

The Best Weekly Current Affairs Magazine for Civil Services Exam

PERFECT

7

Weekly Current Affairs

May 2021 | ISSUE 02



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DHYEYA IAS : AN INTRODUCTION

Vinay Kumar Singh
Founder & CEO

The guiding philosophy of the institute, throughout, has been creation of knowledge base.

Dhyeya IAS inculcates human values and professional ethics in the students, which help them make decisions and create path that are good not only for them, but also for the society, for the nation, and for the world as whole. To fulfill its mission in new and powerful ways, each student is motivated to strive towards achieving excellence in every endeavor. It is done by making continuous improvements in curricula and pedagogical tools.

The rigorous syllabi not only instills in them, a passion for knowledge but also attempts to teach them how to apply that knowledge in real-life situations. The programmes lay emphasis on well-rounded personality development of the students and also in inculcating the values of honesty and integrity in them.



Q.H. Khan
Managing Director

Dhyeya IAS is an institution that aims at the complete development of the student.

Our faculty are hand-picked and highly qualified to ensure that the students are given every possible support in all their academic endeavors. It is a multi-disciplinary institution which ensures that the students have ready access to a wide range of academic material.

Our brand of education has broad horizons as we believe in exposure. Our students are encouraged to widen their knowledge base and study beyond the confinements of the syllabus. We aim to lend a gentle guiding hand to make our students recognize their inner potential and grow on their own accord into stalwarts of tomorrow's society.

PERFECT 7 : AN INTRODUCTION



Kurban Ali
Chief Editor

With immense pleasure I would like to inform you that the new version of 'Perfect 7', from the Dhyeya IAS, is coming with more information in a very attractive manner. Heartily congratulations to the editorial team. The 'Perfect 7' invites a wider readership in the Institute. The name and fame of an institute depends on the caliber and achievements of the students and teachers. The role of the teacher is to nurture the skills and talents of the students as a facilitator. This magazine is going to showcase the strength of our Institute. Let this be a forum to exhibit the potential of faculties, eminent writers, authors and students with their literary skills and innovative ideas.

Please do visit our website www.dhyeyaias.com and our youtube channel for regular and updated information on current affairs.



Ashutosh Singh
Managing Editor

We have not only given the name 'Perfect 7' to our magazine, but also left no stone unturned to keep it 'near to perfect'. We all know that beginning of a task is most vital and full of challenges. So we met the same fate.

Publishing 'Perfect 7' provided us various challenges because from the beginning itself we kept our bar too high to ensure the quality. Right from the very first issue we had a daunting task to save aspirants from the 'misinformation' or 'overdose of information'. Focussing on civil services examination 'Perfect 7' embodies in itself perfect friend and guide in your preparation. This weapon is built to be precise yet comprehensive. It is not about bombardment of mindless facts, rather an analysis of various facets of the issues, selected in a systematic manner. We adopted the 'Multi Filter' and 'Six Sigma' approach, in which a subject or an issue is selected after diligent discussion on various levels so that the questions in the examination could be covered with high probability.

Being a weekly magazine there is a constant challenge to provide qualitative study material in a time bound approach. It is our humble achievement that we feel proud to make delivered our promise of quality consistently without missing any issue since its inception.

Your suggestions and popular demands always motivate us and keep our morale high.

May this version of 'Perfect 7' instill a new energy and a new spirit in you. We wish that the bond of affection between you and Dhyeya IAS reaches at a new height.



Send us your suggestions, comment, views and feedback for guiding us on

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PREFACE



Dhyeya family has decided to bring a new colourful and vibrant version of **'Perfect 7'** – a panacea for current affairs, which will add positive and dynamic energy in your preparation.

'Perfect7' is an outstanding compilation of current affairs topics as per the new pattern of Civil Services Examination (CSE). It presents weekly analysis of information and issues (national and international) in the form of Articles, News Analysis, Brain Boosters, PIB Highlights and Graphical Information, which helps to understand and retain the information comprehensively. Hence, **'Perfect 7'** will build in-depth understanding of various issues in different facets.

'Perfect7' is our genuine effort to provide correct, concise and concrete information, which helps students to crack the CSE. This magazine is the result of the efforts of the eminent scholars and the experts from different fields. **'Perfect 7'** is surely a force multiplier in your effort and plugs the loopholes in the preparation.

We believe in environment of continuous improvement and learning. Your constructive suggestions and comments are always welcome, which could guide us in further revision of this magazine.

Omveer Singh Chaudhary

Editor
Dhyeya IAS

As a proud jewel of Dhyeya IAS, **'Perfect 7'** now comes in a new coloured avatar. **'Perfect 7'** is a quintessential part of your preparation strategy for Civil Services Examination. A regular and manageable dose of current affairs will now reach you in new format, making it more reader friendly. Our humble attempt to serve you is surely rewarded by your appreciations. It encourages us to innovate and provide the best as per our ability.

A dedicated team of experts at Dhyeya IAS toils night and day to make your dream of Civil Services come true. I heartily thank and express my gratitude to the esteemed readers and all the people involved in making this magazine a shining star in the galaxy of Dhyeya IAS.

Rajat Jhingan

Editor
Dhyeya IAS

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(Broadcasted on YouTube & Dhyeya-TV)

Issues of the Week

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 - ◆ Chinese Rocket Debris has crashed into Indian Ocean
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- ◆ Ayush 64, Kabasura Kudineer and Drug 2-deoxy-D-glucose (2-DG)

GS Paper-1

Indian Heritage and Culture, History and Geography of the World and Society

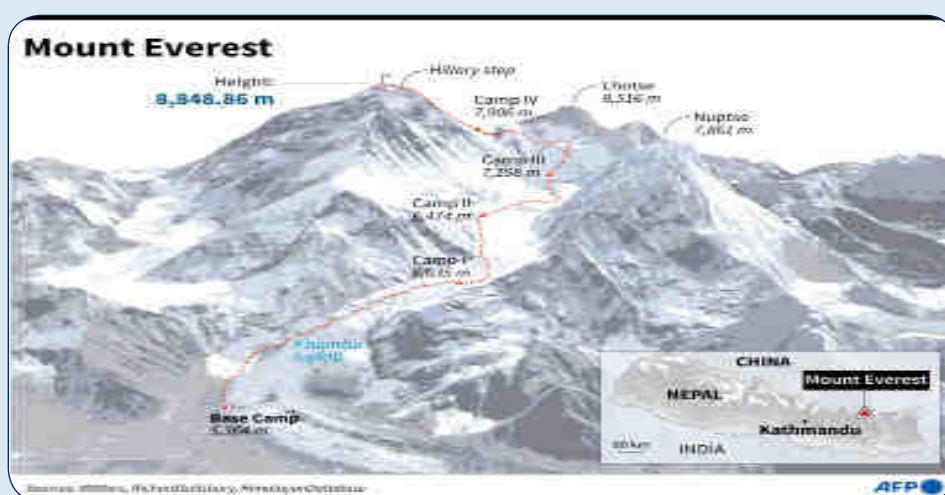
1. China is planning to erect a ‘Line of Separation’ on Everest

Why in News?

- ◆ To prevent coronavirus transmission at the summit of Mount Everest, the world’s highest mountain, China is planning to erect a “line of separation” at the top to prevent mingling with climbers ascending from Nepal, where a wave of the pandemic is currently surging.

Rationale behind

- ◆ Covid numbers are currently skyrocketing in Nepal, and cases have also been detected at the Everest base camp on its side of the border. The situation in China is sharply different, where the pandemic is largely suppressed.
- ◆ Nepal, whose tourism sector has been badly hit by the global crisis, has so far not cancelled the spring climbing season, which lasts from April to June before the monsoon rains begin. From its side, China has not allowed any foreign tourists to scale the mountain since the start of the pandemic.
- ◆ As per China’s Xinhua news agency, a small team of Tibetan climbing guides will ascend Everest and set up the “line of separation” at the summit to stop any contact between mountaineers from both sides of the peak, but did not specify how it would do so. A group



of 21 Chinese nationals are currently en route to the summit on the Tibetan side.

- ◆ It is unclear, however, how China is planning to erect a line at the summit—the only place where climbers from two sides can meet—given its perilous location and size of approximately a dining table.
- ◆ The mountain top— a small mound of snow— can accommodate six people standing at a time, and climbers have to queue to reach there on busy days. Climbers generally get a few minutes to witness the 360 degree view and click photographs at the summit.

Experts’ Comment

- ◆ Experts believe that it is not possible to erect any barrier at the top, and

neither is it necessary. They say that it is highly improbable for a person with Covid to first of all complete the arduous journey to the summit, and that those who do reach there would be wearing thick layers of clothing and have their faces covered with oxygen masks and glasses for protection in the freezing surroundings.

About Everest

- ◆ Everest is on the border of Nepal and China, and can be climbed from both sides. In December, the two countries had jointly announced the “new” elevation of the mountain at 8,848.86 metres above sea level — 86 cm higher than what was recognised since 1954 by the Survey of India.

GS Paper-2

Governance, Constitution, Polity, Social Justice and International relations

1. Social Stock Exchanges

Why in News?

- ◆ A technical group on social stock exchanges (SSEs), constituted by the Securities and Exchange Board of India (SEBI), has recommended that political and religious organisations, trade organisations as well as corporate foundations should not be allowed to raise funds through SSEs.

Key Points of the Report

- ◆ Both For Profit Enterprise (FPE) and Not for Profit Organisation (NPO) will be eligible to tap the SSE if they are able to show their primary goals are social intent and impact.
- ◆ SSEs are engaged in at least one of the 15 broad eligible activities. They target underserved or less privileged population segments or regions; and should have at least 67 per cent of its activities qualifying as eligible activities to the target population.
- ◆ The panel has recommended different modes of fund raising for NPOs and FPEs.
 - For NPOs it has recommended fundraising through “equity, zero coupon zero principal bond, development impact bonds, social impact fund with 100 per cent grants-

in grants out provision, and donations by investors through mutual funds”.

- For FPEs it has recommended fundraising through equity, debt, development impact bonds, and social venture funds.

- ◆ The entities listed on SSE will have to disclose their social impact report on an annual basis covering aspects such as “strategic intent and planning, approach, impact score card”.
- ◆ The report has also made a list of eligible activities that social enterprises can engage in such as eradicating hunger, poverty malnutrition and inequality; training to promote rural sports; promoting gender equality by empowerment of women and LGBTQIA+ communities; slum area development/ affordable housing; forest and wildlife conservation; promoting livelihoods for rural and urban poor; promotion of financial inclusion among others.
- ◆ The expert panel has said FPEs, which wish to list their equity or debt, will first have to demonstrate their track record through social performance.



This will allow investors to gain an insight into the FPE's activities.

What is an SSE?

- ◆ An SSE allows the listing of non-profit or non-government organisations on stock exchanges, providing them with an alternative fund-raising structure. It may be listed on BSE or NSE. Countries like the UK, Canada and Brazil have SSEs.
- ◆ India has over 31 lakh NPOs – more than double the number of schools and 250 times the number of government hospitals, which amount to one NPO for 400 Indians.
- ◆ A SSE may be helpful in rebuilding the livelihoods of people who are affected during pandemics like COVID-19.

