If the country is to achieve its strategic and development objectives, it cannot afford to have a shrinking manufacturing sector. Comment. (250 words)

Approach

- Provide some data that highlights persistent slowdown in India’s industrial sector and briefly highlight the significance of manufacturing in the growth profile of a country.
- Highlight issues in current manufacturing setup of India.
- Provide way forward prescribing reforms in India’s industrial sector.

Key Fodder Points

- Stagnant share of manufacturing in India’s economic profile i.e. 18.2% in 2019 and it was near 18% in the 1980s.
- Also, provide a comparative analysis of other emerging economies can be stated: like China and Brazil to establish the significance of manufacturing in economic growth.

Key issues in India’s manufacturing sector:
1. Acute skill shortage
2. Regulatory cholesterol: land and environmental clearance problems
3. Rigid labour laws
4. No attempt at self-regulation by the industry against corrupt practices
5. Infrastructure Deficit
6. High Cost and Non-Availability of Commercial Bank Credit
7. Premature de-industrialization due to the dumping of manufactured good from developed countries.

Reforms needed in India’s manufacturing sector

- Promotion of Indian small and medium enterprises
- Industries to take lead in Skill India
- Vocational training to be made part of the school curriculum.
- Structural reforms by the government: for example GST is a step in the right direction but needs to be more simplified.
- Promotion of sunrise industries
- Policy, financial and regulatory support to startups in manufacturing sector through start-up India, Stand-up India, SEZs etc. National Investment and Manufacturing Zones.
- The alternative funding mechanism for large infrastructure projects.
- Labour laws reforms

Summarize answer by stating economic survey 2018 recommendation that India must now switch to the export-led economy for economic growth, but export-led growth has to be backed by strong manufacturing setup.
Faster growth, but marred by inequality, will have little meaning unless agriculture takes a central position in the policy reform agenda. Comment. (250 words)

Approach

- Briefly highlight inequality that exists in India's growth scenario and explain the role that agriculture can play in bringing inclusiveness in Indian society.
- Discuss the issues that impede agricultural growth.
- Discuss various government interventions related to agriculture
- Provide a way forward prescribing the need for a policy that promotes diversification of agricultural labour to other sectors.

Key fodder points

- India has sustained the rapid growth of GDP for most of the last two decades leading to the doubling of per capita incomes in 12 years but agricultural growth remained subdued (below 4%).
- Also according to the Oxfam report, India's top 1% of the population now holds 73% of the wealth
- Importance of agriculture in inclusive growth: Every percentage point of growth in agriculture is at least two to three times as important in alleviating poverty as the same growth in other sectors.
- Key issues in agriculture that impede farmer income growth:
  1. Productivity issue and rising input cost
  2. Market irregularities
  3. Lack of intersectoral linkages.
  4. Policy dilemma: The rise in farmer income will come from high yielding crops like dairy, horticulture etc. but government policy is still cereal centric
  5. Issue of disguised unemployment

Key government interventions

- Government's call for doubling farmer's income by 2022
- Swaminathan MSP (1.5 times of previous MSP) provided by the government to farmers
- Recent schemes like PM KISAN yojana can be quoted.
- Government efforts in the promotion of food processing industry.
- Reforms in agri marketing like model APMC, e-NAM etc.
- Push to horticulture, organic farming and food processing with policy support.
- Ashok Dalwai committee report on doubling of farmers income.
- Need for government to develop capacity in another sector of the economy so that diversification of the workforce can take place and more inclusiveness in society can be brought.
To tackle agrarian distress in a sustainable manner, direct income support to farmers needs to be complemented with reforms in agri-marketing and trade policies. Examine. (250 words)

Approach

- Give brief description of proposed Direct Income Support.
- Describe agri-marketing and trade policies reform which can be complemented to provide long term solution for present agrarian crisis.

Fodder Points

- Recently policy think tank Niti Aayog proposed an upfront direct income subsidy through DBT (direct benefit transfer) to farmers to provide relief to farmers facing agrarian distress. This will also help in enabling farmers to invest the finances in their required areas of need. State specific examples can also be given, like: KALIA Scheme (Odisha), Rythu Bandhu (Telangana).

