa Cashew Feni

The Goa government's Feni Policy 2021 has paved the way to take the state's 'heritage drink' forward.

### Goa Cashew Feni

- Feni is an Indian spirit made in Goa.
- Cashew feni and toddy palm feni are the two most common types of feni, based on the original ingredient; however, many other varieties are available.
- Feni distilleries are often run by families, and the drink's history dates back to at least 1585.

- When compared to feni made in North Goa, the feni drunk in South Goa has a greater alcohol concentration (43-45 percent abv).

## What are Electronic Gold Receipts?

The board of the Securities and Exchange Board of India (SEBI) has approved the framework for a gold exchange as well as for vault managers. This approval paves the way for gold exchanges to be set up for trading in 'Electronic Gold Receipt' (EGR).

### What is EGR?

- According to SEBI's concept paper, actual gold would be exchanged for an electronic gold receipt, which would be stored with a vault manager (similar to a depository participant) and subsequently traded.
- The government wants India's disproportionate dominance in the physical gold market to be mirrored in the financial gold market.

## HOW IT WORKS

➤ Investors can buy **electronic receipts** for gold kept in vaults

➤ These e-receipts could be **traded on exchanges**

➤ These could also be **exchanged for physical gold** at authorised vaults



➤ Govt has also allowed fund houses to launch **silver ETFs**

### Why need EGRs?

- EGI is a technique of persuading people to sell their gold rather than keep it by creating an exchange with clear price and liquidity (to cash

or back to gold).

- India is a net gold importer. We are not price setters, but rather price takers. The goal is to transition from price takers to price setters.
- As a result of price discovery on the exchanges, gold pricing will become more transparent.

### What is the SEBI regulation?

- A regulatory framework for establishing a gold exchange has also been proposed by SEBI.

- Existing stock exchanges will be permitted to provide a trading platform for EGRs.
- The stock market, with SEBI's approval, shall choose the denomination for EGR trading and conversion into gold.
- The clearing corporation will settle stock exchange transactions by transferring EGRs and monies to the buyer and seller, respectively.

## Enviro & Diversity

### Ladakh adopts State Animal and Bird



Ladakh has adopted two endangered species, snow leopard and black-necked crane, as State animal and State bird, two years after it was carved out as a separate Union Territory (UT) from the erstwhile State of J&K.

#### Snow Leopard

- The snow leopard (*Panther unica*) and the black-necked crane are both endangered species (*Grus nicricollis*).
- The International Union for Conservation of Nature has classified the snow leopard as

"vulnerable" because its populations are declining around the world.

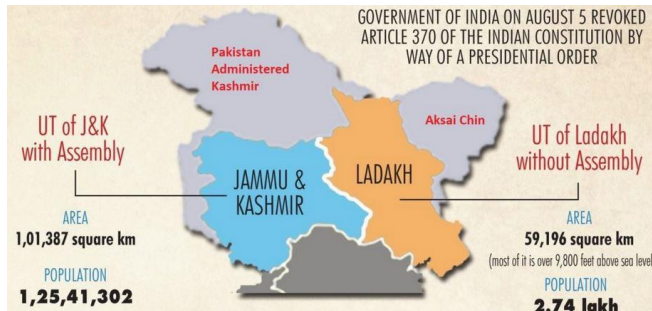
- There are around 7,500 snow leopards left in the world, with 500 in India.
- Snow leopards are thought to number between 200 and 300 in Ladakh alone, according to experts.

#### Black-necked Crane

- The black-necked crane can be found in the high-altitude ponds and marshes of eastern Ladakh.
- On the red list of the International Union for Conservation of Nature (IUCN), it is mostly classified as Near Threatened.
- They are exclusively found in Ladakh's Changthang region and are considered faithful partners. They arrive in March to breed and go by the end of October or early November.
- Before August 5, 2019, it was the state bird of J&K.



## About Ladakh



- Following the enactment of the Jammu and Kashmir Reorganization Act on October 31, 2019, Ladakh became an Indian union territory.
- It was previously a part of the state of Jammu and Kashmir. Ladakh is India's largest and second-most populous union territory.
- It stretches from the Karakoram range's Siachen Glacier to the main Great Himalayas in the south.
- The desolate Aksai Chin plains, on the eastern edge, are claimed by the Indian government as part of Ladakh and have been under Chinese administration since 1962.
- Leh is the largest town in Ladakh, followed by Kargil, both of which have district headquarters.
- The Indus, Shyok, and Nubra river valleys are all located in the Leh district. The Suru, Dras, and Zaskar river valleys are all located in the Kargil district.

## Behler Turtle Conservation Award

Indian biologist Shailendra Singh has been awarded the Behler Turtle Conservation Award for bringing three critically endangered turtle conservation species back from the brink of extinction.

## Behler Turtle Conservation Award

- The Award recognises distinction in tortoise and freshwater turtle conservation and biology, as well as leadership in the chelonian conservation and biology community, on a yearly basis.
- The Turtle Survival Alliance (TSA) and the IUCN/SSC Tortoise and Freshwater Turtle Specialist Group (TFTSG), among others, are co-sponsoring the event.
- It is often regarded as the turtle conservation and biology "Nobel Prize."

## Citation for the 2021 Award

- Dr. Singh and his team's efforts represent the final hope for several species in the country, such as the Red-crowned Roofed Turtle (*Batagur kachuga*), Northern River Terrapin (*Batagur baska*), and Black Softshell Turtle (*Nilssonina nigricans*).
- There are few people who have made such significant contributions to turtle conservation in just 15 years.

## Turtles in India

- The Sunderbans' Northern River Terrapin (*Batagur baska*), Chambal's Red-crowned Roofed Turtle (*Batagur kachuga*), and Assam's Black Softshell Turtle (*Nilssonina nigricans*) are all being protected.
- TSA India's research, conservation breeding, and teaching programme in many parts of the country is helping to save these critically endangered turtles.
- The country is home to 29 different kinds of freshwater turtles and tortoises.

## About Turtle Survival Alliance (TSA)

- The TSA was founded in 2001 as a partnership between the International Union for Conservation of Nature (IUCN) and the Turtle Survival Alliance (TSA) for the long-term captive

management of freshwater turtles and tortoises.

- The Asian Turtle Crisis prompted the formation of this coalition in reaction to the widespread and unsustainable harvesting of Asian turtle populations to supply Chinese markets.

## Dinosaur Footprints found in Thar desert

In a major discovery, footprints of three species of dinosaurs have been found in the Thar desert in Rajasthan's Jaisalmer district.

### Details of the footprints

- Footprints left in the sand or silt at the seaside become permanently stone-like over time.
- Eubrontes cf. giganteus, Eubrontes glenrosensis, and Grallator tenuis are the three dinosaur species they belong to.
- The footprints of the giganteus and glenrosensis species are 35 cm long, whereas the footprint of the third species is only 5.5 cm long.
- Theropod dinosaurs have hollow bones and three-digited feet, which separate them from other dinosaurs.
- All three species were carnivorous and lived in the early Jurassic period.
- Eubrontes could have been 12 to 15 metres long and weighed 500 to 700 kilogrammes, while the Grallator's height was estimated to be two metres, equivalent to a person, with a length of up to three metres.

### Key findings

- Dinosaur footprints discovered in the western portion of the state, which formed the Tethys Ocean's beach during the Mesozoic era, confirm

the presence of the huge reptiles.

- The scientists were able to identify ancient conditions in which the footprints' rocks, which were previously soft sediments, were deposited thanks to careful geological investigations.
- The hinterland climate was seasonal to semi-arid during the deposition of the footprints, according to geochemical investigations and weathering indices.
- According to fieldwork in the Kutch and Jaisalmer basins, the sea level altered multiple times after the big incursion during the early Jurassic period.
- This phenomena was indicated by the spatial and chronological distribution of sediments, signs of fossils, and post-depositional structures.

### Significance

- These trace fossils are important for determining how life began and evolved following the great extinction of species, including dinosaurs, roughly 65 million years ago at the end of the Cretaceous epoch.
- This study also demonstrates the occurrence of a tropical palaeoclimate and a fluvial freshwater palaeoenvironment, indicating the presence of a tropical forest and a vast network of rivers.

### Q. The term "sixth mass extinction" is frequently used in the news in connection with the topic of

(a) In many regions of the world, widespread monoculture practises agriculture and large-scale commercial farming with indiscriminate chemical usage may result in the destruction of good native ecosystems.

(b) Fears of a meteorite colliding with the Earth in the near future, similar to what happened 65 million years ago, resulting in the extinction of countless species,

including dinosaurs.

(c) The widespread cultivation of genetically modified crops in many regions of the world, as well as the promotion of their cultivation in other parts of the world, which may result in the extinction of good native crop species and a loss of food biodiversity.

(d) Human over-exploitation/misuse of natural resources, natural habitat fragmentation/loss, ecological damage, pollution, and global climate change.

## Gulf of Mexico

An oil spill spanning at least 10 miles has been captured by satellite imagery in waters off the Louisiana coast near the Gulf of Mexico.

### Gulf of Mexico

- The Gulf of Mexico is an Atlantic Ocean ocean basin and marginal sea that is mostly encompassed by the North American continent.
- The Gulf Coast of the United States borders it on the northeast, north, and northwest; the Mexican states of Tamaulipas, Veracruz, Tabasco, Campeche, Yucatan, and Quintana Roo border it on the southwest and south; and Cuba borders it on the southeast.
- Texas, Louisiana, Mississippi, Alabama, and Florida, which border the Gulf of Mexico on the north, are known as the United States' "Third Coast" (in addition to its Atlantic and Pacific coasts).
- As a result of generations of oil extraction, it is covered with a labyrinth of pipes, wells, and other energy infrastructure, much of which is no longer in use.

### Its formation

- The Gulf of Mexico was formed by plate tectonics roughly 300 million years ago.
- Sedimentary rocks and recent sediments make up its floor.
- The Florida Straits between the United States and Cuba connect it to the Atlantic Ocean, and the Yucatán Channel between Mexico and Cuba connects it to the Caribbean Sea.
- The Gulf of Mexico has very limited tidal ranges due to its tight link to the Atlantic Ocean.