2. Chinese Rocket Debris has crashed into Indian Ocean

Why in News?

- ◆ Debris from the last stage of China's Long March rocket that had last month carried a key component of its under-construction space station fell into the waters of the Indian Ocean west of the Maldives.

Background

- ◆ The Long March 5B rocket— China's largest—had been launched into space on April 29 for putting into orbit a core module of the new Tianhe space station, which is expected to become operational in 2022.

Key Highlights

- ◆ When a rocket is launched, its discarded booster stages re-enter the atmosphere soon after liftoff and harmlessly fall into the ocean— a standard practice.
- ◆ In this case, however, a 10-floor large vehicle of the rocket weighing 18 metric tonnes went into orbit along with the section of the under-construction space station that it was carrying.
- ◆ While in orbit, this vehicle kept rubbing against the air at the top of the atmosphere, and the resulting friction caused it to start losing altitude.



The piece hurtled through a low-Earth orbit at roughly 25,490 km/hr, traced by the US military. Therefore, an “uncontrolled re-entry” became inevitable.

Issues

- ◆ When rockets carry their payload into space, their booster stages that reach orbit fire the engine again after completing their job so as to drop back to Earth and not remain in orbit. Space agencies plan this process to ensure that such rocket parts end up in uninhabited areas, such as the middle of the ocean.

- ◆ According to the experts, China chose not to do this for its Long March rocket, leading to its vehicle crashing back uncontrollably. China's plan to launch 10 more missions like this until 2022 to complete the Tianhe has thus sparked worry that pieces from its rockets could end up causing injuries.

China's Response

- ◆ China has dismissed criticism of the rocket being “out of control” and potentially dangerous as “Western hype”.

3. Supreme Court's Verdict on Maratha Quota

Why in News?

- ◆ Recently, a five-judge Constitution Bench of the Supreme Court has struck down the Maharashtra law granting reservation to the Maratha community in admissions and government jobs in the state.

Court's Observation

The court had framed six questions of law on the issue; it unanimously agreed on three of those issues, while the verdict was split 3:2 on the other three.

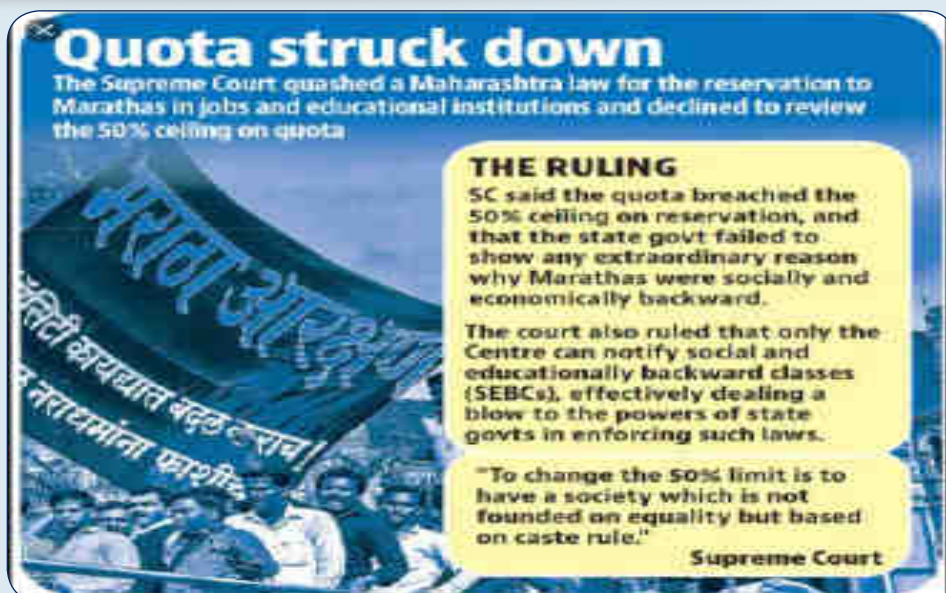
- ◆ On Revisiting the Indra Sawhney Ruling

- The court held that there is no need to revisit the case. The court said that the 50% ceiling, although an arbitrary determination by the court in 1992, is now constitutionally recognised.
- The Maratha quota exceeded the 50% ceiling. The arguments by state

governments before the court were that the Indra Sawhney verdict must be referred to a 11-judge Bench for reconsideration since it laid down an arbitrary ceiling which the Constitution does not envisage. Additionally, in some judgements subsequent to Indra Sawhney, the Supreme Court itself had made exceptions to this rule.

The 1992 landmark ruling in Indra Sawhney v Union of India had laid down two important precedents.

- ◆ First, it said that the criteria for a group to qualify for reservation is “social and educational backwardness”.
- ◆ Second, it reiterated the 50% limit to vertical quotas reasoning that it was needed to ensure “efficiency” in administration. However, the court said that this 50% limit will apply unless in “exceptional circumstances.”
- ◆ On Exception
 - Since the 50% ceiling is held valid, the court looked into whether the Maratha quota law falls under the exceptional circumstances contemplated by Constitution Bench in Indra Sawhney’s case. The court also looked into the Maharashtra State Backward Commission report that the Maharashtra government had relied on to see if a case can be made out for exceptional circumstances.
 - The state government’s argument was that since the population of backward class is 85% and reservation limit is only 50%, an increase in reservation limit would qualify as an extraordinary circumstance.
 - All five judges disagreed with this argument. Two judges out of five



judges held that “The Marathas are dominant forward class and are in the main stream of National life. The above situation is not an extraordinary.” Their view was accepted by the remaining three judges.

- ◆ On 102nd Amendment
 - The Constitution (One Hundred and Second Amendment) Act, 2018 gives constitutional status to the National Backward Classes Commission. The Amendment also gives the President powers to notify backward classes. Several states raised questions on the interpretation of the Amendment and argued that it curtails their powers. The Bench unanimously upheld the constitutional validity of the 102nd Amendment but differed on the question whether it affected the power of states to identify socially and educationally backward classes (SEBCs).
- ◆ On State’s Power to Identify SEBCs
 - The Supreme Court held that “the final say in regard to inclusion or exclusion (or modification of lists) of socially and educationally backward classes (SEBCs) is firstly with the President, and thereafter, in case of modification or exclusion from the lists initially published, with the Parliament”. However, two judges of the bench have preferred a textual reading of the Amendment and said it does not take away the state’s powers to identify SEBCs.
 - In nutshell, the majority opinion on this aspect by bench said that while the identification of SEBCs will be done centrally, state governments retain power to determine the extent of reservation and make specific policy in the spirit of “cooperative federalism”.
 - It also said that now the National Backward Classes Commission must publish a fresh list of SEBCs, both for states and the central list.

Maharashtra Government’s Stand

- ◆ A delegation of Maharashtra government has submitted a letter to the Governor Bhagat Singh Koshyari for seeking President’s intervention for providing reservation to the Maratha community.

GS Paper-3

Technology, Economic Development, Biodiversity, Environment, Security and Disaster Management

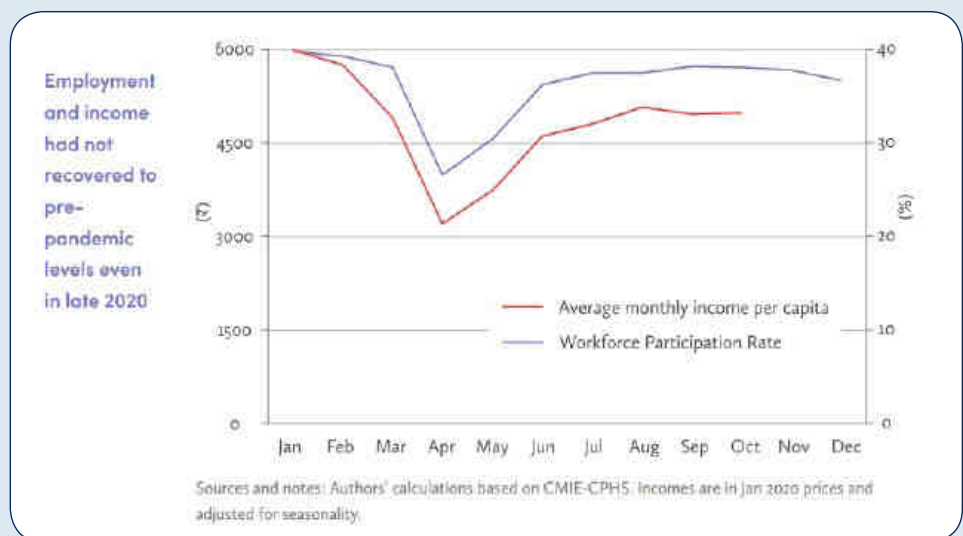
1. State of Working India 2021: One Year of COVID-19

Why in News?

- ◆ Azim Premji University's Centre for Sustainable Employment, Bengaluru has released a report titled 'State of Working India 2021: One Year of COVID-19'.

Key Highlights of the Report

- ◆ This report, which covers the period March 2020 to December 2020, dwells on the impact of one year of COVID-19 on employment, incomes, inequality and poverty.
- ◆ The COVID-19 pandemic has substantially increased informality in employment, leading to a decline in earnings for the majority of workers, and consequent increase in poverty in the country.
- ◆ Employment
 - Around 100 million jobs were lost nationwide during the April-May 2020 lockdown. Though most of these workers had found employment by June 2020, about 15 million remained out of work.
- ◆ Income
 - As for income, for an average household of four members, the monthly per capita income in Oct 2020 (Rs. 4,979) was still below its level in Jan 2020 (Rs.5,989).



- ◆ Informal Sector
 - The study found that post-lockdown, nearly half of salaried workers had moved into informal work, either as self-employed (30%), casual wage (10%) or informal salaried (9%).
 - The fallback option varied by caste and religion. "General category workers and Hindus were more likely to move into self-employment while marginalised caste workers and Muslims moved into daily wage work.
 - Education, health and professional services saw the highest exodus of workers into other sectors, with agriculture, construction and petty trade emerging as the top fallback options.
- ◆ Due to the employment and income losses, the labour share of the Gross Domestic Product (GDP) fell by 5 percentage points, from 32.5% in the second quarter of 2019-20 to 27% in the second quarter of 2020-21.
- ◆ Monthly earnings of workers fell on an average by 17% during the pandemic, with self-employed and informal salaried workers facing the highest loss of earnings.
- ◆ Impact on Women
 - During the lockdown and in the post-lockdown months, 61% of working men remained employed while 7% lost their job and did not return to work. But in the case of women, only 19% remained employed while

47% suffered a permanent job loss, “not returning to work even by the end of 2020”.

◆ **Poverty Rate**

- ▢ With 230 million falling below the national minimum wage threshold of Rs.375 per day during the pandemic, poverty rate has increased by 15 percentage points in rural and nearly 20 percentage points in urban areas.
- ▢ Households coped with the loss of income by decreasing their food intake, selling assets and borrowing

informally from friends, relatives and money-lenders.

Suggested Measures of the Report

- ◆ The report has suggested to extend the provision of free rations under the Public Distribution System (PDS) beyond June, at least till the end of 2021.
- ◆ It suggested that cash transfer of Rs. 5,000 for three months to as many vulnerable households as can be reached with the existing digital infrastructure, including but not limited to Jan Dhan accounts.

