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DIRECTOR'S MESSAGE



“Civil Service is not just a job; it is an opportunity, to do your bit for society and to contribute to nation-building. It is an opportunity to realise your potential and make a meaningful contribution in the emancipation of masses.”

Mr. Dilip Kumar
Director, Vajirao IAS Academy

Good Civil Servants ensure efficient and smooth governance. They are the backbone of the country and they have the power to make a difference in people's life.

We have set up extremely tough targets for ourselves. Now a day's, most of the students are well aware and focused about their aim. They just need a streak of guidance. We feel that we have done our bit in providing that blue streak of guidance and we are honoured to be a reason of smile on certain lips, proud to be your teacher, friend and guide.

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3. Daily Current Affairs Quiz



1. SIMPLIFY EDITORIAL

[1.1] STATE OF MEDICAL EDUCATION IN INDIA

[SUBJECT: GS PAPER 3: (MEDICAL AND HEALTHCARE)]

The Russian invasion in Ukraine has brought to the fore the glaring plight of medical education in India with a large number of Indian students pursuing Medicines in Ukraine still waiting to be rescued from the country.

The dynamics of India's medical education system are complex. The most sought-after international destinations particularly for Indian students for medical education have been the U.S., the U.K. and a few west European countries. These destinations are however, too expensive for most Indians. In the last few decades, Russia, China and Ukraine, with their historical commitment to public health care have been able to offer more affordable, yet quality, education.

Medical education is the bedrock on which the needs of 'human resources for health', one of the major building blocks of any health system, are met.

India has the largest number of medical colleges and is also a booming market for medical tourism, but a large majority of citizens do not have access to the basic healthcare facilities. The doctor-population ratio is far lower than prescribed by the World Health Organization (one for every 1,674 persons, as per the parliamentary panel report, against the WHO recommended one to 1,000).

Challenges with Medical Education in India

Majority of the Indian population still resides in the rural areas with limited access to credible healthcare facilities, still most of the trained nurses, doctors and paramedics move on to cities for a better lifestyle and income.

The very nature of medical education, an empirical field, requires significant infrastructure — land, equipment, and trained faculty at the post graduate level — all of which are in short supply and uneven in their spread. Only four states - Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu - account for about 1.3 lakh out of nearly 2.4 lakh medical seats across India.

Regular breakthroughs take place in the medical field every day, but the medical studies syllabus in India is not updated accordingly. Even the Teachers for medical institutes are selected based on their degrees and not their clinical experience. Further, the lower salary fails to attract better talent as they go for private practice.

A change in the law in the 1990s made it easy to open private schools and so many such medical institutes cropped up in the country, funded by businessmen and politicians, who had no experience of running medical schools. It commercialized medical education to a great extent. Fraudulent practices and rampant corruption such as fake degrees, bribes and donations, proxy faculties, etc. in the medical education system is a major problem.

For several years, India's spend on healthcare has consistently trailed several countries comparable to its size which is why there is barely one doctor for every 1,000 Indians and specialists often a tenth of what is required.

Without correcting these deficiencies, India cannot expect to dramatically increase the availability of medical personnel. The Government needs to make health care the centerpiece of its economic rebuilding. These shortcomings have lubricated the phenomenon of young Indians seeking affordable, quality, health-care education in other countries. But merely having private establishments start medical schools, without a long-term commitment to offer necessary training and post-graduate education, could lead to a repeat of the engineering fiasco after the dotcom boom. The Government must instead ease procedures for

establishing medical colleges, spend more on infrastructure, and provide incentives for a health-care ecosystem to develop in rural areas.

SOURCE: <https://www.thehindu.com/opinion/editorial/no-quick-fix-the-hindu-editorial-on-the-state-of-medical-education-in-india/article65089868.ece>

[1.2] THE MISINTERPRETATION OF THE ANTI-DEFECTION LAW

[SUBJECT: GS PAPER 2: (INDIAN POLITY, RECENT JUDGEMENTS)]

The High Court of Bombay at Goa in its judgment, delivered on February 25, held that the former members of the Congress Legislature Party (CLP) in the Goa assembly who had defected to the BJP are exempt from disqualification under paragraph 4(2) of the Constitution's Tenth Schedule, referred to commonly as the anti-defection law. Ten of the 15 MLAs of the CLP in the Goa Assembly — two-thirds of the party's strength in the House — had joined the BJP.

The court said that under sub-paragraph (2) of paragraph (4), the merger of this group of Congress MLAs with the BJP is deemed to be a merger of the original political party (Indian National Congress) with the BJP. Therefore, these members are protected under paragraph (4).

What is Anti-Defection Law?

The Tenth Schedule - popularly known as the Anti-Defection Act - was included in the Constitution via the 52nd Amendment Act, 1985 and sets the provisions for disqualification of elected members on the grounds of defection to another political party. The anti-defection law punishes individual Members of Parliament (MPs)/ MLAs for leaving one party for another.

However, it allows a group of MP/MLAs to join (i.e., merge with) another political party without inviting the penalty for defection. And it does not penalize political parties for encouraging or accepting defecting legislators.

Grounds of Disqualification:

If an elected member voluntarily gives up his membership of a political party.

If he votes or abstains from voting in such House contrary to any direction issued by his political party or anyone authorized to do so, without obtaining prior permission.

As a pre-condition for his disqualification, his abstention from voting should not be condoned by his party or the authorized person within 15 days of such incident.

If any independently elected member joins any political party.

If any nominated member joins any political party after the expiry of six months.

Paragraph (4) of ADL:

Paragraph (4) of the Tenth Schedule exempts defectors from disqualification if their original political party merges with another party and two-thirds of the members of that party in the legislature agree with the merger.

Paragraph (4) is an exception to the Tenth Schedule's main provisions. It operates only when the defectors' original political party has merged with the party to which they have defected and two-thirds of the members of the legislature belonging to that party have agreed to the merger. Under this provision, the merger of the original political party has to take place first, followed by two-thirds of the MLAs agreeing to that merger.

The court's view — the merger of the 10 MLAs of the CLP with the BJP should be regarded as the Congress itself merging with the BJP — goes against the letter and spirit of the Tenth Schedule, paragraph (4) in particular.

Way Forward

The anti-defection law was designed to eliminate political defection. However, the judgment of the Bombay HC seems to assume that paragraph (4) of the 10th schedule is meant to facilitate defection. This judgment is likely to open the flood gates to defection. The Supreme Court must intervene quickly.

[1.3] THE IPCC REPORT AND INDIA

[SUBJECT: GS PAPER 3: (ENVIRONMENT AND CLIMATE CHANGE)]

The IPCC has recently released the second part of the Sixth Assessment Report which talks about climate

change impacts, risks and vulnerabilities and adaptation options. The Assessment Reports, the first of which had come out in 1990, are the most comprehensive evaluations of the state of the earth's climate. Hundreds of experts go through every available piece of relevant, published scientific information to prepare a common understanding of the changing climate.

The world faces unavoidable multiple climate hazards over the next two decades with global warming of 1.5°C; even temporarily exceeding this warming level would mean additional severe impacts, some of which will be irreversible.

The IPCC report for the first time has looked at the health impacts of climate change. It has found that climate change is increasing vector-borne and waterborne diseases such as malaria or dengue, particularly in sub-tropical regions of Asia. It has also said deaths related to circulatory, respiratory, diabetic and infectious diseases, as well as infant mortality, are likely to increase with a rise in temperature.

The report points out that the rise in weather and climate extremes has led to some irreversible impacts as natural and human systems are pushed beyond their ability to adapt.

Concerns for India

India is one of the most vulnerable countries in terms of the population that will be affected by sea-level rise. By the middle of the century, around 35 million of its people could face annual coastal flooding, with 45 million-50 million at risk by the end of the century if emissions are high.

India will achieve net zero emissions latest by 2070, that is, there will be no net carbon emissions. By 2030, India would also ensure 50% of its energy will be from renewable energy sources. These are the targets mentioned by PM Narendra Modi in the COP26 Glasgow Summit. However, none of this can help the 1.5°C mark from being breached.

A major point of emphasis of the report is the trend in the 'wet bulb' temperature. It is an index of the impact of heat and humidity combined and its effect on health. Indian cities like Lucknow and Patna are already predicted to be having the wet-bulb temperature of 35 degree celsius whereas cities such as Bhubaneswar, Chennai, Mumbai, Ahmedabad, Indore etc are at the risk of reaching the wet-bulb temperature of 32-34 degree celsius.

This will have consequences such as a rise in heatwave linked deaths or reduced productivity. Global sea levels will likely rise 44cm-76cm this century if governments meet their current emission-cutting pledges. This possesses the highest risk for Indian coastal cities.

Way Forward

The Sixth Assessment Report, however, has presented lots of evidence to suggest that pursuing a 2°C target could be disastrous, and more ambitious actions need to be taken to keep the temperature rise within 1.5°C. Experience has shown that partisan economic calculations trump climate considerations, but India must shore up its adaptation measures and urgently move to secure the futures of its many vulnerable who have the most to lose.

[1.4] THE FRICTION BETWEEN CM AND GOVERNOR

[SUBJECT: GS PAPER 2: (INDIAN POLITY AND GOVERNANCE)]

The signs of friction between the sitting Chief Minister of a State and the Governor is nothing new in Indian states. The onus primarily remains with the Chief Minister to not blow the situation out of proportion and avert any sort of constitutional crisis. The primary reason behind the recent spate of political turmoil between the CM and Governor in many states of India can be attributed to the persons as Governors who have been politically active in the recent past and the partisan role they play as the agents of the Center.

Constrained by the 'aid and advice' clause in their routine functioning, some Governors seem to be using the discretionary space available to them to keep regimes on tenterhooks.

Related SC Judgements

A Constitution Bench of the Supreme Court laid down in 1974 that the President and Governor shall "exercise their formal constitutional powers only upon and in accordance with the advice of their Ministers save in a few well-known exceptional situations"—"situations" also illustrated. Yet, there is the extraordinary situation of some Governors not acting upon requests to grant clemency or assent to Bills; and, in one instance in Tamil Nadu, a reluctance to reserve for the President's consideration a Bill that expressly requires Presidential assent because of obvious conflict with a central law.

Causes of the Conflict

The Constitution fixes no time-frame for the Governors to act, and contains, in Article 163, an unusual power to choose what is in their discretion and what is not, with the courts being barred from inquiring into whether any advice and, if so, what advice was given.

Governors indeed have a duty to defend the Constitution and encourage or caution the elected regime, the impression that Governors are not obliged to heed Cabinet advice persists in some areas.

There are numerous examples of the Governor's position being abused, usually at the behest of the ruling party at the Center. The process of appointment has generally been the cause behind it.

In several cases, politicians and former bureaucrats identifying with a particular political ideology have been appointed as the Governors by the central government. This goes against the constitutionally mandated neutral seat and has resulted in bias.

Governor's discretionary powers to invite the leader of the largest party/alliance, post-election, to form the government has often been misused to favor a particular political party.

A Governor's recommendation for President's Rule (Article 356) in a state has not always been based on 'objective material', but on political whim or fancy.

Related Recommendations

The "Punchhi commission - 2010" recommended that there should be a provision for the impeachment of the governor by the state legislature. The state chief minister should have a say in the governor's appointment.

The Sarkaria Commission (1988) recommended that Article 356 should be used in very rare cases when it becomes unavoidable to restore the breakdown of constitutional machinery in the State.

The Supreme Court in the Nabam Rebia judgment (2016) ruled that the exercise of Governor's discretion Article 163 is limited and his choice of action should not be arbitrary or fanciful.

Way Forward

At a time when regional political forces are actively seeking to be heard by the Centre, it may be time that

the provisions relating to the Governor's role are amended. Identifying areas of discretion, fixing a time-frame for them to act, and making it explicit that they are obliged to go by Cabinet advice on dealing with Bills can be considered.

In addition, as suggested by the M.M. Punchhi Commission, ending the practice of burdening Governors with the office of Chancellor in universities should also be considered.

[1.5] THE ALTERNATIVES TO LPG IN INDIA

[SUBJECT: GS PAPER 2: (WELFARE SCHEMES)]

As per the Government Estimates, nearly Rs 12,000 crore was spent on the universal access to LPG connections under the Ujjawala Scheme. But as per reports, about six lakh people die in India every year due to air pollution. Almost half of Rural India still relies on burning solid fuels for cooking which increases the risk of heart diseases, cataract and lung cancer. It is very much clear from these stats that LPG connections are not enough to address these challenges and sustained use would need investments towards increasing affordability, behavior change, and quality of supply and service.

Rising domestic LPG prices, removal of subsidies, growing retail inflation and an unending distress wing to the pandemic have hit the pockets of the middle and low-income households making it quite difficult to shift to LPG. In such a scenario, it is pertinent to look for alternatives to LPG.

Available Alternatives and Problems with them

Electricity: Induction stoves being flameless and switching to them may address certain environmental concerns associated with LPGs it cannot be considered as an immediate viable option because:

Households in India electrified under the Rural Electrification Scheme have a maximum connected load of 500W and Induction stoves are more than 1W devices. There may arise significant issues in reliability of supply due to distribution transformer failures.

Most households would cook at roughly the same time of the day, it could lead to further stress on the electricity distribution system.

Affordability: Households for the use of electricity beyond 100 units end up paying Rs 7-8 per unit from there on. Induction-based cooking alone would drive up the monthly electric bill by at least Rs 500-600 which would be unaffordable for many poor households.

Lack of Govt. support for Biogas: The central government expenditure on biogas programmes has been on a steady decline, from Rs 137 crore in 2009-10 to Rs 36 crore in 2019-20. Although biogas may remain active in pockets, it is hard to imagine it as the dominant alternative to LPG.

Piped Natural Gas: Piped natural gas (PNG) could be an alternative to LPG in densely populated urban areas in the coming years. But it is not designed to supplement the cooking needs of rural India as network expansion costs could be prohibitive. Even if this is addressed, India has limited reserves of natural gas.

Having already made the investment into domestic LPG, and given the difficulties in scaling up alternatives in the near to long term, the only immediately available option to address the household air pollution challenge is LPG.

Budgetary Allocations - Budgetary allocations to LPG have been rapidly shrinking in the recent past. The outlay for LPG direct benefit transfers has come down from about Rs 31,400 crore in 2018-19 to only Rs 4,000 crore in the budget for 2022-23.

Way Forward

A coherent, targeted approach backed by requisite financial and institutional support is desirable in order to address this endemic problem. One way to achieve this is to resume LPG subsidies and rationalize them. LPG prices could be limited to twice in a year to provide price certainty in the context of volatile oil markets. Only with adequate, immediate and sustained support to rural and poor domestic LPG consumers, can the government make an impact on the manifold developmental issues associated with household air pollution.

[1.6] THE DANGERS OF DRAFT DATA POLICY

[SUBJECT: GS PAPER 3: SCIENCE AND TECHNOLOGY]

The Ministry of Electronics and Information Technology (MeitY) recently released the “Draft India Data Accessibility & Use Policy 2022”. The policy aims to radically transform India’s ability to harness public sector

data. If the draft bill is passed by the Parliament, it would govern, “all data and information created/generated/collected/archived by the Government of India” as much as, “State Governments will also be free to adopt the provisions of the policy”.

The Draft Data Policy will serve the twin purposes including government-to-government sharing and high value datasets for valuation and licensing.

Reasons to Scrap of the Draft Policy

Issue with Privacy:

Public data is now being viewed as a prized asset of the Union government that should be freely shared, enriched, valued and licensed to the private sector. Given that more data means more money, commercial interests will prompt the government to collect granular personal details through greater capture and increased retention periods.

Tying government policy determinations with a fiscal potential may also lead to distortion of the aims of data collection. There is no indication that consent will be sought in a meaningful form.

Transparency:

The second issue emerges from the disingenuous phrasing of “making data open by default”, within the present draft data accessibility policy, while the phrase “open data” has been used, its values and objectives are absent.

Of the 13 objectives listed, only one is relevant to transparency and is limited to a single sentence. The primary, overpowering objectives in the draft data accessibility policy and the background note are commercial.

While adopting the language of open data it strays from its core principle of providing transparency of the Government towards its citizens. There is only one mention of transparency and little to no mention of how such data sharing will help ensure demands for accountability and redress.

Perverse Revenue Objective:

A larger trend of policy-based administration these days is being detached from our constitutional framework. This is a malady afflicting large areas of data governance, with confusion on the enactment of a data protection law.

The policy bypasses parliament as it contemplates large scale data sharing and enrichment that will be borne from public funds.

Further, the constitution of offices, prescription of standards that may be applicable not only to the Central government, but even State governments and schemes administered by them require legislative deliberation.

Way Forward

Such risks will become a reality without an independent regulatory body or penalties. Since the policy contemplates sharing data between databases of the central and state governments as well as through central funded schemes, it may also be prudent to deliberate further in the Rajya Sabha. These are the glaring issues in this short, 10-page draft data accessibility policy, which appears to transform the Union government into a data broker.

[1.7] GAPS IN INDIA'S DIGITAL PUBLIC INFRASTRUCTURE

[GS PAPER 3: (INFORMATION TECHNOLOGY, SCIENCE AND TECHNOLOGY)]

A very good lot of importance was given to India's Digitisation in the Union Budget 2022. But the thing where it lacked was the budgetary allocation for 'Digital Public Infrastructure' (DPI). DPI is the idea which when combined with open interconnected data systems gives cross-sectoral digital rails like ID, payments and data exchanges.

Significance

A global trendsetter: India is seen as a global trendsetter in the DPI movement, having set up multiple large-scale DPIs like Aadhaar, UPI and sector-specific platforms like DIGIT for eGovernance and DIKSHA for education.

Improvement in public service delivery: These DPIs have helped push the frontier of public service delivery.

Four key announcements in Budget: This year's budget adds to the growing discourse on DPIs by making four key announcements:

In health, an open platform with digital registries, a unique health identity and a robust consent framework;

In skilling, a Digital Ecosystem for Skilling and Livelihood (DESH-Stack) to help citizens upskill through online training;

A Unified Logistics Interface Platform (ULIP) to streamline movement of goods across modes of transport; and for travel.

In mobility, an "open source" mobility stack for facilitating seamless travel of passengers.

Analysis by the Centre for Digital Economy Policy Research (C-DEP) estimates that national digital ecosystems could add over 5 per cent to India's GDP.

Ways to Improve upon the gaps:

Differentiating between the "tech" and "non-tech" layers of our digital infrastructure — while India seems to have made significant headway on the "tech" layers, the "non-tech" layers of community engagement and governance need a lot more work.

To unleash the true potential of India's ODEs, we need to get the "non-tech" layers right, by prioritizing principles around data protection, universal access and accountability.

Protecting the data of all users and giving them agency over how their data gets used. The passage of a robust Data Protection Bill is imperative.

India must also focus on developing anchor institutions and robust governance frameworks. Just as Aadhaar is anchored by UIDAI under an Act of Parliament, and the Ayushman Bharat Digital Mission is anchored by the National Health Authority, every new ODE requires an accountable institutional anchor.

Conclusion

From Aadhaar and UPI to DBT and CoWin, India's tech stacks are grabbing global attention. It is now critical to bring the gaze on to the non-tech layers of the stack, so that the potential of these platforms can be unlocked for every Indian.

[1.8] IMPORTANCE OF NUCLEAR WEAPONS IN ASIA

[GS PAPER 2 : (INTERNATIONAL RELATIONS)]

Amidst the ongoing conflict between Russia and Ukraine, the Russian President's call to have its nuclear warheads on the standby created a lot of tension in Europe and it has also triggered an important debate

regarding the utility and importance of nuclear weapons in deterring Chinese expansionism in Asia. For instance, Russia would have thought twice before invading Ukraine, had Ukraine been a country with nuclear weapons.

Recent developments for Nuclear Capabilities

Former prime minister of Japan, Shinzo Abe, called for a national debate on hosting American nuclear weapons on Japanese soil.

In South Korea, which is electing its president this week, front-runner Yoon Suk-yeol has talked of strengthening Seoul's nuclear deterrence against both Pyongyang and Beijing.

Taiwan, which is in the cross-hairs of President Xi Jinping's regional strategy, is reportedly developing a nuclear-powered submarine that could offer some deterrence against a Chinese invading force. Australia, which is working with the UK and the US to build nuclear-powered submarines, is accelerating the project after the Ukraine invasion.

Western Powers and their Gambits with Nuclear Weapons

Washington had made it clear that it had no intention to fight Putin's armies on Russia's borders. The threat of escalation to the nuclear level was very much in the mind of NATO's military planners when the alliance refused to be drawn into a firefight with Russia in Ukraine.

Moscow is also conscious of the fact that there are two nuclear weapon powers in Europe — Britain and France. Although the British and French arsenals are modest they do figure in Moscow's nuclear assessments.

Russia is also aware of the “nuclear sharing” arrangements between the US and some European allies — Belgium, Germany, Italy, and the Netherlands.

The US and its allies are also pursuing a “hybrid war” that boosts Ukrainian resistance against Russian armed forces and raises military, economic, and political costs of Moscow's aggression.

Trends in Asia

The widely discussed prospect of China emulating Russia and invading Taiwan has begun to concentrate the minds of Asian leaders. China had been nibbling away at the territories of its neighbours whether it was in the South

China Sea or in the great Himalayas. China has broken its commitments on Hong Kong and absorbed it forcibly. Taiwan is far more important for Asian (and global) security than Ukraine is for Europe. Taiwan sits at the heart of the Western Pacific and straddles the sea line of communication in the world's most dynamic economic arena. When China conquers Taiwan it will dramatically transform the geopolitics of Asia.

In the past, all the East Asian neighbors of China had toyed with the development of independent nuclear arsenals. The US actively discouraged Taiwan, South Korea and Japan to renounce nuclear weapons in return for American security commitments, including the shelter of the American “nuclear umbrella”.

There is a growing concern in the region about whether the US nuclear umbrella or the so-called extended deterrence will work against the rapidly growing military power and nuclear clout of China.

Way Forward

These are the context in which China's eastern neighbors are taking a fresh look at the nuclear option. Although Taiwan, South Korea, and Japan have significant technological capabilities, developing a nuclear arsenal would be the last and most politically risky option. For now, their focus is on strengthening the military alliance with the US and boosting national defence capabilities including advanced missile systems.

[1.9] IMPORTANCE OF WOMEN EMPOWERMENT FOR THE ECONOMY

[GS PAPER 1: (WOMEN EMPOWERMENT AND ISSUES RELATED TO WOMEN)]

Over the years, it has been proved beyond any doubt that Economies tend to grow faster when women enter into the workforce. Studies conducted in various nations have proven that there is a direct correlation between greater gender diversity and higher GDPs. The situation can even be applied to India as well to gain the most out of women empowerment.

Why should Indian women be Empowered?

By empowering women, we increase their right to economic resources, as well as their decision-making powers. This, in turn, benefits their households and their communities.

Women begin investing more in their children's education, the quality of human capital improves, and we as a nation reap the benefits of economic prosperity.

What if the Women are not empowered?

If women are not empowered, the nation's economy loses. A recent study by the World Bank found that countries lose \$160 trillion in wealth due to the differences in lifetime earnings between men and women.

Women participation in the workforce of India stands at an abysmal 19.9% (as per WB's data of 2020) while 3.7% of them tend to occupy leadership positions in the corporate companies of India. India is striving hard to ensure a balance in gender diversity.

Progresses made for Women Empowerment

In India, women have made it to the top as ministers and chief ministers, administrators in the government system and financial sector CEOs. Progresses in other sectors can be listed as follows:

Entrepreneurship: According to a report by Bain & Company, female entrepreneurs can generate 150-170 million job opportunities in India by 2030. The current Union Govt. has placed high priority on empowerment of women starting from their education, health, quality of life and providing them with loans to set up businesses.

Mining Industry: more and more women are these days taking up unconventional roles, ranging from working at mining sites to manufacturing or security outfits. Recently, Sandhya Rasakatla from Hindustan Zinc became the country's first ever women underground mine-manager. Mining Industry, earlier perceived as male-dominated owing to the physical nature of the work, women are breaking all the stereotypes and entering into all the sectors in good numbers.

Armed Forces: The Supreme Court of India in February 17 2020, upheld the right of serving Short Service Commission (SSC) women officers to be granted Permanent Commissions (PC) just like their male colleagues. Till now, women officers were assigned only ground duties in the Army Aviation Corps. But now, two women officers have been selected to undergo helicopter pilot training for the first time in the Army Aviation Corps. They will join front-line flying duties on completion of their training in July 2022.

A plethora of women empowerment schemes are making it possible to realize the concept of women-led development in the country. The government of India has taken the safety and empowerment of women and

children into serious consideration. The growing injustice towards women had to be minimized, and these schemes are the solutions to the major problems related to women in India.

Way Forward

India is transitioning from women's development to 'women-led development'. In this vision, the women have been reimagined as architects of India's progress and development, rather than being passive recipients of the fruits of development. As a nation, we need to continue empowering our women to achieve our full potential as a superpower.

[1.10] IMPORTANCE OF INLAND WATERWAYS FOR THE NORTHEAST

[GS PAPER 3: (INFRASTRUCTURE, GROWTH AND DEVELOPMENT)]

Context: Month after setting sail on the Ganga from Patna, a vessel carrying 200 metric tonnes of food grains for the Food Corporation of India (FCI), docked at Guwahati's Pandu port on the southern bank of the Brahmaputra.

The occasion is believed to have taken inland water transport, on two of India's largest river systems, to the future.

Waterways in NE

Seamless cargo transportation has been a necessity for the northeast. Around Independence, Assam's per capita income was the highest in the country.

This was primarily because of access for its tea, timber, coal and oil industries to seaports on the Bay of Bengal via the Brahmaputra and the Barak River (southern Assam) systems.

Ferry services continued sporadically after 1947 but stopped after the 1965 war with Pakistan, as Bangladesh used to be East Pakistan then.

The scenario changed after the river routes were cut off and rail and road through the "Chicken's Neck", a narrow strip in West Bengal, became costlier alternatives.

Significance of Inland Waterways

The start of cargo movement through the Indo-Bangladesh Protocol (IBP) route is going to provide the business community a viable, economic and ecological alternative.

IWT mode is widely recognized as an environmentally-friendly and cost-effective mode of transport. It aims to create for the shippers and logistic players, an alternative to the two dominant modes of transport viz. road and rail.

India has about 14,500 km of navigable waterways which comprise of rivers, canals, backwaters, creeks, etc. About 55 million tonnes of cargo is being moved annually by IWT, a fuel-efficient and environmentfriendly mode.

Government Schemes for Inland Waterways

The Government has undertaken the Jal Marg Vikas project with an investment of ₹ 4,600-crore to augment the capacity of NW1 for sustainable movement of vessels weighing up to 2,000 tonnes.

Sailors who made the cargo trips possible have had difficulties steering clear of fishing nets and angry fishermen in Bangladesh.

Integrated National Waterways Transportation plans to link many of the national waterways to each other and also to roads, railways and major ports. Setting up of a large number of ports/terminals, riverside jetties, godowns, boat building workshops, repairing yards and ancillary industries will spur investment opportunities.

Way Forward

India is located along key international trade routes in the Indian Ocean and has a long coastline of over 7,000 km. Yet, capacity constraints and lack of modern facilities at Indian ports tremendously elongates the time taken to ship goods in and out of the country and has held back India's share in world trade. Development of inland waterways in the NE region is sure to bring about more assimilation and integration of the region with mainland India.

[1.11] ALTERNATIVE DISPUTE RESOLUTION (ADR)

Alternative Dispute Resolution or ADR refers to any means of settling disputes outside of the courtroom. ADR typically includes early neutral evaluation, negotiation, conciliation, mediation, and arbitration. Arbitration and Conciliation Act, 1996 lays down certain rules related to resolution of disputes using ADR mechanism in India.

Advantages of ADR

ADR often saves money and speeds settlement. It eases the burden on courts by reducing the number of cases that are regularly filed in courts.

In ADR processes such as mediation, parties play an important role in resolving their own disputes. It often results in creative solutions, longer-lasting outcomes, greater satisfaction, and improved relationships.

Types of ADRs

There are many forms of alternative dispute resolution mechanisms. Some of the most common ADR methods are mentioned below:

Arbitration:

It is an adjudicatory process in the nature of adversarial proceedings wherein parties submit their disputes to a neutral third party (arbitrator) for a decision.

The proceedings, similar to litigation are however, faster, cheaper, confidential and more flexible in procedure and application of rules of evidence.

The parties have the independence to chalk out the same in the agreement to arbitration. The said agreement which must necessarily precede arbitration, should be a valid one as per the Indian Contract Act, 1872.

The parties to an arbitration agreement must have the capacity to enter into a contract in terms of Sections 11 and 12 of the Indian Contract Act, 1872.

Arbitral decisions are final and binding on the parties with very limited scope of objecting to them.

Mediation:

It is a voluntary, disputant-centered, non-binding method of dispute resolution wherein a neutral and credible third party facilitates a settlement between the parties.

It is a confidential and structured process where the mediator uses special communication, negotiation and social skills to assist the disputants in arriving at a mutually acceptable solution themselves.

The parties thereto must be willing to iron out the creases in their relation by a little outside help as the focus in mediation is on the future.

It is ideal where the emphasis of the parties is on building relationships, rather than ascertaining the party at fault for what has already transpired.

The outcome of a successful mediation is a settlement agreement, and not a decision.

The objective of mediation is not to evaluate guilt or innocence but to promote understanding, focus the parties on their interests, and encourage them to reach their own agreement.

Way Forward

ADRs have proved to be one of the most effective methods in dispute resolution. Provisions of Arbitration and Conciliation Act, 1996 must be implemented in letter and spirit to strengthen the resolution of disputes using ADR methods in India.

[1.12] ELECTORAL DEMOCRACY VS CONSTITUTIONAL DEMOCRACY

[GS PAPER 2: (INDIAN CONSTITUTION, POLITY AND GOVERNANCE)]

Context: The electoral aspects of democracy are now being used to undermine the non-electoral dimensions of democracy. This process can be called the battle between electoral democracy and constitutional democracy.

In present times, democracy does not normally die as a result of military or executive coups. Processes internal to the democratic system can severely weaken democracy itself, even causing its collapse.

Differently labelled as right-wing populism, majoritarianism or illiberal democracy, the core of this politics consists of the following proposition: If we can get elections to legitimate our platform on behalf of a racial/ethnic/religious majority, we can use electoral power to attack – via legislation — the idea of minority rights and undermine – also via legislation — standard democratic freedoms such as the freedom of expression, freedom of association and freedom of religious or cultural practice. A freely conducted vote can thus be used to cripple the other freedoms that modern democracies also value.

Indian Democracy

India is a vibrant democracy with people electing their representatives at several levels beginning from local bodies & panchayats to the Parliament. India has

Parliamentary system of governance which is based on Britain's Westminster model of constitutional democracy.

Present Issues with Indian Democracy

India's political culture has been vitiated by unprecedented waves of populism, jingoism, sectarianism and confrontational politics.

Money Power & Freebies

Expenditure: There are three drivers of expenditure in elections viz. legitimate electioneering cost, party running cost, and TV air time cost.

However, the accounted legitimate expenditure is a mere percentage of actual spending by the candidate and their corresponding political parties. According to the report of the National Commission to Review the Working of the Constitution (NCRWC), high cost of elections creates a high degree of compulsion for corruption in the public arena.

Vote-buying: The rise of illegitimate expenditure on vote-buying has become a matter of great concern as it is making only the rich more qualified to become an MP (Member of Parliament) or an MLA (Member of the Legislative Assembly) over a well-qualified public-spirited person.

As can be seen, out of 533 candidates elected to the 17th Lok Sabha (2019-present), 475 Parliamentarians (accounting for 88%) are 'crorepatis'. This reflects the paradoxical situation of poor India with rich Parliamentarians raising concerns about the growing role of money power in politics.

Freebies: Freebie is something provided or given free of charge, ranging from rice at cheapest rates to laptops & bicycles. These promises may be targeted at particular groups of electorate like BPL families, weaker sections of the society, women, handicapped etc. Although, people have many-a-times rejected it, but still, political parties continue to compete with each other by offering such entitlements.

Paid News : Paid news is any news or analysis appearing in any media (Print and Electronic) for a price in cash or kind. An issue like Paid News disrupts the level playing field and circumvents the election expenditure limits. This creates a hurdle for the Election Commission of India (ECI) to conduct the smooth run-off elections in a free, fair and transparent manner.

Issuance of Secret Bonds: Electoral bonds are the bearer bonds that were launched in 2017 in order to cleanse the system of political funding in the country.

However, its anonymous feature in which neither the donor nor the political party is obligated to reveal whom the donation comes from defeats the fundamental principle of transparency in political finance (as the voters are unaware of the source of funds that are spent by the political parties in the election process).

Criminalisation of Politics: It refers to a situation in which the anti-social elements enter the electoral process by contesting elections, getting elected to the legislature, and consequently occupying public offices. This happens due to the existing strong nexus between the criminals and some politicians abusing the loopholes in the present system.

Flaws in the Criminal Justice System: In India, an accused is presumed to be innocent unless pronounced guilty by the Courts. The rate of conviction for politicians is abysmally low, with just 6% in criminal cases. This implies that a large number of accused politicians with criminal background actually go unpunished from a Court of law, and are not disqualified from contesting elections further.

Caste-based Politics: Caste politics in the last three decades have been marked by the desire for power on the caste-lines rather than a substantial agenda for social reform of the downtrodden. However, election campaigns along communal or caste lines are banned under the election rules.

Way Forward

The constitutional functionaries, who have taken the pledge to uphold the constitutional principles, are charged with the responsibility to ensure that the existing political framework does not get tainted with the evil of corruption.

[1.13] National Land Monetization Corporation - The Land Question

[GS Paper 3 - Mobilization of Resources, Govt. Policies and Interventions]

The Union Cabinet recently approved the creation of the National Land Monetization Corporation (NLMC) to monetize the surplus landholding of the Central Public Sector Enterprises (CPSE) and other government agencies.

Taking into consideration the good amount of surplus and unused non-core assets with different government agencies, it is a prudent strategy that can lead to more efficient utilization of the under-utilized resources.

Reasons behind creation of NLMC:

1. It will help create a detailed and comprehensive repository of the state's land holdings and identify surplus lands. It will also help create a database of potential investors so that the surplus land can be pushed for monetization.
2. As per the Reports, the total vacant and surplus land available with the Railways is around 1.25 lakh acres whereas the Defense Ministry also possesses considerable loans holdings outside of the cantonment boundaries. Collating all of them under a single entity will lead to more efficient monetization and better utilization of these assets.
3. Proceed and finance collected from the monetization of these resources can be used to help the government generate additional resources, boosting government coffers.
4. Auctioning of surplus lands will increase the supply of land, which may address the issue of scarcity of land that exists in certain areas. This could depress prices and thus have a moderating effect on costs of projects.

Significance of NLMC

- Considering that land monetisation is a complex process, entrusting this work to a separate agency is the right way to go about it. A separate entity, housed with professionals with specialized skills is better suited for this task.
- This will enable productive utilization of under-utilized assets to trigger private sector investments, new economic activities, boost local economy and generate financial resources for economic and social infrastructure.
- NLMC is also expected to own, hold, manage and monetize surplus land and building assets of CPSEs under closure and the surplus non-core land assets of Government owned CPSEs under strategic disinvestment.

Possible Challenges

- The estimation of surplus land may become contentious as the government entities might be reluctant to declare land parcels as 'surplus'.
- The corporation will have to grapple with issues such as the absence of clear titles, ongoing litigation, and muted investor interest.
- Issue of encroachment of government lands.

Way Forward

While the creation of the National Land Monetization Corporation (NLMC) should lead to more efficient outcomes, it does raise questions over the management of commons, whether the public purpose can be better looked after by more effective management of public land by the state.

[1.14] Hate Speeches and their Implications

[GS Paper 2 - Government Policies and Interventions]

Hate Speech refers to those speeches or words that are intended to create hatred towards a particular group or a community or a religion. These words may or may not have a meaning but are likely to result in violence.