## Qeqertaq Avannarleq Island

A group of researchers who went out to collect samples off the coast of Greenland in July found themselves on a tiny, uninhabited and previously unknown island.

### Qeqertaq Avannarleq

- Measuring 60×30 metres and with a peak of three metres above sea level, it has now become the new northernmost piece of land on Earth.
- Before this, Oodaaq was marked as the Earth's northernmost terrain.
- The new island is made up of seabed mud and moraine, i.e. soil, rock and other material left behind by moving glaciers, and has no vegetation.
- The group has suggested the discovery be named 'Qeqertaq Avannarleq', which is Greenlandic for "the northernmost island".

**LOCATION OF MOST NORTHERN ISLAND**

The northernmost island in the world has been discovered by accident, according to scientists who were collecting samples off coast of Greenland



- Tarballs are normally the size of a dime and can be found strewn across beaches. Some of the balls are the size of basketballs, while others are globules.
- However, they have grown to be as large as basketballs and can weigh up to 6-7 kgs.

**How are tarballs formed?**

- Wind and waves tear the oil slick into smaller patches that are scattered over a much wider area.
- Various physical, chemical and biological processes (weathering) change the appearance of the oil.

**Q. How this island came to existence?**

**Ans.** Undoubtedly, climate change in Greenland

- Global warming has had a severe effect on the ice sheet of Greenland.
- The new island, which was exposed by shifting pack ice, is, however, not a direct consequence of climate change.



**Why are tarballs found on the beaches during the monsoon?**

- The oil is thought to originate from huge cargo ships in the deep sea, which are forced to the shore as tarballs during the monsoon due to wind speed and direction.
- During the monsoon season, when wind speed and circulation patterns favour transportation of these tarballs, all oil spilled in the Arabian Sea is eventually deposited on the western coast in the form of tarballs.

**Tarballs on Mumbai Coast**

A beach in South Mumbai, saw black oil-emanating balls lying on the shore.

**What are Tarballs?**

- When crude oil floats on the water surface, it forms tarballs, which are dark-colored, sticky balls of oil.
- Weathering of crude oil in maritime conditions produces tarballs.
- Sea currents and waves move them from the open sea to the beaches.

**Pseudo-melanism in Tigers of Simlipal**



A team of scientists has resolved the genetic mystery of Simlipal's so-called black tigers.

### What are Black Tigers?

- Tigers have a striking dark stripe pattern on a light white or golden backdrop.
- In both wild and captive populations, an unusual pattern variant characterised by expanded and merged stripes has been discovered.
- This is referred to as pseudo-melanism, as opposed to true melanism, which is characterised by an abnormally high deposition of melanin, a dark pigment.
- A single mutation in Transmembrane Aminopeptidase Q (Taqpep), a gene responsible for identical features in other cat species, is connected to this pseudo-melanism.

### Where are they mostly found?

- While true melanistic tigers have yet to be discovered, pseudo-melanistic tigers have been photographed repeatedly and exclusively in Simlipal, an Odisha tiger sanctuary of 2,750 square kilometres, since 2007.

- The study, which began in 2017, was the first to look at the genetics of this uncommon condition (appearance).

### Why they are rare?

- Mutants are genetic mutations that can develop spontaneously in nature, but do so seldom.
- A cub inherits two copies of each gene from both parents, and a recessive gene can only appear when the dominant gene is absent.
- To have a one-in-four chance of having a black cub, two normal-pattern tigers bearing the recessive pseudo-melanism gene will have to breed together.
- However, recessive genes are uncommon, and it's improbable that two unrelated tigers will share one and pass it down to a cub.

### Connection with Simlipal TR

- In an ideal tiger environment, where wide-ranging individuals never run out of spouses, a succession of black tigers would be rare.
- A black tiger may succeed in a very tiny population that is forced to inbreed in isolation for generations in extraordinary conditions.
- That's exactly what happened at Simlipal, as it turned out.
- Pseudo-melanistic tigers have been born in captivity in three Indian zoos: Nandankanan (Bhubaneswar), Arignar Anna Zoological Park (Chennai), and Bhagwan Birsa Biological Park (Ranchi).

### What about natural selection?

- Natural selection weeds out the weaker individuals from a gene pool, while the features of the more successful individuals are handed down.

- According to the study, melanistic leopards are more common in darker tropical and subtropical forests than in drier open habitats.
- In Simlipal's tropical moist deciduous and semi-evergreen closed-canopy forest with a substantially darker understory, darker coats may give a selection advantage in both hunting and avoiding hunters.

*Q. Two important rivers – one with its source in Jharkhand (and known by a different name in Odisha), and another, with its source in Odisha – merge at a place only a short distance from the coast of Bay of Bengal before flowing into the sea. This is an important site of wildlife and biodiversity and a protected area.*

*Which one of the following could be this?*

- (a) Bhitarkanika
- (b) Chandipur-on-sea
- (c) Gopalpur-on-sea
- (d) Simlipal

## Sea Cucumber

In a swift operation, the Indian Coast Guard (ICG) at Mandapam, Tamil Nadu seized two tonnes of sea cucumber, a banned marine species.



## Sea Cucumbers

- Sea cucumbers are members of the echinoderm

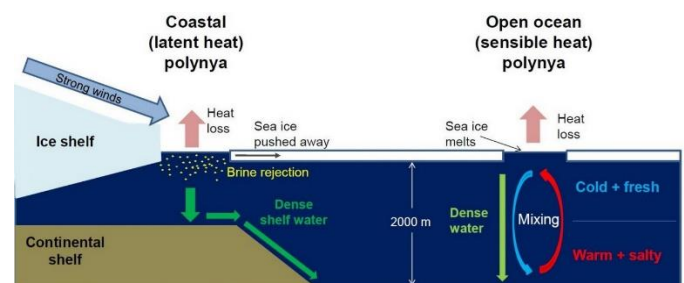
family, which also includes starfish and sea urchins.

- Their body is shaped like a cucumber, but they have little tentacle-like tube feet that they use to move around and feed.
- Sea cucumbers can confuse or damage predators by ejecting their own toxic internal organs from their bodies and directing them toward an attacker.
- The organs regenerate, which could spare them from being eaten.
- They may be found in almost all marine settings around the world, from shallow to deep water.
- They are benthic, which means they live on the seabed. Their larvae, on the other hand, are planktonic, which means they float in the ocean with the currents.

## Conservation status

- In India, the sea cucumber is classified as an endangered species under Schedule I of the Wildlife Protection Act of 1972.
- It is primarily smuggled into Sri Lanka by fishing vessels from the districts of Ramanathapuram and Tuticorin in Tamil Nadu.

## Arctic ice is disappearing: How clouds interact with sea ice change



Temperatures in the Arctic, for example, have been

rising much faster than the rest of the planet. Experts, for the longest time, have attributed the crisis to how clouds interact with sea ice, essentially frozen seawater.

### Role of Polynya

- Losses in Arctic Sea ice cover enable for the production of more clouds at the ocean's surface, according to decades of studies.
- NASA has discovered that a huge hole in sea ice known as a polynya releases more heat and moisture, which drives the creation of additional clouds.
- This retains heat in the atmosphere and prevents new sea ice from forming.

### What is Polynya?

- A polynya is an area of open water surrounded by sea ice.
- It is now used as a geographical term for an area of unfrozen seawater within otherwise contiguous pack ice or fast ice.
- It refers to a natural ice hole and was adopted in the 19th century by polar explorers to describe navigable portions of the sea.
- There are two main types of polynyas:
  1. **Coastal polynyas**, which can be found year-round near the Antarctic and Arctic coasts and are mainly created by strong winds pushing the ice away from the coast, and
  2. **Mid-sea or open-ocean polynyas**, which may be found more sporadically in the middle of an ice pack in certain locations, especially around Antarctica.

### What is the new research about?

- According to the study, low clouds over the polynya emitted more energy or heat than clouds in nearby sea ice-covered areas.

- The polynya did refreeze, but only after a week of increased cloud cover and warmth beneath the clouds.
- After the polynya froze, the extra clouds and increased cloud radiative effect on the surface lingered for a while.
- The sea ice functions as a barrier between the comparatively warm ocean surface and the cold, dry atmosphere above, allowing more heat and moisture from the ocean to be released into the sky.
- The expansion of sea ice is slowed by this warming.

### Why Cyclone Gulab could give rise to another cyclone?

As a very rare occasion during monsoons, Cyclone Gulab has been developed in the Bay of Bengal and later made landfall close in Andhra Pradesh.

Tauktae, Amphan, Fani, Titli, Bulbul, Gaja... And now Gulab. As and when cyclones with intriguing names approach the Indian coasts, a common question comes to our minds: Who names these storms? This time it is Pakistan, not India, who proposed this name Gulaab!

### About Tropical Cyclones

- A tropical cyclone is a rapidly rotating storm system with a low-pressure centre, a closed low-level air circulation, strong winds, and a spiral of thunderstorms that produce heavy rains.
- A tropical cyclone is known by various names depending on its location and strength, including hurricane, typhoon, tropical storm, cyclonic storm, tropical depression, or simply cyclone.

- A hurricane is a tropical cyclone that forms in the Atlantic and northeastern Pacific Oceans, while a typhoon forms in the northwestern Pacific Ocean.
- Similar storms in the south Pacific or Indian Ocean are simply referred to as "tropical cyclones" or "strong cyclonic storms."

## Cyclone Gulab

- The emergence of a low-pressure system, the in-sync phase of the Madden Julian Oscillation (MJO), and warm sea surface temperatures over the Bay of Bengal are three factors.
- Even as the system got closer to the south Odisha – north Andhra Pradesh coast, where it also made landfall, the system intensified quickly, going from low pressure to well-marked low pressure, depression, deep depression, and finally Cyclone Gulab.

## What makes Gulab special?

- The cyclone season in India occurs twice a year, from March to May and October to December. Cyclones do, on rare occasions, strike between the months of June and September.
- Cyclones are less prevalent during the monsoon season, which lasts from June to September, because there are few or no suitable circumstances for cyclogenesis due to strong monsoon currents.
- This is also the time of year when wind shear — the difference in wind speeds between lower and upper air levels — is at its peak.
- As a result, clouds do not rise vertically, and monsoon depressions rarely become cyclones.
- As a result, it can be said that the cyclone season started earlier this year than usual. Cyclone Day in 2018 was the last time a cyclone formed in the Bay of Bengal in September.