- ◆ It suggested the expansion of MGNREGA entitlement to 150 days and revising programme wages upwards to state minimum wages.
- ◆ It also called for a pilot urban employment programme in the worst hit districts, possibly focused on women workers.
- ◆ Lastly, the report suggested to increase the central contribution in old-age pensions to at least Rs. 500 along with a Covid hardship allowance to 2.5 million Anganwadi and ASHA workers of Rs. 30,000 (5,000 per month for six months).

2. Telangana Government has banned Glyphosate Herbicide

Why in News?

- ◆ The Telangana Government has imposed a total ban on glyphosate, a controversial herbicide that is used in cotton farms to kill weeds.

Reasons behind Ban

- ◆ The reason for the ban is that the excess use of this herbicide by farmers is causing harm to soil and human health.
- ◆ Further, the herbicide and its residues leach into food and water, which are consumed by humans. According to medical reports, one of the main causes of chronic kidney disease is the presence of this herbicide in human body system.

About Glyphosate Herbicide

- ◆ Glyphosate is among the 39 widely-used agrochemicals by the farmers in India to control weeds in tea plantations, non-crop and cropped areas, for about four decades now. The use of herbicides such as glyphosate

IN A NUTSHELL			
			➤ Monsanto is one of the makers of Glyphosate-based herbicides
			➤ Monsanto had also developed HT cotton but it later withdrew from official trials
WEEDING IT OUT			➤ District agri office at Yavatmal says Glyphosate has been recommended only for tea plantations
➤ Glyphosate is used to kill weeds in the fields	➤ Availability has prompted use of illegal herbicide tolerant (HT) cotton in Vidarbha	➤ Since there are no tea plantations in Yavatmal, it's not needed here, says the proposal	

has been on the rise as farmers have been increasingly relying on chemicals to tackle labour shortage, rising costs and to protect their yields from weeds, which compete with standing crops for nutrients.

What is Herbicide?

- ◆ Herbicide is an agent, usually chemical, for killing or inhibiting the growth of unwanted plants, such as residential or agricultural weeds and invasive species.

3. FAO Food Price Index

Why in News?

- ◆ The Food and Agriculture Organization (FAO) has released the Food Price Index for the month of April.

Key Highlights

- ◆ The FAO Food Price Index (FFPI) averaged 120.9 points in April 2021, 2.0 points (1.7 percent) higher than in March and as much as 28.4 points (30.8 percent) above the same period last year.
- ◆ The increase marked the eleventh consecutive monthly rise in the value of the FFPI to its highest level since May 2014. The April rise was led by strong increases in the prices of sugar, followed by oils, meat, dairy and cereals.

- ◆ FAO's cereal price index rose 1.2% in April month-on-month and 26% year-on-year. Worries about crop conditions in Argentina, Brazil and the United States pushed maize prices up 5.7% last month, while wheat prices held largely steady. By contrast, international rice prices slipped.
- ◆ FAO's vegetable oil price index rose 1.8% on the month, pushed higher by rising soy, rapeseed and palm oil quotations, which offset lower sunflower oil values.
- ◆ Dairy prices rose 1.2%, with butter, skim milk powder and cheese all lifted by good demand from Asia, while the meat index climbed 1.7%.

- ◆ FAO raised its forecast for global cereal production in 2020 by 1.7 million tonnes to 2.767 billion tonnes, 2.1% up on 2019 levels.
- ◆ FAO also provided its first outlook for wheat in the 2021/22 season, forecasting production at 778.8 million tonnes, up 0.5% on the 2020 estimate, lifted by an anticipated 6% increase in output in the European Union.

About FAO Food Price Index

- ◆ The FAO Food Price Index (FFPI) is a measure of the monthly change in international prices of a basket of food commodities. It consists of the average of five commodity group price indices weighted by the average export shares of each of the groups over 2014-2016.

4. The Global Methane Assessment

Why in News?

- ◆ The Climate and Clean Air Coalition (CCAC) and the United Nations Environment Programme (UNEP) has released a report, titled 'Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions'.

Key Highlights of the Report

- ◆ Human-caused methane emissions are increasing faster currently than at any other time since record keeping began in the 1980s.
- ◆ Carbon dioxide levels have dropped during the novel coronavirus disease (COVID-19) pandemic. However, methane in the atmosphere reached record levels last year.

- ◆ This was a cause of concern as methane was an extremely powerful greenhouse gas. It was responsible for about 30 per cent of warming since pre-industrial times.
- ◆ The most human-caused methane emissions come from three sectors: fossil fuels, waste, and agriculture.
- ◆ In the fossil fuel sector, oil and gas extraction, processing, and distribution account for 23 per cent, and coal mining accounts for 12 per cent of emissions.
- ◆ In the waste sector, landfills and wastewater make up about 20 per cent of emissions.
- ◆ In the agricultural sector, livestock emissions from manure and enteric

fermentation represent roughly 32 per cent, and rice cultivation 8 per cent of emissions.

- ◆ Human-caused methane emissions must be cut by 45 per cent to avoid the worst effects of climate change. Such a cut would prevent a rise in global warming by up to 0.3 degrees Celsius by 2045.
- ◆ It would also prevent 260,000 premature deaths, 775,000 asthma-related hospital visits annually, as well as 25 million tonnes of crop losses.

Mitigation Measures by Countries and Regions

- ◆ In October 2020, the European Commission adopted the European

Union Methane Strategy that outlines measures to cut methane emissions in Europe and internationally.

- ◆ India had the greatest potential to reduce methane emissions in the waste sector.
- ◆ China's mitigation potential was best in coal production and livestock, while Africa's was in livestock, followed by oil and gas.
- ◆ During President Joe Biden's Leaders Summit on Climate on April 22 - 23, leaders called for reductions in methane. At the Summit, energy ministries from the U.S., Canada,

Norway, Qatar, and Saudi Arabia – which represent 40 percent of global oil and gas production – established the cooperative Net Zero Producers Forum to create pragmatic net-zero strategies, including methane abatement.

About the CCAC

- ◆ The Climate and Clean Air Coalition is an international partnership working to protect the climate and improve air quality through actions to reduce short-lived climate pollutants, including methane, black carbon, tropospheric ozone, and hydrofluorocarbons (HFCs). The Coalition has 71 state

partners and 78 non-state partners. On methane, it has initiatives in all three major emitting sectors: oil and gas, waste, and agriculture. The Coalition's Secretariat is hosted by UNEP.

About the UNEP

- ◆ UNEP is the leading global voice on the environment. It provides leadership and encourages partnership in caring for the environment by inspiring, informing and enabling nations and peoples to improve their quality of life without compromising that of future generations.

5. Black Fungus

Why in News?

- ◆ With a number of rare but serious fungal infection, known as mucormycosis and colloquially as "black fungus", cases detected in Delhi, Maharashtra and Gujarat, experts in the national COVID-19 task force has issued an evidence-based advisory on the disease.
- ◆ The black fungus, is being detected relatively frequently among COVID-19 patients. The disease often manifests in the skin and also affects the lungs and the brain.

About the Disease

- ◆ It is caused by a group of moulds known as mucormycetes present naturally in the environment.
- ◆ According to the experts from the COVID-19 task force task force, it mainly affects people who are on medication for health problems that reduces their ability to fight environmental pathogens.
- ◆ Sinuses or lungs of such individuals get affected after they inhale fungal spores from the air. Doctors in some states have noted a rise in cases

of mucormycosis among people hospitalized or recovering from COVID-19, with some requiring urgent surgery.

Symptoms

- ◆ Warning signs include pain and redness around the eyes or nose, with fever, headache, coughing, shortness of breath, bloody vomits, and altered mental status.
- ◆ According to the advisory, infection with mucormycetes should be suspected when there is:
 - Sinusitis — nasal blockade or congestion, nasal discharge (blackish/bloody);
 - Local pain on the cheek bone, one-sided facial pain, numbness or swelling;
 - Blackish discoloration over bridge of nose/palate;
 - Loosening of teeth, jaw involvement;
 - Blurred or double vision with pain;
 - Thrombosis, necrosis, skin lesion; and
 - Chest pain, pleural effusion, worsening of respiratory symptoms.

Who is Vulnerable?

- ◆ Vulnerable groups include people who have health problems or take medicines that lower the body's ability to fight germs and sickness. These include those with diabetes, cancer, or those who have had an organ transplant.
- ◆ Usually, mucormycetes does not pose a major threat to those with a healthy immune system.

Prevention

- ◆ Use masks if you are visiting dusty construction sites. Wear shoes, long trousers, long-sleeved shirts and gloves while gardening. Maintain personal hygiene including a thorough scrub bath.

Scale of the Problem

- ◆ According to the Niti Aayog member (health) Dr V K Paul, the cases are on the rise, but there has been no major outbreak.
- ◆ Patients most vulnerable to mucormycosis are those who have been treated with steroids and other drugs for COVID-19 to reduce inflammation.

6. 3rd Arctic Science Ministerial (ASM3)

Why in News?

- Recently, the 3rd Arctic Science Ministerial (ASM3), jointly organised by Iceland and Japan, is the first Ministerial meeting being held in Asia (Tokyo in Japan).
- The theme for this year is 'Knowledge for a Sustainable Arctic'.

Key Objective of the Meeting

- The meeting was designed to provide opportunities to various stakeholders, including academia, indigenous communities, governments and policymakers, to enhance collective understanding of the Arctic region, emphasize and engage in constant monitoring, and strengthen observations.

India's Stand

- India has participated in the ASM3.
- India also shared its plans to contribute observing systems in the Arctic, both in-situ and by remote sensing.
- India would deploy open ocean mooring in the Arctic for long-term monitoring of upper ocean variables and marine meteorological parameters.
- The launch of NISER (NASA-ISRO Synthetic Aperture Radar) satellite mission, in collaboration with the USA, is underway.
- NISER aims to conduct global measurements of the cause and consequences of land surface changes using advanced radar imaging.
- India's contributions to the Sustained Arctic Observational Network (SAON) would continue.



India and Arctic Region

- Since 2013, India enjoys 'Observer' status in the Arctic Council with twelve other countries (Japan, China, France, Germany, UK, Italy, Switzerland, Poland, Spain, Netherlands, Singapore, and South Korea).
- The Arctic Council is a high-level intergovernmental forum to promote cooperation, coordination, and interaction towards sustainable development and environmental protection in the Arctic.
- As part of the Arctic Council, India contributes to the international deliberations to develop effective cooperative partnerships towards a safe, stable, and secure Arctic.

Significance for India

- Arctic warming and its ice melt are global concerns as they play a pivotal role in regulating climate, sea levels, and maintaining biodiversity. Moreover, there is growing evidence

of connection between the Arctic and the Indian Ocean (which modulates the Indian monsoon).

- Hence, improving the understanding of physical processes and quantifying the impact of Arctic ice melt on the Indian summer monsoon is very important.

General Facts

- India's engagement with the Arctic dates back to 1920 with the signing of the Svalbard Treaty in Paris.
- Since July 2008, India has a permanent research station in the Arctic called Himadri at NyAlesund, Svalbard Area in Norway.
- It has also deployed a multi-sensor moored observatory called IndARC in the Kongsfjorden fjord since July 2014.
- The research in the Arctic region from India is coordinated, conducted, and promoted by the National Centre for Polar and Ocean Research (NCPOR), Goa.