In the 267th Report of the Law Commission of India, hate speech is stated as an incitement to hatred primarily against a group of persons defined in terms of race, ethnicity, gender, sexual orientation, religious belief and the like.

Hate speech is neither defined in the Indian legal framework nor can it be easily reduced to a standard definition due to the myriad forms it can take.

Legal Provisions against Hate Speech in India

1. Under IPC:

- Sections 153A and 153B of the IPC: Punishes acts that cause enmity and hatred between two groups.
- Section 295A of the IPC: Deals with punishing acts that deliberately or with malicious intention outrage the religious feelings of a class of persons.
- Sections 505(1) and 505(2): Make the publication and circulation of content that may cause ill-will or hatred between different groups an offence.

2. Under RPI Act:

- **Section 8 of the Representation of People's Act, 1951 (RPA):** Prevents a person convicted of the illegal use of the freedom of speech from contesting an election.
- **Sections 123(3A) and 125 of the RPA:** Bars the promotion of animosity on the grounds of race, religion, community, caste, or language in reference to elections and include it under corrupt electoral practices.

Reasons behind Hate Speeches

- **Sense of Superiority** - Individuals believe in stereotypes that are ingrained in their minds and these stereotypes lead them to believe that a class or group of persons are inferior to them and as such cannot have the same rights as them.
- **Ideology Oriented** - The stubbornness to stick to a particular ideology without caring for the right to co-exist peacefully adds further fuel to the fire of hate speech.
- **Lack of Literacy** - Lack of education prevents the overall development of an individual. Still, about 23% of the population in India is illiterate. This prevents the development of tolerance and understanding of individuality in them.
- **Political Gains** - Often vote bank politics, use various communal or emotional tools to garner the vote of a few groups by inciting hatred in them. They use false stories, news, etc to incite such incidents.
- **Absence of Concrete Laws** - lack of strong and clear laws, poor implementation results in low conviction rate. So, culprits are left to roam freely.

Recent Cases of Hate Speeches

1. A criminal writ petition filed by social activist Harsh Mander, whereby he sought directions to the Delhi Police to register FIRs against BJP leaders Anurag Thakur, Parvesh Verma, Kapil Mishra and Abhay Verma, for allegedly making hate speeches alluding to those protesting against the Citizenship (Amendment) Act. These speeches purportedly led to violence in North-East Delhi and reportedly resulted in the death of 53 persons, and caused injuries to several hundred.

2. In December, the Haridwar Dharam Sansad took place, where the scale of hate speech got further intensified. The leaders on the dias were unabashedly calling for violence against Muslims. Some of those comments bordered on genocidal calls.
3. The controversial Yati Narsinghanand, facing several FIRs in UP, called for a “war against Muslims” and urged “Hindus to take up weapons” to ensure a “Muslim didn’t become the Prime Minister in 2029.”

Way Forward

The most efficient way to dilute hatred is by means of Education. Our education system has a prominent role to play in promoting and understanding compassion with others. Cases of hate speech can be addressed through Alternative Dispute Resolution as it proposes a shift from the long procedures of the court to the settlement of the dispute between parties by way of negotiation, mediation, arbitration and/or conciliation.

[1.15] Ruling on Hijab Ban and Freedom of Religion

[GS Paper 1 - Women’s Issues, GS Paper 2 - Fundamental Rights]

Context - The Karnataka High Court recently upheld the State Government’s circular on the ban on Hijab in educational institutions. Three-judge bench discussed at length the doctrine of essentiality and how hijab is not an essential religious practice of Islam and therefore concluded that the petitioners argument against hijab are liable to rejection.

Provision Related to Religious Freedom:

Article 25(1) of the Constitution guarantees the “freedom of conscience and the right freely to profess, practise and propagate religion”. It is a right that guarantees a negative liberty — which means that the state shall ensure that there is no interference or obstacle to exercise this freedom.

Freedom of conscience - Inner freedom of an individual to mould his relation with God or Creatures in whatever way he desires.

Right to Profess - Declaration of one’s religious beliefs and faith openly and freely.

Right to Practice - Performance of religious worship, rituals, ceremonies and exhibition of beliefs and ideas.

Right to Propagate - Transmission and dissemination of one’s religious beliefs to others or exposition of the tenets of one’s religion.

Religion has been at the center of human societal existence since time immemorial. Religion is, and has always been, an indispensable and ineffable part of our lives. The Karnataka HC’s recent judgment on the Hijab Ban is historic as it has given much importance to discipline and control over liberty and diversity. The high court has upheld the dress code because it would promote harmony.

Religious freedom is premised on the belief that every human being has the inherent dignity to explore his or her conscience and pursue the truth. Religious practice promotes the well-being of individuals, families, and the community and its denial may unnecessarily lead to frustration, depression and exclusion.

What is a Religious Practices Test?

- Over the years, the Supreme Court (SC) has evolved a practical test of sorts to determine what religious practices can be constitutionally protected and what can be ignored.
- In 1954, the SC held in the Shirur Mutt case that the term “religion” will cover all rituals and practises “integral” to a religion. The test to determine what is integral is termed the “essential religious practises” test.
- In criticism of the test, scholars agree that it is better for the court to prohibit religious practices for public order rather than determine what is so essential to a religion that it needs to be protected.

The Karnataka HC Ruling:

- The court has rightly concluded that freedom of religion under Article 25 has been subordinated and made subservient to all other fundamental rights. But in this case, there was no question of conflict between competing fundamental rights.
- To say that freedom of religion is merely an individual right is equally controversial as freedom of religion under Article 26 is indeed

a group right given to every religious denomination or any section thereof, and unlike Article 25, it has not been subjected to other fundamental rights. In fact, the essentiality doctrine originated in the context of the expression “in matters of religion” used in Article 26.

- If we go by the Karnataka High Court judgment that hijab is not essential Islamic practice because there is no punishment for not having hijab, it may lead to the conclusion that adultery and homosexuality are to be considered as haram (prohibited) as there are severe punishments for them under Islam. In spite of their decriminalization, these will remain sins in the eyes of religion.

Conclusion

The judgment has taken an extremely narrow view of the freedom of conscience and has demanded too heavy a burden of proof. The court rejected the contention, saying: “The petition is apparently ill-drafted and pleadings lack cogency and coherence that are required for considering the serious prayers of this kind. We have already commented upon the Departmental Guidelines as having no force of law. Therefore, the question of the said respondents violating the same even remotely does not arise.”

[1.16] De-Dollarisation - in the offing

[GS Paper - Economy, Fiscal Policy, Capital Market]

Context - The war in Ukraine and the subsequent economic sanctions is on its way to trigger central banks to reassess their dependency on the US Dollar.

Reasons Behind De-Dollarisation

- The imposition of sanctions and the exclusion from SWIFT by the US could trigger a faster de-dollarisation process.
- The “de-dollarisation” by several central banks is on the offing. It is being driven by the desire to be safe from geopolitical risks, where the status of the US dollar as a reserve currency can be used as an offensive weapon.
- This can also trigger a shift in the overall global forex market framework.

- The US dollar, which is the world’s reserve currency, can see a steady fall in the current context in Ukraine and other crises around the world, as leading central banks may look to diversify their reserves away from it to other assets or currencies like the Euro, Renminbi or gold.

Response from Russia and China

- Efforts are being made for the introduction of a new Russia-China payment system, bypassing SWIFT and combining the Russian SPFS (System for Transfer of Financial Messages) with the Chinese CIPS (Cross-Border Interbank Payment System).
- Russia had already started its three-pronged efforts towards de-dollarisation in 2014 when sanctions were imposed on it for the annexation of Crimea. However, these steps haven’t sufficed to effectively shield them.
- China, on the other hand, aims to use trading platforms and its digital currency to promote de-dollarisation. It has established RMB trading centres in Hong Kong, Singapore and Europe.
- In 2021, the People’s Bank of China submitted a “Global Sovereign Digital Currency Governance” proposal at the Bank for International Settlements to influence global financial rules via its digital currency, the e-Yuan.
- The IMF has already added Yuan to its SDR (Special Drawing Rights) basket in 2016. In 2017, the European Central Bank exchanged EUR 500 million worth of its forex reserves into Yuan-denominated securities.
- However, the lack of full RMB convertibility will hinder China’s de-dollarisation ambition.

Continuation of Dollar Dominance

- Currently, about 60 per cent of foreign exchange reserves of central banks and about 70 per cent of global trade is conducted using USD.
- The status of the dollar was enhanced by the collapse of the Bretton Woods system, which essentially eliminated other developed market currencies from competing with the USD.
- The association of the USD as a “safe-haven” asset also has a psychological angle to it and like old habits, people continue to view the currency as a relatively risk-free asset.

- This status of the reserve currency allows the US government to refinance its debt at low costs in addition to providing foreign policy leverage.
- Additionally, sudden dumping of dollar assets by adversarial central banks will also pose balance sheet risks to them as it will erode the value of their overall dollar-denominated holdings.

Way Forward

While the frequent use of the US dollar as a potential weapon for achieving foreign policy objectives will no doubt accelerate the process of de-dollarisation, there is still a long road ahead.

[1.17] Land Resource Management Measures

[GS Paper 3 - Infrastructure and Development]

Context - The Finance Minister's budget speech on land resource management to strengthen the land governance will impact the economy positively and will have a ripple effect across sectors.

Status of Land Reforms in India:

1. e-procurement- The computerisation and digitisation of land records, undertaken in the recent past, has enabled the e-procurement of wheat and paddy in the states through the minimum support price scheme.
2. Easy assessment- It is convenient for the mandi administration to make an assessment of the food crop sown and the foodgrain produced by individual farmers on the basis of survey entries.
3. Ease in transportation- The long queues of tractors crowding the mandis, is not seen these days.
4. Transactional efficiencies - The payments under the Pradhan Mantri Kisan Samman Nidhi Yojana (PM-Kisan) are being done on the basis of computerized land records.
5. Ease of living- The ease of living of the farming community has been positively impacted.
6. Relief and rehabilitation- Proper and updated computerized land records are extremely essential for relief and rehabilitation in the case of land acquisition.

Initiatives Mentioned in the Budget:

- ULPIN- Each land parcel or plot is assigned a unique identification number called the Unique Land Parcel Identification Number (ULPIN). It is also called the "Aadhaar for land".
- The agencies and services can use the land database from anywhere in the country to authenticate a beneficiary's identity for the purpose of delivery of services.
- For the farmer and the individual land holder, it would facilitate and enable access to information relating to his entitlements through various means like kiosks and mobile phones. This framework, integrated with Aadhaar, will put a check on Benami and fraudulent transfers.
- **NGDRS**- The National Generic Document Registry System (NGDRS), also called One Nation One Registration Software System is a major initiative for online urban property registration.
- It is only at the time of the final execution of the registration document that the physical presence of the buyer and seller is mandatory as per Section 32A of the Registration Act.
- Since the processes are online, there is a higher degree of transparency in the transaction which reduces disputes and fraudulent transactions. NGDRS cuts into the costs, time and processes in registration drastically.
- **Transliterating land records**- The objective of transliterating the land records in any language under Schedule VIII of the Constitution is to break the linguistic barriers in land records. Presently, land records are largely in regional languages.

Significance of the Proposed Reforms:

- The budget speech has underscored the significant role land resource management and governance is expected to play in the resurgence of the national economy in the upcoming years.
- It has strengthened the belief that the use of technology for land governance is a strategically convenient and acceptable approach when states are implementing schemes.

- It has emphasized that reformative land governance initiatives will positively impact the citizen as well as other sectors of the economy. But all of these will depend on how readily and effectively states take up the land governance initiatives.

Way Forward

Land resource management and governance, like the keel of a ship, will provide the right balance and float to the national economy despite one of the worst economic downturns induced by the pandemic. How smooth the sail will be will depend on how readily and effectively states take up the land governance initiatives.

[1.18] Importance of 'Atmanirbhar' India

[GS Paper 2 - International Relations]

The reverberations of Russia's military attack in Ukraine is certainly being felt in New Delhi as well. While no less severe, the impact will be quite different in scope and ambit from Europe. The Western countries and most others have imposed severe economic sanctions on Russia in the wake of President Putin's military conquest, even upto a point of Putin describing it as "akin to declaration of war".

India's Balancing Act:

While much of the international attention these days has been occupied by the Ukrainian resistance and Refugee evacuation, it has also tended to focus on India's non-committal stand on Russia's belligerence, much to the dismay of the United States and other Western countries. While India's abstentions from voting in the UN Security Council, cannot be justified on moral grounds but they are certainly practical considerations. The country's 'balancing act' has been vital in lieu of national interests amidst the cusp of east-west duopoly.

The stance adopted by India has placed it amongst a minority of nations, alongside China and Pakistan. Seen widely as pro-Russian, this posture is likely to affect India's international standing and bears reflection.

How India's Stance at UNSC is in its National Interest?

- Almost 60-70% of India's defence requirements are imported from Russia. It is

the source of the majority of India's military hardwares. Any interruption to this supply chain can have a negative impact on our defence strategies against the China-Pakistan axis.

- At the height of the crisis with China in Ladakh, it was to Moscow that Defence Minister Rajnath Singh travelled to ensure that there would be no cut-back in military supplies. And since then, Russia has boosted India's defence capability against China with the S-400 air defence system.
- Moscow is also a reliable ally in the UN Security Council. India-Russia ties have ensured that Delhi has not been entirely left out of the conversation on Afghanistan, and in Central Asia, while also providing some leverage with the US.
- At the same time, the US, the European Union, and UK are all vital partners, and India's relations with each of them, and the Western world in general, go far beyond the sum of their parts.
- Moreover, in the UNSC, India has counted on France's unstinted backing on many issues. It has relied on western support as it deals with an aggressive China on the Line of Actual Control.

Atmanirbharta and India:

Amidst all the east-west duopoly over Russia's military offence in Ukraine, India finds itself in a juxtaposition which lies in two drastic imperatives:

- **De-Russification of the armed forces:** It is time to initiate a process of progressive "de-Russification" of Indian armed forces; not to switch sources, but to become self-reliant.
- **Indigenisation of India's defence technological and industrial base:** It may be uplifting to see battle-tanks, warships and jet-fighters held up as examples of self-reliance, but what is never mentioned is that vital sub-systems like engines, guns, missiles, radars, fire-control computers, gear-boxes and transmission are either imported or assembled under foreign licences. Thus, while the public is led to believe that these platforms are "indigenous", many of the critical components are imported and spares continue to come from abroad.

Attaining genuine “atmanirbharta” certainly does not call for becoming autarkic. But it does require selective identification of vital military technologies in which we are deficient and demands the initiation of well-funded, time-bound, mission-mode projects to develop (or acquire) the “know-how” as well as “know-why” of these technologies.

India must also make it clear to coercing countries that their “with us or against us” formulations are hardly constructive. There are no innocents in this conflict. The best course is for all parties to step back and focus on preventing an all-out war, rather than divide the world and return it to the days of the Cold War.

[1.19] Rapidly Closing Window to Mitigate Climate Change

[GS Paper - Environmental Degradation and Climate Change]

The recently published Intergovernmental Panel on Climate Change (IPCC) Report titled ‘Impacts, Adaptation and Vulnerability’ warned that if emissions are not cut rapidly, heat and humidity will create conditions beyond human tolerance and its economic impact could also be devastating.

The IPCC Report asserts more than half the global population is living on the brinks where climate change is already causing widespread disruption to the environment and posing serious threat to human lives.

Barriers to Mitigation Strategies

The numerous decision-making barriers that currently exist are preventing the desired level of adaptation. The 5th Assessment Report of the IPCC has comprehensively identified the economic barriers that are preventing government decisions on adaptation to climate change. They are:

1. **Transitional costs:** These are broadly divided into information and adjustment costs. The former refers to the costs that occur while acquiring information and the latter are the costs for replacing the long-lived capital.
2. **Market failures and missing markets:** These include externalities, information asymmetries, and moral hazards. These cases are especially seen when one economic unit harms another unit. It also occurs when there aren’t sufficient incentives for the change.

3. **Behavior obstacles to adaption:** Irrational decisions, social norms, and cultural factors also pose obstacles to adaption decision making.
4. **Ethical and distributional issues:** These issues connect to the differences in vulnerability and adaptive capacity. Though sometimes a decision could ensure cost-effective and sustainable solutions, ethical constraints hinder these decisions.
5. **Coordination, government failures and politics:** Though the governments must ensure the removal of the aforementioned barriers, they themselves face similar barriers like limited knowledge or resources. Also, coordination among various departments, though important, is highly difficult to obtain. Politics on whether or not climate change is real is also preventing the governments from undertaking adaption decision-making.
6. **Uncertainty** is the largest barrier to adaptation as it expands to different dimensions like future developments of demographics, technologies and economics and the future of climate change.

Global Leaders and their action towards climate change

- Vladimir Putin and Xi Jinping, two of the world’s most powerful leaders, didn’t even bother to attend COP26.
- China emits the maximum carbon dioxide in the world. While there’s a global desire to reduce the use of fossil fuel, China, which already has more than 1,000 coal power plants, has planned to set up another 43.
- Australian Prime Minister Scott Morrison recently reiterated coal power stations should ‘run as long as they possibly can’. Back in 2017, then-Treasurer Morrison brought a fat lump of coal into Parliament during a debate, attempting to ridicule the commitment to renewable energy.
- Joe Biden’s America is backing the Oil Sands Pipeline Project of the Trump-era that would carry Canadian oil across Minnesota and Wisconsin.

Way Forward

Climate change is still a solvable problem. In order to prevent the worst impacts of climate change, humanity must begin to significantly reduce carbon emissions

during its brief and rapidly closing window, the recent IPCC report warns. Additionally, mitigation must be complemented with climate change-related adaption since mitigation alone cannot address the adverse effects we are facing right now. An international level comprehensive plan of action is necessary for inclusive and sustainable growth of the global community.

[1.20] The Kashmiri Pandits Exodus and the Denial

[GS Paper 1 - Society, GS Paper 2 - Internal Security, Militancy]

The exodus of the Kashmiri Pandits from the Kashmiri valley in the early 1990s and the question of their homecoming ever since has been both a political and emotional issue. The question of resettling 62000 Kashmiri Pandit families, who had been forced to migrate, has once again gained attraction. The BJP's proposal to resettle the Pandits in exclusive enclaves has caused tensions in the Valley. Protests have started against any kind of segregated townships.

Who are the Kashmiri Pandits?

- The Kashmiri Pandits (also known as Kashmiri Brahmins) are Kashmiri Hindus and a part of the larger Saraswat Brahmin community.
- They belong to the Pancha (five) Gauda Brahmin groups from the Kashmir Valley. They are the only remaining Kashmiri Hindu community native to Kashmir.
- The Kashmiri Pandits originally lived in the Kashmir Valley before the growth of Islamic militancy in the valley and had been a favoured section of the population of the valley during Dogra rule (1846–1947).
- As much as 20% of them left the valley as a consequence of the 1950 land reforms, and by 1981 the Pandit population amounted to 5 percent of the total population.
- Many of the refugee Kashmiri Pandits have been living in abject conditions in refugee camps of Jammu. The government has reported on the terrorist threats to Pandits still living in the Kashmir region.

Reasons behind the Exodus

1. **Political instability** - Sheikh Abdullah had died in 1982, and the leadership of the

National Conference passed on to his son Farooq Abdullah, who won the 1983 election. But within two years, the Centre broke up the NC, and installed dissident Ghulam Mohammed Shah as Chief Minister. This led to huge disaffection and political instability.

2. **Militancy** - The Jammu & Kashmir Liberation Front (JKLF) stepped up its activities, and the hanging of the militant leader Maqbool Bhat in 1984 added to the sense of foreboding.
3. **Religious interventions** - In 1986, after the Rajiv Gandhi government opened the Babri Masjid locks to enable Hindus to offer prayers there, ripples were felt in Kashmir too. In Anantnag, there was a series of attacks on Hindu temples, and shops and properties of Kashmiri Pandits, blamed on separatist and secessionists.
4. **Elections of 1987** - The rigged election of 1987 after which Abdullah formed the government was a turning point at which militants took the upper hand.

Current Status of Kashmiri Pandits

- As per the data provided by the Ministry of Home Affairs, majority of the Kashmiri migrants live in the existing transit locations including Vessu in Kulgam, Mattan in Anantnag, Nantnusa in Kupwara, Veerwan in Baramulla etc.
- Various organizations are involved in rehabilitation of the community in the valley through peace negotiations, mobilization of human rights groups and job creation for the Pandits.
- As per the Parliamentary Panel Report, 2020: There are 64,827 registered migrant families in J&K — 60,489 Hindu families, 2,609 Muslim families and 1,729 Sikh families. Out of the 64,827 families, 43,494 are registered in Jammu, 19,338 in Delhi and 1,995 families are settled in other States and Union Territories.

Government Initiatives

- 'The Jammu And Kashmir Migrant Immovable Property (Preservation, Protection And Restraint on Distress Sales) Act, 1997' provides that any person who is

an unauthorized occupant or recipient of any usufruct of any immovable property of the migrant shall pay to the migrant the compensation in such a manner as may be determined by the District Magistrate.

- Prime Minister's Development Package announced in 2015, had approved the creation of 3,000 government jobs for Kashmiri migrants.
- 6,000 transit accommodation units were announced in 2015 for the members who were to be provided jobs by the J&K administration at a cost of Rs 920 crore.
- As of 2016, a total of 1,800 Kashmiri Pandit youths have returned to the valley since the announcement of Rs. 1,168-crore package in 2008 by the UPA government.

Way Forward Approach

- Moving forward, in order to provide complete rehabilitation and justice to the Kashmiri Pandits, we need to follow former PM Atal Bihari Vajpayee's words or simply the 'Vajpayee Doctrine' which talks about 'Insaniyat, Jamhuriyat and Kashmiriyat.'
- The way forward for achieving that is to set up a cosmopolitan inclusive smart city where Indians of all origins including the evicted Kashmiri Hindus can build their lives and homes.
- Learning from the past will put the chapter of annihilation and extermination behind us and focusing on the present while securing the future. Events that happened in the past cannot be changed but we can definitely make a difference to the present and future of the Kashmiri Pandits.

Conclusion

On August 5, 2019, when the government did away with special status to J&K by abrogating the contentious Article 370 from the Indian Constitution, among the loudest to cheer were Kashmiri Pandits, who saw it as a long pending "revenge" for what had happened to them three decades ago. Yet their return looks as difficult as it ever did.

[1.21] The NCST and its failures

[GS Paper 2 - Constitutional Bodies, Issues Related to SCs/STs]

Context - The National Commission for Scheduled Tribes has been dysfunctional for the last four years and has not delivered a single report to Parliament, a parliamentary committee has said in a recent report.

National Commission for Scheduled Tribes (NCST):

- NCST was set up with effect from 19th February, 2004 by amending Article 338 and by inserting a new article 338A in the Constitution through the 89th Constitution Amendment Act, 2003. Hence, it is a constitutional body.
- Article 338A inter-alia gives powers to the NCST to oversee the implementation of various safeguards provided to STs under the Constitution or under any other law for time being in force or under any other order to the Government and to evaluate the working of such safeguards.

Organizational Structure: It consists of a Chairperson, a Vice-Chairperson and 3 other Members who are appointed by the President by warrant under his hand and seal. It augments that:

- At least one member should be a woman.
- The Chairperson, the Vice-Chairperson and the other Members hold office for a term of 3 years.
- The members are not eligible for appointment for more than two terms.
- The Chairperson has been given the rank of Union Cabinet Ministers, the Vice Chairperson has the rank of a Minister of State and other Members have the rank of a Secretary to the Government of India.

Functions of the Commission:

- To investigate and monitor all matters relating to the safeguards provided for the STs under the Constitution or under any other law for the time being in force or under any order of the Government.
- To inquire into specific complaints with respect to the deprivation of rights and safeguards of the STs.
- To participate and advise in the planning process of socio-economic development of the STs and to evaluate the progress of their development.
- To present to the President, annually and at such other times as the Commission may deem fit, reports upon the working of those safeguards.
- To make in such reports, recommendations as to the measures that should be taken by

the Union or any State for effective implementation of those safeguards and other measures for the protection, welfare and socio-economic development of the Scheduled Tribes.

Challenges Associated with NCST

1. The existing priorities of the Commission are visibly lopsided in favour of the elite of these communities.
2. Since the Commission, for the most part, acts on complaints, it is said that commissions have been less than sensitive to the poor Dalits which are engendered by the lack of education or information.
3. The Commission has not used its powers of suo motu cognisance actively enough.
4. In the matter of criminal investigation, that would require it to follow prevailing rules and procedures pertaining to evidence and prosecution. This retards the effectiveness of the commission by rendering it vulnerable to litigation in the form of appeals to higher judicial bodies and thereby nullifying its operational effectiveness.
5. There are delays in conducting the inquiry and in delivering judgements. Moreover, there is a perception that the Commission tends to confirm the government's position on most cases.
6. The Commission is supposed to prepare an annual report for presentation to Parliament. Reports are often tabled two or more years after they have been submitted to the President. Even when Reports are tabled in Parliament, they are frequently not discussed.
7. In many policy sectors, as in the case of the Scheduled Castes, the proliferation of institutions has created an institutional confusion in which the roles and powers of each are obfuscated.

Way Forward

There is a dire need of thorough introspection of the NCSC's & NCST's and address the miscarriage of social justice in order to uphold the spirit of diversity and the very objectives of Preamble, i.e. to secure justice, liberty, equality to all citizens and promote fraternity to maintain unity and integrity of the nation.

[1.22] The Aggravating Economic Crisis in Sri Lanka

[GS Paper 2 - India and its Neighborhood]

Context - With the price of essential commodities skyrocketing, Sri Lankan refugees have begun to flock to Tamil Nadu. Recently, a family of six Sri Lankan Tamils, including four children were found by the Indian Coast Guard near Fourth Island, Rameswaram and were handed over to the Coastal Security Group.

The Sri Lankan President back in September last year, had declared an Economic Emergency to contain rising food prices, a depreciating currency and rapidly depleting Forex Reserves. The emergency was declared under the Public Security Ordinance on the supply of essential goods.

Reasons behind the Crisis

- The tourism industry, which represents over 10% of the country's Gross Domestic Product and brings in foreign exchange, has been hit hard by the coronavirus pandemic. As a result, forex reserves have dropped drastically over a few months.
- With the supply of foreign exchange drying up, the amount of money that Sri Lankans have had to shell out to purchase the foreign exchange necessary to import goods has risen.
- Sri Lanka depends heavily on imports to meet even its basic food supplies, such as sugar, dairy products, wheat, medical supplies. So the price of food items has risen in tandem with the depreciating rupee.
- Sri Lankan Government's decision to ban import of chemical fertilizers and adopt an "organic only" approach. This overnight shift to organic fertilizers could impact food production severely.

Situation at Present

- The inflation in Sri Lanka hit 15.1% last month. The data released by the Government show that now the inflation has reached 25.7%.
- The cooking gas cylinders are also being sold at a higher price than before. There is a hike of 1359 Rs on each cylinder within a week.

- The island nation is not able to organize exams for students due to a shortage of paper. The Government suspended the operations at the oil refineries recently due to a shortage of crude oil stocks.
- The Sri Lankan rupee, which authorities floated this month, has fallen to nearly 265 against the U.S. dollar. Consumer Price inflation is at 16.8% and foreign reserves stood at \$2.31 billion at the end of February.
- Sri Lanka must repay foreign debt totalling nearly \$7 billion this year and continue importing essentials from its dwindling dollar account. The country will incur an import bill of \$22 billion this year, resulting in a trade deficit of \$10 billion.

India's Assistance to Sri Lanka

- Recently, India and Sri Lanka agreed to a four-pronged approach to discuss initiatives on food and energy security to help mitigate Sri Lanka's economic crisis.
- The Four-Pronged Approach includes -
 1. Lines of credit - Lines of credit for food, medicines and fuel purchases granted by India.
 2. Currency Swap - A currency swap agreement to deal with Sri Lanka's balance of payment issues.
 3. Modernisation Project - An early modernisation project of the Trinco oil farms that India has been pursuing for several years.
 4. Indian Investments - A Sri Lankan commitment to facilitate Indian investments in various sectors.

Way Forward Approach

In view of increasing Chinese influence in Sri Lanka, some sort of trust deficit exists between India and Sri Lanka but neither country can afford to have strained ties. There is a need to step up our people-centric developmental activities whereas India should also categorically stay away from interfering in Sri Lanka's domestic affairs. It is important for India to nurture its 'Neighborhood First Policy' and help out Sri Lanka with all its resources so that they are able to come out of the present economic crisis.

[1.23] India and China - Ladakh's Eastern Boundary Issues

[GS Paper 2 - India's Neighborhood and International Relations]

Context - Chinese Foreign Minister Wang Yi is expected to meet External Affairs Minister S. Jaishankar and NSA Ajit Doval. This provides a chance to focus on Ladakh's eastern boundary and ongoing conflict.

The origins of the Indo-China border contention dates back to the British Raj times which failed to demarcate the border between its colony and China definitively. In recent times, Indian and Chinese armies are engaged in the standoff in Pangong Tso, Galwan Valley, Demchok and Daulat Beg Oldie in eastern Ladakh.

Issues with the Eastern Ladakh Boundary

- In Ladakh's eastern boundary, India shares a 1,140 km long boundary with China.
- It runs from the eastern limit of Bhutan to a point near the Talu Pass at the trijunction of Tibet, India and Myanmar. This boundary line is called McMahon Line.
- China considers the McMahon Line illegal and unacceptable claiming that Tibetan representatives who had signed the 1914 Convention held in Shimla which delineated the McMahon line on the map were not having rights to do so.
- Back in time, the Treaty of Amritsar was signed 1846 between the East India Company and the State of Kashmir which included Ladakh with its eastern boundary undefined, and the focus remained pashmina trade.
- During British rule, the focus shifted to the northern boundary of Ladakh because of the threat of Russian advance. In eastern Ladakh, however, the customary boundary was defined only for a very limited area under human occupation. This was also stated in the 'Gazetteer of Kashmir and Ladak' in 1890. In this unoccupied Aksai Chin was described as "neutral territory".

Ladakh after Independence

- In 1954, the Chinese began constructing a highway through the Tibet side of the border. They went on to construct it through parts of today's Aksai Chin that was actually a part of

India. India came to know of the road only through China's announcement in 1957, a month before the road was to be opened, and thus tensions between the countries rose.

- In 1962, China's People Liberation Army (PLA) invaded Ladakh and the McMahon Line. China overran the North-East Frontier Agency (NEFA) and captured Tawang in only four days while making 3000 PoW (prisoner of war) camps.
- In 1993 – Agreement on the Maintenance of Peace and Tranquility along the Line of Actual Control was signed, moving from history to principles.
- In 2020 – Focus has shifted to the ground situation. The recent joint statement highlights continuing dialogue to reach a mutually acceptable solution.

Strategic Significance of Ladakh

- The importance of Ladakh to both India and China is rooted in complicated historical processes that led to the territory becoming union territory in 2019 (earlier it was part of the state of Jammu and Kashmir), and China's interest in it post the occupation of Tibet in 1950.
- Due to increasing tensions between India and Pakistan, the Chinese invasion of Tibet in the 1950s, and their occupation of the Aksai Chin region in 1962, Ladakh has become one of India's most important strategic zones.
- The land of Ladakh enjoys the significance of being located on the ancient Silk Route which passes through these regions and played a very vital role in the development of culture, religion, philosophy, trade and commerce in the past.
- The presence of resources is what makes India, China and Pakistan struggle over Ladakh, in order to gain control over resources in this region. Pakistan and China are in conflict with India over Siachen and Aksai chin in this region. Ladakh's geostrategic significance has increased in the backdrop of these conflicts.

Way Forward

Ladakh has the potential to act as a vessel to feed India its required energy resources. For this peace in Ladakh is a condition. For peace, equal unbiased development

is mandatory. Therefore, India's policymakers, while drafting their policies for Ladakh, should consider its geographic location, fragile environment, resource potentials and its people's aspirations. In such a strategic location, it is crucial to keep all these aspects in harmony to take advantage of it to its fullest.

[1.24] T cell immune responses, seen a year after infection.

Context: A new analysis from Wuhan has shown that no studies have been done to evaluate the protective effect of memory T cell immune response against severe disease 12 months after primary Covid Infection.

The adaptive immune response is crucial for the clinical outcome after SARS-CoV-2 infection and supports vaccine efficacy. Current covid-19 vaccines evoke robust T cell responses that likely contribute to remarkable protection against hospitalization and death.

What are T cells?

- T cells are a part of the immune system that focuses on specific foreign particles.
- T cells circulate until they encounter their specific antigen and play a critical part in immunity to foreign substances.
- T cells can act as "killer cells" attacking cells that have been infected with a virus or another kind of pathogen.
- They can also act as "helper cells" by supporting B cells to produce antibodies

Findings of the Study:

Independent of Severity:

- The T cell immune responses were detectable in individuals tested 12 months after infection and even when they had lost the neutralizing antibody response.
- The researchers found that multifunctional T cell responses were detected for all SARS-CoV-2 viral proteins tested.
- Memory T cells responses to the original strain were not disrupted by new variants.
- The magnitude of T cell responses did not show any difference in the material of how severe the disease was. While the ability of antibodies to neutralize was nearly absent against the beta variant It was reduced in the case of the Delta variant.

- The T cell immune responses were detectable in all the 141 individuals tested 12 months after infection and even when they had lost the neutralized antibody response

Robustness of antibodies:

- The study reveals the durability and robustness of the T cell responses against variants including Delta, even after one year of infection.
- Most importantly, the robust and long-standing T cell responses were seen in people who have not been reinfected or vaccinated.
- This leads to the theory that, in the absence of vaccination a person who has been infected by the virus even one year ago would have robust immune responses.
- No studies have been done to evaluate if booster doses improve T cell immune responses.

Some other studies have shown that people unexposed to and not infected with Covid-19 (caused by SARS-CoV-2 or Novel Coronavirus) may still exhibit T cell responses specific to other coronaviruses.

It is believed that people with a high level of pre-existing memory T cells could mount a faster and stronger immune response upon exposure to the virus and thereby limit disease severity. But, It can also lead to antibody-mediated disease enhancement, where antibodies present at sub-neutralising concentrations can actually augment virus infection and cause more severe disease.

Conclusion

The adaptive immune response is a major determinant of the clinical outcome after SARS-CoV-2 infection and underpins vaccine efficacy. Current COVID-19 vaccines elicit robust T cell responses that likely contribute to remarkable protection against hospitalization or death.

[1.25] Coral Bleaching and associated Challenges

[GS Paper 3 - Environmental Pollution and Degradation]

Context - According to the Great Barrier Reef Management Authority, which oversees the world's biggest coral reef system, Australia's Great Barrier Reef, the reef is now suffering a widespread coral bleaching event.

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) is now conducting a scientific mission in Australia for a period of ten days.

About Corals

- Coral are made up of genetically identical organisms called polyps. These polyps have microscopic algae called zooxanthellae living within their tissues.
- Corals and algae have a mutualistic interaction with one another. Zooxanthellae rely on the coral to give them with essential nutrients and chemicals for photosynthesis to occur. In exchange, the zooxanthellae provide the coral with organic products of photosynthesis, such as carbohydrates, which are used by the coral polyps in the production of their calcium carbonate skeletons, as well as other nutrients.
- Zooxanthellae, in addition to providing corals with critical nutrients, are responsible for the vibrant colours and patterns found in corals' natural habitat. They are referred to as "rainforests of the oceans."
- Broadly, corals are of two types:
 1. Corals that are stony and shallow-water in nature—the sort that form reefs.
 2. Soft corals and deep water corals are corals that reside in dark, cold water and are soft to the touch.

Coral Bleaching:

- Coral bleaching occurs when coral polyps expel algae that live inside their tissues. Normally, coral polyps live in an endosymbiotic relationship with these algae, which are crucial for the health of the coral and the reef.
- The transparent calcium carbonate tissues, which are visible due to the lack of pigment-producing zooxanthellae, have a faint white color due to the loss of pigment.
- It is possible for corals to recover from stress-induced bleaching if the bleaching is not severe. Coral bleaching has been occurring on a regular basis in the Caribbean, Indian, and Pacific oceans for some years.

