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MONTHLY MAINSTORMING

MARCH
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MONTHLY MAINSTORMING

MARCH 2022

G.S PAPER I

1. HISTORY

V.D.Savarkar, a freedom fighter, believed in an Indian society that is free of untouchability and injustice. Explain

KEY POINTS

- Savarkar refused to accept the evil practices of Hinduism
- He had imagined a nation free of malevolent social evils such as caste cruelty, untouchability, and injustice towards women.
- He wanted to uproot the diversity of the caste system and build a nation based on Hindu unity, where Dalits could live with dignity and happiness.
- In his essay, “Seven Shackles of the Hindu Society”, published in 1931, Savarkar wrote that using heredity as a determinant of talent and intellect was wrong and that an individual’s character and conduct was shaped by his environment.
- He spoke out against scriptural injunctions that advocated caste, such as the Manusmriti. According to Savarkar, these scriptures are often the tools of those in power, used to control social structure and maintain their supremacy.
- He built the Patit Pavan Mandir in Ratnagiri district which allowed entry to all Hindus, including Dalits, in order to demonstrate that castelessness is possible.
- Savarkar was deeply moved and inspired by human values. He should be remembered as a man of vision, a freedom fighter, social reformer, writer, poet, historian, political leader, and philosopher who believed in an Indian society that is free of untouchability and injustice.

2. SOCIETY

It is the need of the hour for more women to be elected to legislative bodies and hold decision-making positions in political parties. Substantiate

KEY POINTS

- Despite the many horrors we have witnessed since the Covid-19 pandemic began, there have been some positive developments, the most pertinent being the growing role of women in strengthening the political and civic life of democracy in South Asia.
- While women have played very visible and important roles at the higher echelons of power and at the grassroots level in social movements, they have been under-represented in political parties as officials and as members of key decision-making bodies.

- In electoral representation, India, for instance, has fallen several places in the Inter-Parliamentary Union's global ranking of women's parliamentary presence, from 117 after the 2014 election to 143 as of January 2020.
- However, there are two main points to be noted here. In India, women currently make up 14.6 per cent of MPs (78 MPs) in the Lok Sabha, which is a historic high.
- The growing turnout of women voters could influence political parties' programmatic priorities and improve their responsiveness to women voters' interests, preferences, and concerns, including sexual harassment and gender-based violence.
- However, the strength of civil society initiatives is not entirely dependent on the strength of political institutions — a case in point would be the Aurat marches in Pakistan.

Financial inclusion of women has a key role to play in bringing about gender equality in society. Examine

KEY POINTS

- Despite all the progress made towards accomplishing gender parity, the gender gap remains and is observed in various forms in almost all professions world wide.
- According to the UNESCO's eAtlas of Gender Inequality in Education, globally, about 10 per cent of all girls roughly between 6 and 11 years are denied the right to education, compared to eight per cent of all boys.
- If the current trend continues, almost 16 million girls between 6 and 11 years will never get an opportunity to attend a primary school compared to about 8 million boys.
- Since women lack financial independence, it is difficult for the credit information bureaus to prepare financial history of women which restricts financial institutions from lending to women.
- Another noteworthy effort is the introduction of the Aadhaar card. The government's launching of exclusive bank accounts for girl children, e.g., Sukanya Samriddhi Yojana is equally laudable. Some banks even offer concessional rate of interest for housing and education loans availed of by women.
- Banks should hold special campaigns for opening accounts for women. Postmen who make door-to-door must be tapped for spreading awareness about opening accounts by women with Post Offices and also motivate them.

3. POLITY

The discretionary space available to the governor is influencing the parliamentary form of government at the state level in various ways. Discuss

KEY POINTS

- 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 also illustratively listed.
- While as the ‘lynchpin’ of the constitutional apparatus, Governors indeed have a duty to defend the Constitution and encourage or caution the elected regime.
- 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.
- Regarding Bills, it is clear that the Constituent Assembly passed the provision for Governors to return Bills for reconsideration only on the express assurance that they have no discretion at all.
- 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.

4. GOVERNANCE

The flexibility provided in All India Service rules is expected to improve the governance in the country. Do you agree with this view? Comment

KEY POINTS

- After its proposal to amend the All India Service Rules that would allow it to call any IAS, IPS or IFoS officer on central deputation with or without the state’s consent.
- Sources in the Ministry of Home Affairs (MHA) said the move is aimed at increasing the pool of DIG-level IPS officers for central deputation in the backdrop of massive vacancies.
- “Because the number of DIGs is high, the empanelment process had become cumbersome and it was taking as long as one year to just complete the process,” an official said.
- Centre would have powers to demand, within a stipulated time frame, a certain quota of officers from the state for central deputation, and also to call any IAS officer on central deputation in “public interest”.
- The anomaly in IPS recruitment adversely affected cadre management over the years. At some levels, there are fewer officers than sanctioned posts, while at others there is a glut.
- CAPF officers, themselves facing career stagnation, have been demanding removal of the DIG-level quota for IPS officers as they are unwilling to join, so that force cadre officers can instead fill these posts.

Do you think that eradicating bribes will attract foreign direct investment for India? Analyse

KEY POINTS

- Businesses have an amoral view towards bribery and tend to treat bribes as a cost of doing business.
- The US' Foreign Corrupt Practices Act imposes penalty on firms who make bribery payments overseas for business purposes.
- Although enacted in 1977, vigorous enforcement really picked up after about 2015. This has proven to be a challenge for multinational enterprises who follow the rules of their home country and also try to conform to host country practices.
- Ministers may love the talk of wanting a clean environment but enjoy the 'commissions' they skim off the top.
- The study also supports the argument made by US companies that the FCPA puts them at a competitive disadvantage vis-a-vis other countries that don't enforce such rules against their companies.
- For many countries climbing up the rankings of World Bank's 'Ease of Doing Business' was an incentive to clean up their act and fix obvious problems that were a deterrent to foreign investors.
- studies like the one discussed here will be a good substitute to motivate governments that they cannot stick merely to tax incentives and public relations if they want to encourage foreign direct investments.

Indian Legislative Service can help strengthen the many legislative bodies, from the panchayat level to Parliament. Elaborate

KEY POINTS

- Article 98 of the Constitution provides the scope of separate secretariats for the two Houses of Parliament. The principle, hence, laid in the Article is that the secretariats should be independent of the executive government.
- When civil servants are hired to the post of Secretary-General, this not only dishonours the purpose of ensuring the independence of the Secretariat but also leads to a conflict of interests.
- It breaches the principle of separation of power. The officials mandated with exercising one area of power may not expect to exercise the others.
- A strong Parliament means a more answerable executive. However, the bureaucracy persistently does not allow Parliament to be a competent and robust legislative institution.
- There are thousands of legislative bodies in India, ranging from the panchayat, block panchayat, zila parishad, municipal corporations to State legislatures and Union Parliament at the national level.
- Despite these mammoth law-making bodies, they lack their own common public recruiting and training agency at the national level.
- The growth of modern government and expansion of governmental activities require a matching development and laborious legislative exercise.
- Creating a common all-India service cadre an Indian Legislative Service is a must. A common service can build a combined and experienced legislative staff cadre, enabling them to serve from across local bodies to Union Parliament.