## Probe shows use of toxic material in firecrackers: Supreme Court

**Toxic fumes** | The Supreme Court has repeatedly raised concerns over the use of harmful chemicals in the manufacture of firecrackers

**Under the scanner:** Firecrackers stacked for sale at a shop in Tamil Nadu. ■ FILE PHOTO

**July 2017:** Supreme Court bans use of five chemicals — anti-mony, lithium, mercury, arsenic and lead — labelled as toxic by the Central Pollution Control Board, in firecrackers

**Oct. 2018:** SC bans use of firecrackers that are loud and toxic, and permits only “green or reduced-emission” ones. Ban follows petition filed by two infants through their fathers, flagging air pollution

**March 2020:** Court orders CBI Joint Director in Chennai to probe violation of the 2018 ban

Every day there is a celebration, but you should also be mindful of the people living around you... people who have asthma  
JUSTICE M.R. SHAH

The Supreme Court has said a preliminary enquiry by the CBI into the firecracker industry, including in Tamil Nadu, revealed rampant violation of its ban on use of toxic ingredients like Barium and its salts.

## Air Pollution created by firecrackers

- The amount of dust and contaminants in the air increases when crackers are lit.
- The fine dust particles settle on the surrounding surfaces, which are laden with chemicals such as copper, zinc, sodium, lead, magnesium, and cadmium, as well as pollutants like as sulphur and nitrogen oxides.
- These invisible but dangerous particles have an impact on the environment, putting our health at risk.



## Harmful elements used

- Copper is a mineral that irritates the respiratory tract.
- Cadmium reduces the capacity of blood to carry oxygen, resulting in anaemia.
- Zinc: Induces vomiting and can produce metal fume fever.
- Lead is toxic to the nervous system.
- Magnesium fumes are the cause of metal fume fever.
- When coupled with moisture, sodium is a highly reactive element that causes burns.

## Why is the issue in news now?

### Ans. Barium content

- A chemical analysis of the samples of finished and semi-finished firecrackers and raw materials taken from the manufacturers showed Barium content.
- The court stated that loose quantities of Barium were purchased from the market.

- Also, firecracker covers did not show the manufacture or expiry dates.

## Issues with Barium

- Barium nitrate, which emits green flames when a cracker is lit, is a metal oxide that increases both air and noise pollution.
- There is no clarity on whether barium nitrate can actually be used or not.

## Alternatives: Green Crackers

- Traditional firecrackers contain barium nitrate, which is absent from the new CSIR-NEERI formulation for green crackers.
- “Safe water releaser (SWAS),” “safe minimal aluminium (SAFAL),” and “safe thermite cracker (STAR)” are the names given to these crackers.
- As a dust suppressant and diluent for gaseous emissions, the three crackers discharge water vapour or air.
- Only those who have signed a non-disclosure agreement (NDA) with CSIR-NEERI are allowed to manufacture these products.

# Governance

## Antimalarial drug resistance in India

In recent years there is increasing evidence for the failure of artemisinin-based combination therapy for falciparum malaria either alone or with partner drugs.

### What is Malaria?

- Malaria is transmitted through the bite of a female Anopheles mosquito that has been infected with the malaria parasite.

- Plasmodium falciparum, Plasmodium vivax (the most common), Plasmodium malariae, Plasmodium ovale, and Plasmodium knowlesi are the five types of malaria parasites.
- As a result, if someone has contracted the Plasmodium ovale kind of malaria, it signifies they have been infected with that parasite.

### Burden of Malaria in India

- According to the National Vector-borne Disease Control Programme (NVBDCP), roughly 5 lakh

persons were infected with malaria in 2018.

- Plasmodium falciparum was found in 63 percent of the patients.
- According to the World Malaria Report 2020, India's malaria incidences decreased from almost 20 million in 2000 to around 5.6 million in 2019.

## Treatment of Malaria

- To kill the parasite, malaria is treated using prescription medications. For every parasite that is sensitive to the medicine, chloroquine is the favoured treatment.
- Artemisinin-based antimalarial medications are the first-line treatment for malaria in most malaria-endemic countries, including India.
- This is particularly true in the case of the Plasmodium falciparum parasite, which is responsible for nearly all malaria-related deaths worldwide.

## Why in news now?

- Artemisinin resistance has been reported in East Africa, which is a cause for concern because it is the sole drug that has saved many lives around the world.
- Artemisinin-based combination therapy was first launched in India in 2008, following the failure of chloroquine to effectively treat P. falciparum malaria.
- In India, various combinations of artemisinin derivatives are currently registered.

## Artemisinin-based combination therapy failure in India

- A report from Eastern India in 2019 found two alterations in P. falciparum cases treated with artemisinin, which were connected to the occurrence of resistance.

- In 2021, another failure of artemisinin-based combination therapy was reported from Central India, this time with the partner medication SP showing triple mutations with artemisinin wild type.
- This suggests that the failure of artemisinin-based combination therapy may be due to factors other than artemisinin. It is necessary to modify the partner medicine in this case, as was done in the Northeast states in 2013.

## History of drug resistance

- Chloroquine resistance was discovered in the 1950s.
- Resistance to chloroquine and pyrimethamine evolved in Southeast Asia and spread to India and eventually Africa, with terrible effects.
- Artemisinin resistance also arose in the six Southeast Asian countries and spread to other continents, as seen in India and Africa.
- It is not out of the realm of possibility that artemisinin is pursuing the same path as chloroquine.
- Now is the time to conduct Molecular Malaria Surveillance in order to identify drug-resistant variations so that corrective actions can be implemented in time to avoid any negative repercussions.
- When the partner medicine is less effective, some experts suggest employing triple artemisinin-based combination therapy.

**Q. Widespread resistance of malarial parasite to drugs like chloroquine has prompted attempts to develop a malarial vaccine to combat malaria.**

**Why is it difficult to develop an effective malaria vaccine?**

*(a) Malaria is caused by several species of Plasmodium*

(b) Man does not develop immunity to malaria during natural infection

(c) Vaccines can be developed only against bacteria

(d) Man is only an intermediate host and not the definitive host

## History

### Visva-Bharati University



The Calcutta High Court has directed that there can be no protest by the students within 50 meters of academic buildings at Visva-Bharati University.

### Visva-Bharati

- Visva-Bharati University is a central research university and a Nationally Important Institution in Shantiniketan, West Bengal, India.
- Rabindranath Tagore formed it and named it Visva-Bharati, which means "global connection with India."
- It was a college until the country gained independence.
- In 1951, the institution was accorded the status of a central university by an act of Parliament, shortly after independence.

### Its history

- The institution began in 1863, when the zamindar of Raipur, zamindar of Kirnahar,

presented Debendranath Tagore with a plot of land.

- He established an ashram in the town's centre, which has since become known as chatim tala.
- Brahmacharya Ashram was the original name of the ashram, which was later changed to Brahmacharya Vidyalaya.
- It was built with the intention of attracting individuals from all walks of life to come to the location and meditate.
- Rabindranath Tagore, his youngest son, founded a co-educational school on the ashram grounds in 1901.
- Tagore utilised the ashram to organise the Hindu Mela from 1901 onwards, which quickly became a hub of nationalist movement.

### Thamirabarani Civilization is 3200 years old

## URN FROM 1155 BCE

➤ Carbon dating showed paddy found in burial urn at Sivakalai in Thoothukudi district belonged to 1155 BCE

➤ Thamirabarani river starts in Pothigai hills of Western Ghats in Ambasamudram taluk, flows through Tirunelveli and Thoothukudi districts and empties at Korkai (Tirunelveli district) into Gulf of Mannar

A carbon dating analysis of rice with soil, found in a burial urn at Sivakalai in Thoothukudi district of Tamil Nadu has yielded the date of 1155 BC, indicating that the Thamirabarani civilization dates back to 3,200 years.

### About Thamirabarani River



- The Thamirabarani, Tamraparni, or Porunai is a perennial river that flows from the Western Ghats' Agastyarkoodam peak in the Pothigai highlands.
- It runs into the Gulf of Mannar through the districts of Tirunelveli and Thoothukudi in the Tamil Nadu state of southern India.
- In the pre-classical time, it was known as the Tamraparni River, and it was named after the island of Sri Lanka.
- Porunai is the historical Tamil name for the river.

### Its history

- Tamrapararni, Tamirabarni, and Tamiravaruni are only a few of Tan Porunai's various names.
- Tan Porunai nathi is mentioned in ancient Sangam Tamil literature Purananuru by traditional Tamil poets.

- The river was famous in the Early Pandyan Kingdom for its pearl and conch fisheries and trade, and was described as a holy river in Sanskrit literature such as the Puranas, Mahabharata, and Ramayana.
- The passage of people from Tamraparni river to northern Sri Lanka, including the devout, trade merchants, and toddy tapers, resulted in the region's name being shared.
- The treatise Tamraparni Mahatmyam is an important historical text on the river.
- Along its banks, there are numerous old temples. On the northern bank of the river, there is a hamlet known as Appankoil.

## Significance of the carbon dating

- This has revealed that a city civilisation existed in south India as far back as 3,200 years ago, during the Indus Valley Civilisation's final stages.
- The site's proximity to the ancient port of Muziris, now known as Pattanam in Kerala, adds to the site's trading history.
- To establish the Tamils' trading links with these countries, research will be performed at Quseir al-Qadim and Pernica Anekke in Egypt, which were previously part of the Roman empire, as well as Khor Rori in Oman.
- In these countries, potsherds with Tamil script have been discovered.
- Studies would also be conducted in Southeast Asian countries where King Rajendra Chola had established supremacy, such as Indonesia, Thailand, Malaysia, and Vietnam.

## 124 years of the Battle of Saragarhi

This September 12 marks the 124th anniversary of the Battle of Saragarhi that has inspired a host of armies,

books and films, both at home and abroad.



## What is the Battle of Saragarhi?

- The Battle of Saragarhi is regarded as one of the greatest last stands in international military history.
- Despite being placed against nearly 8,000 Afridi and Orakzai tribals, twenty-one soldiers were able to hold the fort for seven hours.
- Despite being outmanned, the soldiers of the 36th Sikhs (now 4 Sikhs), headed by Havildar Ishar Singh, battled till they died, killing 200 tribals and wounded 600 others.