Causes of Coral Bleaching:

1. **Temperature** - There is rise in seawater temperature as a result of global warming.

- Changes in water heat affect zooxanthellae photosynthesis, forcing it out of coral polyps and depriving coral of essential resources.
2. **Solar Irradiance** - During summer months, coral bleaching can occur due to solar radiation. Both photosynthetically active radiation and UV radiation have been associated with bleaching.
 3. **Subaerial Exposure** - Low tides, sea level drops and tectonic uplift can result in sudden exposure of coral to the atmosphere. Whether due to exposure to high/low temperature, increased solar radiation or desiccation, subaerial exposure often results in bleaching and consequent coral death due to sudden changes in atmospheric conditions.
 4. **Sedimentation** - Activities such as land clearing and coastal construction can result in high rates of erosion, increasing sediment content in water and disrupting the natural process of photosynthesis.
 5. **Fresh Water Dilution** - Following intense storms or heavy rainfall, increased freshwater precipitation can cause rapid dilution, increasing water salinity. Such events can cause bleaching in small, nearshore areas.
 6. **Inorganic Nutrients** - Increases in inorganic nutrients such as ammonia and nitrate do not deplete coral of zooxanthellae, but rather cause it to multiply, increasing its content by 2-3 times. Though this does not directly cause bleaching, secondary adverse effects such as lower coral resistance and increased disease susceptibility can occur.
 7. **Chemical Pollution** - Increased nutrient concentrations have an adverse effect on corals because they encourage phytoplankton development, which in turn encourages a rise in the number of species that compete with coral for space.

Impact of Coral Bleaching

- Changes in coral ecosystems can have an impact on the species that rely on them for food and shelter, such as the fish and invertebrates that rely on living coral for protection and food. The extinction of such marine species has the potential to disrupt the whole food chain.
- When corals perish as a result of bleaching, it is possible that genetic and species diversity may decline.

- Divers and other tourists are attracted to healthy coral reefs. Tourism might be discouraged by bleached and deteriorated reefs, which can have a negative impact on the local economy.
- Coral bleaching has the potential to create significant alterations in fish populations. This can result in fewer catches for fishermen, which has a knock-on effect on the availability of food and the economic activities that support it.

Remediations and Solutions

- Solutions for ensuring the long-term viability of coral reefs must cross social, economic, and cultural borders to be effective.
- Putting a stop to uncontrolled coastal development would go a long way toward reversing the degradation of coral reefs in some areas.
- Coral conservation may be aided by encouraging sustainable fishing practices and giving chances for ecotourism.
- There is a pressing need to reduce the use of chemically enhanced fertilizers, insecticides, pesticides, and herbicides, which are non-biodegradable and can destroy corals and other marine organisms and ecosystems.

Way Forward

Coral Bleaching is one of the most severe impacts of climate change in the world. It has affected the marine ecosystem to a very extent. In our capacity, we should take all possible measures to prevent actions that worsen global warming since Climate change is the greatest global threat to coral reef ecosystems.

[1.26] Challenges Associated with JCPOA

Context - The Vienna talks aimed at reviving the Joint Comprehensive Plan of Action (JCPOA), also known as the Iran nuclear deal, have slowed down.

The JCPOA was signed in 2015, but former US President Donald Trump has withdrawn from it in 2018 and embarked on a policy of 'maximum pressure' to coerce Iran back to the negotiating table.

Reasons behind the delay:

- The Russian Ambassadors has demanded at the Vienna talks that even after the US has imposed sanctions on Russia due to the war, it would not affect its role under JCPOA.

- Russia called for its requirement of Uranium exports from Iran under JCPOA provisions. In turn, Russia would help Iran to downgrade its Fordow enrichment plant into an isotope manufacturing center that will be utilized for medicinal purposes.
- Saudi Arabia is the cornerstone of US' Middle East policy. The US has strengthened its relationship with Saudi-Arabia, to act as a counterweight against Iran. However, traditional Shia vs Sunni conflict precipitated into a regional cold war between Iran & Saudi Arabia. Thus, a major challenge for the US to restore the nuclear deal is to maintain peace between the two regional rivals.
- The US stood to not provide exemptions to Ukraine related sanctions over Russia to just escalate the Iran deal.
- Iran has insisted on the removal of all sanctions imposed on it during former US President Donald Trump's rule.
- Iran has notably deepened its ties with Russia and China, and also shares robust political, economic, military and logistical engagements with regional countries like Azerbaijan and Turkey. It is also in talks with Saudi Arabia and UAE.

India and JCPOA

- Restoration of JCPOA may ease many restrictions over the Iranian regime, which may directly or indirectly help India. It may revive India's interest in the Chabahar option, Bandar Abbas port, and other plans for regional connectivity.
- Apart from Chabahar, India's interest in the International North-South Transit Corridor (INSTC), which runs through Iran, which will improve connectivity with five Central Asian republics, may also get a boost.
- Restoration of ties between the US and Iran will help India to procure cheap Iranian oil and aid in energy security.

What is JCPOA?

- The Joint Comprehensive Plan of Action (JCPOA) is the formal name for the 2015 Iran nuclear deal.
- The 2015 Iran nuclear deal was signed by President Barack Obama and was breached during Trump's rule in 2018.
- The JCPOA was the final outcome of elongated negotiations between Iran, China, France, Russia, the United Kingdom, the United States, and Germany.
- Under this plan, Iran nodded to cutting all key components for nuclear weapons viz. centrifuge stores, heavy water, and uranium.
- Iran also agreed to the implementation of a protocol to allow International Atomic Energy Agency (IAEA) to retrieve its nuclear sites
- Under this deal, the west agreed to lift sanctions addressing nuclear expansion in Iran, alleged human rights abuse.

Consequences of the Delay:

- High technological advancement has been attained by Iran since 2015 in nuclear processing.
- JCPOA has lost its presence and significance because of the delay. Iran has been able to make the most sell out of its crude and Uranium content.

Way Forward

The growing nuclear capability of Iran and the delay in concluding a new deal to curb its nuclear programme threatens to deepen the security crisis in West Asia. The negotiating countries should continue to push for a collective agreement in the best interest of the present world order. Like Trump, Biden would like the deal to be a key part of his administration's vision in the Middle East – but this might be tougher than it is anticipated.

[1.27] Assam-Meghalaya Agreement and its Impact

[GS Paper 2 - Inter-State Relations, Government Policies and Intervention]

Context - Recently, the Chief Ministers of both Assam and Meghalaya signed an agreement which is being seen as to have ended a part of their five-decade-old inter-state border dispute.

The pact is based on the recommendations made by both the state governments in which out of the 36.79 sq km of disputed area, Assam will get control of 18.51 sq km and Meghalaya 18.28 sq km.

Historical Background:

- Assam has border disputes not just with Meghalaya, but with Nagaland, Mizoram and Arunachal Pradesh as well, each with a legacy

of its own. This is because during British rule, Assam consisted of the present-day Nagaland, Arunachal Pradesh, Mizoram and Meghalaya.

- After the Northeastern states were reorganized in 1972 in order to give shape to ethnic aspirations, the disputes surfaced.
- The long-standing differences between Assam and Meghalaya began that year when the latter was carved out of the former under the Assam Reorganization Act, 1971.

Disputed Areas:

- A major point of contention between Assam and Meghalaya is the district of Langpih in West Garo Hills bordering the Kamrup district of Assam.
- Langpih was part of the Kamrup district during the British colonial period but post-Independence, it became part of the Garo Hills and Meghalaya. Assam considers it to be part of the Mikir Hills in Assam.
- Meghalaya has questioned Blocks I and II of the Mikir Hills -now Karbi Anglong region - being part of Assam. Meghalaya says these were parts of erstwhile United Khasi and Jaintia Hills districts.

Past Efforts to Resolve the Dispute

1. Both Assam and Meghalaya have constituted border dispute settlement committees.
2. It has been decided to set up two regional committees to resolve the border disputes in a phased manner and five aspects will be considered while resolving the border dispute.
3. They are historical facts, ethnicity, administrative convenience, mood and sentiments of the people concerned and the contiguity of the land.
4. Six sites are in consideration in the first phase. These are Tarabari, Gijang, Hahim, Baklapara, Khanapara-Pilingkata and Ratacherra.
5. These disputed areas are part of Cachar, Kamrup Metro and Kamrup Rural on Assam's side and West Khasi Hills, Ri Bhoi district and East Jaintia Hills on Meghalaya's side.

Way Forward

The border agreement between Assam and Meghalaya should be used as a template to end the other border

disputes in the Northeastern Region. The Centre and the Northeast states have a golden opportunity to at least bring the parties to the negotiating table.

Boundary disputes between the states can be settled by using satellite mapping of the actual border locations. India is the epitome of unity in diversity. However, in order to strengthen this unity furthermore, both the centre and state governments, need to imbibe the ethos of cooperative federalism.

[1.28] AFSPA and the North East

[GS Paper 3 - Internal Security, GS Paper 2 - Govt. policies and interventions]

Context - AFSPA has been fully or partially withdrawn from parts of three northeastern states: Assam Nagaland and Manipur.

The Centre recently significantly reduced the footprint of the Armed Forces Special Powers Act (AFSPA) 1958 in the Northeast.

Key Highlights

- It was withdrawn entirely from 23 districts in Assam.
- It has been withdrawn partially from 7 districts in Nagaland, 6 districts in Manipur, and one district in Assam.
- The Centre has earlier extended the AFSPA in 3 districts of Arunachal Pradesh from 1st April to 30th September this year.
- The review of law and order in Tirap, Changlang, Loding, , falling under Namsai and Mahadevpur jurisdiction is taken by the AFSPA as per the centre's notification.

AFSPA (Armed Forces Special Powers Act):

- The Armed Forces Special Powers Act, 1958 is an act of Parliament that allows armed forces the power to maintain the law and order in disturbed areas.
- A disturbed area is a region declared under Section 3 of the AFSPA. This came into the role when the Northeastern states of India were under the control of extreme insurgent groups threatening the internal security of India.
- Under this act, the army is permitted to shoot, search houses and destroy any property that is under the control of insurgent groups.

- This act is supplanted when there's a case of insurgency, internal security challenges and territorial integrity is at risk.
- Under this act, armed forces can arrest anyone without a warrant who has committed or is a suspect to commit any offence.

Controversies associated with the Act:

- The law empowers security personnel, down to non-commissioned officers, to use force and shoot "even to the causing of death" if they are convinced that it is necessary to do so for the "maintenance of public order".
- It also grants soldiers executive powers to enter premises, search, and arrest without a warrant.
- The exercise of these extraordinary powers by armed forces has often led to allegations of fake encounters and other human rights violations by security forces in disturbed areas while questioning the indefinite imposition of AFSPA in certain states, such as Nagaland and J&K.

Jeevan Reddy Committee on AFSPA

- In November 2004, the Central government appointed a five-member committee headed by Justice B P Jeevan Reddy to review the provisions of the act in the northeastern states.
- The committee recommended that:
 1. AFSPA should be repealed and appropriate provisions should be inserted in the Unlawful Activities (Prevention) Act, 1967.
 2. The Unlawful Activities Act should be modified to clearly specify the powers of the armed forces and paramilitary forces and Grievance cells should be set up in each district where the armed forces are deployed.

Way Forward

The status quo of the act is no longer the acceptable solution due to numerous human rights violation incidents that have occurred over the years. The AFSPA has become a symbol of oppression in the areas it has been enacted. Hence the government needs to address the affected people and reassure them of favorable action.

[1.29] Punjab-Haryana Issue over Chandigarh

[GS Paper 2 - Interstate Disputes, Govt. Policies and Interventions]

Context - The longstanding dispute between Punjab and Haryana over Chandigarh flared up this week after the Centre notified Central Service Rules for employees in the Union Territory instead of the Punjab Service Rules.

The Punjab Assembly recently in a special session passed a unanimous resolution reiterating the state's claim on Chandigarh.

Historical Background

- After the Indian Independence and Partition, Shimla was made the temporary capital of Punjab. But with the then PM Jawaharlal Nehru's vision to replace the earlier city of Lahore as capital of Punjab with a modern city saw Chandigarh being made its capital. The move was officially done on 21st September 1953.
- The Punjab Reorganization Act of 1966 carved out the new state of Haryana from undivided Punjab, created the new Union Territory of Chandigarh under the direct control of the Centre, and transferred the hill territories of Punjab to Himachal Pradesh.
- As a result, Chandigarh, identified as the capital of Punjab in The Capital of Punjab (Development and Regulation) Act, 1952, became the common capital of both Punjab and Haryana, and properties were divided between the states in the ratio 60:40.

Punjab's claim on Chandigarh:

- PM Indira Gandhi in 1970 had announced that Haryana, in due course, would have its own capital and Chandigarh would go to Punjab. The Centre had even issued a formal communication in this regard, almost three years after Haryana came into being.
- Again, in 1985, under the Rajiv-Longowal accord, Chandigarh was to be handed over to Punjab on January 26, 1986, but the Rajiv Gandhi government withdrew at the last minute.

Haryana's Claim on Chandigarh:

- As per the 1970 documents, the Centre had considered various alternatives for settling the matter, including dividing the city. But that wasn't feasible since Chandigarh was built as a planned city to serve as the capital of one state.
- Haryana was told to use the office and residential accommodation in Chandigarh only for five years till it shifted to its own new capital.
- The Centre had offered Rs 10 crore grant to Haryana and an equal amount of loan for setting up the new capital.
- In 2018, Haryana CM suggested setting up a special body for the development of Chandigarh, but the Punjab CM rejected it, saying the city "indisputably belonged to Punjab".

Way Forward

As subsequent attempts to solve the longstanding dispute between the states of Punjab and Haryana over the capital city of Chandigarh have turned futile, it is now up to both the state governments to solve it over the negotiation tables.

Since the city is a great example of architecture, urban design and considering its economical aspects, both the states want Chandigarh to be their capital city. With Himachal Pradesh also staking its claim over Chandigarh courtesy an SC Judgment in 2011, the Centre should look to uphold the torch of cooperative federalism and see to it that the issue can be put to rest for once and all.

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2. DAILY CURRENT AFFAIRS

[2.1] [GOVERNMENT APPROVES NATIONAL ROLL-OUT OF AYUSHMAN BHARAT DIGITAL MISSION]

[GS PAPER 2 - GOVERNMENT WELFARE SCHEMES AND POLICIES]

Context:

The Ayushman Bharat Digital Mission (ABDM), which was launched by Prime Minister Narendra Modi in September last year, has been approved for a national roll-out by the Cabinet Committee on Economic Affairs (CCEA).

The ABDM will create a seamless online platform of healthcare ecosystem by collating a wide-range of data, information and infrastructure services etc. This it will do while ensuring the privacy of health-related personal information.

About the Mission

The Ayushman Bharat Digital Mission aims to provide digital health IDs for all Indian citizens to help hospitals, insurance firms, and citizens access health records electronically when required.

A Health ID will be issued for every citizen that will also work as their health account. This health account will contain details of every test, every disease, the doctors visited, the medicines taken and the diagnosis. Health ID is free of cost, voluntary. It will help in doing analysis of health data and lead to better planning, budgeting and implementation for health programs.

The other major component of the programme is creating a Healthcare Professionals' Registry (HPR) and Healthcare Facilities Registry (HFR), allowing easy electronic access to medical professionals and health infrastructure.

The HPR will be a comprehensive repository of all healthcare professionals involved in delivering healthcare services across both modern and traditional systems of medicine.

Stated Advantages/Benefits of ABDM

The Mission is aimed to ensure the Ease of doing Business for doctors and hospitals and healthcare service providers and enable access/exchange of longitudinal health records of the citizens with their concerns.

It will also look to create integration within the digital health ecosystem, similar to the role played by the UPI systems in revolutionising payments.

DO YOU KNOW?

The National Health Authority (NHA) under the Ministry of Health and Family Welfare is the implementing agency for the mission.

The pilot project of the mission was successfully completed in six Union territories: Ladakh, Chandigarh, Dadra & Nagar Haveli and Daman & Diu, Puducherry, Andaman and Nicobar Islands and Lakshadweep.

[2.2] UNSC FAILS TO ADOPT RESOLUTION AGAINST RUSSIAN AGGRESSION IN UKRAINE

[SUBJECT: GS PAPER 2: (INTERNATIONAL RELATIONS)]

Context:

India abstained from a procedural vote taken in the UN Security Council to call for a rare special emergency session of the UN General Assembly on Russia's aggression against Ukraine.

Key Highlights

The resolution was adopted with 11 votes in favor, paving the way for the General Assembly to meet on the crisis as soon as Monday. India, China and the UAE abstained, while Russia voted against the resolution.

The vote calling for the UNGA session was procedural so none of the five permanent members of the Security Council — China, France, Russia, UK and the US — could exercise their vetoes.

The Security Council failed to adopt the US-sponsored resolution that would have deplored Russia's "aggression" against Ukraine after Moscow used its veto.

The UNSC resolution was expected to be blocked since Russia, a permanent member of the Council and President of the UN organ for the month of February, was certain to use its veto. Western nations said the resolution had sought to show Moscow's isolation on the global stage for its invasion and actions against Ukraine.

About UNSC and the Voting Powers

The Security Council was established by the UN Charter in 1945. It is one of the six principal organs of the United Nations. Its primary responsibility is to work to maintain international peace and security.

The council is headquartered at New York.

The council has 15 members: the five permanent members and ten non-permanent members elected for two-year terms. The five permanent members are the United States, the Russian Federation, France, China and the United Kingdom.

The five permanent members are the United States, the Russian Federation, France, China and the United Kingdom.

Each member of the Security Council has one vote. Decisions of the Security Council on matters are made by an affirmative vote of nine members including the concurring votes of the permanent members. A "No" vote from one of the five permanent members blocks the passage of the resolution.

DO YOU KNOW?

India, for the eighth time, has entered the UNSC as a non-permanent member last year (2021) and will stay on the council for two years i.e., 2021-22.

More than 50 of the UN's 193 member countries have never been elected to the council since its formation.

[2.3] IPCC RELEASES ITS ASSESSMENT REPORT ON CLIMATE SCIENCE

SUBJECT: GS PAPER: 3 (ENVIRONMENT AND CLIMATE CHANGE)]

Context:

The adverse impacts of climate change are far greater, more frequent and vastly more disruptive than previously understood, a new assessment by the Intergovernmental Panel on Climate Change has said, warning that "minor" or "incremental" responses would not be sufficient to deal with the crisis.

Key Findings of the Report

The latest report released by IPCC warns that multiple disasters induced by climate change are likely to emerge in different parts of the world in the next two decades. This even after adequate efforts are made to keep the global rise in temperatures within 1.5 degree celsius from pre-industrial times. Even a temporary breach is likely to cause "additional severe impacts" including some irreversible damage too.

The report says that the capacity to adapt to the rising temperatures was already getting weaker, for living beings as well as natural systems, and it would reduce further with rising temperatures.

The IPCC report also says that the extent and magnitude of climate impacts, and the risks and vulnerabilities of populations and natural systems, was far greater than previously assessed.

The report also highlights large gaps in the adaptation actions that are being taken and the efforts that are required. It says these gaps are a result of "lack of funding, political commitment, reliable information, and sense of urgency".

About IPCC

The Intergovernmental Panel on Climate Change is the international body for assessing the science related to climate change. It was set up in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) to provide policymakers with regular assessment of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.

Every few years (about 7 years), the IPCC produces assessment reports that are the most comprehensive scientific evaluations of the state of earth's climate.

IPCC assessments provide a scientific basis for governments at all levels to develop climate related policies, and they underlie negotiations at the UN Climate Conference – the United Nations Framework Convention on Climate Change (UNFCCC).

DO YOU KNOW?

Several countries, more than 100, have already announced their intentions to achieve net-zero emissions by 2050. These include major emitters like the United States, China and the European Union.

India, the third largest emitter in the world, has been holding out, arguing that it was already doing much more than it was required to do, performing better, in relative terms, than other countries.

[2.4] INDIA'S GDP GROWTH FALLS TO 5.4% IN Q3

[SUBJECT: GS PAPER: 3 (ECONOMY)]

Context:

India's economic growth slowed to 5.4% in the third quarter of 2021-22 but was higher than China's GDP expansion of 4% during the same period and the country retained its position as the world's fastest growing major economy.

In the current fiscal, GDP growth stood at 20.3% in April-June quarter and 8.5% in July-September period.

Key Highlights

The National Statistical Office (NSO) in its second advance estimates of national accounts released on Monday pegged the country's growth for 2021-22 at 8.9%, a tad lower than 9.2% estimated in its first advance estimates released in January.

The Indian economy contracted 23.8 per cent in April-June in 2020 and 6.6 per cent in July-September quarter in 2020.

According to the statement, real GDP or Gross Domestic Product (GDP) at constant (2011-12) prices

in 2021-22 is estimated to attain a level of Rs 147.72 trillion as against the first revised estimate of GDP for the year 2020-21 of Rs 135.58 trillion, released on January 31, 2022.

The growth in GDP during 2021-22 is estimated at 8.9% as against a contraction of 6.6 per cent in 2020-21.

In value terms, GDP stood at Rs 38,22,159 crore in October-December 2021-22, higher than the Rs 36,22,220 crore in the corresponding period of the 2020-21.

According to NSO data, Gross Value Added (GVA) growth in the manufacturing sector growth remained almost flat at 0.2 per cent in the third quarter of 2021-22, compared to a growth 8.4 per cent a year ago.

About NSO

NSO was first envisaged by Rangarajan Commission to implement and maintain statistical standards and coordinate statistical activities of Central and State agencies as laid down by the National Statistical Commission (NSC). It is the statistical wing of the Ministry of Statistics and Programme Implementation (MoSPI).

It acts as the nodal agency for planned development of the statistical system in the country and Lays down and maintains norms and standards in the field of statistics, involving concepts and definitions, methodology of data collection, processing of data and dissemination of results.

It also prepares national accounts as well as publishes annual estimates of national product, government and private consumption expenditure, capital formation, savings, estimates of capital stock and consumption of fixed capital.

[2.5] INDIA RANKS 117TH IN ACHIEVING SDGS

[GS PAPER 3 - ENVIRONMENT AND CLIMATE CHANGE]

Context:

India's rank has slipped by two places from last year to 117 on the 17 Sustainable Development Goals (SDGs) adopted as a part of the 2030 agenda by 193 United Nations member states in 2015.

The State of India's Environment Report 2021 revealed that India's rank was 115 last year and dropped by two places primarily because major challenges like ending hunger and achieving food security (SDG 2), achieving gender equality (SDG 5) and building resilient infrastructure, promoting inclusive and sustainable industrialisation and fostering innovation (SDG 9) remain in the country.

Key Highlights of the Report

India ranks below four South Asian countries — Bhutan, Nepal, Sri Lanka and Bangladesh, it said. The overall SDG score of India is 61.9 out of 100.

Elaborating State-wise preparedness, the report said Jharkhand and Bihar are the least prepared to meet the SDGs by 2030, which is the target year. While Jharkhand lags in five of the SDGs, Bihar lags in seven.

It said the States/UTs with the best overall score which are on the path to achieving the SDGs are Kerala, Himachal Pradesh and Chandigarh.

The 2030 Agenda for Sustainable Development, was adopted by all United Nations Member States in 2015, which provides a shared blueprint for peace and prosperity for people and the planet, now and into the future.

The report also said that India ranked 168 out of 180 countries in terms of Environmental Performance Index (EPI) which is calculated on various indicators, including environmental health, climate, air pollution, sanitation and drinking water, ecosystem services, biodiversity, etc.

India's rank was 172 in the environmental health category, which is an indicator of how well countries are protecting their populations from environmental health risks.

What are Sustainable Development Goals?

The Sustainable Development Goals agenda was accepted by all members of the United Nations in 2012 at the Rio De Janeiro Council Meet with an aim to promote a healthy and developed future of the planet and its people.

It was in 2015 when the Sustainable Development Goals were implemented after a successful fifteen-year plan of development called the Millennium Development Goals.

The 17 SDGs adopted by U.N. member states are: SDG1 — no poverty, SDG 2 — zero hunger, SDG3 — good health and well-being, SDG4 — quality education, SDG 5 — gender equality, SDG 6 — clean water and sanitation, SDG 7 — affordable and clean energy, SDG 8 — decent work and economic growth, SDG 9 — industry, innovation and infrastructure, SDG 10 — reduced inequalities, SDG 11 — sustainable cities and communities, SDG 12 — responsible consumption and production, SDG 13 — climate action, SDG 14 — life below water, SDG 15 — life on land, SDG 16 — peace, justice and strong institutions and lastly SDG 17 — strengthening global partnerships for the goals.

DO YOU KNOW?

According to the EPI 2020 report by Yale University, India ranked 148, 21 positions behind Pakistan which was at 127th position in the category of biodiversity and habitat.

The most widely accepted definition of Sustainable Development was given by the Brundtland Commission in its report Our Common Future (1987).

Sustainable Development Goals are not legally binding on any country.

[2.6] INDIA RANKED THIRD IN BILLIONAIRE POPULATION GLOBALLY IN 2021

[SUBJECT: GS PAPER 3: (ECONOMY)]

Context:

India ranked third in billionaire population globally in 2021. The US is number one with 748 billionaires, followed by the Chinese mainland at 554 billionaires and India with 145 billionaires.

In its latest edition of The Wealth Report 2022, property consultant Knight Frank said the number of ultra-high-net-worth-individuals (UHNWIs) globally increased by 9.3 per cent in 2021 to 6,10,569, from 5,58,828 in the previous year.

Key Highlights of the Wealth Report 2022

The number of ultra-high-net-worth-individuals (UHNWIs) has globally increased by 9.3% in 2021. Over 51,000 people have seen their net assets increase

to US\$30m or more. In India, the number of UHNWIs (net assets with US\$ 30m or more) has grown by 11% YoY in 2021, the highest percentage growth in APAC.

Every region across the world saw an increase in the number of UHNWIs between 2020 and 2021 – Americas (+12.2%), Russia & CIS (+11.2%), Australasia (+9.8%), Middle East (+8.8%), Latin America (+7.6%), Europe (+7.4%) and Asia (+7.2%) – except for Africa, where the UHNWI population declined by 0.8%.

Amongst key Indian cities, Bengaluru witnessed the highest growth in the number of UHNWIs with 17.1% to 352 followed by Delhi with 12.4% to 210 and Mumbai with 9% to 1596 in 2021.

For the first time, Knight Frank has examined the size of the ‘next generation’ of the world’s UHNWI population and assesses what that could mean for the property markets.

Over the next five years, Knight Frank forecasts that the global UHNWIs population will grow by a further 28 per cent, with Asia and Australasia at 33 per cent each seeing the largest growth, followed by North America (28 per cent) and Latin America (26 per cent).

About Knight Frank LLP

Knight Frank LLP is an estate agency, residential and commercial property consultancy founded in London by John Knight, Howard Frank and William Rutley in 1896. Knight Frank together with its American affiliate Cresa is one of the world’s largest global property consultancies.

Headquartered in London, Knight Frank’s global network has more than 488 offices across 57 territories and more than 20,000 people handle in excess of US\$817 billion (£498 billion) worth of commercial, agricultural and residential real estate annually.

DO YOU KNOW?

As per the Wealth Report 2022, with a healthy growth in the UHNWI and billionaire population, India is expected to be one of the fastest growing countries amongst its global peers, further strengthening itself economically and emerging as a superpower in different sectors.

[2.7] GOOGLE, MEITY TO HELP 100 INDIAN STARTUPS BUILD HIGH-QUALITY APPS FOR WORLD

[SUBJECT: GS PAPER 3: (SCIENCE AND TECHNOLOGY, ENTREPRENEURSHIP)]

Context:

Google and MeitY Startup Hub, an initiative of the Ministry of Electronics and Information Technology (MeitY), on Wednesday announced a cohort of 100 Indian early to mid-stage startups, to help these startups build high-quality global apps and games as part of the Appscale Academy.

As a part of the 6-month training programme, the 100 startups will be trained through a customized curriculum designed to help them drive high-quality apps for the global market.

The 100 startups were chosen from over 400 applications following an in-depth selection process.

Representing the talent diversity emerging among India’s startup and developer ecosystem, 35 percent of the cohort come from Tier 2 and Tier 3 cities, including Surat, Vadodara, Kanpur, Lucknow, Meerut, Morbi, and many others. Nearly 58 per cent of the cohort have a woman in a leadership role.

Startup Ecosystem of India

At present, India is the third largest start-up ecosystem globally (by number of start-ups) with more than 15,000 start-ups established in 2020, up from 5000 in 2010.

The underlying enablers of this startup ecosystem include smartphone and internet penetration, cloud computing, application programming interfaces (APIs), and a national payments stack in place.

India currently stands third in the global list of the number of companies that have attained unicorn status (well behind the US and China, but ahead of the UK and Germany.).

The Indian start-up ecosystem is nothing short of a revolution with \$106-billion worth of value-creation by 44 unicorns, in turn creating 1.4 million direct and indirect jobs.

India's changing reforms and policies towards startups and various government initiatives have helped the Indian start-ups scale. The inflow of forex especially from leading tech companies such as Facebook, Google, and Microsoft into the Indian start-up ecosystem signals the immense potential of the domestic market.

While India's startups in the fintech and e-commerce sector are doing exceptionally well, the space startup sector remains an outlier. Currently, the global space economy is worth \$440 billion, with India having less than 2% share in the sector.

[2.8] INDIA & US HOLD 19TH MILITARY COOPERATION MEETING

[SUBJECT: GS PAPER 3: (DEFENCE)]

Context:

The 19th edition of India-US Military Cooperation Group (MCG) meeting was held in Agra, Uttar Pradesh on March 01-02, 2022. The meeting was co-chaired by Chief of Integrated Defence Staff to the Chairman Chiefs of Staff Committee (CISC) Air Marshal BR Krishna from the Indian side and Deputy Commander, US Indo-Pacific Command Lieutenant General Stephen D Sklenka from the US side.

According to a Defence Ministry release, during the meeting, the two sides considered new initiatives to be taken under the ambit of existing military cooperation mechanisms.

The discussions focussed on strengthening the ongoing defence engagements between the two sides and mulled on new initiatives under the ambit of the existing cooperation mechanism.

India-US Military Cooperation over the years

Defence relationship has emerged as a major pillar of India-US strategic partnership with the signing of 'New Framework for India-US Defense Relations' in 2005 which was further updated for 10 years in 2015.

India and US inked important defence pacts in the last few years and also formalized the four nation alliance of QUAD (India, US, Japan and Australia). The alliance is seen as an important counter to China in the Indo-Pacific.

The Malabar exercise in November 2020 portrayed a high point in Indo-US strategic ties, it was the first time in 13 years that all four countries of QUAD came together sending a strong message to China.

India and the US over the years have inked four foundational defence agreements:

- Basic experience and Cooperation Agreement for Geospatial Intelligence (BECA)
- General Security of Military Information Agreement (GSOMIA)
- Logistics Exchange Memorandum of Agreement (LEMOA)
- Communication Compatibility and Security Agreement (COMCASA)

[2.9] UNEA SESSION HELD IN NAIROBI

[SUBJECT: GS PAPER 3: (ENVIRONMENT AND ECOLOGY)]

Context:

Recently, the parties to the United Nations Environment Assembly signed a mandate calling for a legally binding treaty addressing the full life cycle of plastic, from production to disposal.

175 nations party to UNEA endorsed a resolution to beat plastic pollution and forge an international legally binding agreement by 2024.

The United Nations approved the landmark agreement to create the world's first ever global plastic pollution treaty, describing it as the most significant environmental deal since the 2015 Paris climate accord.

Outcomes of the Treaty

The treaty would cover the full lifecycle of plastics, including production, design and disposal. According to a recent Pew study, the global plastic industry is valued at \$522.6 billion and 11 million metric tons of plastic end up in the oceans every year.

The resolution, based on three initial draft resolutions from various nations, establishes an Intergovernmental

Negotiating Committee (INC), which will begin its work in 2022, with the ambition of completing a draft global legally binding agreement by the end of 2024.

It is expected to present a legally binding instrument, which would reflect diverse alternatives to address the full lifecycle of plastics, the design of reusable and recyclable products and materials, and the need for enhanced international collaboration to facilitate access to technology, capacity building and scientific and technical cooperation.

The UN Environment Programme (UNEP) will convene a forum by the end of 2022 that is open to all stakeholders in conjunction with the first session of the INC, to share knowledge and best practices in different parts of the world.

About UNEA

The United Nations Environment Assembly was created in June 2012, when world leaders called for the UN Environment to be strengthened and upgraded during the United Nations Conference on Sustainable Development, also referred to as RIO+20.

It is the world's highest-level decision-making body on the environment. It addresses the critical environmental challenges facing the world today. The Environment Assembly meets biennially to set priorities for global environmental policies and develop international environmental law.

The Assembly is the governing body of the UN Environment Programme (UN Environment) and the successor of its Governing Council, which was composed of 58 member States. The UN Environment Assembly, with a universal membership, is now composed of 193 Member States.

[2.10] DEFENCE MINISTRY ORGANISING DEFENCE EXHIBITION - DEFEXPO 2022

[SUBJECT: GS PAPER 3: (DEFENCE
AND SECURITY)]

Context:

Ministry of Defence is hosting the 12th edition of prestigious biennial defence exhibition, DefExpo 2022, at Gandhinagar, Gujarat from March 10-14, 2022. This

mega defence international exhibition is focussing on land, air, naval, internal homeland security and electronic systems.

The Government, with policy initiatives of 'Make in India' and 'Aatmanirbhar Bharat' believes that India has tremendous potential to emerge as a global defence manufacturing hub. Therefore, the same theme has been adopted for Def Expo 2022.

Global aerospace firm Airbus will be displaying its comprehensive range of defence and space capabilities at the event. The firm informed that scale-models of the versatile A330 Multi Role Tanker Transport Aircraft as well as the multi-role AS565 MBe (Panther) and H225M helicopters will be displayed among other products and services at the Airbus booth.

In 2021, India formalized the acquisition of 56 Airbus C295 aircraft to replace the Indian Air Force (IAF) legacy AVRO fleet, opening the doors to the first 'Make in India' aircraft manufacturing in the private sector.

About DefExpo

DefExpo is a flagship biennial event of the Ministry of Defence, showcasing the land, naval, air as well as homeland security systems.

The aim of the DefExpo 2022 is to build upon the vision to achieve Atmanirbharta' in defence and reach the \$5bn defence exports target by 2024.

DefExpo-2022 promises to bring new technologies, technological solutions, where defence manufacturing companies from India and abroad showcase their products and services in the defence arena, on a single platform. This provides the Indian defence industry an opportunity to promote its export potential.

[2.11] QUAD LEADERS VIRTUAL MEET HELD

[GS PAPER 2 - INTERNATIONAL
RELATIONS
AND INTERNATIONAL ORGANIZATIONS]
Context:

Prime Minister participated today at a virtual summit of Quad leaders, along with US President Joe Biden, Australian Prime Minister Scott Morrison and Japanese Prime Minister Fumio Kishida.

In an apparent reference to extraneous issues, intruding in the Quad's deliberations, Prime Minister Narendra Modi called on the US-led four-nation grouping to remain focused on its core objective of promoting peace, stability and prosperity in the Indo-Pacific region.

Key Highlights of the Meeting

The QUAD Leaders agreed to stand up a new humanitarian assistance and disaster relief mechanism which will enable the strategic alliance to meet future humanitarian challenges in the Indo-Pacific and provide a channel for communication as they each address and respond to the escalating crisis in Ukraine.

The leaders also discussed other topical issues, including developments in ASEAN, the Indian Ocean region and the Pacific Islands.

The virtual meeting, being held in the backdrop of the major conflict in Europe, also puts to rest all speculation that Quad might not remain united in the wake of the Ukrainian crisis after Russia launched an all out military aggression against its neighbor.