5. GOVERNMENT POLICIES

Despite having better self-reliant defense policy, systemic issues need to be addressed effectively by the Ministry of Defense. Explain

KEY POINTS

- The prime minister recently highlighted the many challenges attached to defence import as he exhorted Indian industry to work towards atmanirbharta in defence production.
- Although the soundness of complete self-reliance, especially in a technology-heavy sector such as defence equipment, is debatable, even the staunchest critics of such an approach wouldn't deny the importance of domestic capacity.
- This is more so in a context like India's dependence on supply from Russia forcing its hand in not taking a more forceful stand on the war against Ukraine.
- The Defence Acquisition Policy (DAP) 2020 and the draft Defence Production and Export Policy (DDEP) 2020 were designed to enthuse industry.
- DAP 2020 pushed up the indigenous content requirement for various procurement categories while the DDEP aims to grow procurement from domestic players, public sector and private, from Rs 80,000 crore in FY20 to Rs 140,000 crore by 2025.
- A few pain points need addressing. Domestic procurement has to be robust and long-running. The government has been maladroit here, best illustrated by the case of L&T's gun manufacturing concern flagging order-book issues last year this looks to have been somewhat resolved.
- Procurement is beset by systemic and external delays, something that DDEP acknowledges and talks about tackling. However, whether these can be resolved soon remains to be seen.

Government of India needs to frame a robust public policy to improve the governance in the domain of geriatric care. Explain

KEY POINTS

- As India becomes increasingly urbanised and families break up into smaller units, homes for the elderly have sprung up.
- The care of elderly people is managed by a set of professionals or voluntary organisations interested in geriatric services. The number of such care homes is rising rapidly in urban and semi-urban India.
- The UN World Population Ageing Report notes that India's ageing population (those aged 60 and above) is projected to increase to nearly 20% by 2050 from about 8% now.
- By 2050, the percentage of elderly people will increase by 326%, with those aged 80 years and above set to increase by 700%, making them the fastest-growing age group in India.
- The state of homes for the elderly today offers us some low-hanging fruit we can address easily: build formal pathways for basic health screening between such homes and public health facilities.
- Homes for the elderly must be guided, again by policy, to make their facilities, buildings and social environment elderly- and disabled-friendly.
- Design, architecture and civic facilities must be thought from the ground up and these innovations must be available for all residents, not just those living in expensive ones.

Considering that land monetisation is a complex process, entrusting this work to a separate agency is the right way to go about it. Discuss

KEY POINTS

- Union cabinet approved the creation of a National Land Monetisation Corporation to monetise the surplus land holdings of Central Public Sector Enterprises (CPSEs) and other government agencies.
- Public sector entities hold vast tracts of land that are either unused and underused land. As per reports, the total vacant land available with Railways is estimated at around 1.25 lakh acres.
- Proceeds from the monetisation of these assets will help generate additional resources, boosting government coffers. After all, land in and around prime areas can possibly generate substantial returns.
- A separate entity, housed with professionals with specialised skills is better suited for this task. However, the entity will have to grapple with several issues. First, the estimation of surplus land may be a contentious issue. Ministries, departments, and public sector entities may be reluctant to demarcate land parcels as “surplus”.
- Second, the corporation will have to grapple with issues such as the absence of clear titles, ongoing litigation, and muted investor interest.
- But while this monetisation drive should lead to more efficient outcomes, it does raise questions over the management of commons, and whether public purpose can be better looked after by more effective management of public land by the state.

Do you think that the country should adopt the policy of comprehensive data localization? Critically examine

KEY POINTS

- The JPC report has also recommended formulation of a comprehensive data localisation policy.
- It gives a flavour of retrospectivity to the provision, and has recommended that concrete steps be taken by the government to ensure that a mirror copy of the sensitive personal data (SPD) and critical personal data (CPD) already with foreign entities be mandatorily brought to India timely.
- Under Clause 33, the 2021 Bill specifies that SPD may be transferred outside India subject to fulfilment of certain conditions; however, they will be stored in India itself. CPD can be processed only in India, however, the term still awaits definition.
- The primary argument against data localisation is that it will increase cost of business. According to a report from the Leviathan Security Group, data localisation procedures increase the cost of hosting data by 30-60% at the business level.
- The 2018 Justice Srikrishna Committee Report emphasised harnessing of data and propelling the growth of AI and technology through localisation of data.
- While sectoral regulators like RBI have mandated it, the arguments from both camps deserve consideration. It will be interesting to see how the government accommodates their concerns as well as the industry's interests.

The Centre must look to transition urea to a Direct Benefit Transfer regime that reimburses small farmers for their actual fertiliser use. Explain

KEY POINTS

- The Centre's move to usher in a 'One Nation One Fertiliser' regime, wherein all fertiliser manufacturers will be required to sell their products under a single 'Bharat' brand, appears not well thought through just as it will also be tough to implement.
- With almost every aspect of fertiliser manufacturing controlled by the government, the sector already has very few private players who have survived the vicissitudes of whimsical policy-making.
- Under the New Investment Policy 2012, urea units can be set up with the government providing subsidy support to manufacturers based on production costs plus a 12 per cent assured return on equity.
- With selling prices capped and every aspect of operations from product pricing to cost structure to geographical distribution and sales micromanaged by the government, urea manufacturing is already a highly unattractive business for any profit-oriented player to be in.
- For the Centre to reap material savings in its subsidy bill, a far simpler solution exists. It can deliver the subsidy directly to farmers, decontrol urea, and leave the pricing to market forces.
- With Direct Benefit Transfers now established as a workable way to deliver leakage-proof subsidies to targeted beneficiaries, the Centre must look to transition urea to a DBT regime that reimburses small farmers for their actual fertiliser use.

The Atal Bhujal Yojana is a step in the right direction for groundwater mapping and management and its effective conservation. Explain

KEY POINTS

- In India, out of available water resources of 1,123 billion cubic meter (bcm), 433 bcm comes from groundwater and the remaining from surface water.
- Groundwater is the main source of domestic water supply for both rural and urban areas as more than 80 per cent of supply is sourced through it, making the country the largest user of groundwater in the world.
- The agriculture sector uses 89 per cent of the groundwater for irrigation while 11 percent is used by the domestic and industrial sectors.
- Groundwater also plays a significant role in regulating the economy of our cities. According to a study by The Energy and Resources Institute (TERI), as much as a third of the GDP of cities like Lucknow is directly dependent on groundwater.
- By 2030, the country's water demand is projected to be twice the available supply, implying severe water scarcity for hundreds of millions of people and an eventual about 6 per cent loss in the country's GDP.
- According to a report by NITI Aayog, if methods for water conservation in India were not adopted, around 20 cities including Bengaluru, Delhi and Hyderabad would run out of groundwater in the next few years.
- Thus, rainwater harvesting and artificial groundwater recharge need to be adopted in a mission mode, across the country.