7. DOGE-1 Mission to the Moon

Why in News?

- ◆ SpaceX will launch a satellite to the Moon next year funded entirely with the cryptocurrency “Dogecoin”, Canadian company Geometric Energy Corporation, which will lead the lunar mission.

Key Highlights

- ◆ The cubic satellite, weighing 88 pounds (40 kilograms), will aim to obtain “lunar-spatial intelligence from sensors and cameras on-board with integrated communications and computational systems.”
- ◆ The “DOGE-1 Mission to the Moon” will be “the first-ever commercial lunar payload in history paid entirely with “Dogecoin”.
- ◆ This mission will demonstrate the application of cryptocurrency beyond Earth orbit and set the foundation for interplanetary commerce.

- ◆ Other details on the DOGE-1 mission, including exactly what it will do at the Moon (presumably in lunar orbit), have not yet been released.

About Dogecoin

- ◆ Dogecoin was founded in 2013 by software engineers Billy Markus and Jackson Palmer, initially as a joke targeted at cryptocurrencies like bitcoin.
- ◆ The name “doge” comes from the internet meme of the same name, which consists of a Shiba Inu dog and some text.
- ◆ However, in 2021 the price of dogecoin has skyrocketed by about 26,000 percent, from a valuation of \$0.005 in January to as high as \$0.7 per dogecoin today. Its total valuation is now estimated at \$92 billion.

What is Cryptocurrency?

- ◆ A cryptocurrency is a subset of virtual currencies, and is decentralised, and protected by cryptography.
- ◆ A virtual currency is a digital representation of value that can be digitally traded and functions as (a) a medium of exchange, and/ or (b) a unit of account, and/or (c) a store of value, but, unlike fiat currency like the rupee, it is not legal tender and does not have the backing of a government.

About SpaceX

- ◆ The company was founded in 2002 by Elon Musk to revolutionize space transportation, with the ultimate goal of making life multiplanetary. SpaceX designs, manufactures and launches advanced rockets and spacecraft.

8. NASA’s OSIRIS-Rex Spacecraft

Why in News?

- ◆ On May 11, NASA’s Origins, Spectral Interpretation, Resource Identification, Security, Regolith Explorer (OSIRIS-REx) spacecraft will depart asteroid Bennu, and start its two-year long journey back to Earth.

Why Asteroid Bennu?

- ◆ Bennu is considered to be an ancient asteroid that has not gone through a lot of composition-altering change through billions of years, which means that below its surface lie chemicals and rocks from the birth of the solar system.

- ◆ Therefore, scientists and researchers are interested in studying this asteroid as it might give them clues about the origins of the solar system, the sun, the Earth and the other planets.
- ◆ Generally, scientists study asteroids to look for information about the formation and history of planets and the Sun since asteroids were formed at the same time as other objects in the solar system.
- ◆ Another reason for tracking them is to look for potentially hazardous asteroids.

Scope of the Study

- ◆ When the spacecraft finally returns in September 2023, it will bring back the largest sample collected by a NASA mission since the Apollo astronauts collected samples of Moon rock.
- ◆ Scientists will use the asteroid samples to study the formation of the solar system and of habitable planets such as Earth. NASA will also distribute a part of the samples to laboratories worldwide and will reserve about 75 per cent of the samples for future generations who can study it with technologies not yet created.

About Asteroid Benu

- ◆ Asteroids are rocky objects that orbit the Sun, much smaller than planets. They are also called minor planets.
- ◆ Benu is located about 200 million miles away from the Earth. Benu is named after an Egyptian deity.
- ◆ The asteroid was discovered by a team

from the NASA-funded Lincoln Near-Earth Asteroid Research team in 1999.

- ◆ Benu is a B-type asteroid, implying that it contains significant amounts of carbon and various other minerals.
- ◆ Benu is believed to have been born in the Main Asteroid belt between Mars and Jupiter.

About OSIRIS-REx Mission

- ◆ The mission was launched in 2016, it reached its target in 2018.
- ◆ In October 2020, the spacecraft briefly touched asteroid Benu, from where it collected samples of dust and pebbles.
- ◆ The spacecraft contains five instruments meant to explore Benu including cameras, a spectrometer and a laser altimeter.

9. 5G Trials in India

Why in News?

- ◆ The Department of Telecommunications has allowed private telcos Bharti Airtel, Reliance Jio Infocomm and Vi (formerly Vodafone Idea) and well as state-run telco Mahanagar Telephone Nigam Limited (MTNL) to start trials for 5G technology as well as its applications in various sectors.

About 5G Technology

- ◆ 5G or fifth generation is the latest upgrade in the long-term evolution mobile broadband networks. 5G mainly works in 3 bands, namely low, mid and high-frequency spectrum — all of which have their uses and limitations.
- ◆ Low Band Spectrum
 - Low band spectrum has shown great promise in terms of coverage and speed of internet and data exchange, the maximum speed is limited to 100 Mbps (Megabits per second).
 - This means that while telcos can use and install it for commercial cellphone users who may not have specific demands for very high speed internet.
 - However, the low band spectrum may not be optimal for specialised needs of the industry.
- ◆ Mid Band Spectrum
 - The mid-band spectrum, on the

other hand, offers higher speeds compared to the low band, but has limitations in terms of coverage area and penetration of signals.

- Telcos and companies, which have taken the lead on 5G, have indicated that this band may be used by industries and specialised factory units for building captive networks that can be moulded into the needs of that particular industry.

- ◆ High Band Spectrum

- The high-band spectrum offers the highest speed of all the three bands, but has extremely limited coverage and signal penetration strength.
- Internet speeds in the high-band spectrum of 5G has been tested to be as high as 20 Gbps (giga bits per second), while, in most cases, the maximum internet data speed in 4G has been recorded at 1 Gbps.

Key Highlights of Trials

- ◆ In the initial phase, these trials will be for 6 months, including a 2 month period for procurement and setting up of the equipment. In these 6 months, telcos will be required to test their set up in urban areas, semi-urban areas as well as rural areas.
- ◆ During this period, the telcos will be provided with experimental spectrum in various bands, such as the mid-band of 3.2 GHz to 3.67 GHz, the millimeter

wave band of 24.25 GHz to 28.5 GHz, and others.

Need of the 5G Trials

- ◆ The telecom market in India is left with only three private telcos, with the rest having surrendered to the low returns on investments over the years.
 - Apart from the private telecommunication companies, the two state-run companies, MTNL and Bharat Sanchar Nigam Limited (BSNL) have also survived but are making losses.
- ◆ In order to increase their average revenue per user, it is pertinent for telcos to start offering the new 5G technology as soon as possible. For that, however, they will have to conduct trials in a variety of circumstances, including in semi-urban and rural areas, which remains an untapped market for them.
- ◆ Apart from the telcos, it is also important that the government be ready to roll out the new technology as soon as possible.
 - A standing committee of Lok Sabha on Information Technology has already flayed the government for delays in approvals, inadequate availability of spectrum, high spectrum prices, poor development of use cases and low status of fiberisation among others. It is due to these reasons, the panel had said, that India could miss the 5G bus.

10. Waiving Patents on COVID-19 Vaccines

Why in News?

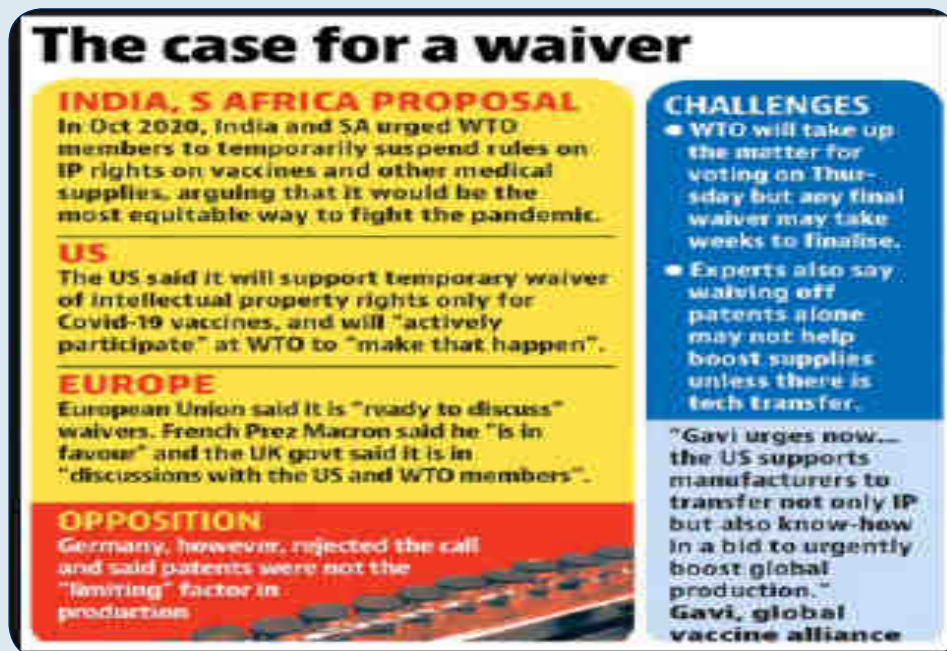
- ◆ The United States President Biden's administration has announced its support in favour of waiving patents on Covid-19 vaccines.
- ◆ However, the announcement does not mean that patent rules will be waived right away. The decision has to be taken by members of the World Trade Organisation (WTO).

Rationale behind Demand

- ◆ At present, only drug companies which own patents are authorised to manufacture Covid vaccines.
- ◆ A lifting of patent will allow the recipes to be shared and there will no longer be an embargo — basically once the formula is shared, any company which possesses the required technology and infrastructure can produce vaccines.
- ◆ This will lead to cheaper and more generic versions of Covid vaccines. It will also mean two things — vaccines will be more affordable and this will be a big step in overcoming vaccine shortage.
- ◆ Further, inequitable distribution of vaccines has opened up a glaring gap between developing and wealthier countries.

Who are demanding?

- ◆ In October last year, India and South Africa submitted a proposal to WTO to suspend vaccine patents for the duration of the pandemic and share the formula for jabs prepared by AstraZeneca and Pfizer.
- ◆ The proposal argued this would make vaccines more affordable and allow poorer countries to acquire more doses easily.



- ◆ The proposal was supported by more than 100 countries, mostly lower- and middle-income nations, and strongly opposed by some of the world's largest economies including the European Union and the United States.
- ◆ Human rights bodies and advocacy groups have also been at the forefront of the demand to waive patents and make vaccines more readily available to end the pandemic.

Who are opposing?

- ◆ The issue of waiving intellectual property rights is one of conflict between human rights and commercial interests of powerful pharmaceutical companies.
 - The pharmaceutical industry has been arguing that innovation as well as vaccine quality and safety depend on maintaining exclusive intellectual property rights.
 - They also argue that the move would disincentivise pharmaceutical

companies and allow countries such as Russia and China to exploit the mRNA technology to their advantage.

- ◆ Drug manufacturers and governments in the US, UK and Europe have been strongly opposing the patent waiver.
- ◆ Some European countries with vaccine industries, including Germany, argue that waiving intellectual property rights would pose a danger to future vaccine innovation and is unnecessary.