About QUAD

Quadrilateral Security Dialogue (Quad) is the informal strategic dialogue between India, USA, Japan and Australia with a shared objective to ensure and support a "free, open and prosperous" Indo-Pacific region.

In November 2017, India, the US, Australia and Japan gave shape to the long-pending "Quad" Coalition to develop a new strategy to keep the critical sea routes in the Indo-Pacific free of any influence (especially China).

Importance of QUAD for its member nations

USA - USA had followed a policy to contain China's increasing influence in East Asia. Therefore, the USA sees the coalition as an opportunity to regain its influence in the Indo-Pacific region.

Australia - Australia is concerned about China's growing interest in its land, infrastructure and politics, and influence on its universities.

Japan - In the last decade, Japan has expressed concerns related to China's territorial transgression in the region.

India - In recent years, China's violation of international norms, particularly its construction of military facilities on reclaimed islands in the South China Sea, and its growing military and economic power, pose a strategic challenge to India.

DO YOU KNOW?

India is the only country among this group of four big players in Quad which has abstained from the repeated United Nations votes on Russia's aggression against Ukraine.

[2.12] PAKISTAN REMAINS ON FATF'S GREY LIST

[GS PAPER 2: (INTERNATIONAL RELATIONS AND ORGANIZATIONS)]

Context: The global money laundering and terrorist financing watchdog FATF has retained Pakistan on its terrorism financing "grey list" and asked Islamabad to address at the earliest the remaining deficiencies in its financial system.

Pakistan has been on the grey list of the Paris-based Financial Action Task Force (FATF) since June 2018 for failing to check money laundering, leading to terror financing, and was given a plan of action to complete it by October 2019.

Key Highlights of the Report

Pakistan's robust progress on its global commitments to fight financial crimes was appreciated at the concluding session of its hybrid plenary meeting, which noted that Pakistan had completed 26 of the 27 action items in its 2018 action plan of the FATF and of the seven action items of the 2021 action plan of the watchdog's Asia Pacific Group on Money Laundering (APG).

The plenary noted that since June 2018 when Pakistan made a high-level political commitment to work with the FATF and APG to strengthen its anti-money laundering/combating the financing of terrorism (AML/CFT) regime.

The FATF encouraged Pakistan to continue making progress to address, as soon as possible, the one remaining item by continuing to demonstrate that terror financing investigations and prosecutions target senior leaders and commanders of UN-designated terrorist groups.

Pakistan has so far avoided being on the black list with the help of close allies like China, Turkey and Malaysia.

How Pakistan was placed in FATF's Grey List

The FATF had issued the 27-point action plan after placing Pakistan on the 'Grey List' in June 2018. The action plan pertains to curbing money laundering and terror financing.

Pakistan was first put on the list in 2008, removed in 2009 and then again remained under increased monitoring from 2012 to 2015.

Pakistan's inclusion in the grey list has adversely impacted that country's prospects of obtaining financial assistance from world bodies such as the International Monetary Fund, World Bank, and Asia Development Bank.

About FATF

The FATF is an inter-governmental body established in 1989 to combat money laundering, terrorist financing and other related threats to the integrity of the international financial system.

The FATF currently has 39 members including two regional organizations — the European Commission and Gulf Cooperation Council. India is a member of the FATF consultations and its Asia Pacific Group.

[2.13] INDIAN RAILWAYS SUCCESSFULLY TESTS COLLISION PREVENTING SYSTEM 'KAVACH'

[GS PAPER 3: (INFRASTRUCTURE)]

Context: The Indian railway, after years of systematic planning and rounds of track-based trials, has turned self-reliant in preventing head-on collision even when two trains, either out of a possible human error or an abrupt technical failure, come running on the same track.

The Kavach system was announced in the 2022 Union Budget as a part of the Atmanirbhar Bharat initiative. Around 2,000 km of rail network is planned to be brought under the indigenous system to enable safety and capacity augmentation in 2022-23.

About 'Kavach'

It is India's own automatic protection system, which is in development since 2012, under the name Train Collision Avoidance System (TCAS), which got rechristened Kavach or "armour".

It is a set of electronic devices and Radio Frequency Identification (RFID) devices installed in locomotives, in the signalling system as well as the tracks.

The "Kavach" technology applies the brakes automatically soon after spotting another train coming from the opposite direction on the same track and stops the train at a safe distance.

As a SIL-4 certified technology, it also halts the train soon after it jumps the red signal or controls the speed after the train goes beyond the prescribed speed limit.

The Kavach has been developed by the Research Design and Standard Organization (RDSO) in collaboration with three other vendors.

Significance of 'Kavach'

The Kavach system will help prevent accidents on rail tracks like collision of trains. Once the system is activated, all trains within a 5-km range will halt to provide protection for trains on adjacent tracks.

It will only cost Rs 50 lakh per kilometer to operate in comparison to about Rs 2 crore worldwide.

It will also include stationary equipment to gather signaling inputs and relay them to a central system to enable seamless communication with the train crew and stations.

[2.14] UGC DRAFTS GUIDELINES FOR MULTIDISCIPLINARY HIGHER EDUCATION

[GS PAPER 2: (EDUCATION, HUMAN RESOURCES)]

Context: The University Grants Commission (UGC) has formulated the draft guidelines outlining its plan to encourage growth of multidisciplinary higher education institutions that will offer a diverse range of subjects.

The 'Draft Guidelines for Transforming Higher Education Institutions (HEIs) into Multidisciplinary Institutions' is in line with the NEP 2020, which has called for at least one large multidisciplinary higher education institute in or near every district by 2030.

Key Guidelines

According to the draft guidelines, once admitted, students will be able to complete the first degree at the host institution and the second degree at the partnering institution without going through the admission process again.

The guidelines have offered colleges the option of forming "clusters" to overcome institutional weaknesses hindering their entry into the field of multidisciplinary education.

The draft also points out the “debilitating or limiting effect on the evolution of research and innovation” as colleges are affiliated to universities that design the syllabi, conduct examinations and award degrees.

About UGC

The UGC was established in 1953 and made into a statutory organization with the UGC Act in 1956. It is responsible for coordinating, determining and maintaining standards of higher education.

The University Grants Commission provides recognition to universities in India and disburses funds to such recognised universities and colleges.

The UGC has the unique distinction of being the only grant-giving agency in the country which has been vested with two responsibilities: that of providing funds and that of coordination, determination and maintenance of standards in institutions of higher education.

[2.15] V-DEM INSTITUTE RELEASES THE DEMOCRACY REPORT 2022

[GS PAPER 2: (INDIAN CONSTITUTION)]

Context: V-Dem Institute, a Sweden-based institute has said that India is no longer an ‘electoral democracy’, classifying the country as an ‘electoral autocracy’ instead.

The study, titled ‘Democracy Report 2022: Autocratisation Changing Nature?’ states that more than twice as many countries are undergoing Autocratisation as are witnessing democratization.

Key Highlights of the Report

Perspectives for India:

After being classified as ‘electoral autocracy’ in last year’s report, India continues to hold on to its dubious honor even in this year’s report. Consequently, India finds itself in the category of the bottom 40% to 50% of countries.

The report highlights that autocratisation has “worsened” in India along with Afghanistan, Bangladesh, Cambodia, Hong Kong, Thailand and the Philippines in the Asia-Pacific region in the last decade.

The report notes that a new wave of democratization is being seen in 15 countries while 32 countries reel under autocratisation. The countries are categorized based on V-Dem’s liberal democracy index (LDI), which captures both electoral and liberal aspects of democracy and goes from the lowest (0) to the highest (1) levels of democracy.

The report underscores that while “Brazil, India, and Mauritius’ trajectories have stabilized in recent years, enough to remain electoral democracies or, in India’s case, an electoral autocracy”.

India’s slide to become an electoral autocracy has been linked to the Narendra Modi-led Bharatiya Janata Party and the legitimisation of the Hindunationalist agenda, which was pointed out even in last year’s report.

Global Perspective

As for the global scenario, the report reveals that the level of democracy enjoyed by the average global citizen in 2021 is down to 1989 levels. “The last 30 years of democratic advances are now eradicated.”

It has ominously pointed out that dictatorships are on the rise, affecting nearly 70% (5.4 billion) of the global population. However, it states that the “nature of autocratisation is changing”.

It also adds that ‘electoral autocracy’ – of which India is part – remains the most common regime type, affecting 44% of the world’s population, or 3.4 billion people.

About V-Dem Institute

Varieties of Democracy (V-Dem) has been producing the largest global dataset on democracy with over 30 million data points for 202 countries from 1789 to 2021.

Involving over 3,700 scholars and other country experts, V-Dem measures hundreds of different attributes of democracy. It enables new ways to study the nature, causes and consequences of democracy embracing its multiple meanings.

[2.16] AUSTRALIA, INDONESIA PARTNER TO TACKLE PLASTIC POLLUTION IN INDO-PACIFIC

[GS PAPER 3: (ENVIRONMENTAL POLLUTION AND DEGRADATION)]

Context: Australia’s national science agency and the federal government have formed a partnership with Indonesia to address plastic pollution in the Indo-Pacific.

The Commonwealth Scientific and Industrial Research Organization (CSIRO) has announced that, along with the Department of Foreign Affairs and Trade (DFAT), it has established the Plastics Innovation Hub Indonesia with \$950,745 in funding.

The Menace of Plastic Pollution

Plastic is a synthetic organic polymer made from petroleum with properties ideally suited for a wide variety of applications, including packaging, building and construction, household and sports equipment, vehicles, electronics and agriculture. Plastic is cheap, lightweight, strong and malleable.

Over 300 million tons of plastic are produced every year, half of which is used to design single-use items such as shopping bags, cups and straws.

Only 9% of plastic waste is recycled. Approximately 12% is burnt, while 79% has accumulated in landfills.

According to the International Union for Conservation of Nature (IUCN), at least 8 million tons of plastic end up in the oceans every year.

According to the United Nations Environment Program (UNEP), there are between 75 million and 199 million tons of plastic currently in the world's oceans.

The CSIRO estimates that there are 5 billion to 10 billion individual pieces of plastic on coastlines in the Indo-Pacific alone.

About the Partnership

The aim of the partnership is to bring together investors, researchers and major stakeholders, including public and private sector businesses to develop various solutions to tackle plastic waste in Indonesia's waterways and oceans. The hub looks to expand on CSIRO's existing partnership with the Udayana University and Indonesian Government to analyze, measure and chart plastic pollution in Java, Bali and other regions.

Artificial Intelligence (AI) and other advanced technologies will be used by the hub to track and identify pollution in waterways. Enzymes will also be used to degrade microplastics and polyethylene terephthalate (PET) plastic.

About CSIRO

The Commonwealth Scientific and Industrial Research Organization (CSIRO) is an Australian Government agency responsible for scientific research.

SIRO works with leading organizations around the world. From its headquarters in Canberra, CSIRO maintains more than 50 sites across Australia and in France, Chile and the United States, employing about 5,500 people.

[2.17] KANYA SHIKSHA PRAVESH UTSAV SCHEME LAUNCHED

[GS PAPER 1: ISSUES RELATED TO WOMEN]

Context: As part of International Women's Day celebrated today - March 8, 2022, the union government has launched the 'Kanya Shiksha Pravesh Utsav' scheme with an aim to bring the out-of-school girls back into the education system.

Issues with Female Enrolment

It is a fact that female enrolment in the schools has increased at a rapid pace since the 1990s but there still remains a huge gap in upper primary and secondary schooling education.

Increased female enrolments has also contributed to high-rates of dropouts and poor attendance records of the girls as compared to boys. These Girls also constitute a larger percentage of out-of-school children.

Inter-state variations continue to exist amidst all the increase with female enrolment. While states included in the BEMARU category have seen a surge in female enrolment but it still has a long way to go when compared to other affluent South India states.

As per studies, it is suggested that girls are overrepresented in the Government schools, highlighting continuing male-child preference where boys are educated in better private schools.

Government Schemes for Women Education in India

- Beti Bachao, Beti Padhao
- Digital Gender Atlas
- National Scheme for Incentives to Girls for Secondary Education (NSIGSE)
- Sarva Shiksha Abhiyan
- Rashtriya Madhyamik Shiksha Abhiyan (RMSA)
- UDAAN Scheme
- STEM Education

About the Scheme

The Kanya Shiksha Pravesh Utsav scheme has been launched by the Women and Child Development Ministry in partnership with the Education Ministry.

The scheme will fulfill the target of the Right to Education Act which works on bringing out-of-school girls back into the system.

According to available data, only four lakh out of school adolescent girls are visiting Anganwadis for nutrition, nutrition education, and skilling. With an aim to combat this problem, the Central Government has launched this new scheme to empower women's education.

The overall focus of the scheme is that all boys and girls get quality education and the department is making conscious efforts to ensure that no child, especially girls are deprived of their right to education.

The scheme has been launched as the 'Scheme for Adolescent Girls' - SAG which was launched to take care of out-of-school girls but is less effective at the moment.

[2.18] PETASCALE SUPERCOMPUTER 'PARAM GANGA' ESTABLISHED

[GS PAPER 3: ACHIEVEMENTS OF INDIANS IN SCIENCE AND TECHNOLOGY]

Context: The National Supercomputing Mission (NSM) has recently established 'PARAM GANGA', a supercomputer at IIT Roorkee which has a supercomputing capacity of 1.66 Petaflops.

The key focus is to provide computational power to the user community of IIT Roorkee and neighboring academic institutions.

Features of PARAM GANGA

PARAM Ganga has a supercomputing capacity of 1.66 Petaflops (Peta Floating-Point Operations Per Second). The super computer has been designed and commissioned by C-DAC under Phase 2 of the build approach of the NSM.

The substantial components utilized to build the super computer were manufactured and assembled in India along with an indigenous software stack developed by C-DAC.

About Supercomputers

A supercomputer is a computer that performs at or near the currently highest operational rate for computers. These supercomputers are primarily designed to be used in enterprises and organizations that require massive computing powers.

Globally, China has the maximum number of supercomputers and maintains the top position in the world, followed by the US, Japan, France, Germany, Netherlands, Ireland and the United Kingdom. India's first supercomputer was PARAM 8000.

PARAM Shivay, the first supercomputer assembled indigenously, was installed in IIT (BHU), followed by PARAM Shakti, PARAM Brahma, PARAM Yukti, PARAM Sanganak at IIT-Kharagpur, IISER, Pune, JNCASR, Bengaluru and IIT Kanpur respectively.

National Supercomputing Mission

In 2015, the National Supercomputing Mission was launched to enhance the research capacities and capabilities in the country by connecting them to form a Supercomputing grid, with National Knowledge Network (NKN) as the backbone.

The NKN project is aimed at establishing a strong and robust Indian network which will be capable of providing secure and reliable connectivity. It supports the government's vision of 'Digital India' and 'Make in India' initiatives.

The Mission is being jointly steered by the Department of Science and Technology (DST) and the Ministry of Electronics and Information Technology (MeitY).

[2.19] ODISHA TOPS LIST OF FULL IMMUNIZATION UNDER MISSION INDRADHANUSH

[GS PAPER 2: (HEALTH, GOVERNMENT POLICIES AND INTERVENTIONS)]

Context: Odisha has become the only state in the country to achieve 90.5% of immunization apart from the successful vaccination against Covid-19 infection under Mission Indradhanush 4.0.

In a step towards preventive health care for mothers and children, the intensified Mission Indradhanush (IMI) 4.0 has been rolled out in the state from March 7 for boosting full immunization coverage of the targeted women and children.

Mission Indradhanush

It was launched to fully immunize more than 89 lakh children who are either unvaccinated or partially vaccinated under UIP.

It provides vaccination against 12 Vaccine-Preventable Diseases (VPD) i.e., diphtheria, Whooping cough, tetanus, polio, tuberculosis, hepatitis B, meningitis and

pneumonia, Haemophilus influenzae type B infections, Japanese encephalitis (JE), rotavirus vaccine, pneumococcal conjugate vaccine (PCV) and measles-rubella (MR).

Mission Indradhanush was also identified as one of the flagship schemes under Gram Swaraj Abhiyan and Extended Gram Swaraj Abhiyan.

Intensified Mission Indradhanush

India is implementing the largest immunization programme globally where it annually covers more than three crore pregnant women and 2.6 crore children through the Universal Immunization Programme (UIP).

Intensified INdradhanush Mission (IMI 4.0) - It will ensure that Routine Immunization (RI) services reach unvaccinated and partially vaccinated children and pregnant women. Children up to two years will be covered in this drive.

Three rounds of IMI 4.0 will be conducted in 416 districts, including 75 districts identified for Azadi ka Amrit Mahotsav across 33 States/UTs.

Universal Immunization Programme (UIP)

The Immunization Programme in India was introduced in 1978 as 'Expanded Programme of Immunization (EPI)' by the Ministry of Health and Family Welfare. In 1985, the Programme was modified as 'Universal Immunization Programme (UIP)'. UIP prevents mortality and morbidity in children and pregnant women against 12 vaccinepreventable diseases.

As of April 2021, during the various phases of Mission Indradhanush, a total of 3.86 crore children and 96.8 lakh pregnant women have been vaccinated.

The Full Immunization Coverage among children aged 12-23 months of age has increased from 62% (NFHS-4) to 76.4% (NFHS-5).

[2.20] UNION CABINET CLEARS AGENCY TO MONETIZE GOVT. LANDS

[GS PAPER 3: (GOVERNMENT POLICIES AND INTERVENTIONS)]

Context: The Union Cabinet recently approved the setting up of the National Land Monetization Corporation (NLMC) to monetise surplus land and building assets of Central Public Sector Enterprises (CPSEs) and other agencies linked to the Government.

To be fully owned by the Center, under the administrative jurisdiction of the Finance Ministry, NLMC will have an initial authorized share capital of Rs 5,000 crore and paid-up share capital of Rs 150 crore.

About NLMC

The National Land Monetization Agency (NLMC) is constituted to undertake surplus land asset monetisation as an agency function, and assist and provide technical advice to the Centre in this regard.

NLMC will also advise and support other Government entities (including CPSEs) in identifying their surplus non-core assets and monetizing them in a professional and efficient manner to generate maximum value realization.

NLMC will act as a repository of best practices in land monetization, assist and provide technical advice to the Government in implementation of asset monetization programmes.

Advantages of NLMC

NLMC will enable productive utilization of underutilized assets to trigger private sector investments, new economic activities, boost local economy and generate financial resources for economic and social infrastructure.

It is also expected to own, hold, manage and monetize surplus land and building assets of CPSEs under closure and the surplus non-core land assets of Government owned CPSEs under strategic disinvestment.

Apart from the strategic sale and privatization of state-owned companies, monetisation of idle land is part of the Centre's strategy to reduce its business presence to a bare minimum and generate resources for future asset creation.

According to the Government statement issued Wednesday, monetisation of land can be through direct sale or concession, or by similar means. Under the process, the Government is essentially transferring revenue rights to private parties for a specified transaction period in return for upfront money, a revenue share, and commitment of investments in the assets.

[2.21] TURKEY TO INVOKE MONTREUX CONVENTION TO BLOCK RUSSIAN WARSHIPS

[GS PAPER 2: (BILATERAL GROUPINGS AND AGREEMENTS)]

Context: Turkey is set to implement an international convention on naval passage through two of its strategic straits, which would allow them to limit the movement of Russian warships between the Mediterranean Sea and the Black Sea.

The decision came three days after Kyiv had asked Ankara to close the Bosphorus and Dardanelles straits to Russian ships.

What is the Montreux Convention?

According to the 1936 Montreux Convention Regarding the Regime of the Straits, often referred to simply as the Montreux Convention, Turkey has control over both the Bosphorus and Dardanelles straits.

In the event of a war, the pact gives Ankara the right to regulate the transit of naval warships and to block the straits to warships belonging to the countries involved in the conflict.

Article 19 of the treaty contains an exception for the countries on the Black Sea that can effectively undermine Turkey's power in blocking the Russian warships entering or exiting the Black Sea: "Vessels of war belonging to belligerent powers, whether they are Black Sea Powers or not, which have become separated from their bases, may return thereto," it says. That means warships can return to their original bases through the passage and Turkey cannot prevent it.

This exception provides Russia with an alternate way to exploit the Montreux Convention, which would be to reassign some of its vessels to the Black Sea.

Turkey has used the convention's powers before. During World War II, Turkey prevented the Axis powers from sending their warships to attack the Soviet Union – and blocked the Soviet navy from participating in combat in the Mediterranean.

The Bosphorus and Dardanelles Strait

The Bosphorus and Dardanelles straits, also known as the Turkish Straits or the Black Sea Straits, connect the Aegean Sea and the Black Sea via the Sea of Marmara.

It is the only passage through which the Black Sea ports can access the Mediterranean and beyond.

Over three million barrels of oil, about 3% of the daily global supply, mostly produced in Russia, Azerbaijan, and Kazakhstan, pass through this waterway every day.

Turkey's role in the ongoing conflict

In the current situation, the Turkish government finds itself in a difficult position, as both Ukraine and Russia are important partners in critical energy and military trade agreements.

Turkey, a NATO member since 1952, wants to strengthen its ties with the West while not upsetting Russia. Its control over these key straits may test its balancing act.

In this context, Turkey has held that it cannot block all Russian warships accessing the Black Sea due to a clause in the pact exempting those returning to their registered base.

[2.22] INDIA, CANADA FORMALLY AGREE TO STEP UP TALKS OVER FTA

[GS PAPER 2: (INTERNATIONAL RELATIONS)]

Context: India and Canada recently, formally agreed to expedite talks to consider a free trade agreement between the two countries to boost trade in goods and services along with an early harvest deal, an official statement said.

India and Canada held the fifth Ministerial Dialogue on Trade & Investment (MDTI) in New Delhi.

What are FTAs?

It is a pact between two or more nations to reduce barriers to imports and exports among them.

Under a free trade policy, goods and services can be bought and sold across international borders with little or no government tariffs, quotas, subsidies, or prohibitions to inhibit their exchange.

The concept of free trade is the opposite of trade protectionism or economic isolationism.

India-Canada FTA

Ministers on both sides agreed to formally relaunch the negotiations for India-Canada Comprehensive Economic Partnership Agreement (CEPA) and also consider an interim agreement or Early Progress Trade Agreement (EPTA) that expedite mutual commercial gains.

Both countries also agreed to undertake intensified work with respect to the recognition of Canada's systems approach to pest risk management in pulses and market access for Indian agriculture goods such as sweet corn, baby corn and banana.

Canada also agreed to examine expeditiously the request of Agricultural and Processed Food Products Export Development Authority (APEDA) for facilitating Indian organic export products.

India's Important Trade Agreements

Comprehensive Economic Cooperation and Partnership Agreement (CECPA) - India and Mauritius

South Asia Preferential Trading Agreement (SAPTA) - for promoting trade amongst the member countries and came into effect in 1995.

South Asian Free Trade Agreement (SAFTA) - It is an FTA confined to goods, but excluding all services like information technology. It was signed to reduce customs duties of all traded goods to zero by the year 2016.

Asian Free Trade Agreement (AFTA) - It is a preferential tariff arrangement that aims at promoting intra-regional trade through the exchange of mutually agreed concessions by member countries.

[2.23] INDIA, CHINA HOLD 15TH ROUND OF MILITARY TALKS

[GS PAPER 3: (DEFENCE AND INTERNAL SECURITY)]

Context: India and China recently held another round of high-level military dialogue to resolve the 22-month-long standoff in eastern Ladakh. The last round of such talks failed to yield any significant outcome in resolving the row.

India is pressing for early disengagement of the troops in remaining friction points including resolutions of pending issues in Depsang Bulge and Demchok

Key Highlights of the Talks

The main focus of the talks was the completion of the stalled disengagement process in the Hot Springs (Patrolling Point-15) areas.

The two sides agreed to stay in close contact and maintain dialogue via military and diplomatic channels and work out a mutually acceptable resolution of the remaining issues at the earliest.

The Eastern Ladakh Standoff

The eastern Ladakh border standoff between the Indian and Chinese militaries erupted on May 5, 2020, following a violent clash in the Pangong lake areas.

Both sides gradually enhanced their deployment by rushing in tens of thousands of soldiers as well as heavy weaponry.

As a result of a series of military and diplomatic talks, the two sides completed the disengagement process last year in the north and south banks of the Pangong lake and in the Gogra area.

Location of Hot Springs and Gogra Post:

Hot Springs is just north of the Chang Chenmo river and Gogra Post is east of the point where the river takes a hairpin bend coming southeast from Galwan Valley and turning southwest.

The area is north of the Karakoram Range of mountains, which lies north of the Pangong Tso lake, and south east of Galwan Valley.

The area lies close to Kongka Pass, one of the main passes, which, according to China, marks the boundary between India and China.

India's claim of the international boundary lies significantly east, as it includes the entire Aksai Chin area as well.

[2.24] Centre releases grant-in-aid to states for rural local bodies

[GS Paper 2 - Centre-State Relations, Constitutional Bodies]

Context - The central government recently released an amount of Rs. 2,221.2 crore to Bihar, Karnataka and West Bengal for providing grants to the rural local bodies. Rs 1,112.7 crore has been released to Bihar, Rs 473.9 crore to Karnataka and Rs 634.6 crore to West Bengal, according to data released by the Department of Expenditure, Ministry of Finance.

This grant-in-aid is the second installment of tied grants to the State of Bihar and untied grant to the States of Karnataka and West Bengal of the year 2021-22.

What are local body grants?

- The local body grants are meant to ensure additional funds to rural local bodies over and above the funds allocated by the Centre and the State for sanitation and drinking water under the Centrally Sponsored Schemes.

- The 15th Finance Commission recommended tied grants are released to rural local bodies (RLBs) on the recommendations of the Department of Drinking Water & Sanitation for making improvements on two critical services namely (a) Sanitation and maintenance of open-defecation free (ODF) status and (b) supply of drinking water, rainwater harvesting and water recycling.
- Untied grants are released to the rural local bodies on the recommendations of the Ministry of Panchayati Raj after satisfying the conditions stipulated by the 15th Finance Commission.

About Finance Commission (FC)

- The FC is a constitutional body that determines the formula for distributing the tax proceeds between the Centre and states, and among the states as per the constitutional arrangement and present requirements.
- Under Article 280 of the Constitution, the President of India is required to constitute a FC at an interval of five years or earlier. The 15th FC was constituted in November 2017, under the chairmanship of NK Singh.
- Its recommendations will cover a period of five years from the year 2021-22 to 2025-26.

Division of FC Grants

- Grants for Rural Local Bodies - The three-tier model of governance envisioned in the Constitution assigns clear roles and responsibilities to Gram Panchayats. The FC recommendations ensure that these local bodies are adequately funded.
- Grants for Urban Local Bodies - In addition to units of self-governance at the village level, the Constitution also envisages cities as units of self-governance.
- Assistance to SDRF - The central government also provides funds to State Disaster Relief Funds in addition to funding the National Disaster Management Authority (NDMA).
- Post Devolution Revenue Deficit Grants - About a third of the total revenue collected by the Center is directly transferred to states as their share in the divisible pool.

- In addition to the four main transfers under the FC Grants, the Centre also transfers a considerable sum to states and vulnerable groups from its own resources.

[2.25] Govt. releases norms for Strengthening of Pharma Industry Scheme

[GS Paper 3 - Inclusive Growth, Industrial Policy]

Context - Chemicals and Fertilizers Ministry has released guidelines for the scheme Strengthening of Pharmaceutical Industry. The scheme is aimed to extend support required to existing pharma clusters and Micro, Small and Medium Enterprises across the country.

Key Highlights of the Scheme

- The objective of the scheme is to improve productivity, quality and sustainability of the pharma industries with a total financial outlay of five hundred crore rupees for the period from financial year 2021-22 to 2025-26.
- In the Scheme, financial assistance to pharma clusters will be provided for the creation of Common Facilities. Such will not only improve the quality but also ensure the sustainable growth of clusters.
- To upgrade the production facilities of SMEs and MSMEs so as to meet national and international regulatory standards (WHO-GMP or Schedule-M), interest subvention or capital subsidy on their capital loans will be provided under the scheme, which will further facilitate the growth in volumes as well as in quality.
- The units supported under this scheme are expected to act as Demonstration Firms for the pharma clusters and MSE Pharma Industries, to develop on quality and technology up-gradation fronts.

Components of the Scheme

The scheme has 3 components/sub-schemes. These are:

1. Assistance to Pharmaceutical Industry for Common Facilities (APICF), to strengthen the existing pharmaceutical clusters' capacity for their sustained growth by creating common facilities.

2. Pharmaceutical Technology Upgradation Assistance Scheme (PTUAS) to facilitate Micro, Small and Medium Pharma Enterprises (MSMEs) of a proven track record to meet national and international regulatory standards;
3. Pharmaceutical & Medical Devices Promotion and Development Scheme (PMPDS) to facilitate growth and development of Pharmaceutical and Medical Devices Sectors through study/survey reports, awareness programs, creation of databases, and promotion of industry.

Other Schemes related to Pharma Sector

Promotion of Bulk Drug Parks Scheme - Through this scheme, the government aims to develop 3 mega Bulk Drug parks in India in partnership with States to reduce manufacturing cost of bulk drugs in the country and dependency on other countries for bulk drugs.

Production Linked Incentive Scheme (PLI) - The PLI scheme aims to promote domestic manufacturing of critical Key Starting Materials (KSMs)/Drug Intermediates and Active Pharmaceutical Ingredients (APIs) in the country.

[2.26] Mumbai becomes first South Asian city to detail net-zero roadmap

[GS Paper 3 - Environment and Climate Change, Infrastructure]

Context - Mumbai announced detailed plans to zero out carbon emissions by 2050, a target that puts it two decades ahead of India's national goal and makes it the first city in South Asia to set such a timeline.

India's financial center, home to south Asia's biggest corporations, stock bourses and the central bank, has proposed exhaustive changes to the way it manages energy, water, air, waste, green spaces and transport for its 19 million residents.

Perceived Threats to Mumbai:

- India's richest city, Mumbai is also home to tremendous poverty, with slums and fishing villages along the southern coast that date to British rule.
- By 2050, rising sea levels are expected to flood those parts of the city. In total, unabated climate change could cost the city \$920 million.
- Without intervention, the effects of climate change could cost India \$35 trillion over the next 50 years.

- Many Indian cities including Mumbai are also bracing for an influx of some 870 million migrants seeking refuge from crop failures, water scarcity and storms caused by rising temperatures.

Key Highlights of the Roadmap:

1. Mumbai's plan under the net-zero roadmap involves changes across six domains, that are:
 - Investments in housing
 - Electrifying public transport and more walkable roads
 - Flood-resistant drainage and water conservation
 - Investing in clean water and sanitation
 - Rooftop solar capacities
2. The city may consider raising funds through green bonds announced by the Federal Government. It will also be receiving funds from the Maharashtra Govt. which plans to raise funds for climate mitigation through global tenders.
3. The city aims to cut to zero its total greenhouse emission which in 2019 stood at 23.42 million tons or 1.8 tons per capita. The largest investments will have to come into energy, which accounts for 72% of total emissions.
4. Mumbai's short-term priorities include the purchase 2,100 electric buses by 2023 at a cost of 130 billion rupees (\$1.7 billion). The city will also spend on projects like retrofitting low-income homes with electricity-efficient equipment.
5. South Asia's other megalopolises including New Delhi, Bangalore, Chennai, Kolkata, Dhaka and Karachi are also preparing climate action plans. Indian cities are also bracing for an influx of some 870 million migrants seeking refuge from crop failures, water scarcity and storms caused by rising temperatures.

DO YOU KNOW?

Carbon neutrality is a state of net-zero carbon dioxide emissions. This can be achieved by balancing emissions of carbon dioxide with its removal (often through carbon offsetting) or by eliminating emissions from society (the transition to the "post-carbon economy").

The term "net zero" is increasingly used to describe a broader and more comprehensive commitment to decarbonization and climate action, moving beyond carbon neutrality by including more activities under the scope of indirect emissions, and often including a science-based target on emissions reduction.

[2.27] India-SL sign JVSHA agreement to build solar power plant

[GS Paper 2 - India and its Neighborhoods]

Context - India and Sri Lanka have signed an agreement for developing a 100 megawatt solar power plant in the island nation's eastern port district of Trincomalee, as part of the efforts to strengthen bilateral economic partnership, including through cooperation in the renewable energy sector.

What is JVSHA?

The Joint Venture Shareholders Agreement (JVSHA) for the Trincomalee Power Company Limited is a joint venture between National Thermal Power Corporation (NTPC) Limited from India and the Ceylon Electricity Board (CEB) for developing the 100 megawatt solar power plant at Sampur in Sri Lanka.

Strategic Importance of the Project

- India has been eyeing a power project in Sampur for decades. Both NTPC and CEB signed a 500 million US dollar Sampur coal power plant deal in 2011. However, the coal plant idea was debunked in 2016 and instead proposed a liquefied natural gas (LNG) power plant.
- India has had strategic interests in Sri Lanka's Trincomalee since late 1970s where one of the world's best natural ports is located. India has already secured an oil tank farm in January.
- The deal was finalized a week ahead of Rajapaksa's visit to India where he is expected to sign a 1 billion US dollar credit line to import essential commodities and medicinal drugs from India to Sri Lanka which is facing severe dollar shortage and higher risk of sovereign debt default.

Commercial Relations between India and SL over the years

- Sri Lanka has long been a priority destination for direct investment from India.
- Sri Lanka is one of India's largest trading partners among the SAARC countries. India in turn is Sri Lanka's largest trade partner globally.

- India's exports to Sri Lanka amounted to \$5.3 billion in 2015-17 whereas its imports from the country were at \$743 million.
- Trade between the two countries grew particularly rapidly after the India-Sri Lanka Free Trade Agreement which came into force in March 2000.
- While Sri Lankan exports to India have increased substantially during the past several years since 2000 when ISFTA came into force.

[2.28] Env. Ministry Releases Report for Rejuvenation of 13 Rivers

[GS Paper 3 - Conservation, Environmental Pollution and Degradation]

Context - Ministry of Environment, Forest and Climate Change released Detailed Project Reports (DPRs) on rejuvenation of thirteen major rivers through forestry interventions.

The thirteen rivers for which the DPRs are released are Jhelum, Chenab, Ravi, Beas, Sutlej, Yamuna, Brahmaputra, Luni, Narmada, Godavari, Mahanadi, Krishna, and Cauvery. The DPRs were funded by National Afforestation & Eco-development Board, (MoEF&CC) and prepared by Indian Council of Forestry Research & Education (ICFRE), Dehradun.

Key Highlights of the Report

- The proposed cumulative budget outlay of thirteen DPRs is Rs. 19,342.62 crore. The DPRs are expected to be executed through the State Forest Departments as nodal departments and with convergence of schemes of other line departments in the states towards the activities proposed in the DPRs and funding support from the Government of India.
- The activities proposed in the DPRs will help achieve potential benefits of increasing the green cover, contain soil erosion, recharge water table and sequester carbon dioxide in addition to benefits in the form of non-timber forest produce.

Proposed Advantages

- Forestry interventions are expected to increase the cumulative forest cover by 7,417.36 km² across 13 riverscapes.

- The proposed interventions would help to sequester 50.21 million tons CO₂ equivalent in 10-year-old plantations and 74.76 million tons CO₂ equivalent in 20-year-old plantations.
- The proposed interventions in thirteen riverscapes would help in ground water recharge to the extent of 1,889.89 million cubic meter per year, and reduction in sedimentation to the tune of 64,83,114 cubic meter per year.
- National Water Mission (2010) - It ensures integrated water resource management leading to water conservation, less wastage, equitable distribution forming better policies.
- National Mission for Clean Ganga (NMCG) - It envisages a five-tier structure at national, state and district level to take measures for prevention, control, and abatement of environmental pollution in river Ganga.
- Namami Gange Project - It integrates the efforts to clean and protect the Ganga River in a comprehensive manner.