The rationale of priority sector lending deserves a comprehensive review. Do you agree with this view? Comment

KEY POINTS

- In our country, traditional methods of financing have by and large delivered, and will continue to play a role; but we need to recognise that they are inefficient systemically.
- Warehouse receipt financing works on the basis of goods brought into an accredited warehouse for which the warehouse-keeper issues a receipt of storage, indicating quantity, quality and other parameters.
- India's priority sector lending policy has the right intention of supporting the sections that are critical for the economy but are generally vulnerable and deserve support. Such sections include farmers, exporters and micro, small and medium enterprises.
- The OECD countries spend as much as \$500 billion annually on 'farm support', a euphemism for subsidy. Of this, \$80-90 billion is spent on what is described as 'general services' which cover farm research and development, agri infrastructure and innovation systems, quality inspection, control and certification, market development, bio-security, and so on. The expenditure is crop neutral.
- The government has no doubt created the Agriculture Infrastructure Development Fund (AIDF), but the nation needs to get a report card of its progress.
- Lending institutions must demonstrate a moral duty towards the society and environment protection. The rationale of priority sector lending deserves a review.

The significance of Pradhan Mantri Garib Kalyan Yojana should be seen as a safety net during critical emergency situations. Explain

KEY POINTS

- The extension of the Pradhan Mantri Garib Kalyan Yojana (PMGKY) by another six months this year, is a well thought out move under the circumstances, as the need for a safety net cannot be brushed aside.
- The PMGKY entitles 80 crore beneficiaries under the National Food Security Act to an additional five kilograms of foodgrain, apart from an equal entitlement under the NFSA, 2013.
- However, the spurt in commodity inflation in the wake of the Ukraine war can hurt growth (now pegged at 7.8 per cent for FY23 by the Reserve Bank of India), and with it incomes and purchasing power.
- With a distribution of about eight million tonnes per month under PMGKY and NFHS (80 crore beneficiaries getting 10 kg of grain per capita per month), the stocks could come down closer to the stipulated levels.
- Hence, a crop procurement system that acts as a price stabiliser, supplemented by a robust agri-marketing infrastructure as envisaged by the repealed farm laws, is the way forward.
- India's food management should be nuanced and nimble, combining private and government efforts. For now, India should take a considered view on its wheat and rice export targets for FY23 in view of the prevailing uncertainties.

Discuss the various ways that can help in managing the litigation risks and costs in a better way.

KEY POINTS

- Apart from the inherent bureaucratic deficiencies, the government has to contend with periodic transfer and change of guard at all levels of its functioning.

- The highlight of the Tamil Nadu government initiative is the appointment of expert lawyers to serve as a team and put in place a robust system to remove the personal element as much as possible.
- The downside of this approach is that issues which are below the threshold will be taken up in litigation, as no officer at any level has the guts to put a lid on litigation even if the matter is evidently weak.
- In 2010, the Centre had brought out a national litigation policy and the document is quite comprehensive.
- It deals with how the government should be a responsible litigant and pursue alternative dispute resolution mechanisms before approaching courts.
- The Finance Commission had earmarked specific funds for efficient litigation management, and to become eligible for this, each State had to have a policy in place; Tamil Nadu had brought out its litigation policy in 2012.
- It is essential that the committee should put out in the public domain what it can be held accountable for over, say, two years from its convening, and provide a six-monthly update.

6. EDUCATION

As India makes significant strides in science and technology, a holistic and multidisciplinary approach is critical in STEM education. Explain

KEY POINTS

- India contributes 31.7 per cent of the total STEM graduates in the world, and has one of the world's largest STEM job markets.
- The country is also the third largest unicorn hub and is steadily scaling the Global Innovation Index.
- As innovation in the field of education goes through a radical change with more Indians becoming innovators rather than consumers.
- According to the National Science Foundation, it is estimated that 80 per cent of the jobs created in the next decade will require some form of math and science skills, and India's young workforce must be adept for this eventuality.
- While there is enough and more evidence to suggest that students equipped with strong STEM skills have a wider range of opportunities, resources and equipment for STEM learning are expensive, and difficult to source, especially in non-urban areas.
- This could revolutionise the STEM education system in India and create experiences that are critically important for sparking interest in science education, especially for students in under-resourced, underserved areas.
- The true democratisation of STEM education will not only empower learners to shape the workforce of tomorrow but also lead to unseen advancements in India's STEM education sector.

7. INTERNATIONAL RELATIONS

India must prepare itself to handle the inevitable inflation triggered by the crisis in Ukraine. Explain

KEY POINTS

- As the conflict between Russia and Ukraine escalates, prices in the economy are beginning to surge, creating several challenges for policy makers.
- With Russia being the world's largest exporter of gas and the second largest crude oil exporter, markets have a reason to be worried, though sanctions have not been imposed on fuel purchases from Russia.
- India's problems are compounded by rupee depreciation, increasing the cost of imported crude oil.
- Ukraine and Russia account for almost 90 per cent of India's imports of sunflower oil. The use of palm oil and canola as biodiesel has also made prices surge as search for crude oil alternatives grows.
- The price increase will impact consumption and investment, if it is prolonged. But the immediate concern of the RBI and the Centre is the widening current account deficit as the value of imported goods, especially oil surges.
- Rising prices can have a serious impact on growth and the RBI will need to take corrective action. Even as the spike in inflation is driven by supply-side factors, a rate hike can buttress the rupee and help stem foreign portfolio outflows.

There is a need to push for a collective agreement to curb Iran's nuclear programme to take the country into the global economic mainstream. Discuss

KEY POINTS

- The Vienna talks aimed at reviving the Joint Comprehensive Plan of Action (JCPOA), also known as the Iran nuclear deal, have hit a wall after Russia sought sanctions exemptions for its future trade and defence ties with Iran.
- But Russia, which has been slapped with a barrage of sanctions by the United States and its allies over the Ukraine invasion, seeks written guarantees that those curbs would not "in any way harm" its ties with Iran.
- Removing sanctions on Iran and letting Iran's oil enter the global market could also ease oil and gas prices, which shot up after the Russian attack on Ukraine.
- Under the agreement, Russia is also required to take control of Iran's excess enriched uranium and work with Tehran to turn its Fordow nuclear plant into a research facility.
- While the Iranians have publicly said they would not allow any "external factors" to impact their national interests, Tehran is unlikely to ignore the sensitivity of Russia, an ally, and reach an agreement with the U.S., whose exit scuttled the original deal.
- They should continue to push for a collective agreement that could curb Iran's nuclear programme and take the country into the global economic mainstream.