Implications for India

- ◆ If patents are ultimately waived, it will definitely be a shot in the arm to increase the scale and speed of vaccine rollout across the world.
- ◆ For India, which has had the bulk of the vaccine doses it is producing being taken up by foreign countries which could pay more for the doses, this move can help scale up production to meet demand besides making the vaccines more affordable for everyone.

11. Ayush 64, Kabasura Kudineer and Drug 2-deoxy-D-glucose (2-DG)

Why in News?

- ◆ In a concerted response to the second surge of COVID-19 infection in the country, Ministry of Ayush has launched a massive nationwide campaign today to distribute its proven poly herbal Ayurvedic drugs AYUSH 64 and Sidha drug Kabasura Kudineer for the benefit of the vast majority of out of hospital COVID patients.
- ◆ In other initiative, the Drugs Controller General of India (DCGI) has granted permission for emergency use of anti-COVID-19 therapeutic application of the drug 2-deoxy-D-glucose (2-DG).



About Ayush 64

- ◆ 'AYUSH 64', a poly-herbal formulation developed by the Central Council for Research in Ayurvedic Sciences (CCRAS), could help meaningfully treat asymptomatic, mild and moderate COVID-19 infections as an adjunct to standard care.
- ◆ It is worthwhile to mention that initially the drug was developed for Malaria in the year 1980 and now is repurposed for COVID-19.
- ◆ It is extensively studied, scientifically developed, safe and effective Ayurveda formulation. This medicine is also recommended in National Clinical Management Protocol based on Ayurveda and Yoga which is vetted

by National Task Force on COVID-19 Management of ICMR.

About Sidha Drug Kabasura Kudineer

- ◆ Kabasura Kudineer is a traditional formulation used by Siddha practitioners for managing common respiratory health.
- ◆ It is a herbal concoction, comprising dry ingredients of ginger, pippali, clove, cirukancori root, mulli root, kadukkai, ajwain and many other herbs.
- ◆ The ingredients are powdered and mixed with water, then boiled to make a decoction of one-fourth of its initial volume.

About 2-DG

- ◆ Drug 2-deoxy-D-glucose (2-DG) has been developed by Institute of Nuclear Medicine and Allied Sciences (INMAS), a lab of Defence Research and Development Organisation (DRDO), in collaboration with Dr. Reddy's Laboratories (DRL), Hyderabad.
- ◆ The drug comes in powder form in sachet, which is taken orally by dissolving it in water. It accumulates in the virus infected cells and prevents virus growth by stopping viral synthesis and energy production. Its selective accumulation in virally infected cells makes this drug unique.



Persons of the Week

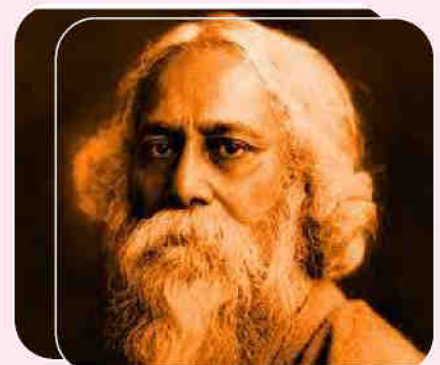
Maharana Pratap



Gopal Krishna Gokhale



Rabindranath Tagore



Elon Musk



Himanta Biswa Sarma Padmakumar Madhavan Nair



KR Gouri Amma



Maharana Pratap

- ◆ May 9 marks the birth anniversary of Maharana Pratap, the 13th king of Mewar. Maharana Pratap was born in 1540 and died at the age of 56 in 1597.
- ◆ Pratap Singh I, who was popularly known as Maharana Pratap, was born to King Udai Singh II and Queen Jaiwanta Bai. In 1572, he ascended to the throne after the demise of his father.
- ◆ Maharana Pratap went on to reclaim

his lost territories later in life and was succeeded by his eldest son Amar Singh I.

Battle of Haldighati

- ◆ He is known for his bravery in the Battle of Haldighati. It was fought in 1576 between Maharana and the forces of Akbar led by Man Singh of Amber.
- ◆ Soon after his coronation, Mughal emperor Akbar came to Mewar to



establish a safe route to Gujarat through Rajasthan. Akbar offered him a chance to become a vassal but Maharana Pratap refused to surrender to him.

Gopal Krishna Gokhale

- ◆ The Prime Minister has paid tributes to freedom fighter Gopal Krishna Gokhale on his 155th birth anniversary on May 9.
- ◆ Born on May 9, 1866, in Ratnagiri district of Maharashtra (then Bombay Presidency), Gopal Krishna Gokhale was one of the founding leaders of the Indian national movement.

Key Highlights

- ◆ Gokhale founded the Servants of India Society in Maharashtra's Pune on June 12, 1905.
- ◆ He served as Secretary of the Deccan Education Society.
- ◆ He also published a daily newspaper entitled 'Jnanaprakash', which allowed him to voice his reformist views on politics and society.

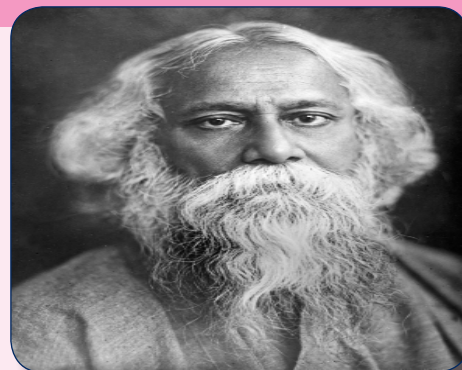


- ◆ Gokhale was a mentor to both Mohammed Jinnah and Mahatma Gandhi.

Rabindranath Tagore

- ◆ The Prime Minister has paid tribute to Gurudev Rabindranath Tagore on 160th Jayanti on 7th May.
- ◆ The writer of India's national anthem "Jana Gana Mana", Tagore is known as one of the greatest revolutionaries India has produced.
- ◆ Besides penning the national anthem of India, Jana Gana Mana, his composition is also part of Bangladesh's national anthem, Amar Shonar Bangla.

- ◆ Born on May 7, 1861, he is also known as Bard of Bengal, Gurudev, Kabiguru, and Biswakabi for his contribution to literature and poetry.
- ◆ He was the first non-European to win a Nobel Prize in Literature in 1913 for his selected poetry collection titled, 'Gitanjali', which was originally written in Bengali and later translated into English.



- ◆ He was even awarded a knighthood in 1915 by King George but renounced the title in 1919 after the Jallianwala Bagh massacre.

Elon Musk

- ◆ Tech entrepreneur Elon Musk has revealed that he has Asperger's syndrome.
- ◆ People with Asperger's often focus obsessively on a complex topic and have trouble with social relationships but have normal or above normal intelligence.
- ◆ The disorder is named after German doctor Hans Asperger, who first described it in 1944.
- ◆ According to Forbes magazine, the 49-year-old, one of the richest people in the world, has a fortune of \$117 billion (€96 billion).
- ◆ Recently, Elon Musk's commercial rocket company SpaceX has announced that it will



launch "DOGE-1 Mission to the Moon" in the first quarter of next year.

Himanta Biswa Sarma

- ◆ Himanta Biswa Sarma took oath as the 15th Chief Minister of Assam along with 13 members of his cabinet recently.
- ◆ He succeeds Sarbananda Sonowal as the new Chief Minister of the state.
- ◆ Himanta Biswa Sarma, who joined the BJP in 2015 after quitting the Congress, has been the party's point person for forging and maintaining alliances in the state.



Padmakumar Madhavan Nair

- ◆ State Bank of India's Padmakumar Madhavan Nair has been appointed as Chief Executive Officer (CEO) of Bad Bank which is a proposed entity of the National Asset Reconstruction Company Limited (NARCL).
- ◆ He will head the company on deputation basis for the moment.
- ◆ Currently, Nair is serving as the chief general manager (CGM), in-charge of stressed assets in State Bank of India (SBI).



KR Gouri Amma

- ◆ Kerala's seniormost Communist leader and the member of the first elected government, KR Gouri Amma has passed away at the age of 101 years.
- ◆ She was the lone surviving member of the first Kerala legislative assembly headed by legendary Communist leader EMS Namboothiripad in 1957 and the only woman in the first state cabinet.
- ◆ Gouri Amma was the driving force behind the historic Land Reforms Bill in Kerala. After the first Communist government assumed



charge in 1957, Gouri Amma floated an ordinance banning eviction of all tenants.



Places of the Week

Dahla Dam



**Qaraoun Lake on
Litani River**



**'Miyon ka Bara'
Railway Station**



**Mount Sinabung
Volcano**



Badrinath Dham



**Al-Aqsa Mosque
in Jerusalem**



Caspian Sea



Dahla Dam

- ◆ The Taliban have captured Afghanistan's second-biggest dam, Dahla Dam after months of fierce fighting in their former bastion of Kandahar.
- ◆ Dahla Dam provides irrigation to farmers via a network of canals as well as drinking water for the provincial capital.
- ◆ Dahla was built by the United States nearly 70 years ago to provide water for irrigating land in about seven districts of Kandahar.
- ◆ In 2019 the Asian Development Bank approved a grant of nearly \$350 million to be used partly to expand the reservoir-style project.



Qaraoun Lake on Litani River

- ◆ Tonnes of dead fish have washed up on the banks of a Qaraoun Lake on Lebanon's longest river, the Litani. The Litani River is an important water resource in southern Lebanon.
- ◆ The artificial lake was created by a dam on the Litani River, the longest river in Lebanon.
- ◆ The river rises in the fertile Beqaa Valley, west of Baalbek, and empties into the Mediterranean Sea north of Tyre.



‘Miyon ka Bara’ Railway Station

- ◆ The name of ‘Miyon ka Bara’ railway station in Rajasthan's Jodhpur has been changed to Mahesh Nagar.
- ◆ Earlier, in August 2018, the name of the village was officially changed from Miyon ka Bara to Mahesh Nagar after residents complained that they were unable to get matrimonial matches for their children as the name gave an impression that it is inhabited by Muslims.
- ◆ During the pre-Independence period, the original name of the village was ‘Mahesh Ro Bado’.



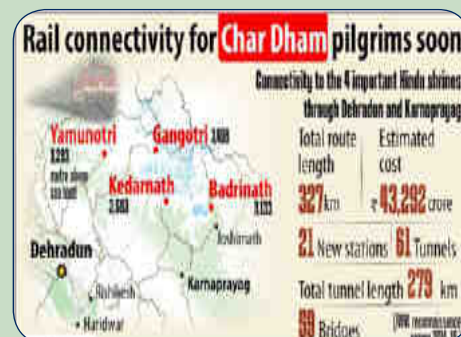
Mount Sinabung Volcano

- ◆ Indonesia's Mount Sinabung volcano, located in the North Sumatra province, has erupted recently.
- ◆ The volcano has been active since 2010 when it erupted after nearly 400 years of inactivity.
- ◆ Indonesia is home to many active volcanoes owing to its location in the “Ring of Fire” or the Circum-Pacific Belt — an area along the Pacific Ocean characterised by active volcanoes and frequent earthquakes.
- ◆ The Ring of Fire is home to about 75 per cent of the world's volcanoes and about 90 per cent of earthquakes also occur here.