Need for River Rejuvenation

1. Several causes can be attributed to be the reason behind the increase in polluted river stretches. Some of them include:
 - Rapid urbanization and lack of efficient waste disposal systems.
 - Industrial Cities on the banks of rivers.
 - Run-off from agricultural activities, etc.
2. The World Bank estimates that the health costs of water pollution in India equal three percent of India's GDP. It has also been suggested that eighty percent of all illnesses in India and one-third of deaths can be attributed to water-borne diseases.
3. The danger Ganga's polluted water poses is not only to the humans but also to the animals. Some of the important threatened species include, more than 140 fish species, 90 amphibian species, reptiles such as the Gharials, and mammals such as the South Asian River Dolphin.

Associated Constitutional Provisions

- Article 21 - The Right to clean the environment. Access to pollution-free and non-contaminated water has been included under the broad rubric of Right to Life.
- Article 51-A(g) - It is the fundamental duty of every citizen of India to protect and improve the natural environment including forest, lakes, rivers and wildlife.

Initiatives to prevent River Pollution

- National Water Policy (2012) - It aims to take cognizance of the existing situation, to propose a framework for creation of a system of laws and institutions and for a plan of action with a unified national perspective.

[2.29] ISRO successfully tests solid booster stage for new SSLV

[GS Paper 3 - Indian Space and Technology]

Context - The Indian Space Research Organization (ISRO) successfully carried out the ground testing of a newly developed solid booster stage (SS1) for its new launch vehicle Small Satellite Launch Vehicle (SSLV) at Sriharikota.

The remaining stages of SSLV (SS2 and SS3) have successfully undergone necessary ground tests and are ready for integration.

What is SSLV?

- The SSLV or Small Satellite Launch Vehicle is designed to be smaller, cheaper, and quickly assembled for commercial launches on demand. The SSLV is likely to cost Rs 30 crore as compared to Rs 120 crore for each Polar Satellite Launch Vehicle (PSLV), which is India's workhorse.
- ISRO's new chairman Dr Somanath is credited with designing and developing the SSLV during his tenure as director of the Vikram Sarabhai Space Centre in Thiruvananthapuram since 2018.
- It can be assembled by a team of six within seven days in comparison to a team of 600 that takes a couple of months to assemble a PSLV.
- The launch vehicle will carry smaller payloads of about 500 kg in comparison to 1,750 kg carried by PSLV.

- The Government has sanctioned a total cost of Rs. 169 Crores for the development project including the development & qualification of the vehicle systems and the flight demonstration through three development flights (SSLV-D1, SSLV-D2 & SSLV-D3).

Significance of SSLV

- The development and manufacture of the SSLV are expected to create greater synergy between the space sector and private Indian industries – a key aim of the space ministry.
- Indian industry has a consortium for the production of PSLV and should come together to produce the SSLV as well once it is tested.
- One of the mandates of the newly-created ISRO commercial arm, New Space India Limited (NSIL) is to mass-produce and manufacture the SSLV and the more powerful PSLV in partnership with the private sector in India through technology transfers.
- Its aim is to use research and development carried out by ISRO over the years for commercial purposes through Indian industry partners.

[2.30] SIPRI's 2021 Trends in International Arms Transfers report released

[GS Paper 2 - Effect of Policies & Politics of Countries on India's Interests]

Context - As per the recently released SIPRI's Trends in International Arms Transfers, 2021 — published this month — India's total volume of imports fell by 21 per cent from 2012-16, which could be a reflection of the push to manufacture arms and weapons systems indigenously.

The five largest arms importers in the 2017-21 period were India, Saudi Arabia, Egypt, Australia, and China, while the five biggest exporters of arms in the same period were the United States, Russia, France, China, and Germany.

The Report on India

- India accounted for 11 per cent of global arms imports in 2017-21 as per the SIPRI report, while China accounted for 4.8 per cent.

- Russia was India's largest supplier of arms in both 2012-16 and 2017-21. However, the volume of India's imports from Russia fell by 47 per cent between these two periods.
- Meanwhile, India's imports from France increased substantially, making France the second-largest supplier of arms to India in this period.

Global Report

- The report pegs Saudi Arabia as the second biggest arms importer, while estimating the country's percentage in world imports at 11%. Saudi Arabia became the second largest importer of arms in 2017-21, and increased its total arms imports volume by 27 per cent during this period. The US accounted for 82% of Saudi Arabia's imports.
- Egypt accounted for 5.7 per cent of global arms imports in 2017-21, while also seeing a 73% increase in the volume of their imports during this period.
- The fourth-largest arms importer, Australia, saw their imports rise by 62 per cent in 2017-21, as compared to 2012-16. Australia contributed to 5.4% of global arms imports during 2017-21.
- The US, Russia, France, China, and Germany accounted for nearly 77% of global arms exports during the 2017-21 period. While exports from France and the US went up, those from China and Russia fell during the 2017-21 period.

About SIPRI

- The Stockholm International Peace Research Institute is an independent international institute dedicated to research into conflict, armaments, arms control and disarmament.
- It was established in 1966 in Stockholm (Sweden).
- It provides data, analysis and recommendations, based on open sources, to policymakers, researchers, media and the interested public.
- SIPRI publishes its yearbook annually that provides an overview of developments in international security, weapons and technology, military expenditure, the arms trade and arms production, and armed conflicts, along with efforts to control conventional, nuclear, chemical and biological weapons.

[2.31] India to host 36th International Geological Congress

Context - The 36th International Geological Congress (IGC), themed “Geosciences: The Basic Science for a Sustainable Future” will be held here during 20-22 March, 2022 on a virtual platform.

It is a joint endeavor of the Ministry of Mines, Ministry of Earth Sciences, Indian National Science Academy and the Science Academies of Bangladesh, Nepal and Sri Lanka. Described as the Olympics of Geosciences, the IGCs are held quadrennial, under the aegis of the International Union of Geological Congress (IUGS), the Scientific Sponsor of the IGCs.

About the Event

- The event would provide a unique platform for knowledge and experience sharing in the field of geosciences and professional networking.
- It would give first-hand information on latest technologies in mining, mineral exploration and management of water, mineral resources and environment.
- It would also facilitate increased academic production and create opportunities for capacity building across geoscientific streams.

About the Theme

- The 36th IGC has been themed as “Geoscience - the Basic Science for a Sustainable Future”.
- The scientific programme will reflect on how Geosciences are integrally related to a sustainable future, touching various aspects of life.
- The talks will also highlight the complex interactions of various phenomena that regulate the Earth processes and their symbiosis with the biosphere, by focusing on emerging paradigms in the realm of geosciences in the context of sustainable development.

International Union of Geological Sciences

- The International Union of Geological Sciences (IUGS) is an international non-governmental organization devoted to international cooperation in the field of geology.

- The IUGS was founded in 1961 and is a Scientific Union member of the International Council for Science (ICSU), which it recognizes as the coordinating body for the international organization of science.
- The Union's Secretariat is currently located at the Chinese Academy of Geological Sciences in Beijing, China.
- IUGS is a joint partner with UNESCO for the International Geoscience Programme (IGCP) and they also participate in the Global Geoparks Network (GGN).

DO YOU KNOW?

- India is the only Asian country to host the event twice. In 1964, India hosted it for the first time, which was the 22nd IGC.
- Geological Survey of India is the nodal agency for organizing the event.

[2.32] Indian Railways prepared the National Railway Plan 2030 for India

[GS Paper 3 - Infrastructure (Indian Railways)]

Context - Indian Railways have prepared a National Rail Plan (NRP) for India which will create a ‘future ready’ railway system by 2030, Union Minister Ashwini Vaishnaw informed the Lok Sabha recently.

The objective of the plan is to create capacity ahead of demand, which in turn would also cater to future growth in demand right up to 2050 and also increase the modal share of Railways to 45 per cent in freight traffic and to continue to sustain it.

National Railway Plan (NRP) 2030:

- The NRP is aimed to formulate strategies based on both operational capacities and commercial policy initiatives to increase modal share of the Railways in freight to 45%.
- It has been launched for accelerated implementation of certain critical projects by 2024 such as 100 percent electrification, multi-tracking of congested routes etc.
- The plan also includes assessment of rolling stock requirement for passenger traffic as well as wagon requirement for freight and assessing Locomotive requirement to meet twin objectives of 100% electrification (Green Energy) and increasing freight modal share.

- NRP also suggests identifying new Dedicated Freight Corridors and new High-Speed Rail Corridors. Assessment of the total investment in capital that would be required along with a periodical break up is also included in NRP.
- 58 supercritical projects of a total length of 3750 kms costing Rs 39,663 crore and 68 critical projects of a total length of 6913 kms costing Rs 75,736 crore have been identified for completion by 2024.

Need for Modernisation of Railways:

- Indian Railway services are marred by issues like lack of punctuality, mismanagement in the form of stinking washrooms, lack of water supply and dirty platforms. Privatization may solve these issues, as the move would foster competition and hence lead to overall betterment in the quality of services.
- The important areas where developments in Indian Railways are needed include high speed trains, safety, track modernization, locomotives, signaling system and development of heavy haul system where axle loads and length of trains and usage of renewable energy for conservation of natural resources.

Things Needed to be Done:

- The Government has taken some key initiatives in this direction and is also considering announcing key policy initiatives in the Railway's network expansion, new infrastructure construction and technological upgradation.
- There is a need to implement the recommendations of the Bibek Debroy committee, such as expansion of Indian Railways manufacturing company, Corporatization of core functions of railways, etc.

[2.33] ILO and ICAO sign agreement to strengthen aviation industry

[GS Paper 2 - International Organizations, GS Paper 3 - Infrastructure]

Context - The International Labour Organization (ILO) and the International Civil Aviation Organization (ICAO) have signed a new agreement to advance decent work and encourage a human-centred recovery from the COVID-19 pandemic in the aviation industry.

The agreement updates the 1953 Memorandum of Understanding concerning the possible establishment of a joint aviation commission.

About the Agreement:

- This agreement will help to achieve the 2030 Agenda for Sustainable Development targets, especially the promotion of women in aviation, data collection and decent and sustainable work in the sector.
- It will also lead to joint activities, including research, technical meetings, advisory services, training, and the development of guidelines, tools and methodologies.
- Under the terms of the agreement on mutual representation, the ILO and the ICAO will each invite representatives of the other organization to participate in its meetings, in accordance with their respective rules.
- In addition, they will consult with each other on a regular basis to exchange views on matters of common concern and interest. The agreement will run for five years and is renewable.

About ILO

- The International Labour Organization is the only tripartite UN agency. It brings together governments, employers and workers of 187 member states to set labour standards, develop policies and device programmes promoting decent work for all women and men.
- It was established in 1919 by the Treaty of Versailles as an affiliated agency of the League of Nations and later became the first affiliated specialized agency of the United Nations in 1946.
- It is headquartered in Geneva, Switzerland.

About ICAO

- The International Civil Aviation Organization is a UN specialized agency established in 1944, which laid the foundation for the standards and procedures for peaceful global air aviation.
- One of its objectives is to foster the planning and development of international air transport so as to ensure the safe and orderly growth of international civil aviation throughout the world.
- It is headquartered in Montreal, Canada.

DO YOU KNOW?

The agreement follows a request made by ILO constituents during the 2013 Global Dialogue Forum on the Effects of the Global Economic Crisis on the Civil Aviation Industry to revamp cooperation between the two agencies.

[2.34] India's Arctic Policy for Sustainable Development Released

[GS Paper 3 - Environment and Climate Change]

Context - The Centre released India's Arctic Policy, with the aim of enhancing the country's cooperation with the resource-rich and rapidly transforming region. The policy also seeks to combat climate change and protect the environment in the region, which is warming three times faster than the rest of the world.

Key Highlights of the Policy

- The policy document lays down six pillars:
 1. Strengthening India's scientific research and cooperation
 2. Climate and environmental protection
 3. Economic and human development
 4. Transportation and connectivity
 5. Governance and international cooperation
 6. National capacity building in the Arctic region.
- The policy aims to promote the following agenda:
 1. Strengthening national capabilities and competencies in science and exploration, climate and environmental protection, maritime and economic cooperation with the Arctic region.
 2. Inter-ministerial coordination in pursuit of India's interests in the Arctic.
 3. Enhancing understanding of the impact of climate change in the Arctic Region on India's climate, economic and energy security.
 4. Contributing better analysis, prediction, and coordinated policymaking on the implications of melting in the Arctic on India's economic, military and strategic interests related to global shipping routes, energy security, and exploitation of mineral wealth.

5. Studying linkages between polar regions and Himalayas.
6. Deepen cooperation between India and countries of the Arctic region under various Arctic Forums, drawing expertise from scientific and traditional knowledge.
7. Increase India's participation in the Arctic Council and improve understanding of the complex governance structures in the Arctic, relevant international laws, and geopolitics of the region.

The policy documents the history of India's relationship with the region, which can be traced back to February 1920, when it signed the Svalbard treaty in Paris. In 2007, India launched its first scientific expedition to the Arctic. Since then, India has been able to set up an observatory in Kongsfjorden as well as an atmospheric laboratory at Gruvebadet.

About Arctic Council

The Arctic Council is the leading intergovernmental forum promoting cooperation, coordination and interaction among the Arctic States, Arctic indigenous communities and other Arctic inhabitants on common Arctic issues, in particular on issues of sustainable development and environmental protection in the Arctic.

The Arctic Council works as a consensus-based body to deal with issues such as the change in biodiversity, melting sea ice, plastic pollution and black carbon.

[2.35] World Happiness Report 2022 Released

[GS Paper 2 - Important International Reports and Indices]

Context - The 10th Edition of the World Happiness Report was released recently, which identified Finland as the happiest country in the world. Afghanistan was ranked unhappiest country in the world closely followed by Lebanon.

India is ranked 136 out of a total of 146 countries, even below Pakistan which is at 121 in the list.

Key Highlights of the Report

- This year, countries which ranked in the top 10 last year, moved upwards and downwards. Only Austria dropped out from the top 10 list. On the other hand, Afghanistan was ranked as the most unhappy country in the world. It was soon followed by Lebanon and Zimbabwe.

- The top three positions in the World Happiness Report were won by three of the Scandinavian nations. Following Finland in the top 10 ranks is Denmark, Iceland, Switzerland and Netherlands.
- India saw a marginal improvement in its happiness ranking, jumping up three spots to 136.
- Bulgaria, Romania and Serbia recorded the biggest boosts in wellbeing. The largest falls in the World Happiness table came in Lebanon, Venezuela and Afghanistan.
- This year the authors also used data from social media to compare people's emotions before and after the Covid-19 pandemic. They found "strong increases in anxiety and sadness" in 18 countries but a fall in feelings of anger.

About the World Happiness Report

- The World Happiness Report has been published annually since 2012 by the United Nations Sustainable Development Solutions Network which contains rankings of national happiness based on several factors and primarily on the responses by the individuals.
- It is based on two key ideas – happiness or life evaluation measured through opinion surveys and identifying key elements that determine well-being and life evaluation across countries.
- The World Happiness Report usually ranks 150 countries based on several factors such as real GDP per capita, social support, healthy life expectancy, freedom to make life choices, generosity and perceptions of corruption.
- Every year, each variable measures a populated-weighted average score on a scale of 0-10 that is tracked over a period of time and further compared with other countries. This year, the report ranked 146 countries.

[2.36] India-Australia hold second Virtual Meeting

[GS Paper 2 - Bilateral Relations]

Context - Indian Prime Minister Narendra Modi and Prime Minister of Australia Mr. Scott Morrison held the 2nd India-Australia Virtual Summit recently during which they reviewed the multi-faceted relationship between the two countries and exchanged views on regional and global developments.

Key Highlights of the Meet

- Australia is expected to announce investments of Aus \$ 280 (more than ₹1,500 crore) and a slew of initiatives to enhance cooperation in areas ranging from rare earth minerals to defense.
- Both Modi and Morrison spoke about the need to speedily conclude a comprehensive economic cooperation agreement (CECA) the two sides are negotiating, saying the pact is important for economic recovery and security.
- India and Australia had earlier in February announced that they are set to conclude an Interim Trade Agreement in March 2022 and a Comprehensive Economic Cooperation Agreement (CECA) 12-18 months thereafter.

Interim Trade Agreement

- An interim or early harvest trade agreement is used to liberalize tariffs on the trade of certain goods between two countries or trading blocs before a comprehensive FTA (Free Trade Agreement) is concluded.
- Government's emphasis on interim agreements may be tactical so that a deal may be achieved with minimum commitments and would allow for contentious issues to be resolved later.
- Early harvest agreements that do not graduate into full-scale FTAs are exposed to legal challenges from other countries that are members of the World Trade Organization (WTO).

Free Trade Agreement

- It is a pact between two or more nations to reduce barriers to imports and exports among them.
- Under a free trade policy, goods and services can be bought and sold across international borders with little or no government tariffs, quotas, subsidies, or prohibitions to inhibit their exchange.
- FTAs can be categorized as Preferential Trade Agreement, CECA, Comprehensive Economic Partnership Agreement (CEPA).

India-Australia Trade Relations

- Bilateral trade between the two countries stood at about USD 12.5 billion in Financial Year (FY) 21 and has already surpassed USD 17.7 billion in the first 10 months of FY22.

- India has imported merchandise worth about USD 12.1 billion from Australia in the first 10 months of the fiscal and has exported merchandise worth USD 5.6 billion in the same period.
- Key imports from Australia include coal, gold and Liquefied Natural Gas while key exports to the country from India include diesel, petrol and gems and jewellery.

DO YOU KNOW?

India is currently in the process of negotiating FTAs with the UAE, the UK, Canada, the European Union and Israel, besides Australia.

India is also looking to complete an early harvest agreement with the UAE and the UK in the first half of 2022.

[2.37] India and Seychelles to hold military exercise 'LAMITIYE'

[GS Paper 3 - Defence,
GS Paper 2 - International Relations]

Context - The Indian Army and Seychelles Defence Forces (SDF) are conducting the ninth Joint Military Exercise LAMITIYE 2022 at the Seychelles Defence Academy (SDA) in Seychelles from March 22 to March 31.

An infantry platoon strength each from both the Indian Army and Seychelles Defence Forces (SDF) along with Company Headquarters will be participating in this exercise which is aimed at sharing experiences gained during various operations against hostile forces in a semi-urban environment and enhance capability to undertake joint operations.

About the Exercise

- The objective of the joint training exercise is to build and promote bilateral military relations in addition to exchanging skills, experiences and good practices between both the armies.
- Both sides will jointly train, plan and execute a series of well-developed tactical drills for neutralization of likely threats that may be

encountered in the semi urban environment, while exploiting and showcasing new generation equipment and technology for conducting joint operations.

Significance

- Exercise Lamitiye with Seychelles is crucial and significant in terms of security challenges faced by both the nations in the backdrop of current global situation and growing security concerns in the Indian Ocean Region.
- The 10-day joint exercise will include field training exercises, combat discussions, lectures and demonstrations. It will culminate with a two-day validation exercise.

India - Seychelles Defence Relations

- Seychelles is a strategically located island nation which sits astride the strategically important sea lanes of communication and holds significance for the Indian vision of "SAGAR – Security and Growth for All in the Region."
- Diplomatic ties were established with Seychelles after its independence in 1976. When Seychelles attained freedom, a contingent from the Indian Naval Ship, INS Nilgiri, took part in the Independence Day celebrations.
- India and Seychelles have an elaborate architecture of defence and security cooperation that has deepened over the years with the growing piracy menace and other economic offences in the strategic Indian Ocean region.
- Developing infrastructure on Assumption Island in Seychelles is a key piece in India's proactive maritime strategy as it counters China's moves in the Indian Ocean region.

[2.38] World Air Quality Report 2021 Released

[GS Paper 3 - Environmental Pollution]

Context - Delhi ranked as the most polluted out of 107 capital cities in the world, according to the 2021 World Air Quality Report. The city is topping the list for the fourth consecutive year. Delhi topped a list of 92 capital cities in 2020, 85 such cities in 2019, and 62 such cities in 2018.

Key Highlights of the Report

- As per the reports, India is home to 11 of the 15 most polluted cities in Central and South Asia. Delhi saw a 14.6% increase in PM2.5 concentrations in 2021 with levels rising to 96.4 µg/m³ from 84 µg/m³ in 2020.

- No cities in India met the WHO air quality guideline of $5 \mu\text{g}/\text{m}^3$. In 2021, 48% of India's cities exceeded $50 \mu\text{g}/\text{m}^3$, or more than 10 times the WHO guideline.
- In the Central and South Asia region - Bhiwadi, in Alwar district, Rajasthan, was the most polluted regional city, with an average PM_{2.5} concentration of $106.2 \mu\text{g}/\text{m}^3$. This was followed by Ghaziabad with $102 \mu\text{g}/\text{m}^3$, and then Delhi with $96.4 \mu\text{g}/\text{m}^3$.
- Sources of PM_{2.5} "include internal combustion engines, power generation, industrial processes, agricultural processes, construction, and residential wood and coal burning. The most common natural sources for PM_{2.5} are dust storms, sandstorms, and wildfires.

About PM 2.5

- It is an atmospheric particulate matter of diameter of fewer than 2.5 micrometers, which is around 3% the diameter of a human hair.
- It causes respiratory problems and also reduces visibility. It is an endocrine disruptor that can affect insulin secretion and insulin sensitivity, thus contributing to diabetes.
- It is very small and can only be detected with the help of an electron microscope.
- Some are emitted directly from a source, such as construction sites, unpaved roads, fields, smokestacks or fires.

About the Report

- The World Air Quality Report is based on PM_{2.5} data from 6,475 locations in 117 countries, regions and territories around the world, and is prepared by IQAir, a Swiss air quality technology company.
- The report draws data from government-operated monitoring stations as well as privately-owned ones, and monitoring stations operated by institutions.

[2.39] India-Uzbekistan conduct military exercise 'EX-DUSTLIK'

[GS Paper 3 - Defence, GS Paper 2 - Bilateral Relations]

Context - The third edition of the joint training exercise between India's and Uzbekistan's armies - EX-DUSTLIK - began in Uzbekistan's Yangiariq and will continue till March 31.

The joint exercise will focus on Counter Terrorism operations in semi-urban terrain under a United Nations Mandate.

About the Exercise

- The Indian contingent, comprising the platoon strength of the Grenadiers Regiment, left for the drill today to join the Uzbek Army contingent represented by troops of the North Western Military District.
- The last edition of DUSTLIK was held in Uttarakhand's Ranikhet last March.
- The training schedule will focus primarily on sharing tactical-level drills and learning the best practices from one another.
- The exercise aims to enhance understanding, cooperation and inter-operability between the two armies and will culminate in a 24-hour-long validation exercise - a test bed for the soldiers of both countries as they would undergo the challenges of simulated operations.

Significance

- Uzbekistan is important to India for security and connectivity to the Central Asian region and also Iran, it is also one alternative India has with respect to Afghanistan.
- Security concerns stemming from the conflict in Afghanistan is one of the major challenges for India's involvement in Central Asia.
- Both the countries agreed to further strengthen cooperation between the law enforcement agencies and special services of the two countries, including under the framework of the Uzbekistan-India Joint Working Group on Counter-Terrorism.

India - Uzbekistan Relations over the years

- India - Uzbekistan relations are deeply rooted and go back far beyond the centuries.
- This served as a solid foundation for the development and strengthening of bilateral cooperation in the political, economic, cultural and humanitarian spheres.
- India was one of the first countries to recognize the state sovereignty of Uzbekistan.

[2.40] India achieves \$400-billion target for goods exports

[GS Paper 3 - Indian Economy and Business]

Context - India surpassed its merchandise export target of \$400 billion set for FY2022 with 10 days to spare - exports crossed \$400.8 billion on March 21 and there's a likelihood that total exports for the fiscal year may cross \$410 billion by the end of the month.

Key Highlights and Stats

- Exports have registered a 37 per cent increase compared to \$292 billion in the previous fiscal and 21 per cent over the previous record high of exports of \$330 billion set in FY2019, prior to the pandemic.
- India's imports during the period have also surged to a record high level of over \$589 billion during the fiscal, taking India's trade deficit to a record \$188.2 billion.
- Preliminary analysis showed that while commodity price hike had contributed to the rise in exports, many goods including auto components, motor vehicles, cereal preparations, buffalo meat, rice, carpets, processed fruits and juice also saw increases in overall export volumes despite stagnant or declining commodity prices.
- Experts noted that another key factor driving the surge in exports is the pent-up global demand that was unmet during major waves of the Covid-19 pandemic.

Key Drivers of Export Growth

- Engineering goods were the largest contributors to the growth in exports, growing at nearly 50 per cent and expected to hit \$110 billion by the end of FY2022.
- Electronics goods exports rose by 42.8 per cent in the first 11 months of the fiscal, while gems and jewellery exports grew by 57.3 percent boosted by a rise in gold prices.
- Export of petroleum products grew by 147.6 per cent, driven by a steady increase in crude oil prices.
- Other products which recorded strong growth in exports include organic and inorganic chemicals, readymade garments, meat and dairy products as well as marine products.

According to UNCTAD estimates based on national trade statistics, the positive trend for international trade in 2021 (calendar year) was largely the result of increases in commodity prices, subsiding pandemic restrictions and a strong recovery in demand due to economic stimulus packages.

[2.41] Defence Ministry approves military acquisitions worth Rs 8,357 crore

[GS Paper - Defence]

Context - The Defence Ministry recently approved the procurement of Rs 8,357 crore worth of military platforms and hardware, including air defence fire control radar and GSAT-7B satellite.

Acquisition of these equipment and systems is stated to enhance operational preparedness of armed forces by providing better visibility, enhanced mobility, improved communication and increased capability of detecting enemy aircraft.

Key Highlights

- The grant of 'Acceptance of Necessity' clears the way for the tendering process to start.
- As an impetus to "Aatmanirbhar Bharat", all of the aforementioned proposals have been approved under "Buy Indian (IDDM)" category, the ministry noted. IDDM stands for indigenously designed, developed and manufactured.
- The DAC also accorded consolidated Acceptance of Necessity for procurements amounting to Rs 380.43 crore from the iDEX startups and MSMEs.
- The DAC also approved "effecting" certain policy initiatives in the Defence Acquisition Procedure-2020 to "accelerate the pace of indigenisation, achieve self-reliance in defence and to facilitate ease of doing business for defence industry".
- Another policy initiative effected in the Defence Acquisition Procedure-2020 was that the vendors whose products are successfully trial evaluated will be provided a certificate to that effect.

About iDEX

The Innovations for Defence Excellence (iDEX) initiative was launched by April 2018 which aims to achieve self-reliance and foster innovation and technology development in Defence and Aerospace. Under the initiative, startups, MSMEs, individual innovators, R&D institutes and academia are engaged and funded by the Defence Ministry.

About Defence Acquisition Procedure 2020

- The DAP contains policies and procedures for procurement and acquisition from the capital budget of the MoD in order to modernize the Armed Forces including the Coast Guard.
- It aims to transform India into a global manufacturing hub. It is aligned with the vision of the Government of Atmanirbhar Bharat and empowering Indian domestic industry through Make in India initiative.

- Self-reliance in defence manufacturing is a crucial component of effective defence capability and to maintain national sovereignty and achieve military superiority. The DAP 2020 not only protects the interests of domestic manufacturers by indigenization of technology, but also provides impetus to foreign investment in the country.

[2.42] NASA announces new Moon Mission

[GS Paper 3 - Space, Science and Technology]

Context - The National Aeronautics and Space Administration has revealed its Artemis I Moon Mission.

NASA aims to land humans on the moon by 2024 with reference to this program. NASA has planned to set up Artemis Base camp on the surface and a gateway in the moon's orbit.

About Artemis I Programme:

- It is a crewless space mission and the very first of NASA's deep space exploration systems.
- The mission aims to stream information and to allow mission controllers to assess the functioning and performance of the spacecraft.
- The mission is standardized to travel 2,80,8000 miles from the earth for over 6 weeks.
- The spacecraft will be launched through the most dynamic rocket in the world, the Space Launch System rocket(SLS- Rocket) Entering cryogenic pop Propulsion stage Propulsion.
- The SLS rockets are designed for low-earth orbit space missions.
- The spacecraft will be embraced with the Orion Capsule that will remain in space without beaching to a space station.
- Canadian SpaceAgency, European Space Agency and Japan Aerospace Exploration Agency are major involvements of the program.

Implementation:

- The SLS rocket along with the Orion Capsule will be launched from the Kennedy Space Center in Florida, USA.
- The spacecraft will deploy the interim Cryogenic propulsion stage, A liquid hydrogen based

propulsion system that will give Orion the thrust needed to leave the Earth's orbit and travel towards the moon.

- The service module that will be used to propel the Orion capsule will be provided by the European Space Agency.
- The spacecraft is supposed to communicate with the earth using a deep space network.
- It will fly around 100 kilometer above the surface of the moon and use its gravitational pull to propel Orion into an apostrophe orbit around 70,000 kilometer from the moon where it will stay for approximately 6 days.
- The Orion, thus, will do a close flyby with less than 100km of the moon's surface and will use the service module and lunar gravity to expedite back towards the Earth.
- The mission will be completed as the spacecraft is back to earth.

[2.43] Union Government to amend IPC and CrPC Provisions

[GS Paper 2 - Polity and Indian Constitution]

Context - The center has begun the process of amendments aimed at making comprehensive changes to the Indian Penal Code, the Code of Criminal Procedure, and the Indian Evidence Act.

The Union Minister of State for Home said that a committee had been set up under the chairpersonship of the Vice-Chancellor of National Law University, to suggest reforms in the criminal laws.

Recommendations for Reforms

1. The department-related Parliamentary Standing Committee on Home Affairs in its 146th report had recommended that there is a need for a comprehensive review of the criminal justice system of the country.
2. The Parliamentary Standing Committee in its 111th and 128th reports had also stressed upon the need to reform and rationalize the criminal law of the country by introducing a comprehensive legislation in Parliament rather than bringing about piecemeal amendments in respective acts.

What are IPC and CrPC?

- Indian Penal Code, 1860 (IPC) and the Criminal Procedure Code, 1974 (CrPC) are the laws that govern criminal law in India.

- IPC is the principal criminal code of India that defines crimes and provides punishments for almost all kinds of criminal and actionable wrongs. CrPC is the procedural law that provides a detailed procedure for punishments under penal laws.
- The Indian Penal Code is the official criminal code of the Republic of India. It is a complete code intended to cover all aspects of criminal law. It came into force in 1862 in all British Presidencies, although it did not apply to the Princely states, which had their own courts and legal systems.
- Criminal Procedure Code (CrPC) is the primary legislation regarding the procedural aspects of criminal law. It also contains certain provisions that are not strictly procedural in nature which include provisions pertaining to the prevention of nuisance (Section 133) and Maintenance of Wife and Children (Sections 125-128). The Code contains 484 sections spread along 37 chapters, along with 2 schedules and 56 forms.

Need For Reforms

- IPC and CrPC provisions require a thorough revision to meet the needs of the 21st century. In 1860, the IPC was certainly ahead of the times but has been unable to keep pace since then.
- Macaulay had himself favoured regular revision of the code whenever gaps or ambiguities were found or experienced.
- Even though the IPC has been haphazardly amended more than 75 times, no comprehensive revision has been undertaken in spite of the 42nd report of the law commission in 1971 recommending it — the amendment bills of 1971 and 1978 lapsed due to the dissolution of the Lok Sabha.
- Most amendments have been ad hoc and reactive, in response to immediate circumstances like the 2013 amendment after the Delhi gangrape case.

Provisions that has become problematic over the years

1. The Sedition Law inserted in 1898 needs a serious reconsideration and be molded as per the prevailing situations in the country.
2. The offence of blasphemy should have no place in a liberal democracy and, therefore, there is a need to repeal Section 295A, which was inserted in 1927.

3. Under Section 149 on unlawful assembly, the principle of constructive liability is pushed to unduly harsh lengths.
4. Sexual offences under the code reveal patriarchal values and Victorian morality. It gives no legal protection to secure a similar monopoly over the husband's sexuality.

[2.44] Wings India-2022

[GS Paper 3 - Infrastructure, Growth and Development]

Context: Wings India is a biennial show that will be held between 24th-27th march 2022 in Begumpet airport.

Organized by the Ministry of Civil Aviation of India (MoCA) and the Federation of Indian Chambers of Commerce and Industry (FICCI) jointly, the theme of the event this year is 'India@75: New Horizon for Aviation Industry'.

Key Highlights

- Wings India is a biennial show. The event is in synergy with India's commitment to transform the country into World's top aviation hub.
- It is Asia's Largest event on Civil Aviation. It seeks to provide a congenial forum catering to the rapidly changing dynamics of the sector, focusing on new business acquisition, investments, policy formation and regional connectivity.
- The program is jointly organized by the Ministry of Civil Aviation and the Federation of Indian Chambers of Commerce and Industry (FICCI).
- It will provide a much-desired fillip to the aviation and restructured focused forums shall be instrumental in attaining the objective of connecting the Buyers, Sellers, Investors, and other stakeholders at a common vantage forum 'Wings India 2022'.
- The theme of wings India 2022 is "India@75: New Horizon for Aviation Industry"

Civil Aviation Market in India

- India's Civil Aviation is among the fastest-growing aviation markets globally and will be a major growth engine to make India a USD 5 trillion economy by 2024.

- It is the 3rd largest aviation market by domestic air passenger traffic which stood at 274.05 million in FY20. It grew at a Compound Annual Growth Rate (CAGR) of 12.91% during FY16-FY20.
- The Indian civil Aviation MRO market, at present, stands at around USD 900 million and is anticipated to grow to USD 4.33 billion by 2025 increasing at a CAGR of about 14-15%.
- India's Civil Aviation consists of 713 aircraft of scheduled Indian carriers operating year round. Private scheduled airlines plan to add over 900 aircrafts in the next 5 years.

Ministry of Civil Aviation

- The Ministry of Civil Aviation in India is the nodal ministry responsible for the formulation of national policies and programmes for development and regulation of civil aviation. It devises and implements schemes for the orderly growth and expansion of civil air transport in the country.
- This ministry exercises Administrative control over attached autonomous organizations like the Directorate General of Civil Aviation, Bureau of Civil Aviation Security, and Indira Gandhi Rashtriya Udaan Academy, and other public sector undertakings.

The Federation of Indian Chambers of Commerce and Industry (FICCI)

- It is an association of the business organizations in India, established in the year 1927.
- It is a non-governmental trade association.
- It draws its Membership from the corporate sector both private and public including SMEs and MNCs..
- Headquartered in New Delhi

[2.45] INS Valsura Awarded Presidential Colors

[GS Paper 3 - Defence and Armed Forces]

Context - President Ram Nath Kovind recently presented the President's Colour to INS Valsura, the Navy's premier technological training establishment.

The 'Nishan Adhikari' Lt. Arjun Singh Sambyal received the President's color on behalf of the unit.

About INS Valsura

- INS Valsura, Jamnagar is a very popular college in the state of Gujarat which was established in 1942. It is one of the leading colleges in Defence services.
- It is entrusted with the responsibility of imparting training to officers and sailors of the Indian Navy, Coast Guard and Friendly Foreign countries in Electrical, Electronics, Weapon Systems & Information Technology.
- In 1942, there was an operational necessity that mandated the creation of an advanced Torpedo training Facility to enhance the firepower of the Royal Indian Navy during World War II.
- Post India becoming a Republic, the Unit was named INS Valsura on 1st July 1950.
- Thereon, INS Valsura has transformed itself into the epitome of professional technical training and has always stayed ahead of the curve to verse the officers and Indian navy with required skill sets.

What is the President's color?

- The President's Color is bestowed upon a military unit in recognition of exceptional service rendered to the Nation, both in peace and during the war.
- It is also known as 'Nishaan' which is an emblem that will be worn by all unit officers on the left-hand sleeve of their uniform.
- To this day, the President's Colors are very significant, if the unit loses their colors, it is a disgrace for that unit and, if the unit captured the enemy's colors then it is a great honor for that unit.
- The Indian Navy was the first Indian Armed force to be awarded the President Color by Dr. Rajendra Prasad on 27th May 1951.

DO YOU KNOW?