What are the lessons that quadrilateral group can learn from blunders of North Atlantic Treaty Organization? Discuss

KEY POINTS

- What should have brought Putin to the notice of the West were his first two achievements the stabilisation and increase in oil production and export that hugely increased the Russian GDP, and secondly, his successful suppression of the Chechnya revolt.
- There is no doubt that Russia will eventually withdraw from some conquered territory and also that Moscow and the Russian people will suffer financial consequences but a big question will remain:
- The Indo-Pacific is not continental Europe. War in the Indo-Pacific will be a maritime war fought in accordance with maritime strategy and space assets. The rules of engagement are vastly different.
- Each member of the Quad has a different enmity with China. India sees it as an obstructionist, aggressive, land grabbing competitor, the US sees it as an ideological and hegemonistic competitor.
- India's force of P-81s is substantial and with the help of Australia, a maritime domain awareness can be built up that denies the PLA navy the chance to hide in the vastness of the ocean.
- It would be useful to establish an Indo-Pacific situation plot at Visakhapatnam, backed by an elite naval staff, to watch the transformation of China from a regional power into a world-class navy.

There is a need for governments' proactive support in South Asia to become a major player in the global textiles. Discuss

KEY POINTS

- South Asia became a major player in the global textiles and clothing market with the onset of the third wave of global production. Bangladesh joined the league in the 1980s, owing to the outbreak of the civil war in Sri Lanka.
- Lower production costs and free trade agreements with western buyers are what favour Bangladesh, which falls third in the line as a global exporter.
- India's exports later witnessed a larger volume of business, following a 0.8% dip in 2019.
- The integration of skilling and technological investments will play a vital role in phasing out obsolete jobs, and adapting to new ones. It is imperative to ensure living wages and ease of access to education.
- Tax exemptions or reductions in imported technology, accessibility to financial incentives, maintaining political stability and establishing good trade relations are some of the fundamental forms of support the industry needs from governments.
- India's proposed investments of US\$1.4 billion and the establishment of all-in-one textile parks are expected to increase employment and ease of trade.
- Cotton product dependency and a focus on only major export destinations may diminish the market scope for South Asia. Diversification with respect to technology, the product basket and the client base are to be noted.

India should help Sri Lanka during the crisis and also resolve some of the bilateral issues. Explain

KEY POINTS

- Sri Lanka is facing an economic crisis with long queues in front of petrol stations, steep rise in prices of essential commodities and frequent blackouts.

- Although the COVID-19 pandemic precipitated a crisis of trade imbalance, the fundamentals of the Sri Lankan economy have always had serious issues. Debt, both domestic and foreign, has been a major problem.
- Over the last three months, India has provided assistance of \$2.4 billion including a \$500 million loan deferment and \$1 billion credit line to enable the supply of essential commodities.
- Apart from approaching Beijing, Colombo has also sought help from the International Monetary Fund, shedding its earlier reservation of taking help from the agency.
- Compulsions of electoral politics should not come in the way of tough measures such as restructuring the administration of concessions and subsidies.
- Perhaps, Tamil Nadu has already started feeling the impact of the crisis with the reported arrival of 16 persons from Sri Lanka, including six women and seven children, through illegal means.
- On the contrary, the crisis should be used as an opportunity for New Delhi and Colombo to thrash out a solution to the Palk Bay fisheries dispute, a longstanding irritant in bilateral ties.

Foreign policy must make a remarkable difference in attaining the desired goals in varied dimensions. Examine

KEY POINTS

- Foreign policy being the link to the outside, it should enable us to draw what we seek. This could be in terms of technology or capital, best practices, or even work opportunities.
- When it comes to security, external or internal, diplomacy could be a preventive, a mitigator or a problem-solver.
- It can help raise awareness of a shared threat, just as it can find partners against common dangers. So, if you are a soldier guarding our frontiers or a policeman grappling with terrorism, a good foreign policy makes your life a little safer.
- But also think for a moment how much the big issues of our times – pandemics, terrorism, climate change – impact your very existence.
- In Asia, all modernising economies have single-mindedly focused their external interactions on obtaining capital, technology and best practices from abroad.
- Newer challenges like green growth and climate action have started to open up still more possibilities. All this happens because of our ability to identify, engage, negotiate and leverage opportunities of interest abroad across many many domains.
- A stronger and more capable India one that is truer to its roots and culture is a key factor in the larger rebalancing that characterises our contemporary world.

The coming BIMSTEC summit is going to be an opportunity to build a new economic foundation for the Bay of Bengal region. Explain

KEY POINTS

- BIMSTEC brings together 1.67 billion people and a combined GDP of \$2.88 trillion. No other region can match the BIMSTEC in terms of its resources, and the seven member-states share strong civilisational links and cultural bonds.

- The region has been facing challenges in terms of rise in poverty and inequality, more due to the Covid-19 pandemic, climate change vulnerabilities and shocks, several non-traditional security threats and, more importantly, a regional integration dilemma.
- The regional grouping has made excellent progress on some fronts, but they remain half-done. For example, member-countries have ratified the BIMSTEC energy grid inter-connectivity.
- BIMSTEC requires seamless sustainable multi-modal transport links and must promote synergy with other connectivity frameworks such as the ASEAN Master Plan on Connectivity 2025.
- The foundation of BIMSTEC's economic growth has been the rules-based open multilateral trading system. Leaders must pledge to bring the BIMSTEC FTA to a successful conclusion. Along with it, intra-regional FDI is a must if we want to facilitate the regional and global value chains.
- BIMSTEC is the golden heartland of Asia. The coming BIMSTEC summit is going to be an opportunity to build a new economic foundation for the Bay of Bengal region that harnesses our collective strength and shared culture.

G.S PAPER - III

8. ECONOMY

There is a need to provide constitutional status to Reserve Bank of India. Do you agree with this view? Comment

KEY POINTS

- The National Stock Exchange (NSE) co-location saga is the latest in a series of scams that have rocked the Indian financial sector recently.
- The constitution-created regulators are independent (usually), whereas those in the second and third categories can be easily undermined by the ministers and the bureaucrats.
- The solution is the government granting constitutional status to the financial regulators. While one is not aware of constitutional status being accorded to capital market regulators elsewhere, there are several cases of central banks being given constitutional status.
- Interestingly, India is on the list of the 22 nations with constitutions. In our Constitution, RBI finds a place only once as Entry 38 of List 1 of Schedule VII, which allocates powers between the Union and the states.
- The unravelling financial scams in India and inability of financial regulators to address these should prompt a rethink, and a possible redesign, of the regulatory space.
- There is also an interesting connection between India's Constitution and its central bank. BR Ambedkar, the architect of the Indian Constitution, had studied Indian currency and debated establishing a central bank in his second doctoral dissertation.
- From his heavenly abode, Ambedkar must have noted how some constitutions discuss the role of their central banks in detail.

India's ongoing trade negotiations must consider whether the deals will strengthen imports into the country or incentivize inflow of investment. Discuss

KEY POINTS

- While the concession details under the CEPA are awaited, India is actively engaged in other discussions on trade deals, prominent amongst them being the ones with UK, USA, and EU.
- It is noteworthy that India has significant trade deficits with three of the aforementioned regions. Another factor to note is that three of these regions have significant manufacturing capacity and investment in their own territories.
- Trade agreements and PLIs: In the past two years, the government has launched incentive schemes wherein based on a threshold level of capital investment and incremental production, subsidies are to be given to approved applicants.
- The proposition could become even more attractive if it is combined with certain pre-existing special governmental schemes that reduce costs and conserve cash flow.
- Trade governance: PTAs are governed by written agreements between nation states or groups of nation states and domestic laws of the signatories. However, the enforcement of the commitments thereunder, depends on the extent to which the parties honour them.