## What was Saragarhi, and why was it important?

- Between Fort Lockhart and Fort Gulistan, Saragarhi served as a communication tower.
- The two forts in Pakistan's harsh North-West Frontier Province (NWFP) were built by Maharaja Ranjit Singh, but the British renamed them.
- Saragarhi was normally manned by a platoon of 40 soldiers, but on that fatal day, only 21 soldiers from the 36th Sikh (now 4 Sikh) and a non-combatant named Daad, a Pashtun who did odd chores for the military, were present.
- Saragarhi served as a link between two significant forts in the NWFP that housed a considerable number of British troops.
- Families of British officers lived at Fort Lockhart.

## What transpired on that day?

- The guard at Saragarhi noticed a heavy veil of dust around 9 a.m. that day and quickly understood it was caused by a massive army of tribals marching towards the fort.
- The 8,000 and 15,000 tribals wanted to shut off connection between the two forts in order to isolate them.
- The Pathans had cut the supply line between Fort Lockhart and Saragarhi, which was unfortunate.

## Who was Havildar Ishar Singh who led the troops?

- Ishar Singh, Havildar, was born in a hamlet near Jagraon.
- In his late teens, he joined the Punjab Frontier Force and spent the majority of his time on several battlefields.
- Ishar was drafted into the 36th Sikhs shortly after it was created in 1887.
- He was in his early forties when he was assigned charge of the Saragarhi post on his own.
- Ishar Singh was a rogue who dared to defy his superiors, yet he was adored by his soldiers, for whom he was always willing to take risks.

## How was the news of the battle received in Britain?

- Making a departure from the tradition of not giving gallantry medals posthumously, Queen Victoria awarded the 21 dead soldiers — leaving out the non-combatant/
- They were awarded the Indian Order of Merit (comparable with the Victoria Cross) along with two 'marabas' (50 acres) and Rs 500 each.

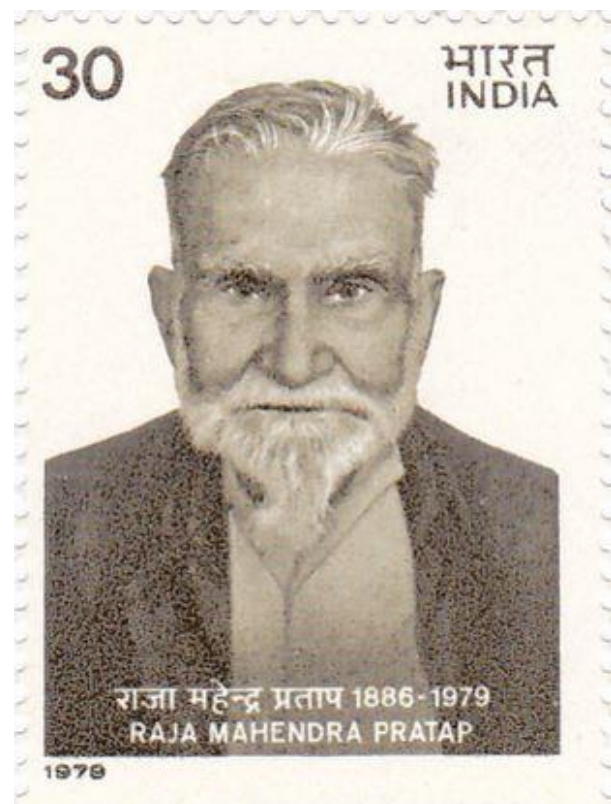
## How are the slain soldiers remembered?

- In 2017, the Punjab government decided to

observe Saragarhi Day on September 12 as a holiday.

- Even today the Khyber Scouts regiment of the Pakistani army mounts a guard and salutes the Saragarhi memorial close to Fort Lockhart.

## Raja Mahendra Pratap Singh



The PM has laid the foundation stone of Raja Mahendra Pratap Singh State University in Aligarh, Uttar Pradesh.

*UPSC is exploring deeper for social reformers involved in the freedom struggle. This is very much visible from the questions based on Rakhmabai, Gopal Baba Walangkar, Sakharam Deuskar etc. in CS Prelims 2020.*

## Raja Mahendra Pratap Singh (1886-1979)

- Raja Mahendra Pratap Singh was an Indian revolutionary, journalist, and writer who was

also a freedom fighter.

- He was President of the Provisional Government of India, which was based in Kaabul during World War I and operated as the Indian government in exile.
- During WWII, he also established the Executive Board of India in Japan in 1940.
- In 1911, he and his Muhammedan Anglo College classmates fought in the Balkan War.
- The Indian government honoured him with postage stamps in honour of his contributions. He is commonly referred to as "Aryan Peshwa."
- In 1932, he was nominated for the Nobel Peace Prize.

### Involvement in Swadeshi Movement

- He visited various Swadeshi movement leaders and decided to encourage small businesses that produce indigenous goods and employ local artisans.
- The words of Dadabhai Naoroji, Bal Gangadhar Tilak, Maharaja of Baroda, and Bipin Chandra Pal impacted him and helped him become a Swadeshi nationalist.

### Formation of provisional govt in exile

- Pratap created the first Provisional Government of India in Kabul, Afghanistan, on December 1, 1915, as a government-in-exile of Free Hindustan, with himself as President, Maulavi Barkatullah as Prime Minister, and Maulana Ubaidullah Sindhi as Home Minister, proclaiming jihad on the British.
- Pratap had an excellent rapport with Lenin as a result of his revolutionary beliefs, and Lenin invited him to Russia after its freedom and welcomed him.
- By this time, the British Government of India

had discovered his activities and had placed a price on his head, attached/confiscated his entire estate, and branded him a fugitive, forcing him to flee to Japan in 1925.

### Gupta Era Temple uncovered in UP



Last week, the Archaeological Survey of India (ASI) discovered remains of an ancient temple dating back to the Gupta period (5th century) in a village in Uttar Pradesh's Etah district.

### Findings of the excavation

- In 1928, the Bilsarh site was designated as "protected."
- The ASI does cleansing work at the protected sites once a year.
- The team discovered two beautiful pillars adjacent to one another this year, each containing human figurines that resembled an ancient temple.
- The temple stairs bore 'shankhalipi' inscriptions, which archaeologists interpreted as 'Sri Mahendraditya,' the title of Kumaragupta I of the Gupta dynasty.

**Q. With reference to the period of Gupta dynasty in ancient India, the towns Ghantasala, Kadura and Chaula were well known as:**

- (a) ports handling foreign trade
- (b) capitals of powerful kingdoms
- (c) places of exquisite stone art and architecture
- (d) important Buddhist pilgrimage centres

### Who was Kumaragupta I?

- Kumaragupta I was the monarch of Ancient India's Gupta Empire.
- He appears to have held control of his inherited kingdom, which stretched from Gujarat in the west to the Bengal region in the east, as the son of Gupta emperor Chandragupta II and queen Dhruvadevi.
- Kumaragupta I governed north-central India for 40 years in the 5th century.
- Skandagupta, Kumaragupta I's son and successor, is widely regarded as the last of the great Gupta kings.
- Vikramaditya and Kramaditya were his new names.

### What is the Shankhalipi script?



- Shankhalipi, or "shell-script," is a name used by scholars to describe intricate spiral symbols that resemble conch shells or shankhas and are

thought to be Brahmi derivatives.

- They can be found in inscriptions from the 4th to the 8th centuries in north-central India.
- Shankhalipi and Brahmi are both stylized scripts that are mostly used for signatures and names.
- The inscriptions are made up of a tiny number of characters, implying that they are names, auspicious symbols, or a combination of the two.

### Chronology and meaning

- English scholar James Prinsep, the founding editor of the Journal of the Asiatic Society of Bengal, discovered the script on a brass trident in Uttarakhand's Barahat in 1836.
- A year later, he discovered two other comparable scripts in the Barabar Hills near Gaya's Nagarjuna complex of caves.
- The Mundeshwari Temple in Bihar, the Udayagiri Caves in Madhya Pradesh, Mansar in Maharashtra, and various cave sites in Gujarat and Maharashtra are also notable locations containing shell inscriptions.
- In reality, shell inscriptions have been found on the Indonesian islands of Java and Borneo.
- Scholars have attempted but been unsuccessful in deciphering shell script

### Battle of Chamkaur (1704)

The new Punjab CM represents the Assembly constituency of Chamkaur Sahib, which is of significance in Sikh history.

*For such history-related topics, one must not forget to note the contemporaries of a particular period.*



## The Battle of Chamkaur

- In May 1704, Wazir Khan, the Nawab of Sirhind, organised a combination of Mughals and hill rajas to lay siege to Anandpur Sahib in the hopes of capturing Guru Gobind Singh.
- After seven months of combat and significant casualties, the coalition troops promised the Guru and his followers a safe departure.
- The coalition's leaders promised not to hurt the Guru, his family, or his warriors.
- The peace pact was sent in Emperor Aurangzeb's own name.
- On the night of December 20, however, Gobind Singh and his followers were ambushed as they stepped out of the Anandpur Sahib fort.
- In a battle with the Mughal and hill raja coalition armies, Guru Gobind Singh lost two of his elder sons.

## What happened at Chamkaur Sahib?

- The Guru gathered in a fortress-like two-story residence with thick compound walls built of mud, accompanied by panj piaras (the five Sikhs he had initially baptised), his oldest sons, and roughly 40 warriors.
- They were encircled by an army led by Wazir Khan and Sher Mohammed Khan, Malerkotla's chieftain's younger brother.

- For hand-to-hand battle, the Guru dispatched small groups of troops. His sons launched two similar raids, both of which resulted in their deaths.
- Mohkam Singh, Himmat Singh, and Sahib Singh, three panj piaras, also died in battle.