- In military organizations, the practice of carrying colors, standards or guidons, both to act as a rallying point for troops and to mark the location of the commander, is thought to have originated in Egypt some about 5,000 years ago.
- In the absence of the President of India, the Vice President of India does not and cannot

present colors to regiments, ships or air squadrons. It is because the responsibility of being the guest of honor in his or her absence is prerogative of the Services Chiefs.

[2.46] Hornbill Nest Adoption Program: Decennary celebration

[GS Paper 3 - Conservation, Environment Pollution and Degradation]

Context: The Hornbill Nest Adoption Program of Arunachal Pradesh celebrates a decade of successful conservation of Hornbills.

HNAP operates in the forests outside Arunachal Pradesh's Pakke Tiger Reserve.

About Hornbill Nest Adoption Program (HNAP)

- The Hornbill Nest adoption program is a community-based conservation initiative that was started in the year 2011.
- Through this, tribal villagers protect trees in forests around villages on the fringe of the Pakke Tiger Reserve in Arunachal Pradesh.
- The HNAP uses a unique model as it brings two sets of external protectors.
- It was launched as a partnership with a local NGO called Ghora-Aabhe and Arunachal Pradesh Forest Department.
- In 2017, the Pakke Paga Hornbill Festival Committee was also included as the fourth partner.

Pakke Tiger Reserve:

- This tiger reserve lies in the foothills of the Eastern Himalaya in the East Kameng District of Arunachal Pradesh. It is also known as Pakhui Tiger Reserve.
- It falls within the Eastern Himalaya Biodiversity Hotspot.
- It is home to over 2000 species of plants, 300 species of birds, 40 species of mammals, 30 species of amphibious and 36 species of reptiles. Many species of the flora and fauna are globally threatened and PTR is one of the last remaining strongholds left for these species.
- It is known for its amazing sightings of four resident Hornbill species.

- Pakke Tiger Reserve and its environment harbor four species: the great hornbill, rufous-necked hornbill, wreathed hornbill and the oriented pied hornbill.

Hornbills in India:

- India is home to nine species of hornbills. Hornbills are indicators of the health of a forest.
- They are seed dispersers and rightly called 'the farmers of the forest'.
- The Northeastern region has the highest diversity of Hornbill species within India.
- The wreathed hornbill, the brown hornbill, the Rufous-necked hornbill are found in the northeast.
- The great hornbill and the Oriented pied hornbill occur in other parts of India
- The great hornbill is the state bird of Arunachal Pradesh and Kerala. It is vulnerable under the IUCN Red list.

[2.47] Sansad Ratna Awards 2022 presented to Parliamentarians

[GS Paper 2 - Indian Polity and Constitution]

Context: Many former chief Ministers and other parliamentarians were conferred with lifetime achievement awards at the 12th edition of the Sansad Ratna Awards under various categories.

The 11 MPs who have been selected for the Sansad Ratna Award include eight from the Lok Sabha and three from the Rajya Sabha. Supriya Sule of NCP, NK of Revolutionary Socialist Party (RSP). Premachandran and Shiv Sena's Srirang Appa Barne were awarded the Sansad Vishisht Ratna Award for their continued excellence.

About Sansad Ratna Awards

- Sansad Ratna Award ("Gem of Parliament ") was established in 2010 by the Prime Point Foundation and E-magazine PreSense to honor top-performing members of the Indian Parliament.
- The Sansad Ratna Awards Committee was instituted in 2009 to promote the late President Doctor Abdul Kalam's vision to celebrate the success of outstanding parliamentarians.
- The awards are given on behalf of civil society through a transparent selection process by a jury committee of eminent parliamentarians based on the data on various performance parameters.

The Award Committee

- A committee headed by Arjun Ram Meghwal, MoS, parliamentary Affairs, and co-chaired by T.S. Krishnamurthy, former Chief Election Commissioner of India had nominated the MPs for Sansad Ratna Awards 2022 for their performance in the current Parliament till the end of the winter session in 2021.
- Jury committee will select the awardees based on the performance of members during the five years of 17th Lok Sabha. This award is given once in 5 years at the end of the 17th Lok Sabha.
- The awards were instituted on the suggestion of former president late APJ Abdul Kalam, to honor the top performing parliamentarians.

About PreSense

- The eMagazine PreSense was started in March 2006 on the suggestion of Dr APJ Abdul Kalam to promote positive journalism. Till January 2022, the Foundation has published 179 editions.
- This is a digital- only magazine. Digests, containing select articles upto 150 editions of the eMagazine, have so far been published.

[2.48] India test-fires two surface-to-air missiles off Odisha Coast

[GS Paper 3 - Defence and Armed Forces]

Context: Two consecutive successful tests of the Army version of Medium-Range Surface-to-Air Missile (MRSAM) against high-speed aerial targets at two different ranges, were conducted by the Defence Research and Development Organization (DRDO) off the coast of Odisha.

The tests were conducted at the Integrated Test Range (ITR) Chandipur as part of the live firing trials against high-speed aerial targets.

Key Highlights

- The missiles attained a direct hit at the target at a very far-off distance.
- The first missile hit a medium-altitude long-range target and the second hit a low altitude short-range target.
- It intercepted a high-speed aerial target at a high range as soon as it was test-fired.
- It was tested from the Integrated Test Range at Chandipur, Balasore, Odisha.

What is MRSAM?

- The Medium-Range Surface-to-Air Missile is jointly developed by the Defence Research Development Organisation (DRDO) and Israel Aerospace Industries (IAI) for defense use by the Indian Army.
- The MRSAM missile system components include multi-function radar, command & control system, mobile launcher system, and other vehicles. The mobile launcher can transport, place and launch eight canisterised missiles.
- These can be fired in single mode or in ripple firing mode in a vertical firing position.
- It identifies and tracks the threat using a tracking radar. The weapon weighs 276 kg and is 4.5m long.
- It is versed with fins and canards for maneuverability (easy to direct) and control. It has different variants for Army, Navy, and Air Force.

About DRDO:

- It was established in 1958 under the admin control of the Ministry of Defence. Also termed as the Research & Development wing of the ministry.
- It has a network of 52 laboratories affiliated in defence research. DRDO has recently celebrated the 64th Foundation Day on 1st January 2022
- Various programs of DRDO include:
 1. Integrated Guided-Missile development Programme (IGMDP)
 2. Mobile Autonomous Robot System
 3. High Terrestrial Center in Ladakh

Chandipur:

- Chandipur is located in Balasore district of Odisha.
- It is the location of Strategic Forces Command's Integrated test Range (ITR) at Abdul Kalam Island.
- It is located on the coast of Bay of Bengal.
- The ITR is a missile testing facility with 2 complexes- Launch Complexes-IV (LC-IV) on Abdul Kalam Island and Launch Complex-III (LC-III) located at Chandipur.

[2.49] India crosses a milestone of 50,000 ODF+ villages

[GS Paper 2 - Issues arising out of design and implementation of policies]

Context: The country has crossed a milestone of 50 open defecations-free (ODF) Plus villages. Telangana is among the top-performing states followed by Tamil Nadu and Madhya Pradesh.

Swachh Bharat Mission Gramin Phase-II was launched in February 2020 with the aim to ensure that all villages in the country can declare themselves as ODF Plus by the end of 2024.

Key Highlights

- It was the aim of Swachh Bharat Mission Gramin Phase-II to declare all villages countrywide as ODF plus by late 2024.
- The Swachh Bharat Mission Gramin Phase-II was launched in February 2020.
- As per the Ministry of Jal Shakti, the mission toward fetching ODF Plus Villages has several components comprising:
 1. Greywater management
 2. Plastic waste management
 3. Biodegradable waste management
 4. Fecal Sludge management
- ODF Plus villages have been divided into 3 categories: Aspiring, Rising, and Model.
- The Ministry Has uncovered that more than one crore people across 22,000-gram panchayats participated in various sanitation activities.
- Hence it reveals the implementation of “Sampoon Swachhata”

Swachh Bharat Gramin Mission Phase-II:

- The implementation of Swachh Bharat grammar mission phase two was approved by the Ministry of Jal Shakti in February 2020.
- The major aim of the program was on Open Defecation Free Plus which includes ODF sustainability and solid and liquid waste management system.
- This program was emphasized because of the success of phase one.
- Under this program, adequate facilities were supplemented for solid, liquid, and plastic waste management across rural India.
- This program spans from 2020-21 to 2024-25. It has a financial outlay of Rs. 1,40,881 crores

[2.50] APEDA holds a webinar on revised EU regulations

[GS Paper 3 - Food Security, Agricultural Marketing]

Context - APEDA holds a webinar focused on the revised Regulations being implemented since 1st Jan 2022 for imports in the EU and the market opportunities for Indian Organic Products.

Key Highlights

- The Agricultural and Processed Food Products Export Development Authority (APEDA) organized a webinar with the Indian Embassy in Brussels and Denmark.
- APEDA addressed the challenges faced by the Indian Exporters in exporting to the EU.
- They even addressed enhancement of the share of Indian Organic product shipments.

What is APEDA?

- APEDA holds the responsibility for export promotion and development of products.
- It was established by the Government of India under the Agricultural and Processed Food Products Export Development Authority Act, 1985.
- It comes under the jurisdiction of the Ministry of Commerce and industry and has been endowed to monitor sugar imports.
- It looks after the development of Industries, exporters registration, Inspection of meat products, packaging of the scheduled products.
- Scheduled products include: Fruits, Vegetables and those products, Meat products, Poultry products, Dairy products, Confectionery, Bakery products, Biscuits, Honey and jaggery, Cocoa, Alcoholic and non-alcoholic beverages, Dry Fruits and nuts, Floriculture products, Medicinal plants.

India and the European Union

- The European Union as a bloc is India's largest trading partner and is the biggest foreign investor in India.
- India and the European Union have come up with many pacts and frameworks to resolve Terrorism, Nuclear non-proliferation, and maritime security.
- In the early 1960s, India was the first of the countries to develop diplomatic relations with the European Economic Community.
- Both the countries signed the cooperation agreement in 1994 that aimed beyond commercial and economic cooperation.
- The first India-EU summit took place in 2000. This relationship turned into a Strategic Partnership in 2004.

- Both the countries have always aimed for:
 1. Economic and business ties
 2. Cooperation in defence
 3. Science and technology collaboration
 4. People to people relations
- European Union is the second major destination for Indian organic food and products

[2.51] 18th Ministerial Meeting of BIMSTEC Summit to hosted by Sri Lanka

Context - Sri Lanka called for greater economic cooperation among the members of Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) and revitalized trade and investment components among the members.

Sri Lanka's call came when the 18th Ministerial Meeting of BIMSTEC was held in Colombo in a hybrid mode under the chairmanship of Sri Lanka.

Key Highlights

- The meeting was in virtual mode. Sri Lanka's foreign minister stood for action within the BIMSTEC for greater economic cooperation.
- Revitalization of the Trade and Investment component was discussed.
- The foreign Ministers of Bangladesh, Bhutan, India, Nepal, Thailand, and Myanmar participated in the meeting.
- The Ministers appreciated the Secretariat to escalate activities in agriculture, food security, connectivity, and the energy sector.

What is BIMSTEC?

- The Bay of Bengal Initiative on Multi-Sectoral Technical and Economy Corporation has seven member states, five coming from South Asia and two from Southeast Asia, lying in the littoral and adjacent areas of Bay of Bengal.
- The member countries are: India, Bangladesh, Bhutan, Nepal, Sri Lanka. Myanmar, Thailand.
- It was established on 6 June 1997 through the Bangkok Declaration.
- The regional group enhances the bridge between South and Southeast Asia Nations. BIMSTEC has also established a platform for intra-regional cooperation between SAARC and ASEAN Nations.

- It is home to 1.5 billion people with a combined GDP of 2.7 trillion economies.
- BIMSTEC's objective areas for cooperation and collaboration includes:
 1. Trade and Investment
 2. Climate Change
 3. Transport and communication
 4. Fisheries
 5. Cultural Cooperation
 6. Poverty alleviation and public health
 7. Tourism
 8. Agriculture
 9. Counter-Terrorism
 10. Environment
- The principles of BIMSTEC are as follows:
 1. Sovereign Equality
 2. Peaceful Co-Existence
 3. Territorial Integrity
 4. Political Independence
 5. Mutual benefit
 6. No talks regarding Internal Affairs
- Important Connectivity Projects under BIMSTEC:
 1. Kaladan Multimodal Project links India and Myanmar
 2. Asian Trilateral Highway- links India and Thailand via Myanmar
 3. Bangladesh Bhutan India Nepal(BBIN) Motor Vehicles Agreement

Significance for India

- The group supports India to counter China's interest and influence in countries around the Bay of Bengal.
- BIMSTEC acts as a functional group as SAARC has been dysfunctional because of India-Pakistan Clashes.
- It has proved a panacea to economic development in the North-East region by linking them to the Bay of Bengal region.
- Connects India with South-east Asia

[2.52] CCS approves procurement of 15 light combat helicopters

[GS Paper 3 - Defence and Internal Security]

Context - PM led CCS approves procurement of 15 light combat helicopters

The Cabinet Committee on Security (CSS) led by the Prime Minister approved the accession of 15 indigenously developed Light Combat Helicopters (LCH) at Rs. 3,887 crore.

Key Highlights

- The defence ministry has revealed that out of 15, 10 will be for the Indian Air Force and five will be deployed for the Indian Army.
- The ministry has uncovered the roles and functions of the Light Combat helicopter, Limited Series Production to be:
 1. Combat Search and Rescue (CSAR)
 2. Destruction of Enemy Air Defence (DEAD)
 3. Counter Insurgency (CI) operations against slow-moving aircraft and Remotely piloted Aircraft

What is the Cabinet Committee on Security(CSS)?

- The CSS of the Government of India discusses, debates, and is the final decision-making body on National Security and defence expenditure.
- It deals with the following issues:
 - Issues related to law and order, and internal security
 - Security-related foreign agreements and expenditures
 - Political issues that challenge National Security
 - Manpower requirements in National Security
 - Matters related to Atomic energy
 - Defence cost estimates and revised cost estimates
 - Other Defence related issues
- The CSS is headed by the Prime Minister and the committee comprises cabinet ministers: Minister of Defence, Minister of Home Affairs, Minister of Finance and Corporate Affairs and Ministry of External Affairs.

Light Combat Helicopters:

- LCH is an outcome of the 'Make in India' program designed with the participation of private firms.
- It is manufactured by Hindustan Aeronautics Limited (HAL).

- It is a multi-role attack helicopter and holds the top among all attack copters.
- The LCH is equipped with:
 1. Requisite agility
 2. Maneuverability
 3. Extended range
 4. High altitude performance around the clock
 5. All weather Combat capability

[2.53] Massive Forest Fire erupts in Sariska Tiger Reserve

[GS Paper 3 - Environmental Pollution and Degradation]

Context - Huge fire breaks out in Sariska Tiger Reserve in Rajasthan. Tropical dry forests are fire prone because they contain high fuel. This time the fire has spread from the top of the hill. The main concern in a 3-4 square kilometer area was for a mother and her two cubs.

Key Highlights

- A massive fire broke out in Sariska Tiger Reserve.
- The Disaster Management team, Forest department, and the Indian Air Force along with the local people have been deployed in the fire extinguishing process.
- An area of 8-10 sq km in the Akbarpur range has been affected. Akbarpur range is the core tiger habitat.

Forest Fires in India

- In India, forest fires are most commonly reported during March and April, when the ground has large quantities of dry wood, logs, dead leaves, stumps, dry grass and weeds that can make forests easily go up in flames if there is a trigger.
- Forest fires can have multiple adverse effects on the forest cover, soil, tree growth, vegetation, and the overall flora and fauna.
- Fires render several hectares of forest useless and leave behind ash, making it unfit for any vegetation growth.
- Heat generated during the fire destroys animal habitats:
 1. Soil quality decreases with the alteration in their compositions.
 2. Soil moisture and fertility, too, is affected.

3. Forests can shrink in size.
4. The trees that survive fire often remain stunted and growth is severely affected.

Efforts to Mitigate Forest Fires:

- Since 2004, the FSI (Forest Survey of India) developed the Forest Fire Alert System to monitor forest fires in real time.
- In its advanced version launched in January 2019, the system now uses satellite information gathered from NASA and ISRO.
- National Action Plan on Forest Fires (NAPFF) 2018 and Forest Fire Prevention and Management Scheme.

About Sariska Tiger Reserve

- It is located in the Aravalli Ranges and a part of Alwar, Rajasthan, and is a part of the Khathiar-gir dry deciduous forests ecoregion.
- It is a tiger reserve and is famous for Royal Bengal Tiger
- In 1955, it was declared a Wildlife Sanctuary, and later in 1978, it was declared a tiger reserve.
- It was made a part of India's Project Tiger in 1978. It was declared to be the first reserve in the globe that has successfully relocated tigers.
- The reserve has an area of 190 square miles. It is home to the rich diversity of flora and fauna.
- The immensely rich fauna and bird population include: Leopards, Royal Bengal Tiger, Sambar, Chital, Indian peafowl, Crested Serpent Eagles, Sand Grouse, Great Indian Horned Owls, Golden-backed woodpeckers, Tree pies, Vultures.
- The reserve is embedded with temples, forts, and a palace counting Kankarwadi Fort as one. The tiger population has increased to 25 this year.

[2.54] India & France conduct Naval Exercise VARUNA 2022

Context - India and France began their 20th edition of the bilateral naval exercise named 'Varuna' in the Arabian sea from March 30. The exercise highlights the importance of shared commitment of both nations to security and safety.

Various units including ships, submarines, maritime patrol aircraft, fighter aircraft and helicopters of the two navies are participating in the exercise.

About the Exercise

- The bilateral Naval exercise was initiated in 1993. It was entitled 'VARUNA' in 2001. It is a major part of the India-France strategic relationship.
- Several Units including Ships, Submarines, Maritime Patrol Aircraft, Fighter Aircraft, and Helicopters of the two navies are part of this Exercise.
- These units will aspire to enhance their operational skills in maritime theater, augment interoperability to undertake maritime security operations.
- This exercise clearly demonstrates their commitment to promoting peace, security, and stability in the region as an integrated force.
- The exercise has been a principal driver for operational-level interactions between the two navies.

India-France Relations over the years

- In January 1998, after the end of the cold war, India signed "a strategic partnership" with France as one of the countries.
- The India-France relationship has always been a friendly, sympathetic relationship.
- France was one of the countries to support India's decision to test nuclear weapons in 1998.
- The areas of cooperation between both the countries include:
 1. Defence Cooperation
 2. Bilateral Trade and Economic Relation
 3. Global Agendas
- The defence bilateral exercises between the two countries are:
 1. Exercise Shakti (Army)
 2. Exercise Varuna (Naval)
 3. Exercise Garuda (Air Force)
- India and France have signed a cooperation agreement on Gaganyaan Mission.
- ISRO and France's CNES are set for TRISHNA, the third joint satellite mission.
- India has a Double Tax Avoidance Agreement with France.
- France, which had sought strategic autonomy within the framework of its alliance with the US, and India, which has valued independent foreign policy, are natural partners in building the new coalitions for an uncertain era.

The Varuna series of exercises continue to provide both the navies opportunities to learn from each other's best practices. The exercise has been a principal driver for operational level interactions between the two navies and has underscored the shared commitment of both nations to security, safety and freedom of the global maritime commons.

[2.55] ISRO initiated 'Project NETRA'

[GS Paper 3 - Indian Space Technology]

Context - ISRO initiates 'Project NETRA' to safeguard Indian Space Assets from debris and other harm to Indian Satellites. This project is called to predict threats from debris in space to Indian Satellites. It is an early warning system.

This project will allow India's own potentiality in Space Situational Awareness (SSA)

What is Project NETRA?

- Project NETRA stands for Network for space object Tracking and Analysis.
- With countries launching more and more satellites, each one of them being a strategic or commercial asset, avoiding collisions could become a challenge in the future. For protecting its space assets, the ISRO was forced to perform 19 Collision Avoidance Maneuvers (CAM) in 2021.
- Under Project NETRA, ISRO is set to put up observational facilities, such as Connected radars, optical telescopes, data processing units, and a control center.
- NETRA's ultimate goal is to capture geostationary orbit, closely at 36000 km at which a communication satellite operates.
- It is estimated to cost around Rs. 400 crores. ISRO SSA control center is set up within the ISTRAC campus at Peenya.

Significance of the Project

- The project is designed such that the features can track particles as minute as 10cm, up to a range of 3400km, and equal to a space orbit of 2000km.
- The NETRA effort would make India a part of international efforts towards tracking, warning about and mitigating space debris.
- More importantly, the SSA also has a military quotient to it and adds a new ring to the country's overall security, against attacks from air, space or sea.

Space Situational Awareness(SSA):

- SSA is aimed at tracking debris, minute particles in space that could be hazardous to the existing satellites. It aims to monitor, track and protect space assets.

- ISRO's efforts towards space situational awareness (SSA) is coordinated by the SSA Control Centre in Bengaluru and managed by the Directorate of Space Situational Awareness and Management at the ISRO headquarters.
- At present, India receives all space information about the debris from North American Aerospace Defence Command (NORAD).
- NORAD is a joint initiative by the US and Canada. The data by NORAD is available in public domain

ISRO:

- The Indian Space Research Organization is a national space agency of India. It operates under the Department of Space and is overseen by the Prime Minister of India.
- ISRO's vision is to harness space tech while pursuing space science research and planetary exploration.
- Antrix Corporation Limited (ACL) is the marketing arm of ISRO. Currently ISRO has 50 functional satellites in space.

[2.56] Rashtriya Sanskriti Mahotsav Inaugurated

[GS Paper 1 - Diversity of India, Indian Art forms]

Context - the 12th edition of Rashtriya Sanskriti Mahotsav 2022 was inaugurated at Rajamahendravaram in Andhra Pradesh.

The Rashtriya Sanskriti Mahotsav was inaugurated under the Azadi Ka Amrit Mahotsav.

Key Highlights

- It is a celebration of India's diverse cultural heritage and is an event from 26th March to 3rd April taking place in Andhra Pradesh and Telangana.
- The 1st leg of RSM 2022 was inaugurated in Rajamahendravaram in Andhra Pradesh.
- The 2nd leg will be inaugurated in Warangal, Telangana on the 29th of March while the 3rd leg will be inaugurated in Hyderabad from 1st to 3rd April 2022.

Significance

- It has been playing a pivotal role to take the vibrant culture of India out to the masses instead of confining it to auditoria and galleries.
- It has been instrumental in showcasing folk and tribal art, dance, music, cuisines & culture of one state in other states reinforcing the cherished goal of “Ek Bharat Shreshtha Bharat”.
- It also provides an effective platform to the artists and artisans to support their livelihood and reconnects the people (especially the youth) with their indigenous culture, its multifaceted nature, magnificence, and historical importance in the context of ‘India as a Nation’ over the millennia.

Rashtriya Sanskriti Mahotsav – a note:

- It was first held in 2015 and after the first event itself, it gained numerous positive responses and hence it was organized every year.
- It is the flagship festival of the Ministry of Culture and receives active participation from Seven Zonal Culture Centres.
- The aim is to promote and showcase the rich and diverse cultural heritage of the country in varied forms of folk paintings, handicrafts, sculpture, classical dance, music, etc. with the cherished slogan of “Ek Bharath Shreshtha Bharath”.
- It proves to be a giant platform for the art and artists to showcase their talents and presenting states.

About ‘Ek Bharat Shreshtha Bharat’

- It was launched in 2015 to promote engagement amongst the people of different States/UTs so as to enhance mutual understanding and bonding between people of diverse cultures, thereby securing stronger unity and integrity of India.
- It is an initiative of the Ministry of Education. Every State and UT in the country would be paired with another State/UT for a time period, during which they would carry out a structured engagement with one another in the spheres of language, literature, cuisine, festivals, cultural events, tourism etc.

[2.57] Indian Antarctic Bill introduced in the Parliament

[GS Paper 3 - Science and Technology]

Context - The ministry says the proposed legislation will provide for national measures to protect the environment by permitting certain activities. The bill was introduced by the Union Ministry of Earth Sciences.

India signed the Antarctic treaty back in 1983.

The Indian Antarctic Bill:

- The Indian Antarctic Bill is a legislative step to furnish regulatory backup to the country’s activities in Antarctica.
- The proposed bill allows for national measures to protect the Antarctic Ecosystem and give effect to the treaty.
- The proposed legislation includes:
 1. National measures to protect the environment of the ice continent by permitting certain activities.
 2. A scientific expedition is allowed in the ice continent but there is a prohibition to introduce certain substances or products into Antarctica.
 3. India’s interest and proactive involvement in the management of growing Antarctic tourism.
 4. Sustainable development of fisheries resources in Antarctic waters.
 5. In the future, the private shipping and aviation industry might promote tourism and fishing that would need to be regulated through legislation.
 6. The bill allows a special permit from the Secretariat of the Commission for the Conservation of Antarctic Marine Living Resources for commercial fishing in the Ice continent waters.
 7. It has proposed the formation of a committee on Antarctic Governance and Environmental Protection under the Ministry of Earth Sciences.
- Currently, 54 countries have agreed to the Antarctic Treaty and 29 countries, including India, have a right to vote.
- India’s research stations in Antarctica:
 1. Dakshin Gangotri
 2. Maitri
 3. Bharti

The Antarctic Treaty:

- The treaty was signed on 1st December 1959 between 12 countries.
- The aim was to make the Antarctic continent a demilitarized zone and to be conserved for scientific research.
- The 12 countries are Australia, Argentina, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the UK, and the Union of Soviet Socialist Republics.
- It came into force in 1961. India became a member of this treaty in 1983.
- The major provisions of the treaty include:
 1. The continent welcomes peaceful grounds
 2. Prohibition of military activities
 3. Prohibition of nuclear tests
 4. Prohibition of disposal of radioactive waste
 5. Freedom of scientific research
 6. Neutralize territorial sovereignty

[2.58] Nepal's PM Visit to India

[GS Paper 2 - India's Neighborhood, Bilateral Relations]

Context - Nepalese Prime Minister Sher Bahadur Deuba is paying a three-day visit to India from April 1 to inject a new momentum in bilateral ties, especially in areas of trade, investment, healthcare and connectivity.

In the last four years, this will be the first such visit of a Nepalese leader. This will further strengthen the ties between the two countries.

Key Highlights of the Visit

- Sher Bahadur Deuba, the Prime Minister of Nepal is on a 3-day visit to India.
- The Nepalese PM is slated to hold wide-ranging talks with Prime Minister Narendra Modi on April 2 during which both sides are expected to make a number of announcements to further expand cooperation in select areas.
- Besides his official engagements in Delhi, the Nepalese leader will visit Varanasi, the parliamentary constituency of Modi.
- Nepal is important for India in the context of its overall strategic interests in the region, and the leaders of the two countries have often noted the age-old "Roti Beti" relationship.

India-Nepal relations over the years:

- Nepal holds a special significance in India's foreign policy. It is an important neighbor and also shares geographic, cultural, and economic trade ties.
- Both the countries share an open border and uncontrolled movement of tourists.
- Both the countries share efficient connectivity despite the fact that Nepal is surrounded by India from three sides.
- The perennial river systems of India originate from Nepal and serve as hydropower potential for the state.
- India and Nepal together have called for several initiatives to promote art and culture, and education in both countries.
- India is the biggest contributor of Humanitarian Assistance to Nepal as it lies ecologically fragile zone that is prone to Earthquakes, floods.

Treaties and MOUs

- The India-Nepal Treaty of Peace and Friendship was signed on 31st July, 1950.
- An MoU was signed for the construction of an electric rail track connecting Kathmandu with Raxaul in India.
- India has signed three sister-city agreements for twinning cities of Kathmandu-Varanasi, Lumbini-Bodhgaya and Janakpur-Ayodhya.

Issues in India-Nepal Relations:

- China has occupied Nepal's sentiments and has been an Investor in Nepal's infrastructure. This has led to an increase in Nepal-China Cooperation.
- The open border has led to increasing in Insurgency and human trafficking.
- In 2020, there was a clash between both countries when the Indian defence launched a road linking the Lipulekh pass with Dharchula in Uttarakhand. This was opposed by the Nepal Government and they claimed the road to be a part of their territory.

[2.59] ECLG Scheme extended by the Government

[GS Paper - Banking Sector and NBFCs, GS Paper 2 - Govt. Policies and Interventions]

Context - The government has expanded the scope of its flagship guaranteed loan scheme and extended its validity by a year through March 2023, in sync with the Budget announcements.

The finance ministry has also extended relief under the Rs 5-trillion emergency credit line guarantee scheme (ECLGS) to hospitality, civil aviation and related enterprises.

Key Highlights

- As per the new norms, companies in the hospitality, civil aviation, travel and tourism industry can now borrow up to 50% of their highest fund-based credit outstanding, as against 40% earlier.
- As per the Finance Ministry, the ECLGS 3.0 will be issued without any cash margin to reduce the cost of accessing non-fund based credit, bank guarantees, letters of credit and other non-fund based facilities.
- The extension of the ECLGS validity and the widening of its scope will benefit a wider pool of businesses that haven't been able to tap the scheme yet, as economic recovery has been dealt a fresh blow by the Omicron spread in January and the current Ukraine crisis.

About ECLG Scheme

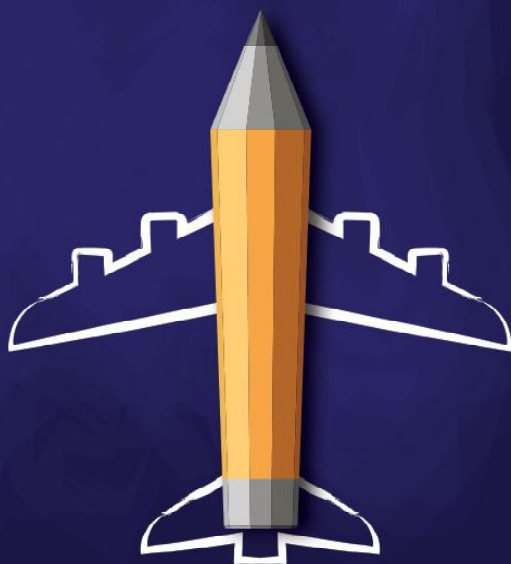
- The Emergency Credit Line Guarantee Scheme was launched in May 2020 as part of the Atmanirbhar Bharat Abhiyan Package to mitigate the distress caused by the covid lockdown by providing credit to different sectors, especially MSMEs.
- It aims to provide fully guaranteed and collateral free additional credit to MSMEs, business enterprises, MUDRA borrowers and individual loans for business purposes to the extent of 20% of their credit outstanding as on 29th February, 2020.
- 100% guarantee coverage is being provided by the National Credit Guarantee Trustee Company, whereas Banks and Non Banking Financial Companies (NBFCs) provide loans.
- As per data uploaded by Member Lending Institutions on the ECLGS portal, an amount of Rs. 2.03 lakh crore has been sanctioned under the Scheme to 60.67 lakh borrowers so far, while an amount of Rs. 1.48 lakh crore has been disbursed.

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3. DAILY QUIZ



1. Consider the following statements regarding the International Space Station (ISS):

1. The International Space Station which is a partnership of five countries, is the only operational space laboratory as of now, orbiting the earth in a trajectory about 400 km above the land surface.
2. The ISS is not always manned continuously.
3. The ISS is used for carrying out a variety of zero-gravity experiments, space exploratory studies, and technology development.

Which of the above statements is/are correct?

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

Answer: C

Explanation: The International Space Station is the only operational space laboratory as of now, orbiting the earth in a trajectory that is about 400 km above the land surface. It is operated by more than 15 partner countries. Apart from Russia and the United States, Canada, Japan and several members of the European Space Agency are partners in the ISS. The ISS has been manned continuously since the start of operations in 1998. At any given time, there is a crew of six astronauts on board. According to NASA, 240 individuals from 19 countries have so far been to the ISS. The facility is used for carrying out a variety of zero-gravity experiments, space exploratory studies, and technology development.

2. Consider the following statements regarding Brucellosis:

1. Brucellosis is a zoonotic infection caused by the virus of the genus Brucella.
2. The infection can spread from animals to humans, most commonly through the consumption of raw or unpasteurized dairy products.
3. Brucellosis can also spread through air.

Which of the above statements is/are incorrect?

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

Answer: A

Explanation: Brucellosis is a zoonotic infection caused by the bacteria of the genus Brucella. The bacterial infection can spread from animals to humans, most commonly through the consumption of raw or unpasteurized dairy products. Animals that are most commonly infected include sheep, cattle, goats, pigs, and dogs, among others. Sometimes, the bacteria that cause brucellosis can spread through the air.

3. Consider the following statements regarding Ayushman Bharat Digital Mission (ABDM):

1. The ABDM will create a seamless online platform of healthcare ecosystem by collating a wide-range of data, information and infrastructure services etc.
2. NHA is the implementing agency for the mission.
3. A Health ID will be issued for every citizen that will also work as their health account.

Which of the statements given above are correct?

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

Answer: D

Explanation: The ABDM will create a seamless online platform of healthcare ecosystem by collating a wide-range of data, information and infrastructure services etc. This it will do while ensuring the privacy of health-related personal information. A Health ID will be issued for every citizen that will also work as their health account. This health account will contain details of every test, every disease, the doctors visited, the medicines taken and the diagnosis. Health ID is free of cost, voluntary. It will help in doing analysis of health data and lead to better

planning, budgeting and implementation for health programs. The National Health Authority (NHA) under the Ministry of Health and Family Welfare is the implementing agency for the mission.

4. Consider the following statements regarding UNSC:

1. The UNSC is composed of 15 member countries.
2. More than 50 of the UN's 193 member countries have never been elected to the council
3. India is the only Asian country to be among the 5 permanent members.

Which of the statements given above are correct?

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

Answer: A

Explanation: The Security Council was established by the UN Charter in 1945. It is one of the six principal organs of the United Nations. Its primary responsibility is to work to maintain international peace and security. The council has 15 members: the five permanent members and ten non-permanent members elected for two-year terms. The five permanent members are the United States, the Russian Federation, France, China and the United Kingdom. More than 50 of the UN's 193 member countries have never been elected to the council since its formation.

5. Which among the following Institutions possess the power to cancel the Certificate of Registration of the mobile-app based lending platforms?

- a. Ministry of Finance
- b. SEBI
- c. Reserve Bank of India
- d. Ministry of Home Affairs

Answer: C

Explanation: The Reserve Bank canceled the Certificate of Registration (CoR) issued to P C Financial Services Pvt Ltd, New Delhi, which was primarily engaged in mobile appbased lending operations through an app called 'Cashbean'. The RBI said the CoR of the company has been canceled on account of supervisory concerns such as gross violations of RBI directions on outsourcing and knowing your customer norms.

6. Consider the following statements with respect to Rashtriya Vayoshri Yojana:

1. It aims to provide aids and assistive living devices to senior citizens belonging to Below Poverty Line category only.
2. It is a central sector scheme.
3. The scheme is to be funded from the Consolidated Fund of India

Which of the statements given above are correct?

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

Answer: A

Explanation: Rashtriya was launched in 2017 by the Ministry of Social Justice and Empowerment. It is a central sector scheme funded from the Senior Citizens' Welfare Fund. The fund was notified in the year 2016. All unclaimed amounts from small savings accounts, PPF and EPF are transferred to this fund. It aims to provide aids and assistive living devices to senior citizens belonging to Below Poverty Line (BPL) category who suffer from age-related disabilities such as low vision, hearing impairment, loss of teeth and locomotor disabilities.

7. What is the SWIFT Messaging System recently seen in the news?

- a. Indigenous Messaging Application in Russia
- b. Global Spyware Network
- c. Secure International Financial Transaction
- d. Surveillance system of Russia

Answer: C

Explanation: Society for Worldwide Interbank Financial Telecommunication (SWIFT) provides the trusted messaging platform that enables financial institutions to exchange information about global monetary transactions such as money transfers. While SWIFT does not actually move money, it operates as a middleman to verify information of transactions by providing secure financial messaging services to more than 11,000 banks in over 200 countries. Most of the world trade takes place with financial messaging passing through SWIFT. It was established in 1973 and is based in Belgium.