Problems

- As long as the agricultural produce does not get fair and remunerative price through reforms in agri marketing and trade policies agricultural crisis will not be solved.
- The present APMC Act restricts the farmers from selling their produce to processor/manufacturer/ bulk processor, exporter, bulk retailer outside the market yard and the produce is required to be channeled through regulated market.
- Poor farmers may typically get as little as 25% of the prices that consumers finally pay for their produce. The intermediaries between farmers and consumers are the major beneficiaries rather than the growers and end consumers.

Reforms

- Contract farming is crucial to promote food processing and to provide technical and financial support and quality input to smallholders.
- The Model APMC Act circulated to States/UTs during 2003 provides for contract farming agreement and its model specifications. 20 states amended their APMC Act to make provision for Contract farming but only 12 notified the rules. These rules should be notified by states which have amended APMC acts and those states which not yet amended the act need to act swiftly.

continued...
To tackle agrarian distress in a sustainable manner, direct income support to farmers needs to be complemented with reforms in agri-marketing and trade policies. Examine. (250 words)

...continued

- Direct Sale by Producers to Processing Industries/Exporters/Bulk Buyers - The producer should be free to enter into direct sale without the involvement of other middlemen outside the market yard in the market area under the relevant provisions of the concerned Act. These changes in marketing and trading will break the monopoly of middle men and will ensure farmers are able to get fair prices for their produce.
- De-link the provisions of compulsory requirement of shop/space for registration of traders/market functionaries. At present only the traders/commission agent owning a shop/godown in the regulated market are allowed to purchase produce in the market.
- This practice of compulsory licensing of commission agents/traders in the regulated markets has led to the monopoly of these licensed traders acting as a major entry barrier in existing APMCs for new entrepreneurs, thus, preventing competition.
- Take fruits and vegetables out of APMC Act. Let producers have the right to sell to anyone they choose including integrator, village cooperative, or in APMC Mandi.
- Implementation of e-NAM and e-trading in all States.
- Promoting Cooperatives for marketing. The Amul Dairy Cooperative is an outstanding example of how farmers empowered themselves through cooperation.
- India’s agriculture exports were without proper policy backup, which did not create additional value for farmers. To ensure profit for farmers government has unveiled Agriculture Export Policy, 2018 that imposes no restrictions on export of organic and processed products providing institutional ways for market access and settling quality claims.
The environmental thinking in India needs to go beyond enacting rules and regulations to a greater focus on outcomes and results that emerge from a sense of shared understanding and common purpose. Discuss. (250 words)

**Approach**

- Briefly discuss with examples how rule of law is not enough in dealing with an environmental issue.
- Provide measures that instill a sense of shared understanding and common purpose for the environment in the society.
- Give a suitable conclusion on steps taken in this regard and what can further be done at every level.

**Key Fodder Points**

- The environment is a Residuary list subject. In pursuance of this, parliament enacted many laws like Wildlife Protection Act 1972, Environment Protection Act 1986, Air Pollution Act 1981 etc.
- But in spite of all these acts environmental condition in India remains very dismal:
  1. The World Health Organization reports that thirteen of the 20 most polluted cities are in India.
  2. According to World Bank economy-wide cost of environmental degradation is estimated to 5.7 per cent of India’s GDP
- Thereby signalling this command and control approaches that India has deployed cannot sufficiently address current environmental and natural resource problems
- So a new framework for environmental governance is required, that is multilevel, multi-actor, based on ecosystems and outcomes rather than on mere compliance.