Badrinath Dham

- ◆ Five state-owned oil and gas Public Sector Units (PSUs) have committed Rs 100 crore for the redevelopment of the Badrinath Dham in Uttarakhand as a spiritual smart city.
- ◆ The PSUs would also contribute to the development of Kedarnath, Uttarkashi, Yamunotri and Gangotri.
- ◆ Badrinath Dham is located in the Chamoli district in Uttarakhand at the height of 3,133 meters.
- ◆ The pre-eminent abode of Lord Vishnu is one of the holiest of the holy shrines of Char Dham pilgrimage in India. Other Char Dham sites include Dwarka, Puri and Rameswaram.
- ◆ It also belongs to the Chota Char Dham Yatra in Uttarakhand. Starting with Yamunotri, Gangotri and Kedarnath, Badrinath is the last and



most celebrated stop in the pilgrimage tour of Garhwal Himalayas.

Al-Aqsa Mosque in Jerusalem

- ◆ The violent confrontations between Palestinians and Israeli security forces at Al-Aqsa Mosque in Jerusalem this month reflect its significance as part of one of the most contested pieces of religious territory in the Holy Land.
- ◆ Al-Aqsa Mosque is one of the holiest structures in the Islamic faith.
- ◆ The mosque sits inside a 35-acre site known by Muslims as Haram al-Sharif, or the Noble Sanctuary, and by Jews as the Temple Mount. The site is part of the Old City of Jerusalem, sacred to Christians, Jews and Muslims.
- ◆ In Arabic, “aqsa” translates as farthest, and in this case it is a reference to Islamic scripture and its account of the Prophet Muhammad traveling from Mecca to the mosque in one night to pray and then ascending to heaven.



- ◆ For Jews, the Temple Mount, known in Hebrew as Har Habayit, is the holiest place.

Caspian Sea

- ◆ At least 170 endangered seals have washed up dead over the course of several days on the shores of the Caspian Sea in Russia's republic of Dagestan.
- ◆ The seal population of the Caspian Sea has for decades suffered from overhunting and the effects of industrial pollution.
- ◆ The UN Environment Programme has warned that the Caspian “suffers from an enormous burden of pollution”.
- ◆ The Caspian Sea, the world's largest inland body of water, is bounded by five countries: Russia, Kazakhstan, Azerbaijan, Iran and Turkmenistan.
- ◆ The Caspian Sea is a remnant of the ancient Paratethys Sea, part of the Tethys Ocean that existed 50 million

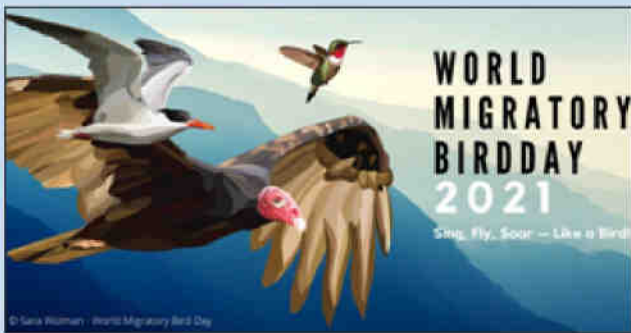


to 60 million years ago. At that time, the Tethys Ocean was connected to the Atlantic and Pacific oceans.



International/National Days of the Week

World Migratory Bird Day 2021



International Nurses Day 2021



National Technology Day 2021



World Thalassaemia Day 2021



76th WWII Victory Day



World Migratory Bird Day 2021

- ♦ World Migratory Bird Day 2021 is observed globally on 8 May. The aim of the day is to raise awareness of migratory birds and the importance of international cooperation to conserve them. The theme for 2021 World Migratory Bird Day is “Sing, Fly, Soar – Like a bird!”.



International Nurses Day 2021

- ♦ International Nurses Day is a day observed every year on May 12, the anniversary of Florence Nightingale's birth. The International Council of Nurses (ICN) celebrated the day for the first time in 1965. The theme for the 2021 is “Nurses: A Voice to Lead - A vision for future healthcare.” In 2021, we seek to show how nursing will look into the future as well how the profession will transform the next stage of healthcare.



National Technology Day 2021

- ♦ National Technology Day is celebrated every year on May 11. This day marks the anniversary of Pokhran nuclear tests of 1998 and India's technological advancements in this space. This year, the National Technology Day is being celebrated under the theme: “Science and Technology for a Sustainable Future”. Every year since 1999, the Ministry of Science and Technology, Technology Development Board (TDB) commemorates the day.



World Thalassaemia Day 2021

- ◆ May 8 is observed as World Thalassaemia Day every year. The day commemorates the struggles of the patients suffering from this genetic disorder and raise awareness about the disease and its symptoms. This year's theme is "Addressing Health Inequalities Across the Global Thalassaemia Community". In the year 1994, the Thalassaemia International Federation established May 8 as International Thalassaemia Day.



76th WWII Victory Day

- ◆ Victory Day marks the end of World War II and the victory of the Allied Forces in 1945. This day is observed to commemorate those who served in the war, defeating Germany and to remember the vast suffering of civilians.
- ◆ Adolf Hitler had shot himself on April 30. On May 7, German troops surrendered, which was formally accepted the next day, and came into effect on May 9.
- ◆ In most European countries, it is celebrated on May 8, and is called the Victory in Europe Day.



Brain Boosters

01

National Programme on Advanced Chemistry Cell Battery Storage

1. Why in News?

- ◆ The Cabinet, chaired by Prime Minister, has approved the proposal of Department of Heavy Industry for implementation of the Production Linked Incentive (PLI) Scheme 'National Programme on Advanced Chemistry Cell (ACC) Battery Storage' for achieving manufacturing capacity of Fifty (50) Giga Watt Hour (GWh) of ACC and 5 GWh of "Niche" ACC with an outlay of Rs.18,100 crore.



2. Key Highlights

- ◆ The scheme is among the PLI schemes worth Rs. 1.97 trillion announced by the government last year for 13 sectors.
- ◆ The goal is to create global manufacturing champions in the country and attract firms exploring a China-plus-one strategy for production.
- ◆ The plan is to set up 50 giga watt hour (GWh) manufacturing capacity for advanced chemistry cell batteries by attracting investments totaling Rs. 45,000 crore.
- ◆ One GWh (1,000-megawatt hour) of battery capacity is sufficient to power 1 million homes for an hour and around 30,000 electric cars.

3. What are ACCs?

- ◆ ACCs are the new generation of advanced storage technologies that can store electric energy either as electrochemical or as chemical energy and convert it back to electric energy as and when required.
- ◆ The consumer electronics, electric vehicles, advanced electricity grids, solar rooftop etc. which are major battery consuming sectors are expected to achieve robust growth in the coming years.
- ◆ Globally, manufacturers are investing in these new generation technologies at commercial scale to fill the expected boom in battery demand through 2030.
- ◆ It is expected that the dominant battery technologies will control some of the world's largest growth sectors.

4. Significance

- ◆ All the demand of the ACCs is currently being met through imports in India. The National Programme on Advanced Chemistry Cell (ACC) Battery Storage will reduce import dependence.
- ◆ It will also support the Atmanirbhar Bharat initiative.
- ◆ The scheme will also facilitate demand creation for battery storage in India.
- ◆ The manufacturing of ACCs will facilitate demand for Electric Vehicles (EVs), which are proven to be significantly less polluting.
- ◆ As India pursues an ambitious renewable energy agenda, the ACC program will be a key contributing factor to reduce India's Green House Gas (GHG) emissions which will be in line with India's commitment to combat climate change.

5. About PLI Scheme

- ◆ The government has introduced the production-linked incentive scheme (PLI) in April 2020 for large-scale electronics manufacturing in India.
- ◆ In the Union Budget 2021-22, the Finance Minister announced an outlay of INR 1.97 Lakh Crores for the PLI Schemes for 13 key sectors. The PLI scheme is designed with four objectives:
 - I. Target specific product areas;
 - II. Introduce non-tariff measures in order to compete more effectively with cheap imports;
 - III. Blend domestic and export sales to make manufacturing competitive and sustainable; and
 - IV. Promote manufacturing at home while encouraging investment from within and outside India.

02

Environment Appraisal Committee and Andaman's Development Plan

1. Why in News?

- ◆ The Environment Appraisal Committee (EAC) - Infrastructure I of the Ministry of Environment, Forest and Climate Change (MoEFCC) has flagged serious concerns about NITI Aayog's ambitious project for Great Nicobar Island.



2. Key Observations of the Committee

- ◆ The committee noted that the site selection for the port had been done mainly on technical and financial criteria, ignoring the environmental aspects.
- ◆ The committee has also asked for an independent study/ evaluation for the suitability of the proposed port site with specific focus on Leatherback Turtle, Nicobar Magapode and Dugong.
- ◆ Galathea Bay is an iconic nesting site in India of the enigmatic Giant Leatherback, the world's largest marine turtle.
- ◆ Further, there is a need for an independent assessment of terrestrial and marine biodiversity, a study on the impact of dredging, reclamation and port operations, including oil spills.
- ◆ The committee has also highlighted the need for studies of alternative sites for the port with a focus on environmental and ecological impact, analysis of risk-handling capabilities, a seismic and tsunami hazard map, a disaster management plan, an assessment of the cumulative impact, and a hydro-geological study to assess impact on ground and surface water regimes.
- ◆ The committee has also asked for details of the corporate environment policy of the implementing agency — whether the company has an environment policy, a prescribed standard operating procedure to deal with environmental and forest violations, and a compliance management system.

3. About the Project

- ◆ NITI Aayog has released a project document titled 'Sustainable Development of Little Andaman Island - Vision Document.'
- ◆ The document is the detailed plan to build a greenfield coastal city and free trade zones in the area.
 - ▢ Zone 1 – 102 sq km of the east coast of Little Andaman is to be developed into a financial district, a tourism and a hospital district.
 - ▢ Zone 2 – 85 sq km along the forest covers of the island is to be developed into the leisure zone with a film city and residential complexes which will also serve as a tourist hub.
 - ▢ Zone 3 – Another 52 sq km along with the forest covers on the western coast, is to be a nature zone. This is further categorically planned to be developed into a forest resort, nature healing district and a nature retreat.
- ◆ Furthermore, it also talked about the plans to harness scuba diving spots, develop 'world-class' infrastructure including hotels and resorts along with identifying spaces for 'focused development'.
- ◆ Plans have been made to develop the transportation sector through an airport, expansion of the island's jetty and a 100km greenfield ring highway.

03

QUAD, China and Bangladesh

1. Why in News?

- ◆ Recently, China has warned Bangladesh against joining the US-led Quad alliance, saying that Dhaka's participation in the anti-Beijing "club" would result in "substantial damage" to bilateral relations.

2. Background

- ◆ The unusual warning from China came weeks after visiting Chinese Defence Minister Gen. Wei Fenghe emphasised to Bangladesh President Abdul Hamid that Beijing and Dhaka should make joint efforts against powers from outside the region establishing a "military alliance" in South Asia and practising "hegemonism".