8. Consider the following statements with reference to the Immigration Visa Foreigners Registration Tracking Scheme:

1. It seeks to interlink and optimize functions relating to immigration, visa issuance, registration of foreigners and tracking of their movements in the country.
2. It has been identified and included as one of the Mission Mode Projects to be undertaken by the Ministry of External Affairs.

Which of the statements given above is/are correct?

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

Answer: A

Explanation: The scheme seeks to interlink and optimize functions relating to immigration, visa issuance, registration of foreigners and tracking of their movements in the country. Its core objective is modernisation and upgradation of immigration and visa services. It has been identified and included as one of the Mission Mode Projects to be undertaken by the Ministry of Home Affairs under the National e-Governance Plan (NeGP).

9. Which day is celebrated as the 'Zero Discrimination Day' by the UNAIDS?

- a. 28th February
- b. 1st March
- c. 2nd March
- d. 27th February

Answer: B

Explanation: The Zero Discrimination Day is observed by the United Nations and UNAIDS to celebrate the right of everyone to live a full and productive life. It is celebrated every year on 1st March. The day highlights how people can become informed about and promote inclusion, compassion, peace and, above all, a movement for change. Theme for 2022 - "Remove laws that harm, create laws that empower"

10. Consider the following statements:

1. More than a quarter of the world's wheat export comes from Russia and Ukraine.
2. Egypt is the world's biggest importer of wheat.
3. Wheat is grown in kharif season in India.

Which of the statements given above is/are correct?

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

Answer: B

Explanation: More than a quarter of the world's wheat export comes from Russia and Ukraine. Russia is the world's largest exporter of wheat, accounting for more than 18% of international exports. In 2019, Russia and Ukraine together exported more than a quarter (25.4 %) of the world's wheat. Egypt is the world's biggest importer of wheat followed by India.

11. Consider the following statements regarding the Vacuum Bomb:

1. It sucks the oxygen from the surrounding, producing a blast wave for a longer duration than conventional explosives.
2. It works on the principle of nuclear fusion, where the Trinitrotoluene (TNT) in the bomb reacts with oxygen in the atmosphere.

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

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

Answer: A

Explanation: Russia used a Vacuum bomb during the invasion, claims Ukraine. A vacuum bomb, sucks in oxygen from the surrounding air to generate a high-temperature explosion, producing the effect of a small nuclear weapon. It typically produces a blast wave of a significantly longer duration than that of a conventional explosive.

12. Consider the following statements regarding the Geneva Convention:

1. The Geneva convention comprises treaties and protocols for ethical treatment in war.
2. The fourth convention protects civilians, including those in occupied territory.
3. The conventions are mandatorily applied even to non-members during the time of the war.

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

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

Answer: A

Explanation: Microsoft says cyberattacks targeting Ukraine 'raise serious concerns' under Geneva

Convention. The Geneva Conventions comprise of three protocols and four additional treaties that set the standards for ethical treatment in war. The Geneva Convention originated in 1864 but was given a major overhaul in 1949. It has been ratified by 196 states, including all UN member states, both UN observers the Holy See and the State of Palestine, as well as the Cook Islands.

13. Consider the following statements regarding the Countering America's Adversaries Through Sanctions Act (CAATSA):

1. It is a federal law of the U.S that has been used to impose sanctions against Iran and Russia only.
2. This act prevents trade partners of the US from entering into bilateral contracts with the countries sanctioned under the law.
3. Under a provision of the law, Saudi Arabia, Israel, Canada, and India are exempted from facing sanctions.

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

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

Answer: A

Explanation: India faces uncertainty over timely deliveries of defense equipment from Moscow and Kyiv, owing to the threat of U.S. sanctions under Countering America's Adversaries Through Sanctions Act (CAATSA). It is a United States Federal Law passed on 27th July 2017, that has imposed sanctions against Iran, Russia, and North Korea. In 2020 sanctions were imposed on Turkey for its purchase of the S-400 missile system from Russia. This act prevents trade partners of the United States from entering into bilateral contracts with these nations. No blanket waivers from punitive U.S. sanctions will be issued for any one particular country under the CAATSA.

14. Consider the following statements regarding the Pandemic Treaty:

1. It is an intergovernmental treaty signed between the members of the European Union and the African Union.
2. It covers aspects like data sharing and genome sequencing of emerging viruses and the distribution of vaccines and drugs.
3. The treaty contains a provision to ban the wildlife markets in the European and African Unions.

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

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

Answer: C

Explanation: The COVID-19 pandemic has exposed the deep cracks in global health systems, and members of the World Health Organization are now working towards being better prepared for any similar disasters in the future. In December 2021, the World Health Assembly agreed to start a global process to draft the pandemic treaty. The Health Assembly adopted a decision titled "The World Together" at its second special session since it was founded in 1948. Under the decision, the health organization established an intergovernmental negotiating body (INB). Article 19 gives the World Health Assembly the authority to adopt conventions or agreements on matters of health.

15. Consider the following statements regarding the Montreux Convention:

1. The Montreux convention regulates maritime traffic through the Black Sea, Aegean Sea, and the Mediterranean Sea.
 2. The Bosphorus and Dardanelles straits are the only passage through which black seaports can access the Mediterranean Sea.
 3. According to the convention, only Turkey has the control to block the Bosphorus and Dardanelles Straits.
- Which of the above statement(s) is/are correct?**
- a. 1 only
 - b. 2 and 3 only
 - c. 3 only
 - d. 1, 2 and 3

Answer: B

Explanation: Turkey is set to implement an international convention on naval passage through two of its strategic straits, which would allow them to limit the movement of Russian warships between the Mediterranean Sea and the Black Sea. The Montreux Convention regulates maritime traffic through the Black Sea. It guarantees complete freedom of passage for all civilian vessels during peacetime. It permits Turkey to restrict the passage of navies not belonging to Black Sea states. The Bosphorus and Dardanelles straits, also known as the Turkish Straits or the Black Sea Straits, connect the Aegean Sea and the Black Sea via the Sea of Marmara.

16. What was the central theme of the Economic Survey 2022?

- a. Agile approach
- b. COVID-19 warriors
- c. Rural Development
- (SD) Healthcare workers

Answer: A

Explanation: The central theme of Economic Survey 2022 is the Agile Approach.

17. Consider the following statements with reference to Economic Survey:

- 1. It is an annual document presented by the Finance Minister.
- 2. The report underscores the condition of different sectors of the economy.
- 3. The Economic Survey suggests reforms that should be undertaken to accelerate growth.

Choose the correct option:

- a. Only 2
- b. Both 2 and 3
- c. Both 1 and 3
- d. All of the above

Answer: D

Explanation: The Economic Survey is an annual report that highlights the condition of different sectors of the economy and suggests reforms that should be undertaken to accelerate growth. The report is presented by the Finance Minister in the Parliament.

18. By what percentage does the GDP contract in 2020-21?

- a. 7.1%
- b. 8.9%
- c. 7.3%
- d. 8.2%

Answer: C

Explanation: The GDP contracted by 7.3% in 2020-21.

19. The Economic Survey 2022 projected the GDP growth for FY23 at ____.

- a. 8-8.5%
- b. 9-9.2%
- c. 7.1-7.3%
- d. 3.9-4.2%

Answer: A

Explanation: The Economic Survey has predicted 8 to 8.5% GDP growth in FY23. For the ongoing FY22, the GDP growth has been projected at 9.2%.

20. The Services sector is estimated to grow by ____ in the current FY.

- a. 9.1%
- b. 9.2%
- c. 3.9%
- d. 8.2%

Answer: D

Explanation: The Services sector is estimated to grow by 8.2% in the ongoing financial year, according to the Economic Survey 2022.

21. Who presented the Budget 2022 in the Parliament?

- a. Narendra Modi
- b. Nirmala Sitharaman
- c. Rajnath Singh
- d. Amit Shah

Answer: B

Explanation: Finance Minister Nirmala Sitharaman presented the Budget 2022 on February 1 in Parliament.

22. Tax imposed on imports and exports of goods when they are transported across the international borders is known as ____.

- a. Sales Tax
- b. Value Added Tax
- c. Customs Duty
- d. Trade Tax

Answer: C

Explanation: Customs Duty is the tax which is imposed on imports and exports of goods when they are transported across the international borders.

23. When was India's first Budget introduced?

- a. 7 April 1860
- b. 1 February 1948
- c. 26 November 1947
- d. 12 October 1947

Answer: A

Explanation: India's first Budget was introduced on 7 April 1860 by Scottish economist and politician James Wilson to the British Crown.

24 _____ is the discount granted by the Government of India to make essential items available at affordable rates to the general public.

- a. Tax Exemption
- b. PM SVANidhi
- c. Maximum Retail Price
- d. Subsidy Bill

Answer: D

Explanation: The Government of India provides Subsidy Bill to its citizens to make essential items available at affordable rates.

25. At which rate, the income tax is imposed in India?

- a. Regressive
- b. Digressive
- c. Progressive
- d. Proportional

Answer: B

Explanation: The income tax is imposed at the digressive rate in India which is a combination of progressive and proportional. In the case of the digressive rate, the tax is increased firstly with an increase in income and then the rate remains flat or constant with a further increase in income.

26. Consider the following statements regarding Karewas:

- 1. They are highly fertile alluvial soil deposits that remain tucked in the folds of the Pir Panjal Range of the Himalayas.
- 2. Karewas are found in abundance at the confluence of the river Ganges and the Terai region in the state of Uttar Pradesh and Bihar.

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

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

Answer: A

Explanation: Kashmir's highly fertile alluvial soil deposits called 'karewas' are being destroyed in the

name of development. It is the plateau-like landforms that remain tucked away in the folds of the surrounding mountains, particularly the Pir Panjal Range of the Himalayas that borders the valley on the southwest. These plateaus are 13,000-18,000-metre-thick deposits of alluvial soil and sediments like sandstone and mudstone. This makes them ideal for the cultivation of saffron, almonds, apples, and several other cash crops.

27. Consider the following statements with respect to Oral Cancer:

- 1. It appears as a growth or sore in the mouth that is permanent.
- 2. Oral cancer occurs only on the floor of the mouth, cheeks, and sinuses.
- 3. One of the reasons for oral cancer is Fusobacterium which is sexually transmitted.

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

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

Answer: A

Explanation: Since the beginning of the 20th Century, it is known that infections could play a role in cancer, with 18-20% of cancers associated with infectious agents. Oral cancer appears as a growth or sore in the mouth that does not go away. Oral cancer includes cancers of the lips, tongue, cheeks, floor of the mouth, hard and soft palate, sinuses, and pharynx. Tobacco use of any kind, including cigarettes, cigars, pipes, chewing tobacco and snuff, among others. Fusobacterium nucleatum is known to play a vital role in colorectal cancer, wherein its presence affects the spread of the disease and the patient's response to chemotherapy.

28. Consider the following statements regarding an animal species:

- 1. They have an upturned snout and are webbed with only four claws.
- 2. Males have longer and thicker tails but are smaller in size when compared to females.
- 3. The Male turns completely black during the breeding season and the species is omnivorous in nature.

Identify the species.

- a. River Terrapin
- b. Hognose Viper
- c. Himalayan Griffon
- d. Spider Monkey

Answer: A

Explanation: Experts and forest officials who installed GPS transmitters on Northern River Terrapin in Indian Sundarbans, found the species going to Bangladesh. The River terrapin is found in India and Bangladesh (Sundarbans), Myanmar, Malaysia (peninsular), Indonesia (Sumatra), Thailand, and Cambodia. It is regionally extinct in Myanmar, Singapore, Thailand, and Vietnam. The species has an upturned snout. Front feet are broad and webbed with only four claws (other turtles have five). Males are darker, turning completely black during the breeding season. Males have longer and thicker tails but are somewhat smaller in size.

29. Consider the following statement(s) regarding the No-Fly-Zones:

1. Bosnia and Herzegovina were the two air spaces over which the no-fly-zone concept was first implemented.
2. The right to announce an air space as a no-fly zone at the time of the conflict lies only with the United Nations Security Council (UNSC).

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

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

Answer: D

Explanation: Russia's attack on Ukraine's Zaporizhzhia nuclear power plant has renewed calls for NATO to impose a no-fly zone over Ukraine. A no-fly zone, also known as a no-flight zone (NFZ), or air exclusion zone (AEZ), is a territory or area established by a military power over which certain aircraft are not permitted to fly. The first instance of no-fly-one occurred, following the 1991 Gulf War, the United States along with other Coalition nations established two no-fly zones in Iraq. In 1992, the United Nations Security Council passed United Nations Security Council Resolution 781, prohibiting unauthorized military flights in Bosnian airspace.

30. Consider the following statements regarding the humanitarian corridors:

1. They are demilitarized zones for a specific time in a specific area when both sides of an armed conflict agree on a ceasefire.
2. Humanitarian corridors can only be used to evacuate the civilians caught up in the conflict zone.
3. Only the United Nations has the authority to mediate between the two sides for a humanitarian corridor.

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

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

Answer: B

Explanation: They are demilitarized zones, in a specific area and for a specific time — and both sides of an armed conflict agree to them. Via these corridors, either food and medical aid can be brought to areas of conflict, or civilians can be evacuated. In most cases, humanitarian corridors are negotiated by the United Nations.

31. Consider the following statements regarding Kanya Shiksha Pravesh Utsav Scheme:

1. Launched by the Women and Child Development Ministry in partnership with the Education Ministry.
2. This scheme will fulfill the target of Right To Education act that says to bring out-of-school girls back to the education system.

Which of the statements given above are correct?

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

Answer : C

Explanation: As part of International Women's Day celebrated today - March 8, 2022, the union government has launched the 'Kanya Shiksha Pravesh Utsav' scheme with an aim to bring the out-of-school girls back into the education system. The Kanya Shiksha Pravesh Utsav scheme has been launched by the Women and Child Development Ministry in partnership with the Education Ministry. The scheme will fulfill the target of the Right to Education Act which works on bringing out-of-school girls back into the system.

32. Indonesia recently partnered with which country to tackle plastic pollution in the Indo-Pacific Region?

- a. Australia
- b. Singapore
- c. Japan
- d. India

Answer: A

Explanation: Australia's national science agency and the federal government have formed a partnership with

Indonesia to address plastic pollution in the Indo-Pacific. The Commonwealth Scientific and Industrial Research Organization (CSIRO) has announced that, along with the Department of Foreign Affairs and Trade (DFAT), it has established the Plastics Innovation Hub Indonesia with \$950,745 in funding.

33. Which of the following countries were added to Russia's List of 'unfriendly' countries?

1. United States
2. Canada
3. France
4. Britain
5. Australia
6. New Zealand

Select the correct countries from the codes given below:

- a. 1, 2, 3 and 4
- b. 2, 3, 4, 5, 6
- c. 3, 5 and 6
- d. 1, 2, 4, 5 and 6

Answer: D

Explanation: The list includes the United States and Canada, the EU states, the UK (including Jersey, Anguilla, the British Virgin Islands, Gibraltar), Ukraine, Montenegro, Switzerland, Albania, Andorra, Iceland, Liechtenstein, Monaco, Norway, San Marino, North Macedonia, and also Japan, South Korea, Australia, Micronesia, New Zealand, Singapore, and Taiwan.

34. Consider the following statements regarding Marine Plastic:

1. According to IUCN, at least 8 million tons of plastic end up in the oceans every Year.
2. The main sources of marine plastic are land-based, from urban and storm Runoff.
3. Ocean-based plastic originates mainly from the fishing industry, nautical activities and aquaculture.

Which of the statements given above are correct?

- a. 1 and 2 only
- b. 1, 2 and 3
- c. 2 and 3 only
- d. None of the above

Answer: B

Explanation: According to the International Union for Conservation of Nature (IUCN), at least 8 million tons of plastic end up in the oceans every year. The main sources of marine plastic are land-based, from urban

and storm runoff, sewer overflows, beach visitors, inadequate waste disposal and management, industrial activities, construction and illegal dumping. Ocean-based plastic originates mainly from the fishing industry, nautical activities and aquaculture.

35. Consider the following statements regarding Sagar Parikrama:

1. It is a navigation journey to be conducted in all coastal states/UTs to show solidarity with all fishing communities.
2. The initiative is launched by the Ministry of home affairs.
3. The initiative commences from the coastline of Mandvi in the coast of Bay of Bengal in Odisha.

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

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

Answer: A

Explanation: Union Minister for Fisheries, Animal Husbandry and Dairying, Shri Parshottam Rupala to inaugurate the 'Sagar Parikrama On 5th March 2022. Organized by, The Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India and National Fisheries Development Board along with Department of Fisheries, Government of Gujarat, Indian Coast Guard, Fishery Survey of India, Gujarat Maritime Board, and fishermen representatives. It is a navigation journey to be conducted in all coastal states/UTs through a pre-decided sea route to demonstrate solidarity with all fisherfolk, fish farmers, and concerned stakeholders. The Parikrama, **starting from Mandvi, Gujarat, is an endeavor to know the problems of Coastal Fisherfolk.**

36. Which supercomputer has been recently established at IIT Roorkee under the National Supercomputing Mission?

- a. PARAM GANGA
- b. PARAM 8000
- c. PARAM SHIVAY
- d. PARAM SIDDHI

Answer: A

Explanation: The National Supercomputing Mission (NSM) has recently established 'PARAM GANGA', a supercomputer at IIT Roorkee which has a supercomputing capacity of 1.66 Petaflops. The key

focus is to provide computational power to the user community of IIT Roorkee and neighboring academic institutions.

37. Consider the following statements regarding Mission Indradhanush:

1. It provides vaccination against 12 Vaccine-Preventable Diseases (VPD).
2. It is one of the flagship schemes under the Gram Swaraj Abhiyan.
3. Under Intensified Mission Indradhanush (IMI), greater focus was given to the urban areas.

Which of the following statements are correct?

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

Answer: D

Explanation: It was launched to fully immunize more than 89 lakh children who are either unvaccinated or partially vaccinated under UIP. It provides vaccination against 12 Vaccine-Preventable Diseases (VPD) i.e. diphtheria, Whooping cough, tetanus, polio, tuberculosis, hepatitis B, meningitis and pneumonia, Haemophilus influenzae type B infections, Japanese encephalitis (JE), rotavirus vaccine, pneumococcal conjugate vaccine (PCV) and measles-rubella (MR). Mission Indradhanush was also identified as one of the flagship schemes under Gram Swaraj Abhiyan and Extended Gram Swaraj Abhiyan. Under IMI, greater focus was given on urban areas which were one of the gaps of Mission Indradhanush.

38. Which of the following initiatives are included under the Sagarmala Project?

1. Modernizing port infrastructure
2. Improving port connectivity through rail corridors, freight-friendly expressways and inland waterways
3. Create 14 coastal economic zones or CEZs

Select the correct statements using the codes given below.

- a. 1 only
- b. 1, 2 and 3
- c. 2 only
- d. None of the above

Answer: B

Explanation: The Sagarmala is a series of projects to leverage the country's coastline and inland waterways

to drive industrial development Sagarmala, integrated with the development of inland waterways, is expected to reduce cost and time for transporting goods, benefiting industries and export/import trade. The initiatives under this project include: modernizing port infrastructure, improving port connectivity through rail corridors, freight-friendly expressways and inland waterways, create 14 coastal economic zones or CEZs and a special economic zone at Jawaharlal Nehru Port Trust in Mumbai with manufacturing clusters to enable port-led industrialisation, develop skills of fishermen and other coastal and island communities.

39. Consider the following statements regarding the National Land Monetization Corporation:

1. It is an exclusive agency to monetize only the government land in all the states and union territories.
2. The administrative jurisdiction is with the Ministry of Corporate Affairs.
3. The Corporation is fully owned by the Central government.

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

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

Answer - C

Explanation: The Union Cabinet on Wednesday approved the setting up of the National Land Monetization Corporation (NLMC). It is set up to monetize surplus land and building assets of Central Public Sector Enterprises (CPSEs) and other agencies linked to the Government. It is to be fully owned by the Centre, under the administrative jurisdiction of the Finance Ministry.

40. Consider the following statements regarding the Tipping point:

1. They are threshold levels, beyond which the earth's system can no longer stabilize.
2. The shifting of the tectonic plates due to the heating of the earth's crust is an example of a Tipping point.

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

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

Answer: A

Explanation: More than 75% of the Amazon rainforest near the tipping point, may transform into dry savanna. Tipping points', are essentially the thresholds beyond which the earth's systems are no longer able to stabilize. The danger of crossing tipping points becomes higher with more warming.

41. Consider the following statements regarding National Land Monetization Corporation:

1. NLMC will undertake surplus land asset monetisation as an agency function, and assist and provide technical advice to the Centre in this regard.
2. It has been announced with an initial authorized share capital of Rs 1000 crore.
3. The Board of Directors of NLMC will comprise senior Central Government officers and eminent experts

Which of the statements given above are correct?

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

Answer: C

Explanation: NLMC will undertake surplus land asset monetisation as an agency function, and assist and provide technical advice to the Centre in this regard. NLMC has been announced with an initial authorized share capital of Rs 5000 crore and paid-up share capital of Rs 150 crore. The Board of Directors of NLMC will comprise senior Central Government officers and eminent experts to enable professional operations and management of the company.

42. Consider the following statements regarding the Montreux Convention:

1. The Montreux Convention Regarding the Regime of the Straits gives Turkey control over the water route between the Black Sea.
2. It was convened in the year 1936.
3. The mandates of the Convention have never been exercised by Turkey.

Which of the statements given above are correct?

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

Answer: A

Explanation: According to the 1936 Montreux Convention Regarding the Regime of the Straits, often

referred to simply as the Montreux Convention, Turkey has control over both the Bosphorus and Dardanelles straits. In the event of a war, the pact gives Ankara the right to regulate the transit of naval warships and to block the straits to warships belonging to the countries involved in the conflict.

43. Consider the following statements regarding UPI123Pay:

1. It will work on simple phones that do not have an internet connection.
2. The UPI service will enable digital transactions through a mechanism of 'on-device' wallet in UPI applications.
3. Users can initiate payments to friends and families but cannot check their account balance with it.

Which of the statements given above are correct?

- a. 1 and 2 only
- b. 1, 2 and 3
- c. 2 only
- d. None of the above

Answer: A

Explanation: UPI123Pay will work on simple phones that do not have internet connection. The UPI service for feature phones will leverage the RBI's regulatory Sandbox on Retail Payments. It will enable digital transactions through a mechanism of 'on-device' wallet in UPI applications." Users can initiate payments to friends and family, pay utility bills, recharge the FAST Tags of their vehicles, pay mobile bills and also allow users to check account balances.

44. Consider the following statements regarding the Global Water System Project (GWSP):

1. It is a joint initiative of the World Bank in collaboration with the Ministry of Environment of member countries.
2. The 'Water Future' has evolved from GWSP, based on the recommendations outlined in the Bonn Water Declaration.

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

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

Answer: B

Explanation: Freshwater resources are under stress, the principal driver being human activities in their various forms. The GWSP was a joint project of the Earth System Science Partnership (ESSP), scientifically

sponsored by the International Council for Science (ICSU) and its four Global Environmental Change (GEC) programmes. Water Future has evolved from GWSP, based on the recommendations outlined in the Bonn Water Declaration.

45. Consider the following statements regarding 'Red Corridor':

1. It refers to the region in India affected by LWE.
2. The Governments of the state affected with LWE have the right to identify and announce 'Red Corridors' in their respective states.

Which of the statements given above are correct?

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

Answer: B

Explanation: The red corridor region is demarcated by the Union Government (Ministry of Home Affairs) to notify the districts which are affected by left-wing extremism. The primary criterion for removing the districts and including new ones was incidents of violence. Red Corridor areas also suffer from the greatest illiteracy, poverty, and overpopulation in modern India. These areas span parts of Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Telangana, and West Bengal.

46. Consider the following statements regarding the Black Swan event:

1. In an economy, black swan events occur when the stock markets crash.
2. Black swan events contribute to stagflation and unemployment.

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

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

Answer - D

Explanation - A black swan is an extremely rare event with severe consequences. It cannot be predicted beforehand. Black swan events can cause catastrophic damage to an economy by negatively impacting markets and investments, but even the use of robust modeling cannot prevent a black swan event. Reliance on standard forecasting tools can both fail to predict and potentially

increase vulnerability to black swans by propagating risk and offering false security. The term was popularized by the book, *The Black Swan*, by Nassim Taleb.

47. Consider the following statements regarding the local body grants:

1. These are meant to ensure additional funds to rural local bodies over and above the funds allocated by the Centre and the State.
2. Tied grants are released to rural local bodies (RLBs) on the recommendations of the Department of Drinking Water & Sanitation.
3. Untied grants are released to the rural local bodies on the recommendations of the Ministry of Panchayati Raj.

Which of the statements given above are correct?

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

Answer - D

Explanation - The local body grants are meant to ensure additional funds to rural local bodies over and above the funds allocated by the Centre and the State for sanitation and drinking water under the Centrally Sponsored Schemes. The 15th Finance Commission recommended tied grants are released to rural local bodies (RLBs) on the recommendations of the Department of Drinking Water & Sanitation for making improvements on two critical services namely (a) Sanitation and maintenance of open-defecation free (ODF) status and (b) supply of drinking water, rainwater harvesting and water recycling. Untied grants are released to the rural local bodies on the recommendations of the Ministry of Panchayati Raj after satisfying the conditions stipulated by the 15th Finance Commission.

48. Consider the following statements regarding Manual Scavenging:

1. It includes only the process of removing human excreta by hand from sewers or septic tanks.
2. The Manual Scavengers and their Rehabilitation Act bans the use of any individuals for manually handling the human excreta till its disposal.

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

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

Answer - B

Explanation - Manual scavenging is the practice of removing human excreta by hand from sewers or septic tanks. India banned the practice under the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 (PEMSR). The Act bans the use of any individual for manually cleaning, carrying, disposing of or otherwise handling in any manner, human excreta till its disposal. In 2013, the definition of manual scavengers was also broadened to include people employed to clean septic tanks, ditches, or railway tracks.

49. The 'International Day of Actions for Rivers' is celebrated on which date?

- a. 12th March
- b. 13th March
- c. 14th March
- d. 15th March

Answer - C

Explanation - The International Day of Action for Rivers was established by the International Day of Rivers to raise awareness about the value of rivers. It is celebrated annually on 14th March. The day aims to raise voices in unison against destructive water development projects, reclaim the health of watersheds, and demand equitable and sustainable management of our rivers. The theme for 2022 is "the importance of rivers to biodiversity."

50. Consider the following statements:

- 1. Higher levels of fiscal deficit results in fewer loanable funds being available in the market for the private sector to get a new loan.
- 2. The investments by private firms and governments to build new productive assets are the second-biggest engine of GDP growth in India.

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

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

Answer - C

Explanation - Impact of crude oil on the economy - If domestic prices were to be brought in line with the global spike then a liter of petrol and diesel would go up by Rs 25 and Rs 35, respectively, and a cylinder of LPG would be costlier by around Rs 400. Either the government's fiscal deficit will go up or it will have to restrict capital expenditure. The Fiscal deficit (expressed as a percentage of the country's GDP) essentially refers to

the amount of money the government has to borrow from the market to plug the gap between its total expenses and its total revenues. The investments — or the money spent by private firms and governments to build new productive assets — is the second-biggest engine of GDP growth in India; it accounts for 33% of all GDP.

51. Consider the following statements regarding World resources Institute:

- 1. World Resources Institute (WRI) is a global unit of the United Nations Organization, working towards protecting the environment.
- 2. The mission of WRI is, "to move human society to live in ways that protect earth's environment".

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

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

Answer - B

Explanation - The World Resources Institute (WRI) was founded in 1982. It is a global nonprofit organization that works with leaders in government, business, and civil societies. It focuses on Food, Forests, Water, oceans, Cities, Energy, and Climate.

Mission: To move human society to live in ways that protect Earth's environment and its capacity to provide for the needs and aspirations of current and future generations.

52. Consider the following statements regarding the Man-Portable Air Defence Systems (MANPADS):

- 1. It is a long-range, lightweight, and portable air-to-surface missile, that can be shoulder-fired by an individual.
- 2. They have a fire and forget guidance system, meaning the operator is not required to guide the missile to its target.
- 3. MANPADS are indigenously developed in India by the DRDO.

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

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

Answer - C

Explanation - Man-Portable Air Defence Systems (MANPADS) are short-range, lightweight, and portable surface-to-air missiles that can be fired by individuals or small groups to destroy aircraft or helicopters. MANPADS have passive or 'fire and forget' guidance systems, meaning the operator is not required to guide the missile to its target, enabling them to run and relocate immediately after firing. The United States has approved a \$200-million arms package for Ukraine, which would include US made Stinger Missiles, which are a type of shoulder-fired Man-Portable Air-Defence Systems (MANPADS).

53. Consider the following statements regarding floodplain zoning policy:

1. The policy aims to delineate and demarcate the floodplains in the country.
2. The Ministry of Jal Shakti has the authority to demarcate an area under the floodplain zones.
3. The states of Manipur, Rajasthan, Uttarakhand, and the erstwhile State of Jammu and Kashmir only had enacted the policy.

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

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

Answer - C

Explanation - Flood Plain Zoning has been recognized as an effective non-structural measure for flood management. Flood-plain zoning measures aim at demarcating zones or areas likely to be affected by floods of different magnitude. The action for demarcation of flood plain areas and regulating the activities therein is to be undertaken by respective state governments. The states of Manipur, Rajasthan, Uttarakhand, and the erstwhile State of Jammu & Kashmir had enacted the legislation.

54. Consider the following statements regarding Carbon Neutrality:

1. Carbon Neutrality can be achieved by balancing emissions of carbon dioxide with its removal or by eliminating emissions from society.
2. Net-zero emissions refer to the balancing of anthropogenic carbon dioxide emissions with anthropogenic removals of the GHG.

Which of the statements given above are correct?

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

Answer - C

Explanation - Carbon neutrality is a state of net-zero carbon dioxide emissions. This can be achieved by balancing emissions of carbon dioxide with its removal (often through carbon offsetting) or by eliminating emissions from society (the transition to the "post-carbon economy"). Net-zero emissions refer to the balancing of anthropogenic carbon dioxide emissions, either globally or in a region, with anthropogenic removals of the GHG so that the net effect is zero emissions.

55. The 'JVSHA Agreement', recently seen in the news, is signed by India with which country?

- a. Sri Lanka
- b. Bangladesh
- c. Maldives
- d. Nepal

Answer - A

Explanation - India and Sri Lanka have signed an agreement for developing a 100 megawatt solar power plant in the island nation's eastern port district of Trincomalee. The Joint Venture Shareholders Agreement (JVSHA) for the Trincomalee Power Company Limited is a joint venture between National Thermal Power Corporation (NTPC) Limited from India and the Ceylon Electricity Board (CEB) for developing the 100 megawatt solar power plant at Sampur in Sri Lanka.

56. Consider the following statements regarding the Pradhan Mantri Matsya Sampada Yojana (PMMSY):

1. The scheme is focused on the sustainable development of sericulture and silk-related products.
2. The scheme is implemented by the Ministry of fisheries, Animal Husbandry, and Dairying.
3. It will be implemented as an umbrella scheme with both forms such as central sector scheme and centrally sponsored scheme.

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

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

Answer - C

Explanation - PMMSY is a flagship scheme for the focused and sustainable development of the fisheries sector in the country. It aims to adopt 'Cluster or Area-

based Approaches' and create fisheries clusters; focus on employment generation, such as seaweed cultivation; consolidate the achievements of the blue revolution. It will be implemented as an umbrella scheme by the Ministry of Fisheries, Animal Husbandry & Dairying

57. Consider the following statements:

1. The Consumer Price Index (CPI) does not measure things like savings and investments and spending by foreign visitors.
2. Recreation and Transportation are also covered when calculating the CPI.
3. The Producer Price Index (PPI) is calculated using the same formula used in calculating the Wholesale Price Index.

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

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

Answer - A

Explanation - The Consumer Price Index (CPI) is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food, and medical care. Changes in the CPI are used to assess price changes associated with the cost of living. The Consumer Price Index does not include things like savings and investments and can often exclude spending by foreign visitors.

58. Consider the following statements regarding Great Indian Bustard:

1. This bird species has been declared Critically Endangered by the IUCN.
2. The male species have larger black crowns and a black band across the breast than the female.
3. The females lay only a single egg on the open ground during the monsoon season.

Which of the statements given above are correct?

- a. 1 and 2 only
- b. 1, 2 and 3
- c. 3 only
- d. None of the above

Answer - B

Explanation - Great Indian Bustards are listed as Critically Endangered on the IUCN Red List. Males and females generally grow to the same height and weight but males have larger black crowns and a black band

across the breast. They breed mostly during the monsoon season when females lay a single egg on open ground. Males play no role in the incubation and care of the young, which remain with the mother till the next breeding season.

59. Consider the following statements regarding Small Satellite Launch Vehicle:

1. It is designed to be smaller, cheaper, and quickly assembled for commercial launches on demand
2. The launch vehicle will carry smaller payloads of about 500 kg.
3. It can be assembled by a team of six within seven days.

Which of the statements given above are incorrect?

- a. 1 and 2 only
- b. 2 and 3 only
- c. 1, 2 and 3
- d. None of the above

Answer - D

Explanation - The SSLV or Small Satellite Launch Vehicle is designed to be smaller, cheaper, and quickly assembled for commercial launches on demand. The SSLV is likely to cost Rs 30 crore as compared to Rs 120 crore for each Polar Satellite Launch Vehicle (PSLV), which is India's workhorse. It can be assembled by a team of six within seven days in comparison to a team of 600 that takes a couple of months to assemble a PSLV. The launch vehicle will carry smaller payloads of about 500 kg in comparison to 1,750 kg carried by PSLV.

"It envisages a five-tier structure at national, state and district level to take measures for prevention, control, and abatement of environmental pollution in river Ganga"

60. The description given above is describing which mission/project?

- a. National Water Policy
- b. National Water Mission
- c. National Mission for Clean Ganga
- d. Namami Gange Project

Answer - C

Explanation - National Mission for Clean Ganga (NMCG) - It envisages a five-tier structure at national, state and district level to take measures for prevention, control, and abatement of environmental pollution in river Ganga. The National Mission for Clean Ganga (NMCG) was implemented by the National Council for

Rejuvenation, Protection and Management of River Ganga also known as the National Ganga Council. This mission was established on 12th August 2011 under the Societies Registration Act, 1860 as a registered society.

61. With reference to 36th International Geological Congress, consider the following statements:

1. India is hosting the event for the first time.
2. The event is being funded by the India Meteorological Department.
3. Geological Survey of India is the nodal agency for organizing the event.

Which of the following statements is/are correct?

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

Answer - C

Explanation - The 36th International Geological Congress (IGC), themed “Geosciences: The Basic Science for a Sustainable Future” will be held here during 20-22 March, 2022 on a virtual platform. It is a joint endeavor of the Ministry of Mines, Ministry of Earth Sciences, Indian National Science Academy and the Science Academies of Bangladesh, Nepal and Sri Lanka. India is the only Asian country to host the event twice. In 1964, India hosted it for the first time, which was the 22nd IGC. Geological Survey of India is the nodal agency for organizing the event.

62. With reference to SIPRI's 2021 Trends in International Arms Transfers report, consider the following statements:

1. India accounted for 11 per cent of global arms imports.
2. Russia is India's largest supplier of arms.
3. The report pegs Saudi Arabia as the second biggest arms importer.

Which of the statements given above are correct?

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

Answer - D

Explanation - As per the recently released SIPRI's Trends in International Arms Transfers, 2021 — published this month — India's total volume of imports fell by 21 per cent from 2012-16, which could be a reflection of the push to manufacture arms and weapons

systems indigenously. India accounted for 11 per cent of global arms imports in 2017-21 as per the SIPRI report, while China accounted for 4.8 per cent. Russia was India's largest supplier of arms in both 2012-16 and 2017-21. The report pegs Saudi Arabia as the second biggest arms importer, while estimating the country's percentage in world imports at 11%.