## How did the battle conclude?

- When there were only a few soldiers left, they agreed that the Guru should leave to continue his mission.
- The panj piaras issued an edict (hukumnama) ordering the Guru to vacate the Chamkaur fort.
- After the formation of the Khalsa on April 13, 1699, panj piaras issued their first decree.
- Sangat Singh, a Mazhabi Sikh who resembled the Guru, received his clothing and distinguishing kalgi from the Guru before he left.
- Three more troops exited the fort and went their separate ways. The enemy made their way inside the next day, finding only two troops who fought till their last breath.
- Guru Gobind Singh's two younger sons, ages nine and seven, were bricked alive after refusing to convert five days later.

# International Relations

## China's new Maritime Law



China's new maritime rules designed to control the entry of foreign vessels in what Beijing calls "Chinese territorial waters" take effect.

### What is the new Maritime Law?

- According to the new law, foreign vessels, both military and commercial, will be compelled to subject to Chinese control in "Chinese territorial waters."
- Submersibles, nuclear vessels, ships transporting radioactive materials, and ships transporting bulk oil, chemicals, liquefied gas, and other poisonous and harmful items are all required to provide specific information while visiting Chinese territorial waters.
- Vessels that "endanger China's marine traffic safety" must disclose their name, call sign, current position, next port of call, and expected arrival time.
- The identity of any dangerous products carried on board as well as the cargo deadweight will be required.

### Impact of the move

- The move is expected to have far-reaching implications for commercial and military vessels passing through the contested South China Sea,

East China Sea, and Taiwan Strait.

- It is expected to exacerbate regional tensions between the US and its neighbours.

### Why is this important?

- The South China Sea, which is shared by China, Taiwan, the Philippines, Brunei, Malaysia, Indonesia, and Vietnam, is of worldwide economic significance.
- Shipping: Its lanes see over one-third of all global shipping, and its seas are home to a number of major fisheries.

### Significance for India

- The South China Sea is an important military and commercial waterway for India.
- It aids in the effective procurement of energy supplies and facilitates India's trade with Japan, South Korea, and other ASEAN countries.
- The South China Sea and the Malacca Straits carry more than 55 percent of India's trade.
- India is also participating in offshore oil and gas drilling in the Sea's margins, which has resulted in standoffs with Chinese officials.

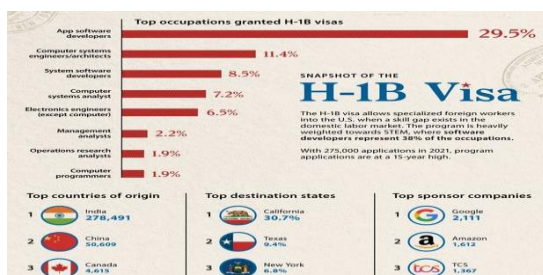
### The actual row

- The oceans surrounding China are a hotbed of conflict.
- China claims most of the South China Sea as its sovereign territory, according to a "nine-dash line" map.
- This claim is disputed by China's neighbours in the region, as well as the US, which, despite having no claim to the Sea, supports the smaller nations in their struggle against Chinese overreach.

### International position

- International maritime operations are currently governed by a treaty known as the United Nations Convention on the Law of the Sea (UNCLOS).
- UNCLOS is signed by China, India, and over a hundred other countries (the US, significantly, is not).
- As a result, states have the authority to enforce territorial claims up to a distance of 12 nautical miles from the coast.
- The UNCLOS also stipulates that all vessels have the right of “innocent passage” across the territory, which China's new rule disregards.

## What is H-1B Visa?



The need for H-1B visas will continue to exist till the ‘talent challenge’ is tackled globally, even though the information technology industry has successfully adopted the work-from-home model amid pandemic-related travel restrictions.

## Various US Visa Programs

### 1) H-1B visa

**What it is:** The H-1B visa category covers individuals who “work in a speciality occupation, engage in cooperative research and development projects administered by the US Department of Defense or are fashion models that have national or international acclaim and recognition.”

**Who’s covered:** The H-1B is most well known as a visa for skilled tech workers, but other industries, like health care and the media, also use these visas.

### 2) H-2B visa

**What it is:** According to USCIS, the H-2B program allows US employers or agents “to bring foreign nationals to the United States to fill temporary non-agricultural jobs.”

**Who’s covered:** They generally apply to seasonal workers in industries like landscaping, forestry, hospitality and construction.

### 3) J-1 visa

**What it is:** The J-1 visa is an exchange visitor visa for individuals approved to participate in work-and-study-based exchange visitor programs in the United States.

**Who’s covered:** The impacted people include interns, trainees, teachers, camp counsellors, au pairs and participants in summer work travel programs.

### 4) L-1 visa

**What it is:** The L1 Visa is reserved for managerial or executive professionals transferring to the US from within the same company, or a subsidiary of it. The L1 Visa can also be used for a foreign company opening up US operations.

**Who’s covered:** Within the L1 Visa, there are two subsidiary types of visas

- L1A visa for managers and executives.
- L1B visa for those with specialized knowledge.

**Polity**

**50th anniversary of Meghalaya’s Statehood**

The Meghalaya Assembly has given an indigenous touch to the National Anthem ahead of the 50th anniversary of Meghalaya’s Statehood in 2022.

**About Meghalaya**

- Meghalaya meaning “abode of clouds” was formed by carving out two districts from the state of Assam: the United Khasi Hills and Jaintia Hills, and the Garo Hills on 21 January 1972.
- It was previously part of Assam, but on 21 January 1972, the districts of Khasi, Garo and Jaintia hills became the new state of Meghalaya.
- It is the wettest region of India, with the wettest areas in the southern Khasi Hills recording an average of 12,000 mm (470 in) of rain a year.
- About 70 percent of the state is forested.
- The Meghalaya subtropical forests ecoregion encompasses the state; its mountain forests are distinct from the lowland tropical forests to the north and south.

**Note the chronology of reorganization states in India**

State	Formation Year	Status prior to the formation
Andhra	1953	Part of the state of Madras

State	Formation Year	Status prior to the formation
Gujarat	1960	Part of the state of Bombay
Maharashtra	1960	Part of the state of Bombay
Kerala	1956	State of Travancore and Cochin
Nagaland	1963	Union territory
Haryana	1966	Part of Punjab
Karnataka	1956	State of Mysore was formed in 1953, enlarged Mysore in 1956 which was renamed in 1973.
Himachal Pradesh	1971	Union Territory
Manipur, Tripura	1972	Union Territories
Meghalaya	1972	Autonomous state within state of Assam

State	Formation Year	Status prior to the formation	State	Formation Year	Status prior to the formation
Sikkim	1975	Associate state since 1974 and a protectorate of India before that.	Goa	1987	Union Territory
Mizoram	1987	District of Assam till 1972 and Union Territory from 1972 to 1987.	Uttarakhand	2000	Part of Uttar Pradesh
Arunachal Pradesh	1987	Union Territory	Chhattisgarh	2000	Part of Madhya Pradesh
			Jharkhand	2000	Part of Bihar
			Telangana	2014	Part of Andhra Pradesh

## Science Tech Art & Culture

### West Nile Virus outbreak in Russia

Russia warned of a possible increase in West Nile virus infections this autumn as mild temperatures and heavy precipitation create favorable conditions for the mosquitos that carry it.

#### West Nile virus (WNV)

- WNV is mostly spread by mosquito bites and can cause severe neurological illnesses in humans, though most infected persons show no symptoms.
- WNV cases are most common during mosquito season, which begins in the summer and lasts into the fall.

#### Its origin

- The WNV is a virus that originated in Africa and has since spread to Europe, Asia, and North America.
- In 1937, it was discovered in a woman in

Uganda's West Nile district.

- In 1953, it was discovered in birds in the Nile delta region.
- WNV was not considered a bird disease prior to 1997.
- WNV-related human infections have been recorded in numerous countries for over 50 years.

#### Symptoms

- Infected people frequently have no or only minor symptoms.
- Fever, headache, body aches, skin rash, and swollen lymph glands are some of the symptoms.
- They can last anywhere from a few days to several weeks and are usually self-resolving.
- Long-term sickness can induce encephalitis (inflammation of the brain) or meningitis

(inflammation of the tissue that surrounds the brain and spinal cord).

## Treatment

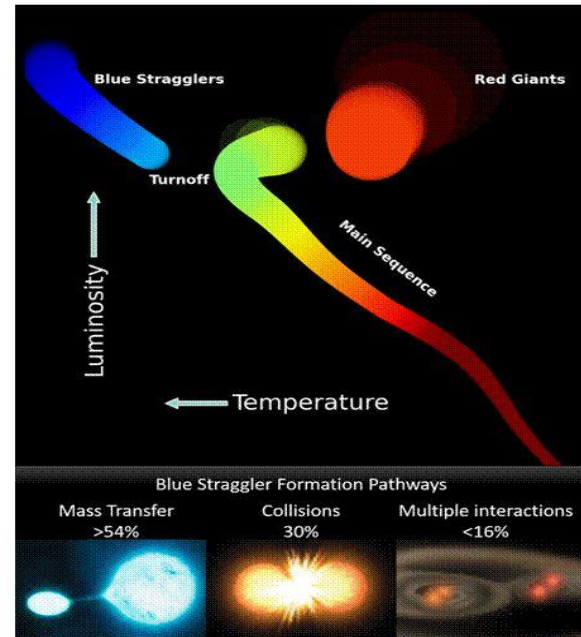
- There is no vaccine against the virus in humans although one exists for horses, the WHO says.

## Formation of Blue Straggler

Carrying out the first-ever comprehensive analysis of blue stragglers, Indian researchers found that half of the blue stragglers in their sample are formed through mass transfer from a close binary companion star.

## What are Blue Stragglers?

- A blue straggler in an open or globular cluster is a main-sequence star that is brighter and bluer than the cluster's main sequence turnoff point.
- Blue stragglers are most likely the result of stars colliding with another star or similar mass object when they get too close.
- As a result, the freshly formed star has a larger mass and is located on the HR diagram in a region filled with genuinely young stars.



## How are they formed?

- A star cluster is a group of stars born at the same time from the same cloud.
- Each star evolves differently throughout time, depending on its mass.
- The most massive and luminous stars evolve and travel away from the main sequence, causing a turnoff in their path.
- Above this bend, or brighter and hotter stars, are unlikely to be found in a cluster because they will depart the main sequence to become red giants.
- However, Allan Sandage discovered in 1953 that some stars appear to be hotter than the parent cluster's turnoff.