The environmental framework should in cooperate following principles

1. **Adopt the Principle of Subsidiarity**
   - Since many environmental issues are local and regional in nature, addressing them requires the involvement of local regional jurisdictions and the engagement of local people.
   - For that reforms in urban local bodies are needed to better manage waste, both institutional and technical
   - Intergovernmental transfers as suggested by 14th Finance Commission should be promoted.
   - Empowering the Inter-State Council would help to advance this agenda.

continued...
The environmental thinking in India needs to go beyond enacting rules and regulations to a greater focus on outcomes and results that emerge from a sense of shared understanding and common purpose. Discuss. (250 words)

2. Prioritize Mitigation of Air and Water Pollution
   - Reduction of waste and wastewater at the source;
   - Onsite treatment where possible;
   - Recycling of wastewater as water for non-consumptive use
   - The air quality situation in Indian cities is grave, as is the case in several water bodies.
   - In this context, States should strengthen the pollution control boards to take action against violators and impose penalties and charges, also investment should be made in the board’s resources and capacity.
   - Public investments at the state level are required to increase the availability of bus fleets, metros, and informal public transport such as improved electric auto rickshaws.
   - For affluent areas in cities and metropolitan areas, congestion tax or vehicle quotas.
   - The central government should urgently introduce reforms to manage waste and wastewater.

3. Adopt Green Accounting in National and State Income
   - The conventional treatment of these environmental resources, being free, has resulted in their overuse and exploitation.
   - Green income accounting seeks to modify income accounts to incorporate the use or depletion of environmental and natural resources.
   - The key objective of such accounting is to make visible the use of environmental resources in economic production; until now, their use has been invisible.

The environmental framework should reflect an understanding of the interrelationships of food, energy, and water, and the linkages between ecosystems and human well-being.
   - Management of the environment refers not to actually managing the environment, which is not possible, but to influencing and shaping the interactions of humans and their activities with the environment. That can not be done only by rule of law, it has to be backed by a civic culture based on harmony between economy and environment.
More than a year after the e-waste management rules were notified, there is little evidence that it is being implemented. Examine the causes behind India's problem of e-waste and the reasons due to which rules have been ineffective. (250 words)

**Approach**

- Explain what is e-waste and state key features of the e-waste management rules in India.
- State causes behind e-waste generation.
- List the loopholes in the rules and their implementation.
- Suggest steps that can be taken to manage increasing e-waste in the country.

**Current status**

- E-waste is categorized as hazardous waste due to the presence of toxic materials such as mercury, lead and brominated flame retardants (which are considered as hazardous waste according to the Basel Convention).
- Of the total e-waste produced in 2016, only 20% (8.9 MT) is documented to be collected properly and recycled, while there is no record of the remaining e-waste.
- E-waste in India is regulated under E-waste (Management) Rules 2016 which replaced the E-waste (Management and Handling) Rules, 2011.

**Reasons for huge e-waste in India**

- Consumerist culture: Consumption and production of electrical and electronic equipment have increased with higher levels of disposable income because of urbanization and industrialization.
- Affordability and necessity: ICT devices are becoming more affordable. Many people own multiple devices. Replacement cycles for mobile phones and computers, and also for other devices and equipment, are becoming shorter
- Illegal import of E-waste: 50% to 80% of e-waste collected by the US is exported to India, China, Pakistan, Taiwan and a number of African countries because of the availability of cheaper labour for recycling.
- The Indian Information Technology (IT) sector is one of the major contributors to the global economy. At the same time, it is responsible for the Generation of the bulk of E-waste or Waste Electrical and Electronic Equipment (WEEE) in India.

**continued...**
More than a year after the e-waste management rules were notified, there is little evidence that it is being implemented. Examine the causes behind India's problem of e-waste and the reasons due to which rules have been ineffective. (250 words)

...continued

Lack of infrastructure and processing technology for return, recycle and reuse of the e-waste.

Lack of awareness of hazards of e-waste on the environment and health.

Loopholes in the rules

- The rules do not focus on technology transfers for the recycling of electronic waste. Also, lack of an updated inventory of e-waste generated makes it difficult to quantify the e-waste recycled and disposed of. This is not taken into account by the existing rules.

- Lack of sufficient e-waste management infrastructure which has not been focused upon by the rules.

- Implementation problems: No independent mechanism in place to check or verify the claims made in authorisations. The robust rules are flailed by the slack implementation.