3. Bangladesh's Response

- ◆ Bangladesh Foreign Minister Dr AK Abdul Momen said Dhaka maintains a non-aligned and balanced foreign policy and it will decide what to do according to those principles.
- ◆ Bangladesh is an independent and sovereign state.
- ◆ However, according to the sources, no one from the Quad has approached Bangladesh yet.

4. About QUAD

- ◆ Initiated in 2007, the Quadrilateral Security Dialogue, Quad for short, is an informal grouping of India, the US, Australia and Japan.
- ◆ The four Quad leaders have vowed to strive for an Indo-Pacific region that is free, open, inclusive, healthy, anchored by democratic values, and unconstrained by coercion, sending an clear message to China against its aggressive actions in the region.
- ◆ The first summit of the Quad leaders was hosted by US President Joe Biden on March 12.

04

COVID-19 and Impact on Urban and Rural Poor

1. Why in News?

- ◆ According to the report compiled by Hunger Watch, the novel coronavirus disease (COVID-19) pandemic has left the urban poor in India poorer, more hungry and with less nutrition than their rural counterparts.



2. Key Highlights of the Report

- ◆ A large section of rural residents could cushion the blow of pandemic-driven economic disruption due to foodgrain via the public distribution system (PDS). The urban poor's access to such ration, however, was minimal.
- ◆ The social security schemes also had a relatively better coverage among the rural poor as rural areas had better access to PDS rations. A larger proportion of households in urban areas did not have access to ration cards.
- ◆ Incomes reduced by half or a quarter for more than half the urban respondents while it was a little over one-third for rural respondents.
- ◆ Similarly, a decline in nutritional quality and quantity was more among the urban respondents as was the need to borrow money for buying food.
- ◆ Overall, levels of hunger and food insecurity remained high, with little hope of the situation improving without measures specifically aimed at providing employment opportunities as well as food support.
- ◆ The figures in the Hunger Watch report are alarming, especially when seen in conjunction with the recent rounds of National Family Health Survey (NFHS) data.
- ◆ The NFHS data has shown either a worsening or stagnation in malnutrition outcomes such as prevalence of stunting and wasting among children and high levels of anaemia among women and children.
- ◆ The food insecurity has prompted more people to enter the labour force (around 55 per cent increase in the labour force among the respondents).
 - It also noted a silent rise in child labour as well.
- ◆ The economic crisis was deepening as people who lost their jobs were yet to find replacements and little had been accomplished after the lockdown for the revival of livelihoods in the informal sector.

3. About the Report

- ◆ Hunger Watch is a loose collection of social groups and movements. It came together for a periodic study of the actual status of hunger, food access and livelihood security among various disadvantaged populations in the wake of the country-wide lockdown in March 2020.
- ◆ This is the first report of the collective, based on interviews with 3,994 households across 11 states. The data was collected in October 2020 and compared with pre-lockdown levels on the same parameters.

05

India-EU Leaders' Meeting

1. Why in News?

- ◆ Prime Minister of India has participated in the India-European Union (EU) Leaders' Meeting on 8th May 2021.



2. Introduction

- ◆ The Meeting was hosted by Prime Minister of Portugal, Mr. António Costa. Portugal currently holds the Presidency of the Council of the EU.
- ◆ The meeting was held in a hybrid format with the participation of leaders of all the 27 EU Member States.
- ◆ This is the first time that the EU hosted a meeting with India in the EU+27 format.
- ◆ The EU+27 have met in this format only once before, with the US President in March this year.

3. Key Highlights of the Meeting

- ◆ During the meeting, the leaders expressed their desire to further strengthen the India-EU Strategic Partnership based on a shared commitment to democracy, fundamental freedoms, rule of law and multilateralism.
- ◆ They exchanged views on three key thematic areas: i) foreign policy and security; ii) COVID-19, climate and environment; and iii) trade, connectivity and technology.
- ◆ The leaders welcomed the decision to resume negotiations for balanced and comprehensive free trade and investment agreements.
- ◆ India and the EU also announced dedicated dialogues on WTO issues, regulatory cooperation, market access issues and supply chain resilience, demonstrating the desire to deepen and further diversify economic engagement.
- ◆ India and the EU launched an ambitious and comprehensive 'Connectivity Partnership' which is focused on enhancing digital, energy, transport and people-to-people connectivity.
- ◆ The Partnership is based on the shared principles of social, economic, fiscal, climate and environmental sustainability, and respect for international law and commitments.
- ◆ The Partnership will catalyse private and public financing for connectivity projects. It will also foster new synergies for supporting connectivity initiatives in third countries, including in the Indo-Pacific.
- ◆ India and the EU leaders reiterated their commitment to achieving the goals of the Paris Agreement and agreed to strengthen joint efforts for mitigation, adaptation and resilience to the impacts of climate change, as well as providing means of implementation including finance in the context of COP26.
- ◆ India welcomed the EU's decision to join Coalition for Disaster Resilient Infrastructure (CDRI).
- ◆ India and the EU also agreed to enhance bilateral cooperation on digital and emerging technologies such as 5G, Artificial Intelligence (AI), Quantum and High-Performance Computing including through the early operationalization of the Joint Task Force on AI and the Digital Investment Forum.
- ◆ The leaders acknowledged the importance of a free, open, inclusive and rules-based Indo-Pacific and agreed to closely engage in the region, including in the context of India's Indo-Pacific Ocean's Initiative and the EU's new strategy on the Indo-Pacific.
- ◆ A finance contract of Euro 150 million for the Pune Metro Rail Project was signed by the Ministry of Finance, Government of India, and European Investment Bank.
- ◆ India-EU Leaders Meeting has set a significant milestone by providing a new direction to the Strategic Partnership and giving a fresh impetus for implementing the ambitious India-EU Roadmap 2025 adopted at the 15th India-EU Summit held in July 2020.

4. About European Union

- ◆ The European Union is a unique economic and political union between 27 EU countries that together cover much of the continent.
- ◆ In 2012, the EU was awarded the Nobel Peace Prize for advancing the causes of peace, reconciliation, democracy and human rights in Europe.
- ◆ On 31 January 2020 the United Kingdom left the European Union.

06

Connected Commerce: Creating a Roadmap for a Digitally Inclusive Bharat

1. Why in News?

- ◆ NITI Aayog and Mastercard has released a report titled 'Connected Commerce: Creating a Roadmap for a Digitally Inclusive Bharat'.
- ◆ The report identifies challenges in accelerating digital financial inclusion (DFI) in India and provides recommendations for making digital services accessible to its 1.3 billion citizens.



2. What is Digital Financial Inclusion?

- ◆ DFI refers to the use of digital financial services to advance financial inclusion.
- ◆ These include payments, transfers, savings, credit, insurance, securities, financial planning and account statements. They are delivered via technology, such as e-money (initiated either online or on a mobile phone), payment cards and regular bank accounts.

3. Key Highlights of the Report

- ◆ **Digital Financial Inclusion**
 - The government has been putting lot of effort and much success on the supply side of DFI has been seen through schemes like e-governance, the JAM trinity, in Goods and Services Tax (GST).
 - However, the break in the digital financial flow comes at the last mile, where account holders mostly withdraw cash for their end-use.
- ◆ **Opportunities for MSMEs**
 - Micro, Small and Medium Enterprises (MSMEs) have been a key growth driver for the Indian economy.
 - According to the GAME Task Force report of June 2020, the category employed some 110 million people, or over 40% of India's non-farm workforce.
 - The widespread inability to access formal finance is a common pain-point of India's heterogeneous MSME landscape.
 - The lack of proper documentation, bankable collateral, credit history and non-standard financials force them to access informal credit at interest rates that are double of those from formal lenders.
 - Therefore, increasing the credit flow to MSMEs is pivotal to GDP growth.

◆ Trust and Security in Digital Commerce

- With the tremendous growth in digital payments in the past few years, companies are putting customer experience at the front and centre. However, security cannot be left behind, especially given the fact that 500 million users will have access to internet in the next few years.
- This surge in digital transactions has increased the risk for possible security breaches, both for consumers and businesses.
- We must ensure that India's inclusive digital financial system is protected against frauds and security breaches for both consumers and business.

◆ India's Agri Enterprises

- Agriculture, with its allied sectors, provides livelihood to a large section of the Indian population. Over the years, agriculture's contribution to national GDP has declined from 34% in 1983-84 to just 16% in 2018-19.
- Farmers face myriad challenges, such as access to markets, information, inputs, financial services, expert advice, etc.
- Most agri-techs have not succeeded in digitizing financial transactions for farmers or enabling formal credit at lower rates of interest by leveraging transaction data.
- Enabling agricultural NBFCs to access low-cost capital and deploy a 'phygital' (physical + digital) model for achieving better long-term digital outcomes.
- Digitizing land records will also provide a major boost to the sector.

◆ Robust Transit Systems for Smart Cities

- Mass transit is the backbone of developed economies.
- India needs systems that allow citizens to access transit seamlessly. Today's proprietary cards give discounts and benefits to those who pay up front, while poor customers spend time in queues for more expensive single-ride tickets.
- Minimizing queues and crowds is important as the world recovers from the Covid-19 pandemic.
- With the transport sector expected to grow to 12% of GDP by 2026, there is a huge opportunity for the government and private sector to collaborate and provide top-quality systems for mass transit by improving the overall customer experience.

07

Israel's Iron Dome Defence System

1. Why in News?

- ◆ In the conflict between Israel and Palestine, both sides have taken to air strikes and rocket attacks.
- ◆ However, the Iron Dome aerial defence system of Israel has intercepted several Hamas Unmanned Aerial Vehicles (UAVs) that crossed from Gaza into Israel.



2. What is the Iron Dome?

- ◆ It is a short-range of up to 70 km, ground-to-air, air defence system that includes a radar and Tamir interceptor missiles that track and neutralise any rockets or missiles aimed at Israeli targets.
- ◆ It is used for countering rockets, artillery & mortars (C-RAM) as well as aircraft, helicopters and unmanned aerial vehicles.
- ◆ It is an all-weather system and can engage multiple targets simultaneously and can be deployed over land and sea.

3. Working of Iron Dome

- ◆ The Iron Dome has three main systems that work together to provide a shield over the area where it is deployed, handling multiple threats.
- ◆ It includes a battle management and weapon control system (BMC), detection and tracking radar and a firing unit of three vertical launchers, with 20 interceptor missiles each.
 - The BMC basically liaises between the radar and the interceptor missile.
- ◆ It is capable of being used in all weather conditions, including during the day and night.
- ◆ The Iron Dome is deployed in a layered defence along with David's Sling and Arrow missile defence system which are designed for medium- and long-range threats.

4. Cost

- ◆ Each battery, or the full unit, can cost over \$50 million, and one interceptor Tamir missile costs around \$80,000.
- ◆ In contrast, a rocket can cost less than \$1,000. The system dispatches two Tamir missiles to intercept each rocket.

5. Limitations

- ◆ The system has intercepted thousands of rockets so far and, according to Rafael Advanced Systems, its success rate is over 90%.
 - However, the system can see limitations when it is overwhelmed with a barrage of projectiles.
- ◆ The system has a 'saturation point'. It is capable of engaging a certain (unpublished) number of targets at the same time, and no more.
- ◆ Additional rockets fired in a crowded salvo could succeed in breaching defences and cause damage.
- ◆ According to a November 2017 study by RAND Corporation, the system is built to intercept a certain of projectiles and can be overwhelmed by a more capable adversary.