## Behind the nomenclature

- These blue stars remaining strewn over the turnoff were not originally part of the clusters.
- Later research verified that these stars are cluster members, and they were given the

name "Blue Stragglers."

- The only way these stars could still be found in these clusters is if they picked up some extra mass along the way on the main sequence.
- Confirming the causes of mass increase necessitated a study involving a large number of blue-straggler stars and mass calculations.

### What have Indian researchers found?

- According to research, these stars are mainly found in older and more massive star clusters. They are also separated towards the cluster's centre due to their huge mass.
- The researchers calculated the formation mechanisms by comparing the mass of the blue stragglers to the mass of the turnoff stars (the cluster's most massive "normal" stars).
- The research will aid in the better understanding of these stellar systems, resulting in intriguing new findings in studies of enormous stellar populations, such as galaxies.
- Following these observations, the researchers are examining the stellar parameters of individual blue stragglers in the database in detail.

### What is Wood Wide Web?

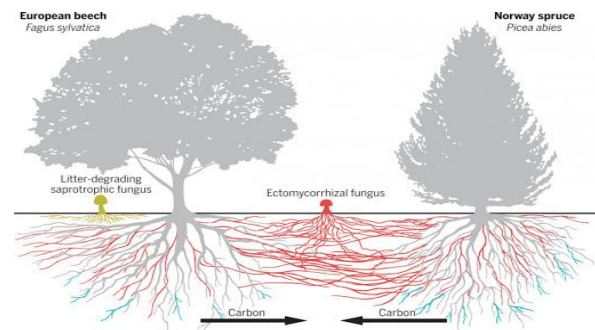
Plants appear to be simple enough in their organization. Whether small shrubs or tall trees, all they seem to be made up of is leaves, flowers, fruits, stems, and roots. But simple they are not.

#### Wood Wide Web

- The forest's trees share resources through an underground network.
- Dr. Suzanne Simard of the University of British Columbia discovered the network and named it

the wood wide web.

- Mycorrhizal fungi colonise plant roots in the wood broad web, and their microscopic fungal filaments, or mycelia, connect hairy root ends of different trees.
- As symbionts, mycorrhizal fungi play an important role in the root system of plants.
- Plants are unaffected by these root-associated fungus. Instead, they create symbiotic connections with plants that are mutually beneficial.



### An ancient association

- Plants and fungus have a long history together.
- The first evidence of roots may be found in plant fossils dating back to 400 million years, and these roots are fungal associations called rhizoids, implying that roots co-evolved with fungi.
- Penicillium species, the fungus from which Alexander Fleming derived the antibiotic penicillin, are a good example.
- Mycorrhizae, or fungus–root connections, appear to be simple mutualisms that benefit both parties at first appearance.
- The root-invading fungus feeds on the plant's nutrients, while the plants benefit from the microbe's supply of hard-to-find elements like phosphorus. However, there is a deeper

connection.

## How does it work?

- The wood wide network functions by creating a win-win situation for all parties involved, including mycorrhizal fungi and trees.
- In exchange for carbon-rich sugars produced by the plants, the fungal filaments transfer nitrogen, phosphorus, water, and other difficult-to-capture nutrients from the soil to the trees.
- The fungus also assist in the delivery of chemicals from one tree to its neighbours.
- Mature trees use the network to feed nutrients to young seedlings, increasing their chances of survival.
- When a plant is sick or dying, it can use the wood wide web to distribute nutrients to surrounding plants.

## Benefits offered

- Rhizobacteria are bacteria that connect with roots and are plant growth promoters in a wide range of species.
- Mutualism operates in these connections as well, just as it does in fungi. These bacteria provide a wide range of benefits to plants in exchange for carbohydrates.
- They may aid plants in warding off infections that cause root illnesses. They may even cause a disease to develop systemic resistance throughout the plant

## Inspiration4: SpaceX's first all-civilian space mission



SpaceX has announced its 'Inspiration4' mission, the first all-civilian, non-governmental spaceflight, for launch.

## What is Inspiration4?

- Inspiration4 is a fundraiser for a paediatric treatment and research hospital that specialises in children's catastrophic diseases, such as leukaemia and other cancers.
- The mission entails three days of orbiting the Earth before splashing into the Atlantic Ocean.
- Inspiration4 will orbit the Earth at a distance of 575 kilometres, exceeding the International Space Station (408 kilometres) and the Hubble Space Telescope (547km).
- This will be the longest journey by a crewed mission since 2009, when astronauts returned to repair the Hubble Space Telescope.
- The Dragon module that the party will be employing for the operation has also been updated.
- The SpaceX module is often used to travel to the International Space Station (ISS), where it must dock or join the floating laboratory..

## Key feature: Dome window

- Because Inspiration4 will not be visiting the International Space Station, the docking port has been removed and replaced with a dome



window.

- For the four travellers, this dome window will provide breathtaking views of the Earth.
- The window was inspired by the Cupola, a module on the International Space Station that conducts observations of our world.

### Why is the mission significant?

- The expedition will provide an opportunity to collect vast amounts of health data that will contribute in the design of future crewed space flights, according to a storey in the Independent.
- They would capture data on ECG (electrocardiograph) activity, movement, sleep, heart rate and rhythm, blood oxygen saturation, cabin noise, and light intensity, according to the article, which will aid in measuring behavioural and cognitive changes throughout the course of the flight.
- Before and after their excursion, the tourists will undergo balance and prescription tests to assess their reaction to the change in gravity.
- Blood will also be collected to monitor the immune system's performance. An AI-powered ultrasound equipment will also monitor their organ systems.

### What is Pollen Calendar?

Chandigarh now has its first pollen calendar, which can identify potential allergy triggers and provide a clear understanding for clinicians as well as allergy sufferers about their causes to help limit their exposure during high pollen loads.

### What is a Pollen Calendar?

- Pollen calendars represent the time dynamics of airborne pollen present in a particular

geographical area.

- They yield readily accessible visual details about various airborne pollen present throughout the year in a single picture.

### Is this a new concept in India? Where else in the west has this calendar been used?

- Though the notion is not entirely new, it is one of the most pressing environmental challenges in Indian cities that has yet to be addressed.
- Pollen concentrations are highly tied to regionally distributed vegetation, so such calendars are location-specific.
- Regional pollen calendars are widely used in Europe, the United Kingdom, and the United States to prevent and diagnose allergic rhinitis/hay fever, as well as predict the timing and intensity of pollen season.

### Why is it important to study pollen?

- Pollen grains are male biological entities that serve primarily to fertilise, but when inhaled by people, they can put a burden on the respiratory system and trigger allergies.
- Pollen in the air can cause upper respiratory tract and naso-bronchial allergies, resulting in asthma, seasonal rhinitis, and bronchial irritation, among other symptoms.
- In India, around 20-30% of the population suffers from allergic rhinitis/hay fever, and approximately 15% develop asthma.
- In humans, pollen is a primary outdoor airborne allergen that causes allergic rhinitis, asthma, and atopic dermatitis.

### What were the key findings?

- The study highlights the variability of crucial pollen types in different seasons.

- Spring and autumn are two seasons when airborne pollen dominate.
- The findings will enhance the understanding of pollen seasons, which will in turn help minimize pollen allergies.

### **How will a pollen calendar benefit people, especially those who have respiratory issues?**

- A pollen calendar provides a clear understanding for clinicians, as well as people with allergies to identify the potential allergy triggers and help to limit their exposure during high pollen load season.
- The early advisories can be prepared and disseminated through media channels to the citizens so that they can use protective gear during the period when the concentration of allergic pollen will be high.

### **Does the study infer that gardens and parks in the city contribute to the pollen and thus there must be proper scientific tree plantation?**

- It is important to involve experts while designing parks.
- We should try to plant trees/shrubs that release no or little pollen.
- Trees such as palms, nettle, safeda, white mulberry (shahtoot), congress grass, pine, have a high incidence of pollen.

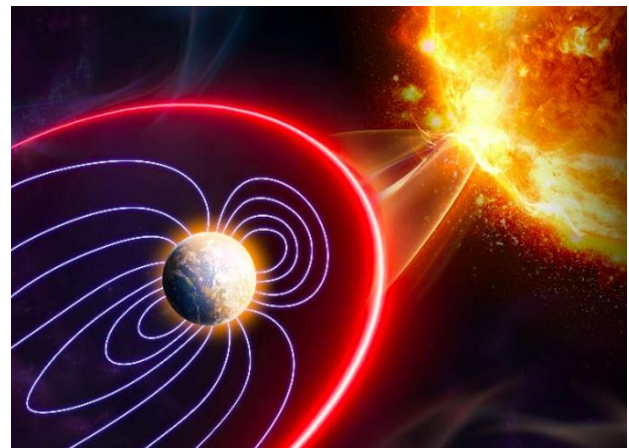
### **What kind of trees must be grown alongside our roads or in parks?**

- Monoecious plants should be planted (male and female flowers on the same plant).
- Hibiscus, lilies, and holly are examples of such plants that are frequently planted in Chandigarh.
- Cucumbers and squash are monoecious as well.

Choose plants that produce little to no pollen.

- To create an allergen-free environment, non-allergic or entomophilous plant species should be used.
- Rose, jasmine, salvia, Bougainvillea, Raat Rani, and sunflower are examples of such plants.

### **What is a Solar Storm?**



Studies have found that a powerful solar storm can cause a disruption of the internet, damage submarine cables, and communication satellites.

### **What is a Solar Storm?**

- A solar storm, also known as a Coronal Mass Expulsion, is the ejection of strongly magnetised particles from the sun.
- These particles can travel at speeds of several million kilometres per hour and take between 13 and five days to reach Earth.
- The atmosphere of the Earth shields us, the humans, from these particles.
- However, the particles can interact with the magnetic field of our planet, causing intense electric currents on the surface and affecting man-made buildings.

## History of solar storms

- The first solar storm was documented in 1859, and it took around 17 hours to reach Earth.
- The telegraph network was disrupted, and several operators received electric shocks as a result.
- In 1921, a solar storm wreaked havoc on New York's telegraph and railroad networks, while in 1989, another small-scale storm knocked out the power grid in Quebec, Canada.
- According to a 2013 research, if a solar storm equal to the one that slammed the US in 1859 struck now, 20-40 million people would be without power for 1-2 years, with a total economic cost of \$0.6-2.6 trillion.