- Producer Responsibility: The law states that the responsibility of producers is not confined to waste collection, but also to ensure that the waste reaches the authorised recycler/dismantler. However, there is no monitoring system and there is no guarantee that the waste collected by producers does not go to unauthorised recyclers.

- Unorganised sector: The rules do not take into account the problem of ill-equipped skilled labour to handle e-waste recycling. Most Indians end up selling their e-waste to the informal sector, which poses severe threats to human lives, with its improper and highly hazardous methods of extracting the trace amounts of precious metal from it and handling e-waste for profit.

- Consumers’ accountability: No information is provided along with the product packing about the e-collection center for the product sold. The responsibility of the consumers’ is not specified along with the product.

- The deposit refund scheme (DRS) that aids the recycling of the product is not operational in India.

continued...
More than a year after the e-waste management rules were notified, there is little evidence that it is being implemented. Examine the causes behind India's problem of e-waste and the reasons due to which rules have been ineffective. (250 words)

- Informal sector and lack of incentive: The rules mandate an individual to drop the e-waste at an authorised collector, but do not provide any incentive against it. This forces e-waste to end up with the informal sector and loses track on further recycling.
- Lack of holistic planning: E-waste management rules are not in line with the problems that have emerged because of the promotion of government initiatives like 'Make in India' and 'Digital India'.
- Lack of reliable e-waste data at the country level.

Remedial measures
- Incentives: Similar to Japan and Taiwan, an effective take-back program providing incentives for producers to design products that are less wasteful, contain fewer toxic components and are easier to disassemble, reuse, and recycle may help in reducing the wastes.
- End-of-life management should be made a priority in the design of new electronic products.
- Training: There should be training programs and effective methods to improve the job quality and satisfaction level of workers in the recycling industry.
- Infrastructure: Institutional infrastructures, including e-waste collection, transportation, treatment, storage, recovery, and disposal, need to be established, at national and/or regional levels for the environmentally sound management of e-waste.
- Collection centers: Establishment of e-waste collection, exchange and recycling centers should be encouraged in partnership with private entrepreneurs and manufacturers.
- Management of E-waste will help address the SDGs related to environmental protection (Goals 6, 11, 12, and 14) and health (Goal 3). It will also address Goal 8 that focuses on employment and economic growth since the sound management of e-waste can create new areas of employment and drive entrepreneurship.
What are the steps that need to be taken to promote sustainable agriculture and food security in the wake of climate change? (250 words)

Approach

- Establish link between food security and climate change.
- Importance of sustainable agriculture in the context of food security challenges posed by climate change.
- Give an idea of climate change and how will it impact agriculture.
- Suggest ways to ensure food security and sustainable agriculture with relevant examples.

Key Fodder Points

Climate change and food security

- At the heart of the Sustainable Development Goals (SDGs) are targets to end hunger, achieve food security, and improve nutrition.
- According to the definition given by the World Food Summit in 1996, there are three main dimensions to food security: food availability, access to food, and food absorption.

1. Food availability: India’s food production, is highly vulnerable to climate change largely because the sector continues to be highly sensitive to monsoon variability and production is severely constrained by low yield growth.

2. Access: Displacement, loss of livelihood or damage to productive assets due to any extreme weather events will have a direct impact on household food security because of production shocks and declines that are projected under future climate change.

3. Absorption: Change in climatic conditions could lead to a reduction in the nutritional quality of foods (reduced concentration in proteins and minerals like zinc and iron). This will accelerate the largely neglected epidemic known as “hidden hunger” or micro-nutrient deficiency.

Reforms needed and Government Interventions

- The government of India has launched the National Mission for Sustainable Agriculture (NMSA) to promote sustainable agriculture and to ensure food security.

continued...
What are the steps that need to be taken to promote sustainable agriculture and food security in the wake of climate change? (250 words)

...continued

• **Resilient Inter-cropping System**: To deal with delayed monsoon alternate crops of short duration varieties like black gram, groundnut can be grown etc. That will help in maintaining a source of income if the monsoon is delayed.