It is expected that a holistic view, keeping in mind the government's schemes on investment and trade governance, would inform future negotiations as well as review of existing trade agreements of India.

Discuss the various impacts of land resource management measures and initiatives on the Indian Economy.

KEY POINTS

- 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.
- Most states now use computerised land records for e-procurement. While transactional efficiencies are evident, there are other benefits as well.
- The budget speech included three land governance initiatives. It is apparent that the initiatives are technological at their core. It is the most pragmatic way of implementing central schemes in the states.
- The Unique Land Parcel Identification Number (ULPIN). In plain language, this is an Aadhaar-like identification for a land parcel or plot. Each land parcel or plot is assigned a unique identification number.
- The land-farmer relationship will be strengthened and authenticated. 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.
- the National Generic Document Registry System (NGDRS) One Nation One Registration Software System is undoubtedly a major initiative for urban property registration.
- Since the processes are online, there is a higher degree of transparency in the transaction of these properties which reduces disputes and fraudulent transactions as well.

National board for Financing Infrastructure Development needs to stick to the basics of sound governance to fulfill its role effectively. Explain

KEY POINTS

- The National Bank for Financing Infrastructure and Development (NabFID), headed by veteran banker KV Kamath, is set to commence operations from next month.
- Its task is cut out: to be the overarching player in funding 7,000 projects worth Rs 111 lakh crore in the National Infrastructure Pipeline over the next few years.
- The infra lending sources of the post-universal DFI era banks, sector-specific DFIs, private NBFCs and other sources such as equity capital and internal reserves of companies have fallen short in qualitative and quantitative terms.
- NabFID is likely to source finance at concessional rates, not least because the RBI will open a window for infra lending a return to the past.
- This had been discontinued on the recommendation of the Narasimham Committee which had called for a level playing field between DFIs and other players.
- For NabFID to vindicate its existence, it should learn from the past. The erstwhile DFIs, such as IFCI and IDBI, were seen to be hand-in-glove with corrupt managements, instead of being objective lenders and investors at the same time.
- The IBC provides a ready tool to sack incumbent managements. A now-consolidated banking system can provide a source of inexpensive capital, without much asset-liability mismatch.
- NabFID is supposed to act as a coordinating body. It can synergise the lending and execution of projects.

With the funding environment now turning challenging, Indian start-ups will have to concentrate on delivering best services for sustained growth. Discuss

KEY POINTS

- The perceptible slowdown in private equity and venture capital investments into Indian companies since the beginning of this calendar year should serve as a reality check for entrepreneurs who seem to have taken foreign capital for granted.
- The long-term shifts in adoption of digital products in the country during the pandemic had led to a burst of innovation and heightened fund-raising activity.
- Unnecessary diversifications into multiple micro-markets in order to show business growth, lack of product innovation resulting in me-too product offerings and padding numbers to show higher customer acquisition numbers are other common issues with the start-ups soliciting funding.

- Further, episodes such as the recent one of alleged fraud in a high profile payments start-up raises questions regarding governance risk in some of these companies.
- Stock market regulator, SEBI, needs to ensure that investor trust in these start-ups is not lost since stock markets are an important channel for providing funding to these companies.
- The regulator should push through with its proposal to make start-ups disclose the basis of valuations used in pre-IPO funding rounds and during the IPO.
- In the absence of profitability track-record, it becomes very difficult for investors to value these companies. Regulators should also ensure that these companies comply with the governance requirements so that investor interests are protected.

If the post offices in the country can act as e-commerce facilitators, it could have multiplier effects on the Indian economy. Discuss

KEY POINTS

- The Indian Postal Department has played a crucial role in the communication system of the country ever since the establishment of the first post office in Kolkata in 1727.
- However, the significance of post offices in communication has been drastically diminishing due to changes in the mode of communication.
- Post offices can play a critical role in bridging one of the crucial barriers faced by start-ups and MSMEs, that is, the absence of a free online platform and efficient and affordable courier service provider to enter into online trading.
- The post office can enter into e-commerce in two ways: by expanding shipping and delivery service appropriately; and through maintaining an online platform for trading various products as Amazon and Flipkart do now.
- Due to its local level reach, post offices can readily handle many services offered by rural workers or the people with less knowledge in using modern technology. For example, there's a demand-supply mismatch for jobs like coconut tree climbing, tree cutting, painting, and so on. Addressing this would benefit both the customers and the job providers.
- A public sector online platform may further induce private investment, especially from the large number of MSMEs and start-ups. Such a move will have a multiplier effect.

A micro-credit push by banking sector will be another step towards welfare for those at the bottom of the pyramid. Elaborate

KEY POINTS

- The RBI's move to almost treble/double the family income limit for rural and urban households for their loans to be classified as priority sector micro-credit and make loans purpose-neutral is the most important aspect of this announcement.
- Banks have not been lending micro loans directly except under the umbrella of the Livelihood Mission group loans or through on-lending by MFIs because the ticket-sizes were too small.

- The latest announcement is essentially aimed at making micro-loan norms simple and straightforward. It has also stipulated that the repayment load of a household should not exceed 50 per cent of the income, which is a deterrent to over-indebtedness.
- While small loans do support people build livelihoods if they run micro/small/village-level enterprises, there is no conclusive evidence yet that micro credit by itself can lead to poverty reduction.
- The selection of beneficiaries is of utmost relevance. Creation of incremental income either directly or indirectly and incremental debt-servicing capacity should be the yardstick while extending credit.
- Micro loans can also go for conventional “non-productive” purposes as even they have positive economic consequences. For instance, indirect surplus-value generation out of micro loans can happen when the loan is used.
- A micro-credit push will be another step towards ‘Antyodaya’ — welfare for those at the bottom of the pyramid.

Alternative investment funds solve the supply-side of mainstream investing by creating companies of scale that can attract mainstream investors. Discuss

KEY POINTS

- The increased volatility of listed equities in 2020-21, historic low-interest rates that caused negative yields amongst \$28 trillion of the \$42 trillion outstanding bonds in 2020.
- In India, the traditional three asset classes have been FDs, gold, and mutual funds. The pandemic, which saw over 2.6 million Demat accounts open monthly.
- The alternatives industry in India is dominated by venture capital funds, private equity funds, hedge funds, venture debt funds and, now, special situation funds.
- The alternatives space is predicated on two important principles: Innovation always outstrips policy and regulations, and capital is cowardly.
- The government has taken this one step forward in Budget FY23 by announcing the creation of an expert committee to conduct “a holistic examination of regulatory and other frictions” that affects the private equity and venture capital industry.
- This step signals the intent of the government to support the alternatives industry and is a sign that the industry is viewed as a partner in nation-building and economic development.
- Alternative investment solve the supply-side of mainstream investing by creating companies of scale that can attract mainstream and retail investors.
- For a country that aims to grow to a \$5 trillion GDP by 2025, the alternatives and the innovation economy are expected to contribute \$1 trillion to this goal.