## Why is it a cause of concern?

- The Sun has an 11-year cycle, with periods of high and low activity.
- It also has a longer cycle of 100 years.
- It was a low phase throughout the last three decades, while the internet infrastructure was booming.
- And we are rapidly approaching the peaks of the 100-year cycle, whether in this cycle or the next.
- As a result, it's very likely that we'll see at least one big solar storm in our lifetime.

## Hybodont Shark fossils found in Jaisalmer

In a rare discovery, teeth of new species of Hybodont shark of Jurassic age have been reported for the first time from Jaisalmer by a team of officers from the Geological Survey of India (GSI).



## Hybodont Shark

- During the Triassic and early Jurassic periods, Hybodonts, an extinct species of sharks, were a dominant group of fish in both marine and river habitats.
- Hybodont sharks, on the other hand, began to diminish in marine environments from the Middle Jurassic onwards, eventually becoming a minor component of open-marine shark assemblages.
- They went extinct 65 million years ago, near the end of the Cretaceous period.

## Significance of the fossil



*Hybodont shark teeth (Strophodusjaisalmerensis), from Jaisalmer Formation, Jaisalmer, Rajasthan.*

- The new species *Strophodusjaisalmerensis* was named by the study team after the newly discovered crushing teeth from Jaisalmer.
- These sharks have been discovered for the first time in the Jurassic rocks of Rajasthan's Jaisalmer region (about 160 to 168 million years old).
- The genus *Strophodus* has been discovered for the first time in India, and it is only the third such record from Asia, with the other two

records coming from Japan and Thailand.

- It opens up new possibilities for research in the field of vertebrate fossils.

## What is Serotype 2 Dengue?

The Union Health Ministry has flagged the emerging challenge in 11 States across India of serotype 2 dengue, which it said is associated with “more cases and more complications” than other forms of the disease.

### Q. Consider the following statements:

1. In tropical regions, Zika virus disease is transmitted by the same mosquito that transmits dengue.
2. Sexual transmission of Zika virus disease is possible.

### Which of the statements given above is/are correct?

- (a) 1 only  
 (b) 2 only  
 (c) Both 1 and 2  
 (d) Neither 1 nor 2

## What is Dengue?

- Dengue fever is a mosquito-borne viral infection that can be found in tropical and subtropical climates all over the world, primarily in urban and semi-urban regions.
- Female mosquitoes, mostly *Aedes aegypti* and, to a lesser extent, *Aedes albopictus*, carry the disease.
- Chikungunya, yellow fever, and Zika viruses are

all spread by mosquitos.

- Dengue fever is common in the tropics, with risk levels varying depending on rainfall, temperature, relative humidity, and unplanned rapid urbanisation.

### Its transmission

- Humans are infected by the virus by bites from infected female mosquitoes, primarily the *Aedes aegypti*.
- Other *Aedes* species can also operate as vectors, although their role is secondary to that of *Aedes aegypti*.
- Mosquitoes can be infected by individuals who are dengue-infected.

### Various serotypes

- Dengue fever is caused by a virus from the Flaviviridae family. There are four different serotypes of the virus that cause dengue fever (DENV-1, DENV-2, DENV-3 and DENV-4).
- It's thought that after you've recovered from an infection, you'll be immune to that serotype for the rest of your life.
- After recovery, however, cross-immunity to the other serotypes is only partial and transitory.
- The risk of severe dengue is increased by subsequent infections (secondary infection) by various serotypes.

## What is Planet Nine?

A new study's “treasure map” suggests that a planet several times more massive than Earth could be hiding in our solar system, camouflaged by the bright strip of stars that make up the Milky Way.

### Q. Which planet was downgraded to dwarf planet

**status?**

(a) Pluto

(b) Mars

(c) Earth

(d) Venus



## Planet 9

- Planet Nine is a hypothetical planet in the Solar System's beyond reaches.
- Its gravitational forces could explain why a group of extreme trans-Neptunian objects (ETNOs), planets beyond Neptune that orbit the Sun at distances averaging more than 250 times that of the Earth, have a strange grouping of orbits.
- Based on previous calculations, this hypothetical super-Earth-sized planet would have had a mass of five to ten times that of the Earth and a 400 to 800-fold elongated orbit around the Sun.

## Curiosity for the ninth Planet

- The International Astronomical Union broke many hearts when it announced in August 2006 that Pluto had been reclassified as a minor planet. ‘
- The choice was made based on Pluto's size and the fact that it is located in a zone with other

objects of similar size.

## Is everyone convinced that Planet Nine exists?

- Planet Nine has been studied by researchers from all over the world, and there are various ideas concerning it, including one that claims Planet Nine is a black hole.
- According to another study, the unknown entity generating the trans-Neptunian objects' aberrant orbits could be a primordial black hole.
- Another study discovered that a trans-Neptunian object known as 2015 BP519 has an unique trajectory due to Planet Nine's strong gravity

## IISc finds alternative for single-use plastics

Researchers from the Department of Material Engineering, Indian Institute of Science, Bengaluru (IISc) have found a way to make a substitute for single-use plastic that can, in principle help mitigate the problem of accumulating plastic waste in the environment.

### What is the new material?

- Non-edible oil and cellulose derived from agricultural stubble were used to create polymers at IISc.
- These polymers can be moulded into sheets that can be used to make bags, flatware, or containers.
- The resulting substance is biodegradable, waterproof, and non-toxic.

### Key features

- The researchers experimented with the amounts of cellulose to non-edible oil in order to generate sheets with qualities such as flexibility suited for producing various items.

- The stiffer the material became with more cellulose and less non-edible oil, the better it was for creating tumblers and cutlery.
- The higher the oil content, the more flexible the material was and the easier it was to form into sheets for producing bags.

### Why needed?

Ans. Plastic waste menace in India.

- Indians generated 3.3 million metric tonnes of plastic garbage in 2018-2019, according to a report by the Central Pollution Control Board of India.
- The bad news is that this could be a gross underestimation of the issue.
- Another worrying fact is that 79 percent of all plastic garbage produced worldwide ends up in the environment.
- Only 9% of all plastic garbage is reprocessed.
- Plastic trash accumulation is harmful to the environment, and when this waste ends up in the water, it can cause considerable harm to aquatic ecosystems.

### Agricultural stubble

- While one sort of pollution is caused by plastic trash, air pollution is caused by agricultural stubble burning in various states.
- Every winter, the air quality index in Delhi drops to a “severe” or “hazardous” level of pollution, owing in part to the burning of agricultural stubble in the surrounding areas.

**Q. Which of the following statements are correct regarding the general difference between plant and animal cells?**

1. *Plant cells have cellulose cell walls whilst animal cells do not.*

2. *Plant cells do not have plasma membranes unlike animal cells which do.*
3. *Mature plant cell has one large vacuole whilst animal cell has many small vacuoles.*

**Select the correct answer using the code given below:**

(a) 1 and 2 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

### IIT-B develops One-time Programmable Memory

IIT Bombay researchers have developed a “memory technology” that can, in principle, revolutionise Indian industry and the many applications that need semiconductor chips, such as in the defence sector, automobiles and future aspirations in cell phone manufacturing.

#### One-time Programmable Memory

- Memory technology includes hard discs, flash memory, and other devices.
- Another type of memory is one-time programmable memory (OTP), which is written once, kept for a lifetime, and then retrieved and utilised multiple times.
- This has a variety of applications, one of which is the correction of erroneous chips that were mass-produced for specific applications.

#### Its utility

- Consider a chip that aids in the measurement of temperature.
- The chip may read 100 degrees Celsius as 101

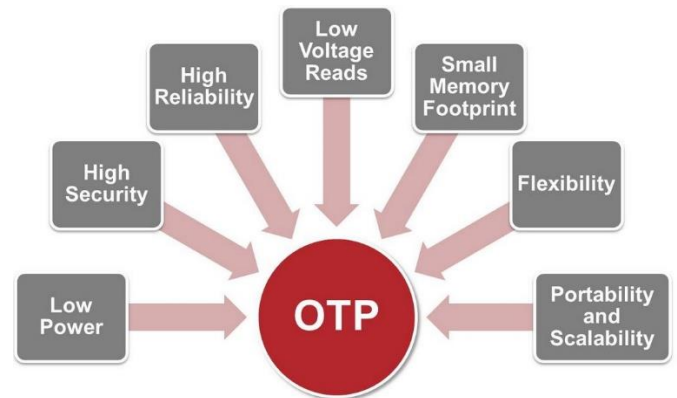
degrees Celsius due to a manufacturing error.

- By putting the error correction parameter in the OTP memory, this 1 degree "offset" can be fixed.
- This is done once for each chip, and the memory corrects the chip's output for the rest of its life.
- OTP memories are also utilised for a variety of different reasons, the most common of which are chip identity, secure information store, and error correction chip calibration.

### How does it work?

- The researchers utilised eight memory cells, each of which could store one "bit" of the corrected value (that is a value of zero or one).
- Each memory cell is made up of a layer of silicon dioxide that is only 10-15 atomic layers thick.
- This is deposited uniformly over an eight-inch silicon wafer the size of a dinner plate to create millions of nanoscale capacitors.
- The clean silicon dioxide layer is insulating, passing relatively little current [which is viewed as a "0" in digital circuits].
- The capacitor is blown by nanoscale lightning of 3.3 volts, resulting in a short circuit and high current [this is a "1"].
- Throughout its lifespan, the OTP memory recalls either the "0" or "1" state.

### Benefits offered



- The group has successfully demonstrated CMOS 180-nanometre-based, production-ready, eight-bit memory technology.
- These include successful operation between minus 40 degrees C to 125 degrees C and reliability to ensure excess of 95% yield on eight-bit memories.

### Significance

- For problems that can be remedied with this technology, a high percentage of created chips may need to be scrapped.
- This is the first indigenous semiconductor memory technology to be commercialised at the 180-nanometer node.
- As a result, this represents a significant national milestone for semiconductor development.

### What is Dark Energy?

Last week, an international team of researchers has made the first direct detection of dark energy.