• **Zero tillage**: Adoption of Zero Tillage will reduce the loss and increase the production. Zero-till (ZT) sowing minimises losses due to lodging of wheat (bending of the stem).

• **Efficient water use**: Efficient water and nutrient management should be done to enhance efficiency. Methods like drip-irrigation must be used in place of flood irrigation to save water.

• **Climate tolerant crops**: The government should incentivize farmers to use climate-tolerant crop varieties. It will help farmers to deal with crop failures due to climate change. E.g. Pokkali Rice in Kerala which is a saline tolerant rice variety.

• **Crop Diversification**: Crop diversification refers to the addition of new crops or cropping systems to agricultural production on a particular farm. Crop diversification helps in agriculture sustainable and helps in maintaining ecological balance.

• **Urban Agriculture**: Urban agriculture, urban farming, or urban gardening is the practice of cultivating, processing and distributing food in or around urban areas. This can address major dimensions of food security.

• **Zero Budget Natural Farming (ZBNF)**: Practice like ZBNF leads to improvements in yield, soil conservation, seed diversity, quality of produce, household food autonomy, income, and health.
Closer co-operation and intelligence-sharing are needed between the countries to fight the new age terrorism which has global reach and sophisticated tools at its disposal. Discuss. (250 words)

Approach

- Briefly define terrorism and state with examples of how a new version of terrorism has evolved.
- Discuss the reasons that led to the emergence of new age terrorism.
- Suggest way forward how countries should tackle this threat.
- Conclude suitably.

Introduction

- Terrorism is the unlawful use of—or threatened use of—force or violence against individuals or property to coerce or intimidate governments or societies, often to achieve political, religious, or ideological objectives.
- However, with the convergence of organised terrorism a lot of new forms of terrorism has been originating:
  1. Narco-terrorism
  2. Financial terrorism
  3. Cyber terrorism
  4. Use of biological warfare and chemical weapons.
  5. Threats posed by the nuclear black market and nuclear terrorism
- Also, new-age terrorism got transformed from being regional to trans-national due to ease of communication and transport, spread of internet and social media which enabled radicalisation and recruitment of vulnerable youth across borders.

Body

Reasons for the emergence of new age terrorism

- The advent of social media and the Internet: Social Media and the internet has made a regional phenomenon into a global one.
- With increasing reach of social media, radicalisation becomes very easy; also social media is being used for the recruitment process of terror outfits.
  1. Increased cyber capabilities provide new revenue sources: For example - Bitcoins
     - The anonymity offered by bitcoins provides a secure route to do a safe and secure way for terror financing.
     - Also, an intricate network of money laundering provides terror financing.
  2. State-sponsored terrorism: Terrorism is being used by nations to fulfil their strategic gains. For eg: the proxy war in middle east, Pakistan harbouring terrorism on its soil.

...continued
4. Use of religion: In name of religion, people are being driven towards terrorism.

5. Decentralised form of terrorism: Growing intolerance and hate crime in society have led to an increase in phenomena of lone wolf attack.

6. Globalisation: Globalisation has made a borderless world, which has led to the free flow of people, ideas and capital. With growing trans-nationalism of terrorism, it is difficult for one nation to have a check at these transnational activities. Hence it requires cooperation between law enforcement and intelligence agencies of several nations.

Steps that can be taken by the international community to deal with this global issue

• Urgent adoption of Comprehensive Convention on International Terrorism by the UN.
• Strengthening of financial bodies like FATF and UN.
• Intelligence sharing agreements can be signed between the nations:
  1. Like India has signed intel sharing network with China, Iran, USA, Israel, UAE etc.
  2. World leaders can negotiate a global body for Intelligence sharing, like Five eyes.
• A multilateral regime under aegis of UN has to established over ownership and control over the internet.
• Use of big data analytics for enhanced intelligence discovery.
• All these steps should be taken in light of human right also.