63. Consider the following statements regarding a war criminal:

1. The term applies to anyone who violates a set of rules under the law of armed conflict.
2. The law of armed conflict governs how countries behave in times of war, and is part of the Geneva Conventions.
3. Both the International Court of Justice and the International Criminal Court have jurisdiction over war crimes.

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

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

Answer - C

Explanation - War Criminal, the term applies to anyone who violates a set of rules adopted by world leaders known as the law of armed conflict. The rules govern how countries behave in times of war and the rules are part of the Geneva Conventions. War crimes include willful killing and extensive destruction and appropriation of property not justified by military necessity, deliberately targeting civilians, using disproportionate force, using human shields, and taking hostages. Only the International Criminal Court (ICC) has jurisdiction over war crimes.

64. Consider the following statements regarding Daylight Saving Time (DST):

1. It is a mechanism observed biannually on World Earth Day and on World Environment Day, to reduce consumption of energy.
2. It involves resetting clocks behind by an hour in spring, and ahead by an hour in autumn.

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

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

Answer - C

Explanation - The key argument is that DST is meant to save energy. It involves resetting clocks ahead by an hour in spring, and behind by an hour in autumn, and those in favor of DST argue that it means a longer evening daytime. Individuals will complete their daily work routines an hour earlier, and that extra hour of daylight means — or is supposed to mean — a lower consumption of energy. Daylight Saving Time (DST) in the USA starts on the second Sunday in March and ends on the first Sunday in November.

65. Which of the following statements is considered as a breach of the inflation target?

1. The average inflation is more than the upper tolerance level of the inflation target for any three consecutive quarters.
 2. The average inflation is less than the lower tolerance level for any three consecutive quarters.
- Choose the correct option.

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

Answer - C

Explanation - The inflation target is defined as a medium-term average rather than as a rate (or band of rates) that must be held at all times. Breach of this inflation target is construed only when:

The average inflation is more than the upper tolerance level of the inflation target for any three consecutive quarters.

The average inflation is less than the lower tolerance level for any three consecutive quarters.

66. Consider the following statements regarding the Convention on Biological Diversity (CBD):

1. The Cartagena protocol under this convention governs the movement of living modified organisms (LMOs) from one country to another.
2. The CBD is a legally binding treaty, and except for the US, all other countries have ratified the treaty.
3. The CBD operates under the aegis of the United Nations Environment Programme (UNEP).

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

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

Answer - D

Explanation - The Convention on Biological Diversity (CBD) entered into force on 29 December 1993. The CBD operates under the aegis of the United Nations Environment Programme (UNEP). The Cartagena Protocol on Biosafety to the Convention on Biological Diversity is an international treaty governing the movements of living modified organisms (LMOs) resulting from modern biotechnology from one country to another. All countries have ratified it (notably, the US has signed but not ratified).

67. Consider the following statements regarding the marine biodiversity of areas beyond national jurisdiction (BBNJ):

1. It is a joint initiative of India and France to prevent plastic pollution from reaching the bottom of the Sea.
2. The framework aims to govern only the high seas that are not covered under the jurisdiction of any country.
3. It is being developed within the framework of the United Nations Convention on the Law of the Sea (UNCLOS).

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

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

Answer - B

Explanation - It is an intergovernmental conference, a legally binding instrument under the United Nations Convention on the Law of the Sea (UNCLOS). BBNJ encompasses the high seas, beyond the exclusive economic zones or national waters of countries. According to the International Union for Conservation of Nature (IUCN), these areas account for almost half of the Earth's surface.

68. Consider the following statements regarding Sealed Cover Jurisprudence:

1. It is the practice of accepting the information in a sealed envelope from the government agencies.
2. Sealed Cover Jurisprudence can only be initiated by the Supreme Court of India.
3. Such envelopes can only be accessed by the judges, and there is a specific law that defines the doctrine of sealed covers.

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

- a. 1 and 2 only
- b. 3 only
- c. 2 and 3 only
- d. None of the above

Answer - C

Explanation - It is a practice used by the Supreme Court and sometimes lower courts. The court asks for or accepts information from government agencies in sealed envelopes that can only be accessed by judges. A specific law does not define the doctrine of sealed cover. Important cases using sealed cover: Rafale Deal, Bhim Koregaon Case, etc.

69. Consider the following statements regarding the PM-DAKSH Yojana:

1. The scheme was launched by the Ministry of Social Justice and Empowerment.
2. The scheme aims to provide formal education through an online portal exclusively to the Safai Karamcharis irrespective of their age group.

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

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

Answer - A

Explanation - The Ministry of Social Justice and Empowerment has launched 'PM-DAKSH' (Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi) Portal and 'PM-DAKSH' Mobile App. It aims to make the skill development schemes accessible to the target groups - Backward Classes, Scheduled Castes, and Safai Karamcharis. Under this, eligible target groups are provided with skill development training programmes.

70. Consider the following statements regarding Humanitarian Parole:

1. It is temporary admission into another country, given under the protocol of the United Nations to the people of war-torn countries.
 2. The members of the United Nations are free to grant Humanitarian Parole to the affected country's citizens.
- Which of the above statement(s) is/are correct?

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

Answer - D

Explanation - Humanitarian Parole - It allows an individual who may be inadmissible or otherwise ineligible for admission into the United States to be in the United

States. It is granted for a temporary period for urgent humanitarian reasons or significant public benefit. Anybody can apply for humanitarian parole if they have a compelling emergency and there is an urgent humanitarian reason or significant public benefit to allowing them to temporarily enter the United States.

71. Consider the following statements regarding Arctic Council:

1. It was setup in 1996 by the Ottawa Declaration.
 2. India is one of the members of the 13 non-Arctic states having observer status.
 3. The Arctic Council Secretariat is situated in Norway.
- Which of the statements given above are correct?

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

Answer - D

Explanation - The Arctic Council is a high-level intergovernmental body set up in 1996 by the Ottawa declaration to promote cooperation, coordination and interaction among the Arctic States together with the indigenous communities and other Arctic inhabitants. The Council has the eight circumpolar countries as member states and thirteen non-Arctic states have Observer status including India. The standing Arctic Council Secretariat formally became operational in 2013 in Tromsø, Norway.

72. Consider the following statements regarding World Happiness Report 2022:

1. Norway is identified as the happiest country in the world.
2. India slipped 3 places down to 136 in the latest rankings.
3. The World Happiness Report has been published annually since 2012 by the United Nations Sustainable Development Solutions Network.

Which of the following statements given above are correct?

- a. 1 and 2 only
- b. 3 only
- c. 1, 2 and 3
- d. None of the above

Answer - B

Explanation - The 10th Edition of the World Happiness Report was released recently, which identified Finland as the happiest country in the world. Afghanistan was

ranked unhappiest country in the world closely followed by Lebanon. India gained three places to be placed at 136 out of a total of 146 countries, but below Pakistan which is at 121 in the list. The World Happiness Report has been published annually since 2012 by the United Nations Sustainable Development Solutions Network which contains rankings of national happiness based on several factors and primarily on the responses by the individuals.

73. When is the 'International Day of Forests' celebrated?

- a. 19th March
- b. 20th March
- c. 21st March
- d. 22nd March

Answer - C

Explanation - The 'International Day of Forests' is celebrated annually on 21st March to raise awareness about the significance of different types of forests. It reminds people to value and save forests and the importance of forests in the lives of living creatures. The theme for 2022 is "Forests and sustainable production and consumption".

74. Consider the following statements regarding India's Arctic Policy for Sustainable Development:

- 1. Its aim is to enhance India's cooperation with the resource-rich and rapidly transforming the Arctic Region.
- 2. The Policy as one of its agenda will be studying the linkages between the Polar regions and Himalayas.
- 3. India joined the Arctic Council as an Observer in 2008.

Which of the statements given above are correct?

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

Answer - A

Explanation - The Centre released India's Arctic Policy, with the aim of enhancing the country's cooperation with the resource-rich and rapidly transforming region. The policy also seeks to combat climate change and protect the environment in the region, which is warming three times faster than the rest of the world. The Policy as one of its agenda will be studying the linkages between the Polar regions and Himalayas. India joined the Arctic Council as an Observer in 2013.

75. Consider the following statements regarding the Organization for the Prohibition of Chemical Weapons (OPCW):

- 1. All states party to the Chemical Weapons Convention (CWC) become members of the OPCW automatically.
- 2. Egypt, Israel, North Korea, and South Sudan who are members of the UN are not members of the OPCW.
- 3. It mandates the member states to permanently and verifiably eliminate chemical weapons.

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

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

Answer - D

Explanation - It is the implementing body for the Chemical Weapons Convention, which entered into force on 29 April 1997. The OPCW, with its 193 Member States, oversees the global endeavor to permanently and verifiably eliminate chemical weapons. All states party to the Chemical Weapons Convention (CWC) become members of the OPCW automatically. Egypt, Israel, North Korea, and South Sudan who are members of the UN are not members of the OPCW.

76. Consider the following statements regarding Interim Trade Agreement:

- 1. It is used to liberalize tariffs on the trade of certain goods between two countries before a comprehensive FTA.
- 2. Government's emphasis on interim agreements may be tactical so that a deal may be achieved with minimum commitments.
- 3. This strategy can also lead to delays in finalizing the FTAs.

Which of the statements given above are correct?

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

Answer - D

Explanation - An interim or early harvest trade agreement is used to liberalize tariffs on the trade of certain goods between two countries or trading blocs before a comprehensive FTA (Free Trade Agreement) is concluded. Government's emphasis on interim agreements may be tactical so that a deal may be achieved with minimum commitments and would allow for contentious issues to be resolved later. This strategy

can lead to significant delays in wrapping up the mode broad-based FTAs, which could potentially lead to impediments.

77. India conducts the biennial Military Exercise 'LAMITIYE' with which country?

- a. Maldives
- b. Thailand
- c. Seychelles
- d. Indonesia

Answer - C

Explanation - The Indian Army and Seychelles Defence Forces (SDF) are conducting the ninth Joint Military Exercise LAMITIYE 2022 at the Seychelles Defence Academy (SDA) in Seychelles from March 22 to March 31. The exercise is a biennial training event which has been conducted in Seychelles since 2001.

78. Consider the following statements regarding 'World Water Day':

- 1. It is celebrated biennially on 22nd March by the United Nations.
- 2. The United Nations began observing World Water Day in 1993.
- 3. The theme for World Water Day is 2022 is "Groundwater: Making the Invisible Visible"

Which of the following statements given above are correct?

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

Answer - B

Explanation - The 'World Water Day' is celebrated annually on 22nd March by the United Nations to enable the achievement of Sustainable Development Goal 6: water and sanitation for all by 2030 and to create awareness regarding the importance of water. The theme for World Water Day in 2022 is "Groundwater: Making the Invisible Visible".

79. Consider the following statements regarding Community Reserve:

- 1. The Community Reserve was established under the Environment Protection Act, 1986.
- 2. Any state government can declare a community-owned forest area as "community reserve" if locals are willing to participate in conservation efforts for the same.

3. Community reserves receive the same legal protection as National Parks and Wildlife Sanctuaries.

Which of the above statements is/are correct?

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

Answer - B

Explanation - Conservation reserves are designated as conservation areas if they are uninhabited and completely owned by the Government of India but used for subsistence by communities and community areas if part of the lands are privately owned. These protected area categories were first introduced in the Wildlife (Protection) Amendment Act of 2002 - the amendment to the Wildlife Protection Act of 1972. It enables any state government to declare a community-owned forest area as "community reserve" if locals are willing to participate in conservation efforts for the same. Under it, community reserves receive the same legal protection as National Parks and Wildlife Sanctuaries.

80. Consider the following statements regarding the functions of the International Monetary Fund (IMF):

- 1. It assists in the establishment of a multilateral system of payments and the elimination of foreign exchange restrictions.
- 2. It promotes high employment and reduces poverty around the world.
- 3. It assists member countries by temporarily providing financial resources to correct mal-adjustments in their balance of payments.

Which of the above statements is/are correct?

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

Answer - D

Explanation - The International Monetary Fund (IMF) is working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world. The main functions of the IMF are as given below:

- To facilitate international monetary cooperation;
- To promote exchange rate stability and orderly exchange arrangements;

- To assist in the establishment of a multilateral system of payments and the elimination of foreign exchange restrictions; and
- To assist member countries by temporarily providing financial resources to correct mal-adjustment in their balance of payments (BoPs).

81. Consider the following statements regarding World Air Quality Report 2021:

1. Delhi ranked as the most polluted out of 107 capital cities in the world.
2. Bangladesh was ranked as the most polluted country in the world.
3. Delhi topped the list in its category for the fourth consecutive year.

Which of the statements given above are correct?

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

Answer - D

Explanation - Delhi ranked as the most polluted out of 107 capital cities in the world, according to the 2021 World Air Quality Report. The city is topping the list for the fourth consecutive year. Delhi topped a list of 92 capital cities in 2020, 85 such cities in 2019, and 62 such cities in 2018. The air in Bangladesh has again been ranked as the world's most polluted by IQAir, a Swiss company that makes air quality monitors and air purification technologies.

82. Consider the following statements regarding PM 2.5:

1. It is an atmospheric particulate matter of diameter of more than 2.5 Micrometers.
2. It causes respiratory problems and also reduces visibility.
3. It is an endocrine disruptor that can affect insulin secretion and insulin sensitivity, thus contributing to diabetes.

Which of the statements given above are correct?

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

Answer - C

Explanation - It is an atmospheric particulate matter of diameter of fewer than 2.5 micrometers, which is around 3% the diameter of a human hair. It causes respiratory

problems and also reduces visibility. It is an endocrine disruptor that can affect insulin secretion and insulin sensitivity, thus contributing to diabetes. It is very small and can only be detected with the help of an electron microscope.

83. Consider the following statements regarding Military Exercise 'DUSTLIK':

1. The Exercise is conducted between the armed forces of India and Kazakhstan.
2. The joint exercise will focus on Counter Terrorism operations in semi-urban Terrain.

Which of the statements given above are correct?

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

Answer - B

Explanation - The third edition of the joint training exercise between India's and Uzbekistan's armies - EX-DUSTLIK - began in Uzbekistan's Yangiariq and will continue till March 31. The joint exercise will focus on Counter Terrorism operations in semi-urban terrain under a United Nations Mandate.

84. When is the 'Sarvodaya Day' observed in India?

- a. 21st March
- b. 23rd March
- c. 24th March
- d. 25th March

Answer - B

Explanation - Sarvodaya Day or Shaheed Diwas or Martyr's Day is observed on 23rd March in India. The day is observed to pay tribute to the death anniversary of the freedom fighters Bhagat Singh, Sukhdev Thapar, and Shivaram Rajguru, who laid their lives for the freedom of India. In India, there are seven days declared as Martyrs' Day. They are named in honour of those who are recognised as martyrs for the nation.

85. Consider the following statements regarding Mixed Farming:

1. Fodder crops are an important component of mixed farming.
2. Equal emphasis is laid on crop cultivation and animal husbandry.
3. Crop rotation and intercropping play an important role in maintaining soil fertility.

Which of the above statements is/are correct?

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

Answer - D

Explanation - Mixed farms are moderate in size and usually the crops associated with it are wheat, barley, oats, rye, maize, fodder and root crops. Fodder crops are an important component of mixed farming. Crop rotation and intercropping play an important role in maintaining soil fertility. Equal emphasis is laid on crop cultivation and animal husbandry. Animals like cattle, sheep, pigs and poultry provide the main income along with crops.

86. Consider the following statements regarding NASA's Artemis Program:

1. It stands for Acceleration, Reconnection, Turbulence, and Electrodynamics of the Moon's Interaction with the Sun.
2. It plans to send the next man and first woman to the lunar surface by the year 2024.
3. Last time NASA sent humans to the Moon was in 1972.

Which of the statements given above are correct?

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

Answer - D

Explanation - The National Aeronautics and Space Administration's (NASA) published the outline for its Artemis program, which plans to send the next man and first woman to the lunar surface by the year 2024. The last time NASA sent humans to the Moon was in 1972, during the Apollo lunar mission. With the Artemis program, NASA wishes to demonstrate new technologies, capabilities and business approaches that will ultimately be needed for the future exploration of Mars. It stands for Acceleration, Reconnection, Turbulence, and Electrodynamics of the Moon's Interaction with the Sun.

87. Consider the following statements regarding the 'SUJALAM' Campaign:

1. The objective is to create more and more ODF Plus villages by undertaking waste water management at village level.

2. It is being undertaken by the Ministry of Rural Development.

Which of the statements given above are correct?

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

Answer - A

Explanation - The Ministry of Jal Shakti has begun (From 25th August) 'SUJALAM', a '100 days campaign' as part of the 'Azadi Ka Amrit Mahotsav'. The objective is to create more and more ODF Plus villages by undertaking waste water management at village level. This is done particularly through creation of 1 million Soak-pits and also other Grey water management activities.

88. Consider the following statements in the context of World TB Day:

1. It is celebrated annually on 24th March.
2. It marks the day in 1882 when Dr Robert Koch detected the cause of Tuberculosis.
3. World TB Day is one of eleven official global public health campaigns marked by the WHO

Which of the statements given above are correct?

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

Answer - D

Explanation - It is celebrated annually on 24th March. It marks the day in 1882 when Dr Robert Koch detected the cause of tuberculosis, the TB bacillus. It can be traced back to 1982, when the International Union Against Tuberculosis and Lung Disease launched World TB Day on March 24 that year.

89. Consider the following statements regarding Gold nanoparticles (GNPs):

1. GNPs have lower solar radiation absorbing ability than the conventional bulk Gold.
2. They are capable of transferring various drugs made out of peptides, proteins, plasmid DNAs to target diseased cells of the human body
3. They are also useful in the electronics industry.

Which of the above statements is/are correct?

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

Answer - C

Explanation - Nanoparticles (NPs) have a wide variety of potential applications in the fields of biomedical, optical and electronics research. Metallic NPs have been efficiently exploited for biomedical applications and among them GNPs are found to be effective in biomedical research. NPs are those materials that are at least one dimension smaller than 100 nanometres. GNPs are found to have greater solar radiation absorbing ability than the conventional bulk gold, which makes them a better candidate for use in the photovoltaic cell manufacturing industry.

90. Consider the following statements regarding the United Nations Arms Trade Treaty:

1. It aims to regulate the international trade in conventional arms like battle tanks, combat aircraft and warships.
2. Treaty also regulates the domestic sale or use of weapons in any country.
3. Recently India has signed the treaty.

Which of the above statements is/are correct?

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

Answer - B

Explanation - The UN-ATT regulates the international trade in conventional arms, from small arms to battle tanks, combat aircraft and warships, and controls the flow of weapons into conflict zones. The treaty calls for the international sale of weapons to be linked to the human rights records of buyers. It requires countries to establish regulations for selling conventional weapons. India has not signed the treaty.

91. Consider the following statements regarding Pradhan Mantri Fasal Bima Yagna (PMFBY):

1. PMFBY is a central-state scheme which aims to cushion farmers against crop loss.
2. Under the scheme, farmers only bear 1.5 to 5% of the premium.
3. The scheme is made mandatory for farmers who availed institutional finance.

Which of the above statements is/are correct?

- a. 1 only
- b. 1 and 2 only
- c. 1 and 3 only
- d. All of the above

Answer - B

Explanation - Introduced in the 2016-17 kharif season, PMFBY is a central-state scheme which aims to cushion farmers against crop loss. The central and state governments pay more than 95 per cent of the premium amount while the farmer bears 1.5-5% of the premium. As extensive usage of technology is used to settle the claims of farmers within a stipulated time period, farmers are required to fill loss reports online which are validated by insurance companies before the compensation amount is paid directly in their accounts. Prior to 2020, the scheme was mandatory for farmers who availed institutional finance, but that was changed and made voluntary for all farmers.

92. Consider the following statements:

1. In India, the Department of Pharmaceuticals functions under the Ministry of Health and Family Welfare.
2. India's medical devices sector is regulated as per provisions under the Drugs and Cosmetics Act of 1940.
3. More than two-third of the medical devices currently sold in the country are Imported.

Which of the above statements is/are correct?

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

Answer - B

Explanation - Department of Pharmaceuticals under the Ministry of Chemicals and Fertilizers. Nearly 80 per cent of the medical devices currently sold in the country are imported, particularly high-end devices. India's medical devices sector has so far been regulated as per provisions under the Drugs and Cosmetics Act of 1940, and a specific policy on medical devices has been a long-standing demand from the industry.

93. Consider the following statements regarding WPI and CPI:

1. While WPI is dominated by the prices of primary articles, the CPI is dominated by the prices of food articles.
2. WPI based inflation data is compiled by MoSPI and CPI data is compiled by DPIIT.

Which of the above statements is/are correct?

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

Answer - D

Explanation - The CPI-based inflation data is compiled by the Ministry of Statistics and Programme Implementation (or MoSPI) and the WPI-based inflation data is put together by the Department for Promotion of Industry and Internal Trade (or DPIIT). The WPI is dominated by the prices of manufactured goods while the CPI is dominated by the prices of food articles.

94. Which Ministry has launched the Polar Science and Cryosphere Research (PACER) scheme?

- a. Ministry of Earth science
- b. Ministry of Science and technology.
- c. Ministry of Environment, forest and climate change.
- d. None of the above

Answer - A

Explanation - Polar Science and Cryosphere Research (PACER) scheme is implemented successfully through National Centre for Polar and Ocean Research (NCPOR), an autonomous institute under the Ministry of Earth Sciences. The Polar Science and Cryosphere (PACER) scheme has been approved for continuation during 2021-2026.

95. Consider the following statements regarding Investment Clearance Cell (ICC):

- 1. It was announced in Budget 2020-21.
- 2. It will provide "end to end" facilitation and support to investors
- 3. It is envisioned as a one-stop shop for taking all the regulatory approvals.

Which of the above statements is/are correct?

- a. 1 and 2 only
- b. 1 and 3 only
- c. 2 only
- d. All of the above

Answer - D

Explanation - Setting up of an Investment Clearance Cell (ICC) was announced in the Budget 2020-21 with the objective to provide "end to end" facilitation and support to investors, including pre investment advisory, provide information related to land banks and facilitate clearances at Centre and State level. The cell was to operate through an online digital portal.

96. Consider the following statements regarding Hornbill Nest Adoption Program:

- 1. It was started in the year 2011.
 - 2. Through this, tribal villagers protect trees in forests around villages.
 - 3. It was launched by the State Government in partnership with a local NGO called Ghora-Aabhe.
- Which of the statements given above are correct?
- a. 1 and 2 only
 - b. 2 and 3 only
 - c. 1 and 3 only
 - d. 1, 2 and 3

Answer - D

Explanation - The Hornbill Nest Adoption Program of Arunachal Pradesh celebrates a decade of successful conservation of Hornbills. The Hornbill Nest adoption program is a community-based conservation initiative that was started in the year 2011. Through this, tribal villagers protect trees in forests around villages on the fringe of the Pakke Tiger Reserve in Arunachal Pradesh. The HNAP uses a unique model as it brings two sets of external protectors. It was launched as a partnership with a local NGO called Ghora-Aabhe and Arunachal Pradesh Forest Department.

97. Consider the following statements regarding the Sansad Ratna Awards 2022:

- 1. The Sansad Ratna Award ("Gem of Parliament ") was established in 2010.
- 2. The awards were instituted on the suggestion of former president late Pranab Mukherjee.
- 3. The awards aim to celebrate the success of outstanding parliamentarians.

Which of the statements given above are correct?

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

Answer - C

Explanation - Sansad Ratna Award ("Gem of Parliament") was established in 2010 by the Prime Point Foundation and E-magazine PreSense to honor top-performing members of the Indian Parliament. The Sansad Ratna Awards Committee was instituted in 2009 to promote the late President Doctor Abdul Kalam's vision to celebrate the success of outstanding parliamentarians.

98. The 'Papum Reserve Forest' is located in which state of India?

- a. Assam
- b. Arunachal Pradesh
- c. Meghalaya
- d. Tamil Nadu

Answer - B

Explanation - Papum Reserve Forest is geographically situated in the south west of East Kameng district in Arunachal Pradesh. It is surrounded by Itanagar Wildlife Sanctuary to the east and Pakke Wildlife Sanctuary to the west. It is a part of the Indo-Burma Biodiversity hotspot in India.

99. Consider the following statements regarding memory T-cells:

1. They are predominantly produced in the bone-marrow.
 2. They recognise foreign particles (antigen) by a surface expressed, highly variable, T cell receptor (TCR).
 3. T cells are involved in cell-mediated immunity.
- Which of the statements given above are correct?

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

Answer - B

Explanation - T cells (thymus cells) and B cells (bone marrow- or bursa-derived cells) are the major cellular components of the adaptive immune response. T cells are involved in cell-mediated immunity, whereas B cells are primarily responsible for humoral immunity (relating to antibodies). They recognise foreign particles (antigen) by a surface expressed, highly variable, T cell receptor (TCR).

100. Recently, which date is announced to be celebrated as 'National Dolphin Day' by the Environment Ministry?

- a. 5th October
- b. 5th April
- c. 28th March
- d. 6th October

Answer - A

Explanation - Environment Minister Bhupendra Yadav has announced that 5th of October will be celebrated as

National Dolphin Day every year to create awareness for the conservation of the species.

101. Consider the following statements regarding the City of Literature tag:

1. It comes under the aegis of UNICEF's creative cities network initiative.
2. In India, no city has been given the city of literature tag.
3. Edinburgh was the first city of literature in a network of creative cities.

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

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

Answer - B

Explanation - The City of Literature Tag comes under the aegis of UNESCO's creative cities network. The Network covers 7 creative fields: Crafts and Folk Arts, Media Arts, Film, Design, Gastronomy, Literature and Music. India does not have a single city of literature. Edinburgh was the first city of literature in UNESCO's network of creative cities.

102. Consider the following statements regarding UNESCO's tentative heritage list:

1. It is mandatory to place a monument on the tentative list for one year, before it is considered for the final nominations.
2. It is mandatory for member states to include the selected site in their own tentative list.
3. Meghalaya root bridges and the river island of Majuli are the only two sites in the tentative heritage list of North East India.

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

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

Answer - A

Explanation - In the UNESCO's tentative heritage list process, States Parties are encouraged to submit their Tentative Lists, properties which they consider to be cultural and natural heritage of outstanding universal value. It is mandatory to put any site on the Tentative

List for one year before it is considered for the final nominations. Nominations to the World Heritage List will not be considered unless the nominated property has already been included on the State Party's Tentative List. The tentative list in north east India includes: Apatani cultural landscape of Arunachal Pradesh, Garo hills conservation area of Meghalaya, Jingkieng jri, living root bridges, among others.

103. Consider the following statements regarding Walker Circulation:

1. It is caused by the low pressure system over the western Pacific Ocean, and a high pressure system over Indonesia.
2. It depicts the model of the air flow in the stratosphere, over the oceans, caused by differences in heat distribution.
3. During El Nino years, Walker circulations get weakened or reversed.

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

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

Answer - A

Explanation - The Walker circulation is caused by the pressure gradient force that results from a high pressure system over the eastern Pacific Ocean, and a low pressure system over Indonesia. It is a conceptual model of the air flow in the tropics in the lower atmosphere, troposphere. The normal low pressure system is replaced by a weak high in the western Pacific during El Nino years. This change in pressure pattern causes the trade winds to be reduced and also weakens the Walker Cell and at times might even get reversed.

104. Consider the following statements regarding the West African Monsoon (WAM):

1. The West African monsoon is the alternation of the south westerly wind and the harmattan at the surface.
2. Intensification of West African Monsoon (WAM) leads to lower rainfall over the western Indian Ocean and higher rainfall over the Amazon.

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

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

Answer - A

Explanation - The West African monsoon is the alternation of the southwesterly wind and the harmattan at the surface. The WAM always has had the potential of impacting the Indian monsoon system. Intensification of WAM leads to higher rainfall over the western Indian Ocean and lower rainfall over the Amazon.

105. Consider the following statements regarding BIMSTEC:

1. The BIMSTEC has seven member states lying in the littoral and adjacent area of the Indian Ocean.
2. It was established on 6 June 1997 through the Bangkok Declaration.
3. Kaladan Multimodal Project under BIMSTEC links India and Myanmar.

Which of the statements given above are correct?

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

Answer - B

Explanation - The Bay of Bengal Initiative on Multi-Sectoral Technical and Economy Corporation has seven member states, five coming from South Asia and two from Southeast Asia, lying in the littoral and adjacent areas of Bay of Bengal. The member countries are: India, Bangladesh, Bhutan, Nepal, Sri Lanka. Myanmar, Thailand. It was established on 6 June 1997 through the Bangkok Declaration.

106. Which of the following institutes are NOT a part of IndIGO consortium, which is an Indian initiative in Gravitational wave observation?

- a. Indian Institute of Science (IISc), Bangalore
- b. Institute of Plasma Research (IPR) Gandhinagar,
- c. Inter University Centre for Astronomy and Astrophysics (IUCAA), Pune
- d. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore.

Answer - A

Explanation - Indian initiative in Gravitational Wave Observation: IndIGO consortium: International collaboration between the LIGO Laboratory and three lead institutions: Institute of Plasma Research (IPR)

Gandhinagar, Inter University Centre for Astronomy and Astrophysics (IUCAA), Pune, Raja Ramanna Centre for Advanced Technology (RRCAT), Indore. Government of India accorded In-principle approval for Laser Interferometer Gravitational wave Observatory (LIGO)-India project at an estimated cost of Rs. 1260 crore, and Department of Atomic Energy sanctioned Rs. 75 crore for pre-investment activities.

107. Which of the following countries is the largest producer of Lithium in the world?

- a. Argentina
- b. Australia
- c. Chile
- d. China

Answer - B

Explanation - Australia was the largest lithium producer in 2021, according to the US Geological Survey, with an estimated output of 55,000 metric tonnes. Chile and China ranked second and third, with 26,000 and 14,000 metric tonnes, respectively. Australia primarily extracts the alkali metal from spodumene, a lithium bearing mineral.

108. Consider the following statements regarding IONS Maritime Exercise 2022:

- 1. It is the first edition of the exercise.
- 2. It is a Humanitarian Assistance and Disaster Relief (HADR)
- 3. All the members of Indian Ocean Naval Symposium (IONS) participated in the Exercise.

Which of the above statements are correct?

- a. 1 and 2 only
- b. 1 and 3 only
- c. 2 and 3 only
- d. All of the above

Answer - A

Explanation - The maiden edition of IMEX-22 was conducted at Goa and in the Arabian Sea from 26 – 30 Mar 22. The aim of the exercise was to enhance interoperability in Humanitarian Assistance and Disaster Relief (HADR) operations among member navies. The exercise witnessed participation of 15 out of the 25 member nations of IONS. IMEX – 22 comprised a Harbor Phase at Mormugao port, Goa from 26 to 27 March 22 followed by a Sea Phase in the Arabian Sea from 28 to 30 March 22.

109. Consider the following statements:

1. The scheme for preservation and development of cultural heritage of the Himalayas is carried out by the Ministry of culture in collaboration with the Ministry of human resource development.

2. It is carried out only in the Union Territories of Jammu & Kashmir, Ladakh and States of Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh.

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

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

Answer - B

Explanation - The Ministry of culture is the only ministry associated with the scheme. It is carried out for the purpose of promoting, protecting and preserving the cultural heritage. Implemented in the Himalayan region spreading in Union Territories of Jammu & Kashmir, Ladakh and States of Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh. Under this scheme, financial assistance is provided to the Voluntary Organizations including Colleges and Universities for study and research on cultural heritage, preservation of old manuscripts, etc.

110. Consider the following statements regarding Seagrass:

- 1. They are the only flowering plants which grow in marine environments.
- 2. Like terrestrial plants, seagrass also photosynthesise and manufacture their own food and release oxygen.
- 3. They occur all along the coastal areas of India and are abundant in the Palk Strait and Gulf of Mannar.

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

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

Answer - D

Explanation - Seagrasses are flowering plants that grow submerged in shallow marine waters like bays and lagoons. Like terrestrial plants, seagrass also photosynthesise and manufacture their own food and release oxygen. Seagrasses occur all along the coastal areas of India. They are abundant in the Palk Strait and

Gulf of Mannar in Tamil Nadu. Unlike terrestrial plants, however, they do not have strong stems to hold themselves up—instead they're supported by the buoyancy of the water that surrounds them.

111. Consider the following statements with respect to Integrated Power Development Scheme (IPDS):

1. The main objective of the scheme is to ensure 24 x 7 power supplies for consumers in urban areas and to reduce AT&C losses.
2. The scheme was launched by the Ministry of Power.
3. Power Finance Corporation (PFC) is the nodal agency appointed for the implementation of IPDS.

Which of the statements given above are correct?

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

Answer - D

Explanation - The scheme covers urban areas under distribution utilities in India. The objective of the scheme is to ensure - 24x7 power supplies for consumers in urban areas, reduction of AT&C losses as per trajectory (discom-wise) finalized by the Ministry of Power in consultation with States. Power Finance Corporation (PFC) is the Nodal Agency appointed by GoI for IPDS.

112. Consider the following statements with respect to Hindu Adoptions and Maintenance Act, 1956:

1. As per the act, a Hindu does not merely mean a person that follows Hinduism but also includes Virashaiva, Lingayat, or a follower of the Brahmo, Prarthana or Arya Samaj.
2. Under the act, an unmarried daughter can claim the expenses of marriage from her parents.

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

Answer - C

Explanation - The Act deals with the legal procedure of adoption of children by Hindu and other legal obligations that follow, including maintenance of children, wife, and in-laws. It applies to any person, who is a

Hindu by religion in any of its forms or developments, including a Virashaiva, a Lingayat or a follower of the Brahmo, Prarthana or Arya Samaj, and Buddhist, Jaina or Sikh by religion.

113. Consider the following statements:

1. It is one of the World Heritage Site and it appear as a prolongation of the Horn of Africa.
2. The site is of universal importance because of its biodiversity with rich and distinct flora and fauna.
3. It is also known as the 'Galapagos of the Indian Ocean'.

Identify the correct site from the options given below.

- a. Pamban Island
- b. Socotra Archipelago
- c. Chagos Archipelago
- d. Greater Sunda Islands

Answer - B

Explanation - Socotra Archipelago, in the northwest Indian Ocean near the Gulf of Aden, is 250 km long and comprises four islands and two rocky islets which appear as a prolongation of the Horn of Africa. The site is of universal importance because of its biodiversity with rich and distinct flora and fauna: 37% of Socotra's 825 plant species, 90% of its reptile species and 95% of its land snail species do not occur anywhere else in the world.

114. Which of the following best describes the term "arribada", sometimes seen in the news recently?

- a. It refers to the mass nesting behavior exhibited by Kemp's Ridley and Olive Ridley sea turtles
- b. It refers to the practice of commemorating the landing of first Europeans in the state of Kerala.
- c. It is a harvesting festival celebrated by the Khasi tribes of Meghalaya
- d. None of the above

Answer - A

Explanation - It is a Spanish word meaning "arrival by sea". It refers to the mass nesting behavior exhibited by Kemp's Ridley and Olive Ridley sea turtles. There are two mass nesting sites for Olive Ridley turtles in Odisha — the Gahirmatha Marine Sanctuary and the Rushikulya coast.

115. Consider the following statements with respect to Butterfly tags:

1. They are a wide band of machine-belt fitted with a small radio transmitter and battery.
 2. Each tag will have a unique code and it will help track the origins of the tagged butterflies if they are recaptured.
- 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

Answer - B

Explanation - Hundreds of *Danainae* butterflies, also known as milkweed butterflies, have been tagged by a group of butterfly enthusiasts in Wayanad to track their migratory movement towards the eastern side of south India from the Western Ghats. Butterfly tags are tiny stickers attached to the underside of one of the hind wings. Each tag will have a unique code. These codes will help track the origins of the tagged butterflies if they are recaptured.