### About the Project

- The XENON1T experiment is the world's most sensitive dark matter experiment and was operated deep underground at the INFN Laboratori Nazionali del Gran Sasso in Italy.

- The finding also suggests that experiments like XENON1T, which are designed to detect dark matter, could also be used to detect dark energy.

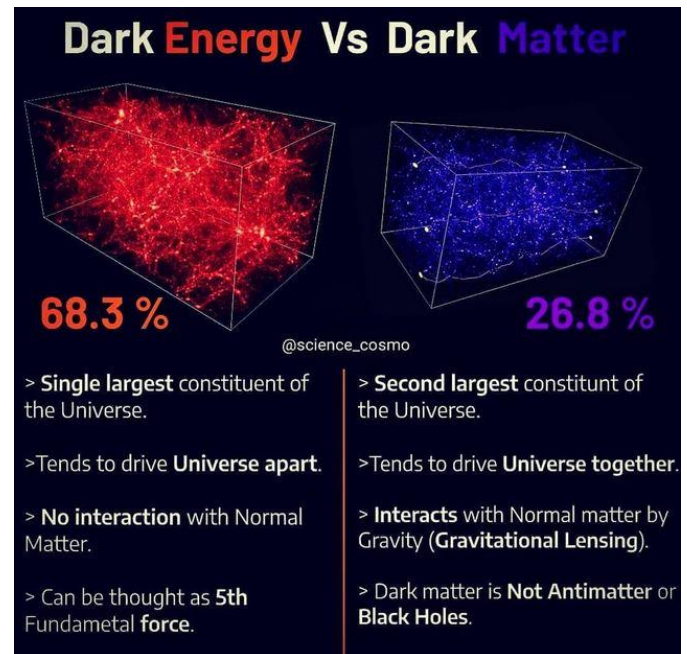
## What is Dark Energy?

- Dark energy is an unidentified kind of energy that has massive effects on the universe.
- Measurements of supernovae provided the first observational evidence for its existence, demonstrating that the cosmos does not expand at a steady rate, but rather accelerates.
- Prior to these findings, it was assumed that all kinds of matter and energy in the universe would merely slow down the expansion over time.
- The cosmic microwave background suggests that the cosmos originated with a hot Big Bang, from which general relativity explains the universe's history and subsequent large-scale motion.
- There was no way to explain how an accelerating universe could be measured without introducing a new kind of energy.

## Does it exist?

- Dark energy has been the most widely accepted explanation for the increased expansion since the 1990s.
- There are active cosmology research topics targeted at understanding the underlying nature of dark energy as of 2021.

## Dark energy Vs Dark matter



- Everything we see - planets, moons, enormous galaxies, you, me, and this website – accounts for less than 5% of the total universe.
- Dark matter makes up around 27% of the universe, whereas dark energy makes up 68%.

## National Mission on Cultural Mapping

Having made little progress since its launch in 2017, the National Mission on Cultural Mapping has now been handed over to the Indira Gandhi National Centre for the Arts (IGNCA).

### About the National Mission on Cultural Mapping

- The NMCM is a Ministry of Culture mission mode initiative. It was established in 2015.
- Its goal is to address the importance of maintaining the strands of India's rich cultural heritage, converting India's large and diverse cultural canvas into an objective Cultural Mapping, and fostering a strong "Cultural Vibrancy" across the country.



- It will discover, gather, and document cultural assets and resources. This is linked to planning and strategizing.
- A site and database will be built to list organisations, spaces, facilities, festivals, and events.
- This database has the potential to conserve culture while also providing or improving livelihoods.

## Objectives of the Mission

Under this Mission, at broad-level, there are three important objectives as follows:

1. **National Cultural Awareness Abhiyan:** Hamari Sanskriti Hamari Pahchan Abhiyan (Our Culture Our Identity)
2. **Nationwide Artist Talent Hunt/Scouting Programme:** Sanskritik Pratibha Khoj Abhiyan
3. **National Cultural Workplace:** Centralised Transactional Web Portal with database and demography of cultural assets and resources including all art forms and artists.

## Significance of the mission

- Revival and safeguarding of oral traditions
- Fostering Cultural Awareness
- Cultural Preservation
- Sustainable Employment to creative industries

## What is Meningitis?

The World Health Organization (WHO) has launched the first-ever global strategy to defeat meningitis, a debilitating disease that kills hundreds of thousands of people each year.

## What is Meningitis?

- Meningitis is an inflammation of the meninges, the membranes that cover the brain and spinal cord.
- People of any age can get meningitis.

## What Causes Meningitis?

- The majority of cases are caused by bacteria or viruses, while others are caused by medications or diseases.
- Meningitis is primarily caused by a virus, although it can also be caused by bacterial or fungal infections.
- Both types of meningitis spread in the same way that most other infections do: an infected person touches, kisses, coughs, or sneezes on someone who isn't sick.
- Viral meningitis (also known as aseptic meningitis) is more common and usually less serious than bacterial meningitis.
- Meningitis is caused by a variety of viruses, including those that cause colds, diarrhoea, cold sores, and the flu.

## What Are the Signs & Symptoms of Meningitis?

- The symptoms of meningitis differ based on the person's age and the infection's origin.
- After a cold, diarrhoea, vomiting, or other indicators of illness, the first symptoms can appear immediately or take many days to appear.

## Common symptoms include:

- fever
- lack of energy
- irritability

- headache
- sensitivity to light
- stiff neck
- skin rash

## Treatment

- Several vaccines protect against meningitis, including meningococcal, Haemophilus influenzae type b and pneumococcal vaccines.

## Security Issues

### Exercise ZAPAD 2021

A contingent of 200 Army personnel will participate in the multinational Exercise ZAPAD 2021 being held at Nizhniy, Russia.

#### ZAPAD 2021

- ZAPAD is one of the Russian armed forces' theater-level exercises, and it will primarily focus on counter-terrorist operations.
- An all-arms joint task force will be present in the NAGA Battalion group participating in the exercise.
- While planning and executing the exercise, the goal is to strengthen military and strategic connections among the participating nations.
- Russia has asked 17 countries to participate in the drill. Mongolia, Armenia, Kazakhstan, Tajikistan, Kyrgyzstan, Serbia, Russia, India, and Belarus are among the nine participating countries.
- Pakistan, China, Vietnam, Malaysia, Bangladesh, Myanmar, Uzbekistan, and Sri Lanka are the other eight countries that are observers.

### DRDO tests Akash Prime Missile

The Defence Research and Development Organisation (DRDO) has successfully tested a new version of Akash Surface to Air missile Akash Prime from the Integrated Test Range at Chandipur, Odisha.

#### About Akash Missile System

- Akash is a mobile surface-to-air missile (SAM) system with a medium range.
- The Defence Research and Development Organisation (DRDO) created it, and Bharat Dynamics Limited produced it (BDL).
- It can track aeroplanes up to 50–80 kilometres away and at altitudes of 18,000 metres.
- It can destroy aerial targets such as fighter jets, cruise missiles, and air-to-surface missiles, as well as ballistic missiles.
- The Indian Army and the Indian Air Force are using it in combat.

#### Upgrade in Akash Prime

- In compared to the existing Akash System, Akash Prime has an active Radio Frequency (RF) seeker built in-house for better accuracy.

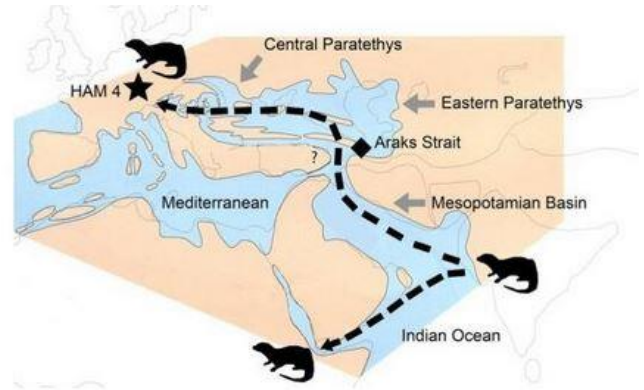
Other enhancements provide more consistent operation at greater elevations in low-temperature environments

Trivia

General Sherman: World's largest tree



What is Vishnuonyx?



Two wildfires in California are burning through the Sequoia National Park in the Sierra Nevada that is home to some of the largest trees in the world. Among these trees is the world's largest tree popularly known as General Sherman, which firefighters are now trying to protect from the blaze.

About General Sherman

- The General Sherman tree, the world's largest in terms of volume, may be found in the national park's Giant Forest sequoia grove.
- General Sherman is believed to be almost 2,200 years old, according to latest calculations.
- It reaches a height of 275 feet (higher than Pisa's leaning tower) and has a base diameter of 36 feet.
- The tree has a diameter of 17.5 feet even 60 feet above the ground.
- There are an estimated 2,000 giant sequoia trees in the national park, which have been around for thousands of years.

Between 12.5 million and 14 million years ago, members of a genus of otters called Vishnuonyx lived in the major rivers of southern Asia.

Vishnuonyx neptuni

- Vishnuonyx were medium-sized carnivores that weighed about 10-15 kg on average.
- The genus was previously exclusively recognised from Asia and Africa (recent findings show that Vishnuonyx reached East Africa about 12 million years ago, according to the release).
- Vishnuonyx was a water creature that couldn't move vast distances on land.

Why in news?

- Vishnuonyx neptuni, or "Neptune's Vishnu," is the name given to a previously unknown species identified by German researchers.
- Fossils of these now-extinct otters were discovered in strata located in the Himalayan foothills.
- It may have travelled as far as Germany, according to a newly discovered fossil. Around 13 million years ago, Vishnuonyx otters

dispersed from the Indian subcontinent to Africa and Europe.

- This is the first time any member of the Vishnuonyx genus has been discovered in Europe, and it is also the species' most northern and western record to date.

### **How did it travel as far as Europe?**

- The researchers believe that its 6,000-kilometer journey was made possible by the topography

of 12 million years ago, when the Alps were still being constructed.

- The Alps and the Iranian Elbrus Mountains were separated by a huge ocean basin, making it easier for the otters to travel between them.
- According to researchers, 'Neptune's Vishnu' first arrived in southern Germany, then Ancient Guenz, and finally the Hammerschmiede.



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