Terrorism today has become a global issue like climate change, poverty, gender inequality. If nations don’t act now in unison than terrorism can consume whole humanity.
To what extent the social welfare measures adopted by the Government of India in the insurgency-hit region have borne the desired fruits? (150 words)

Approach
- Briefly describe the Government’s approach to deal with the insurgency.
- Give the social welfare measures adopted by the Government.
- Suggestion/Way Forward.

Introduction
- Left-wing Extremism in Central India and insurgency in Northeastern states aimed at greater autonomy or outright secession are the two major regions in India facing insurgency for various socio-political reasons.
- The Government’s approach to deal with insurgency has focussed in the areas of security, development, ensuring the rights and entitlements of local communities, improvement in governance, public perception management and also managing of law and order situation.
- According to the Ministry of Home Affairs, incidents of violence have seen a sharp decline while the geographical spread of LWE violence also shrunk from 76 districts in 2013 to 58 districts in 2018.

Body

Government’s Measures in Insurgency-hit areas

1. Social Welfare measures adopted by the Government
   - The Ministry of Home Affairs has been tasked with the monitoring of Aspirational Districts Programme in 35 LWE affected districts.
   - Skill development and education are critical challenges in insurgency areas and Government is running several schemes to impart local population education and skills so as to boost the socio-economic status of local people.

2. Infrastructure
   - There has been greater emphasis on strengthening the connectivity in insurgency areas.
   - To fill critical gaps in Public infrastructure and Services e.g. medical facilities in the form of primary health centres, primary and secondary schools; Government has started Special Central Assistance (SCA) for 30 most LWE affected districts.

...continued
To what extent the social welfare measures adopted by the Government of India in the insurgency-hit region have borne the desired fruits? (150 words)

...continued

- Physical infrastructure relating to water supply, power and connectivity enhancing tourism and social infrastructure relating to primary and secondary sectors of education and health are being improved through the North East Special Infrastructure Development Scheme (NESIDS), a 100% centrally funding scheme.

- 10% of the Annual Plan Budget of 52 Ministries of the Union Government is earmarked every year for spending in North Eastern region since 1998-99 to ensure dedicated and focused implementation of development reports.

3. Trust Building

- For building trust and effectively bringing out the human face of forces and local people, Central Police Forces conduct various civic activities in the welfare of the local people e.g. Civic Action Programme (CAP).

- Demands of various ethnic groups in the northeastern states for development and for autonomy in managing their affairs are being addressed by the Government.

- Rehabilitation is important to bring out former rebels into the mainstream and weakening the insurgency. The issues relating to rehabilitation of people affected by militancy, bringing underground outfits to the mainstream through negotiations, confidence-building measures etc. are also being actively pursued.

- Even though various interventions that bore fruits in tackling with LWE, certain government interventions have backfired, creating a more complex situations such as Salwa Judum where tribal youths were deployed as Special Police Officers - or as 'Koya Commandos', - in the fight against the Maoist insurgency. Arming the tribal youth went against various Constitutional principles and led to disturbance and instability in an already vulnerable situation.

Way Forward

- As per internal security experts, the operations have to be coupled with an effective development agenda for people vulnerable to join Maoist ranks and the current numbers from LWE areas are proof that the strategy is working.

- There is a need to enhance the implementation capacity of these states, merely allocating central funds will not resolve the developmental issues of these areas.

- A focused programme like 'Transformation of Aspirational Districts programme’ under the monitoring of NITI Aayog may be launched. Similar approaches like convergence, collaboration and competition can be used to spur development in these areas.
How does globalization impact money laundering? Examine the recent policy efforts by the Government of India to tackle the problem. (250 words)

**Approach**

- Start the answer by drawing the link between money laundering and globalization.
- Briefly explain how globalization impacts money laundering.
- Examine the recent policy efforts taken by the government.
- Give a way forward.

**Introduction**

- Money laundering is the process of making large amounts of money generated by criminal activity, such as drug trafficking or smuggling, appear to have come from a legitimate source.
- The growth in international trade, the expansion of the global financial system, the lowering of barriers to international travel, and the surge in the internationalization of organized crime have combined to provide the source, opportunity, and means for converting illegal proceeds into what appears to be legitimate funds.