Self Assessment (Objective Questions)



1. China is planning to erect a 'Line of Separation' on Everest

Q. Consider the following statements:

1. To prevent coronavirus transmission at the summit of Mount Everest, Nepal and China are planning to erect a "line of separation" at the top of mountain.
2. Mount Everest is on the border of Nepal and China, and can be climbed from both sides.

3. Nepal and China have jointly certified the elevation of Mount Everest at 8,848.86 metres above sea level.

Which of the statement(s) given above is/are correct?

- a) 1 and 3 only
- b) 2 and 3 only
- c) 3 only
- d) 1, 2 and 3

Ans: (b)

2. Social Stock Exchanges

Q. With reference to the 'Social Stock Exchange (SSE)', consider the following statements:

1. An SSE allows the listing of non-profit or non-government organisations on stock exchanges.
2. Political and religious organisations, trade organisations

as well as corporate foundations are also allowed to raise funds through SSEs.

Which of the statement(s) given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Ans: (a)

3. Chinese Rocket Debris has crashed into Indian Ocean

Q. Consider the following statements:

1. Debris from the last stage of China's Long March 5B fell into the waters of the Indian Ocean west of the Maldives.
2. The Long March 5B rocket successfully launched China's first space station module directly into low Earth Orbit.

3. Wentian Space Station is the name of China's first space station.

Which of the statement(s) given above is/are correct?

- a) 1 only
- b) 2 and 3 only
- c) 1 and 2 only
- d) 1, 2 and 3

Ans: (c)

4. Supreme Court's Verdict on Maratha Quota

Q. Consider the following statements with reference to the Supreme Court's verdict on Maratha Quota:

1. A five-judge Constitution Bench of the Supreme Court has upheld the Maharashtra law granting reservation to the Maratha community.
2. The Maratha quota exceeded the 50% limit to vertical quotas.

Which of the statement(s) given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Ans: (b)

5. State of Working India 2021: One Year of COVID--19

Q. With reference to the 'State of Working India 2021: One Year of COVID--19', consider the following statements:

1. It has been released by the NITI Aayog and Azim Premji University's Centre for Sustainable Employment.
2. The study found that around 100 million jobs were lost nationwide during the April-May 2020 lockdown.

3. Education, health and professional services saw the highest exodus of workers into other sectors.

Which of the statement(s) given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Ans: (b)

6. Telangana Government has banned Glyphosate Herbicide

Q. Consider the following statements with reference to Glyphosate Herbicide:

1. The government of India has imposed a total ban on glyphosate, a controversial herbicide.
2. Glyphosate is among the 39 widely-used agrochemicals by the farmers in India to control weeds in tea plantations, non-crop and cropped areas.

Which of the statement(s) given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Ans: (b)

7. FAO Food Price Index

Q. With reference to the FAO Food Price Index, consider the following statements:

1. The FAO Food Price Index (FFPI) is a measure of the monthly change in international prices of a basket of food commodities.
2. FFPI averaged 120.9 points in April 2021, 2.0 points (1.7 percent) higher than in March.

3. The increase marked the eleventh consecutive monthly rise in the value of the FFPI to its highest level since May 2014.

Which of the statement(s) given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Ans: (d)

8. The Global Methane Assessment

Q. Consider the following statements with reference to the 'Global Methane Assessment':

1. Carbon dioxide levels have dropped during the novel coronavirus disease (COVID-19) pandemic. However, methane in the atmosphere reached record levels last year.
2. The most human-caused methane emissions come from three sectors: fossil fuels, waste, and agriculture.

Which of the statement(s) given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Ans: (c)

9. Black Fungus

Q. With reference to the 'black fungus', consider the following statements:

1. The fungal infection often manifests in the skin and also affects the lungs and the brain.
2. It is caused by COVID-19.
3. It mainly affects people who are on medication for health problems that reduces their ability to fight environmental pathogens.

Which of the statement(s) given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Ans: (c)

10. 3rd Arctic Science Ministerial (ASM3)

Q. Consider the following statements with reference to the '3rd Arctic Science Ministerial (ASM3)':

1. It is the Ministerial meeting held in Asia (New Delhi in India).
2. The theme for this year is 'Knowledge for a Sustainable Arctic'.

3. Since 2008, India enjoys 'Observer' status in the Arctic Council.

Which of the statement(s) given above is/are correct?

- a) 1 only
- b) 2 only
- c) 1 and 3 only
- d) 1, 2 and 3

Ans: (b)

11. DOGE-1 Mission to the Moon

Q. With reference to the 'DOGE-1 Mission', consider the following statements:

1. SpaceX will launch a satellite, 'DOGE-1 Mission' to the Mars in 2022.
2. It will be funded entirely with the cryptocurrency "Dogecoin".

Which of the statement(s) given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Ans: (b)

12. NASA's OSIRIS-Rex Spacecraft

Q. Consider the following statements with reference to the OSIRIS-Rex Mission:

1. OSIRIS-REx is an asteroid-study and sample-return mission of NASA and JAXA.
2. It studied the asteroid Bennu.
3. Bennu is believed to have been born in the Main Asteroid belt between Mars and Jupiter.

Which of the statement(s) given above is/are correct?

- a) 1 only
- b) 1 and 3 only
- c) 2 only
- d) 2 and 3 only

Ans: (d)

13. 5G Trials in India

Q. With reference to the 5G trials in India, consider the following statements:

1. 5G mainly works in 3 bands, namely low, mid and high-frequency spectrum.
2. Low band spectrum offers limited coverage and higher speed of internet.
3. The high-band spectrum offers the highest speed of all the three bands as well broader coverage of internet.

Which of the statement(s) given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 only
- d) 3 only

Ans:(a)

14. Waiving Patents on COVID-19 Vaccines

Q. Consider the following statements:

1. World Trade Organization has announced its support in favour of waiving patents on Covid-19 vaccines.
2. Along with the United States, some European countries with vaccine industries, including Germany, are opposing the waiver.

Which of the statement(s) given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Ans: (d)

15. Ayush 64, Kabasura Kudineer and Drug 2-deoxy-D-glucose (2-DG)

Q. Consider the following statements with reference to the coronavirus medicine:

1. 'AYUSH 64', a poly-herbal formulation developed by the Central Council for Research in Ayurvedic Sciences (CCRAS).
2. Kabasura Kudineer is a traditional formulation used by Siddha practitioners for managing common respiratory health.

3. DRDO's Drug 2-deoxy-D-glucose (2-DG) comes in powder form in sachet, which is taken orally by dissolving it in water.

Which of the statement(s) given above is/are correct?

- a) 1 only
- b) 2 and 3 only
- c) 3 only
- d) 1, 2 and 3

Ans: (d)



Self Assessment (Subjective Questions)





- 01 China's plan to erect a 'Line of Separation' on the top of Mount Everest is a sign of it's vision of hegemony. Evaluate.
- 02 What do you understand by Social Stock Exchanges (SSE)? Discuss how a SSE may be helpful in rebuilding the livelihoods of people who are affected during pandemics like COVID-19.
- 03 What is uncontrolled re-entry of satellites into Earth's atmosphere? Why is it a serious problem? Discuss.
- 04 Recently, Supreme Court has struck down the Maharashtra law granting reservation to the Maratha community in admissions and government jobs in the state. Discuss the implications of the judgement.
- 05 "The COVID-19 pandemic has substantially increased informality in employment, leading to a decline in earnings for the majority of workers, and consequent increase in poverty in the country." Explain.
- 06 What is Glyphosate Herbicide? Why Telangana government has banned Glyphosate Herbicide?
- 07 What is FAO Food Price Index? Discuss the key findings of Food Price Index of the April month.
- 08 During the novel coronavirus disease (COVID-19) pandemic, methane in the atmosphere reached record levels. Discuss the contribution of human in it.
- 09 What is black fungus disease? Also discuss its symptoms.
- 10 Discuss the impact of Arctic ice melt on the Indian summer monsoon.
- 11 "DOGE-1 Mission to the Moon will demonstrate the application of cryptocurrency beyond Earth orbit and set the foundation for interplanetary commerce." Explain.
- 12 What is asteroid Benu? Why scientists and researchers are interested in studying this asteroid?
- 13 The Department of Telecommunications has allowed private telcos to start trials for 5G technology in India. Why is it important for Indian telecom companies and government? Discuss.
- 14 What does the intellectual property waiver for COVID-19 vaccines mean? Is waiving vaccine patents is important in fight against COVID-19? Discuss.
- 15 Write a short note on 'Ayush 64', 'Kabasura Kudineer' and 'Drug 2-deoxy-D-glucose (2-DG)'.

AN INTRODUCTION

Dhyeya IAS, a decade old institution, was founded by Mr. Vinay Singh and Mr. Q.H. Khan. Ever since its emergence it has unparalleled track record of success. Today, it stands tall among the reputed institutes providing coaching for Civil Services Examination (CSE). The institute has been very successful in making potential realize their dreams which is evident from success stories of the previous years.

Quite a large number of students desirous of building a career for themselves are absolutely less equipped for the fairly tough competitive tests they have to appear in. Several others, who have a brilliant academic career, do not know that competitive exams are vastly different from academic examination and call for a systematic and scientifically planned guidance by a team of experts. Here one single move invariably put one ahead of many others who lag behind. Dhyeya IAS is manned with qualified & experienced faculties besides especially designed study material that helps the students in achieving the desired goal.

Civil Services Exam requires knowledge base of specified subjects. These subjects though taught in schools and colleges are not necessarily oriented towards the exam approach. Coaching classes at Dhyeya IAS are different from classes conducted in schools and colleges with respect to their orientation. Classes are targeted towards the particular exam. Classroom guidance at Dhyeya IAS is about improving the individual's capacity to focus, learn and innovate as we are comfortably aware of the fact that you can't teach a person anything you can only help him find it within himself.

DSDL Prepare yourself from distance

Distance learning Programme, DSDL, primarily caters the need for those who are unable to come to metros for economic or family reason but have ardent desire to become a civil servant. Simultaneously, it also suits to the need of working professionals, who are unable to join regular classes due to increase in work load or places of their posting. The principal characteristic of our distance learning is that the student does not need to be present in a classroom in order to participate in the instruction. It aims to create and provide access to learning when the source of information and the learners are separated by time and distance. Realizing the difficulties faced by aspirants of distant areas, especially working candidates, in making use of the institute's classroom guidance programme, distance learning system is being provided in General Studies. The distance learning material is comprehensive, concise and exam-oriented in nature. Its aim is to make available almost all the relevant material on a subject at one place. Materials on all topics of General Studies have been prepared in such a way that, not even a single point will be missing. In other words, you will get all points, which are otherwise to be taken from 6-10 books available in the market / library. That means, DSDL study material is undoubtedly the most comprehensive and that will definitely give you added advantage in your Preliminary as well as Main Examination. These materials are not available in any book store or library. These materials have been prepared exclusively for the use of our students. We believe in our quality and commitment towards making these notes indispensable for any student preparing for Civil Services Examination. We adhere all pillars of Distance education.

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