The punishing tax policy on crypto currencies is aimed at shielding investors until regulations for crypto trading are framed. Discuss

KEY POINTS

- The passage of the Finance Bill containing provisions to tax cryptocurrency leaves no doubt regarding the Centre’s stance on these assets.

- It is clearly worried about the surge in speculative activity on crypto-trading platforms which is luring gullible investors unaware of the risks associated with these instruments.
- Cryptocurrencies have no underlying value and are extremely volatile, increasing the risk of capital loss. Further, the crypto-trading platforms are unregulated, putting investor money at great risk.
- The amendments to the Finance Bill clarified that defining transfer of these assets under Section 2(47) of the Income Tax Act does not mean that they are being recognised as a capital asset.
- The next step, regulating private cryptocurrencies is however likely to be much more complicated with trading activity taking place on similar unregulated platforms globally.
- It is very easy for traders to transact on such platforms which operate beyond any regulator's glare. A unilateral ban on the trading in India will make traders shift to platforms in other jurisdictions.
- The way forward is to arrive at a global consensus on the legality of trading in these assets and the manner in which such activities should be supervised. Until then, the best way to contain activity in these assets is by taxing them heavily, as the Centre has done.

9. AGRICULTURE

Farming as a Service in India promises to realize sustainable food production to solve global food scarcity problems. Elaborate

KEY POINTS

- Indian economy is leap-frogging the traditional development model from the farming to the services sector. While agriculture employs the masses, the services sector significantly contributes to the gross domestic product (GDP).
- Sustainable food production requires transitioning from resource-intensive, high-input farming methods to long-term, outcome-based services. Thanks to agritech, even small farmers can adopt Farming as a Service (FaaS) as the panacea in emerging economies.
- It attracts a new interest from stakeholders governments, non-government organizations (NGOs), the private sector, and the venture capitalists funding the start-ups.
- A toll-free number and a mobile app connects farmers to the platform to place their equipment and services orders. Shocks of equipment breakdown and consequent unexpected losses are avoidable as the farmers pay only for the equipment usage service.
- The ecosystem of farmers, equipment and service providers, technology and financing firms, and consumers can thrive from FaaS. Since the farmers only know their seasonally varying requirements better.
- FaaS attempts are still sporadic as the reach is limited to only a few states despite enormous potential and scope. Most startups face scalability issues.
- FaaS promises to supercharge sustainable food production to solve global food scarcity problems. Empowering farmers and not just looking at them as a market is the need of the hour.

As both Ukraine and Russia are major suppliers, India must reform procurement to seize the export opportunity in wheat production. Discuss

KEY POINTS

- The ripple effects of the war are already being felt across the world, with energy and gas prices surging as also wheat prices breaking all barriers.
- With their supply lines terribly disrupted, there is an opportunity for India to fill up this gap. This wheat window is likely to be there at least for the next 3-4 months, if not longer.
- India has large stocks of wheat with the Food Corporation of India (FCI). India can easily go for about 15 mmt of exports of wheat.
- This will not only reduce its food subsidy bill, but also compensate for the higher costs of imports of crude oil.
- This is an opportune time for the Centre and the key wheat-growing states to chalk out a reformist action plan. Uttar Pradesh is the largest producer of wheat and should have the biggest say.
- FCI should put a ceiling on the procurement expenses (including arthiya commission/fee)—say, at 3% of the MSP in all states.
- That would save the centre precious resources by plugging leakages in the PDS, help diversify agriculture towards high-value crops, and give a better deal to farmers as well as consumers.

Explain the factors that are critical for both decarbonisation and sustainability of the Indian Agriculture.

KEY POINTS

- As per India's third Biennial Update Report, in 2016, agriculture and livestock emitted 407,821 Gg of CO₂e, around 14% of total emissions.
- Out of this, 61.3% is linked to livestock. The figures for Land use (LULUCF) are net sink of 307,820 Gg CO₂e, representing 15% removal from total emissions, primarily from forest and cropland.
- Soil: Fertile soil enhances farm yields and incomes apart from being a carbon sink. Healthy soil holds more moisture and soil conservation methods reduce erosion.
- Freshwater: Agriculture consumes over 80% of freshwater in India, making conservation critical. Micro-irrigation with automation and adoption of low water-intensive species and farming practices is essential.
- Alternate cropping: This contributes to GHG mitigation and is an emerging area in climate-smart farming. For example, seaweed cultivation as additive to cattle feed reduces biogenic methane emissions, improves feed quality, and enhances milk production.
- Bio-energy from farm waste: This offers immense potential for mitigating emissions as well as growth in non-farm economic activity. Manure-based community biogas plants can support clean cooking and distributed power.
- As for land use, the key elements are halting deforestation, rejuvenating degraded forests, and accelerating afforestation. India has been an early mover through its "Greening India Mission" and NDC and aims to create 2.5-3 billion tonnes of carbon sinks by 2030.

10. ENERGY

India needs a mix of all sources of energy in the right measure. Do you agree with this view? Comment

KEY POINTS

- The latest report of the Inter-governmental Panel on Climate Change (IPCC) counts India among the countries more vulnerable to climate change, which underscores the need for urgent action.
- India has committed to raise its non-fossil fuel capacity to 500 GW by 2030, from 152 GW now – a tall order, given the complexities in each source of non-fossil fuel energy.
- Large hydro, whose potential, estimated at 45 GW, is thrice as much as the existing capacity, has been hampered mainly by environmental concerns and rehabilitation and resettlement (R&R) issues.
- Nuclear power, capacity today stands at a dismal 6,780 MW. There seems to be little scope for adding more than the proposed 10 PHWRs of 700MW each and four more 1,000 MW plants at Kudankulam.
- The major problem is the 'liability clause', which has scared away reactor suppliers. India must choose between righteousness and practicality; given the need for climate action, the latter appears to be the button to press.
- It will remain essential as a baseload power source. Carbon emissions can be controlled through carbon capture and utilisation (or sequestration) technologies. India needs a mix of all sources in the right measure.

Building reserves is the need of the hour for protecting the country against oil price shocks. Analyse in the context of Ukraine crisis

KEY POINTS

- In the case of India, neither has it built enough strategic reserve capacity nor is its domestic production sufficient enough to meet its demand. India is heavily dependent on imports for crude oil and almost 50 per cent of its gas requirement is met through imports.
- India imports crude oil from various geographical regions such as West Asia, Africa, Europe, North America, South America and South-East Asia.
- The import dependency (per cent) of crude oil is based on consumption of petroleum products during the year. For example, during April-December 2021, the import dependence was almost 85 per cent.
- As per the consumption pattern of 2019-20, the total capacity in the established Strategic Petroleum Reserves facilities, with total capacity of 5.33 mt (about 39 million barrels), is estimated to provide for about 9.5 days of crude oil requirement.
- India has repeatedly expressed concern at supply of oil being artificially adjusted below demand levels by oil-producing countries, leading to rising prices and negative attendant consequences.
- What India can do now is to push ahead in building the reserves. It should not wait for Phase II to end before moving to the next phases. Besides, it should also focus on creating gas reserves for which the drying or dried-up wells/fields of ONGC and others can be used.

11. INFRASTRUCTURE

Gati Shakti will help develop a transport system that optimises cost and fuel efficiency through seamless multi-modal movement transport. Explain

KEY POINTS

- The logistics sector has an important role in the economy, in ensuring efficient movement of goods and services across the country.
- There are many reasons for such high logistics costs in India. First, the freight traffic is highly skewed towards road travel (~65% of all freight) despite being expensive.
- One reason for this is the lack of multi-modal connectivity which prevents seamless connectivity between various modes of transport.
- Investment in warehousing, freight fleet and technology upgradation has been limited. This is because small enterprises which dominate India's logistics sector are unable to undertake large investments needed to achieve necessary economies of scale.
- Through Gati Shakti, all pre-existing infrastructure projects like Sagarmala, Bharatmala, etc, have been brought together on a single platform to ensure synchronised and integrated planning.
- The platform would also allow ministries and departments to visualise, review and monitor projects, thus helping identify specific bottlenecks at the ground level. For example, it could show if the delay is caused due to land acquisition or pending clearance, etc.
- The Multi-Modal Logistics Parks (MMLPs), which would act as the focal point to link various modes of transport, are at the heart of Gati Shakti.
- Complementary to these efforts, the government is also developing the Unified Logistics Interface Platform (ULIP) as the digital backbone of the sector.

12. INTERNAL SECURITY

Under-reporting cyber security attacks affect cyber security architecture and data protection in the country. Analyse

KEY POINTS

- Clause 25 in the Data Protection Bill 2021 says that data fiduciaries should report any personal and non-personal data breach incident within 72 hours of becoming aware of a breach.
- Even the golden standard for data protection, namely the European Union General Data Protection Regulation (EU GDPR), has a clause for reporting data breach incidents within a stringent timeline.
- If incidences are reported, the Indian Computer Emergency Response Team and others can alert organisations about the associated security vulnerabilities.
- Firms not yet affected can also take precautionary measures such as deploying security patches and improving their cyber security infrastructure.

- But firms are reluctant to notify the breach incidents to the regulators. This is because any security or privacy breach has a negative impact on the reputation of the associated firms.
- The government must empanel third party cyber security auditors for the conduct of periodical cyber security impact assessments, primarily amongst all the government departments.
- The Ministry, as part of cyber security assurance initiatives of the Government of India, to evaluate and certify IT security products and protection profiles, has set up Common Criteria Testing Laboratories and certification bodies across the country.

13. S & T

Utilizing hydrogen fuel cell technology is one of the decisive moves in creating a sustainable future of mobility. Elaborate

KEY POINTS

- With leading nations across the world actively attempting to reach the net-zero emissions goal in the next few decades, the quest to seek alternative energy sources has become more earnest than ever before. India too has set an ambitious target of reducing the emissions intensity of its economy by 45 per cent by 2030.
- Fuel cell electric vehicles (FCEVs) are powered by hydrogen. Like all electric vehicles, FCEVs use electricity to power an electric motor.
- FCEVs are among the cleanest modes of transportations as they release no harmful tailpipe emissions, and only emit water vapour and warm air. With future technical enhancements, there will be a forecasted improvement in overall WTW (well-to-wheel) efficiency for FCEVs which is pegged at around 30–35 per cent% today.
- FCEVs can be instrumental in achieving energy security and fulfilling de-carbonisation goals.
- Hydrogen technology is still at a very nascent stage in the country, and there is limited infrastructure and scale of hydrogen dispensing units available.
- The newly introduced National Hydrogen Energy Mission Programme by the Prime Minister aims to bring open access to renewable energy and increase the production of green hydrogen (that does not rely on fossil fuels to be produced).

Physical gaps in infrastructure need to be addressed to unlock the India's digital potential. Discuss

KEY POINTS

- The idea that cross-sectoral “digital rails” like ID, payments and data exchanges when combined with open interconnected data systems in sectors like health, education and social protection, can transform service delivery.
- India is seen as a global trendsetter in the DPI movement, having set up multiple large-scale DPIs like UPI and sector-specific platforms like DIGIT for eGovernance and DIKSHA for education.
- To unleash the true potential of India's ODEs, we need to get the “non-tech” layers right, by prioritising 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.
- It is important to address the digital divide. Research by ORF, for instance, shows that Indian women are 15 per cent less likely to own a mobile phone and 33 per cent less likely to use mobile internet services than men.
- These institutions are critical for setting standards, ensuring a level playing field and safeguarding consumer interest. The sector-specific institutions also need to be complemented by a “National ODE Council” to inform coordinated policies and keep the focus on citizen-centricity.
- From Aadhaar and UPI to DBT and CoWin, India’s tech stacks are grabbing global attention.

***What are the various ways that are required to build India’s Digital sovereignty?
Elaborate***

KEY POINTS

- India needs to be in a position where it can prevent sanctions being imposed, because our retaliatory sanctions would hurt the imposing nation dearly too.
- The classic example is the Software-as-a-Service (SaaS) industry in India. Today, the SaaS industry in India is a trillion-dollar opportunity by valuation. Freshdesk has already gone public.
- The role of government policy to enable the industry strategy that has been agreed. It can do that in four ways. One, it can get out of the way. For SaaS, that meant addressing the Stay-in-India Checklist.
- It can give grants for private innovation—as BIARC did with ignition grants for rotavirus vaccine (where India is now the global leader). T
- It can support the creation of digital public goods, as has happened with UPI.
- The government can also ring fence infant industries for some time, just as the US does for its own infant industries. VCs and fundraising come at the end of the cycle.
- India has a natural advantage in the age of software and technology. Indian talent is manning the helm of many global tech giants.
- Our youth would love the opportunity to come build for the security and sovereignty of their own nation, if we can create the conditions for them to do so.

Do you think that the country has a robust ecosystem to produce better semiconductor chips? Explain

KEY POINTS

- The government also recently announced the PLI and DLI schemes as major steps towards building a semiconductor ecosystem in the country.
- To develop a semiconductor chip, manufacturing companies must go through several different designing and manufacturing phases and procedures.
- A single chip requires hundreds of litres of pure water, which may be difficult to come by in sufficient amounts in our topography.

- Apart from the constant water supply constraints, one of the most important components of semiconductor manufacturing is a consistent and stable electrical supply.
- Power semiconductors: The Power Management Integrated Circuits (PMICs) and System Basis Chips (SBCs) helps in developing designs for developing automotive, industrial, or consumer applications and extend battery life, and reduce power dissipation.
- Clean Energy India has been one of the fastest-growing solar PV markets in recent times and has flourished due to the participation of major energy industry players with support from the government.
- Ultrapure water is required in these stages as it is used for surface cleaning, solvent processing, and chemical mechanical planarization.
- Because the semiconductor value chain is interrelated and linked with several industries, governments must develop policies that address all the crucial characteristics in the long run.

Block-chain technology can brighten up various aspects of the tourism in the country. Discuss

KEY POINTS

- Blockchain based travel portals is another example on smart contracts. A blockchain smart contract could send an acknowledgment or token access mechanism to the physical asset or user e-wallet, such as a one-use QR code to open a rental car or hotel room.
- Blockchain travel portals could be used for improving customer loyalty and reward programs. 'Chain of Points', a blockchain based token, provides a simple and flexible solution to merchants and customers in the loyalty rewards space.
- Customer reviews is another area of application of blockchain which include inter-alia notorious travel sites aggregate reviews, ratings, photos, contact information, and opinions about tourism service providers.
- 'Buuyers', a Paris-based start-up that sets out to offer a customer review management tool based on blockchain technology, increased both transparency and credibility in the opaque world of tourism customer reviews.
- Another major area is the processing of online payments for hotel bookings. Microsoft and Webjet have designed a blockchain proof-of-concept travel booking solution, which greatly facilitates booking data processing
- Supply chain management is another area of application. Blockchain enables the tracking of items through complex supply chains.
- When a person is travelling outside their home country, and treated for an emergency, access to a blockchain ledger could help detect a competent expert.

Given the demographic profile, there exists a need to increase the scale and scope of digital training in India. Elaborate

KEY POINTS

- Absorption of information and communication technologies (ICT) has become the key for micro enterprises to evolve into growing sustainable businesses.

- However, digital adoption among businesses has been uneven across sectors and the persisting digital divide poses a serious challenge for India's rural population.
- Women in particular often have less access to digital technology than their male counterparts. Thus, there exists a need to increase access to information and communication technology among women in rural areas.
- IIT Madras' evaluation of digital literacy-training programme to empower around 57,000 women and youth in Tamil Nadu reveals interesting facets. The training enabled them to use digital technologies to carry out their business/enterprises.
- The use of smartphones as a way to connect with the online world is increasing along with the emphasis through various initiatives in technology to bridge the digital divide through "digital literacy learning".
- At the meso-level, the use of Apps leads to better family networks and bonding. This has been facilitated largely through video call facilities.
- At the macro-level there are larger social benefits such as access to various government schemes and e-governance initiatives, which in the long term would result in more demand and the use of public goods due to the awareness created by the use of smartphones.

India has many advantages that can be encouraging of innovation to a public-funded digital infrastructure. Explain

KEY POINTS

- India's approach to public digital stack. India's political establishment, across party lines, has accepted the idea of "public digital goods", which means that a minimum foundational digital infrastructure is provided either directly by the government.
- Based on this foundational digital infrastructure, private competition thrives. The UPI protocol, which is behind the success of digital payments, is run by NPCI as a non-profit institution with no monopolistic "winner takes all" profit ambitions, unlike the digital giants of the West.
- India's banking market structure is conducive to embracing change. India's banking has been dominated by state-owned banks who work on hybrid priorities, where market development is as important as shareholder returns.
- RBI's reluctance to let large industrial houses into banking implies the banking industry has no strong political connection to lobby against change that threatens its short-term commercial interests.
- India has a strong banking regulator in RBI, which has slowly and steadily embraced the idea of digital and innovation. Regulators have to be conservative by their mandate.
- Success of digital payments emboldens the regulator that it can achieve the goals of financial inclusion and deepening without compromising on systemic risks.
- The Indian consumer can look forward to the ease of pervasive and convenient borrowing as she does in payments today.

14. ENVIRONMENT

Tribal Communities' knowledge and customs should be central while dealing with forest fires in a warming world. Discuss

KEY POINTS

- India's varied forest habitat is a giant tinderbox that can release vast amounts of carbon dioxide, imperilling lives and livelihoods.
- In combating wildfires, we can no longer continue to ignore the critical role of our allies the forest dwellers and tribal communities.
- Inaction on forest fires would have grave consequences for the country. In 2021 alone, large blazes in Simlipal Tiger Reserve in Odisha and Uttarakhand destroyed ecosystems of species from the microscopic to the magnificent, releasing thousands of tonnes of carbon.
- In Simlipal, for instance, tribal people were on the frontline of battling fires last year and as this summer looms, women's self-help groups have been clearing the brush and creating fire lines.
- "Good fire" of low to moderate intensity may reduce the fuel for larger blazes and aid germination of plants whose seeds need fire to crack open.
- To combat forest fires, India will also need to improve coordination between ministries and agencies at the union and state levels to ensure contextually appropriate interventions that can be delivered by the forest department and local administrations.
- Technical knowledge should also be decentralised so that people on the ground have access to information that helps them respond to disasters and build resilience in the long term.

A hybrid water management system is necessary to conserve fresh water resources of the country. Discuss

KEY POINTS

- The Global Water System Project, which was launched in 2003 as a joint initiative of the Earth System Science Partnership (ESSP) and Global Environmental Change (GEC) programme, epitomises global concern about the human-induced transformation of fresh water and its impact on the earth system and society.
- In its fourth assessment report in 2007, the Intergovernmental Panel on Climate Change (IPCC) highlighted the link between societal vulnerability and modifications of water systems.
- There is concern about the present capacity utilisation of water resources created in the country. By 2016, India created an irrigation potential for 112 million hectares, but the gross irrigated area was 93 million hectares.
- Grey water is hardly used in our country. It is estimated that 55% to 75% of domestic water use turns into grey water depending on its nature of use, people's habits, climatic conditions, etc.
- At present, average water consumption in the domestic sector in urban areas is 135 litres to 196 litres a head a day. Given the size of India's urban population (469 million estimated for 2021), the amount of grey water production can be well imagined.

- It is important to include less predictable variables, revise binary ways of thinking of 'either or', and involve non-state actors in decision-making processes.

Developing an efficient renewable energy waste management and circular ecosystem is imperative to manage the waste effectively. Discuss

KEY POINTS

- The call for a creation of a circular economy is significant since an efficient waste management ecosystem would be necessary to manage the enormous waste generated by renewable energy projects in the coming decades.
- According to the International Renewable Energy Agency (IRENA) an intergovernmental organisation that supports countries in their transition to a sustainable energy future the cumulative waste generated by India's total installed solar capacity could be as high as 325 kilotonnes by 2030.
- A study by the Council on Energy, Environment and Water (CEEW) has estimated that India would need over 5,630 GW of solar and 1,792 GW of wind energy to achieve its net-zero target in the year 2070.
- the renewable energy industry should invest in the research and development of recycling technologies. Recycling is a multistep process that includes dismantling, disassembly, and extraction.
- Substandard components generate considerable waste due to early life damage that is often irreplaceable, and the components often have to be discarded. Such quality enforcement could also position India's renewable energy industry as a global supplier of quality products.
- Therefore, developing an efficient renewable energy waste management and circular ecosystem is imperative rather than a choice. We can ignore this, but only at our own peril.