**Body**

**Impact of Globalization on Money Laundering**

- Easy interlinkages of financial institutions have made the three F’s—finding, freezing and forfeiting of criminally derived income and assets—all the more difficult.
- Rapid developments in financial information: Easy information sharing facilitates the inclusion of illegal money into the international banking system, which further makes it difficult to identify its origin.
- Development of financial infrastructure along with technological and communication advancement allow money to move anywhere in the world with speed and ease.

**Policy efforts by the Government of India to tackle the problem**

- India is a full-fledged member of the Financial Action Task Force (FATF). It helps India to build the capacity to fight terrorism and trace terrorist money and to successfully investigate and prosecute money laundering and terrorist financing offences.
  1. Prevent and control money laundering  
  2. Confiscate and seize the property obtained from the laundered money; and  
  3. Deal with any other issue connected with money laundering in India.

...continued
How does globalization impact money laundering? Examine the recent policy efforts by the Government of India to tackle the problem. (250 words)

Financial Intelligence Unit – India (FIU-IND) is a central agency that
1. receives financial information pursuant to the country’s anti-money laundering laws;
2. analyses and processes such information;
3. and disseminates the information to appropriate national and international authorities, to support anti-money laundering efforts. The growth in international trade, the expansion of the global financial system, the lowering of barriers to international travel, and the surge in the internalization of organized crime have combined to provide the source, opportunity, and means for converting illegal proceeds into what appears to be legitimate funds.

The Black money (undisclosed foreign income and assets) and Imposition of Tax Act, 2015 was enacted to deal with the menace of the black money existing in the form of undisclosed foreign income and assets by setting out the procedure for dealing with such income and assets.

Benami Transactions (Prohibition) Amendment Act, 2016 aims to expand the definition of Benami Transactions and specifies the penalty to be imposed on a person entering into a Benami transaction.

Anti-money laundering/counter financing of terrorism (AML/CFT) – guidelines for general insurers, 2013: Each insurance company has to establish and implement policies, procedures, and internal controls/audit in its AML/CFT program. Insurers are also required to maintain records of their transactions under these guidelines.

Apart from the above-mentioned efforts, the Vienna Convention and the Basel Committee’s Statement of Principles aim to curb the problems of money laundering at the global level.

Anti-Money Laundering Global Task Force (GTF-AML) of GOPAC (Global Organisation of Parliamentarians Against Corruption) also works with anti-money laundering experts, and organizations such as the Financial Action Task Force (FATF), the World Bank, the International Monetary Fund (IMF), the United Nations Office on Drugs and Crime (UNODC), Interpol etc. and has developed a complementary approach to combating money laundering globally.

Way Forward

- Establishment of comprehensive enforcement agencies
- Promote cashless digital transaction with regulating and monitoring infrastructure in place.
- Ensuring strict implementation of the KYC norms.
- Spreading financial awareness among the common masses about money laundering.
What are Fixed Dose Combinations (FDCs)? Mention their advantages and disadvantages in the Indian context. (250 words)

**Approach**
- Explain Fixed Dose Combinations.
- Explain the advantages of FDCs for India.
- Explain the possible disadvantages of FDCs for India.
- Conclude by providing a way forward for FDCs.

**Introduction**
- A fixed-dose combination (FDC) drug contains two or more active drugs in a fixed dosage ratio.

**Body**

**Advantages of FDCs in India**
- FDCs improve patient compliance, simplify therapy and maximise the benefit from the synergistic effects of the two medicinal products given together.
- **Treatment of infectious diseases**: India has a large population of people suffering from infectious diseases. FDCs are particularly useful in the treatment of infectious diseases like HIV, malaria and tuberculosis where giving multiple antimicrobial agents is the norm.
  - FDCs are also of use in chronic conditions especially when multiple disorders often co-exist.
- **Affordability and accessibility**: FDCs offer specific advantages over the single entity preparations, such as increased efficacy, and/or a reduced incidence of adverse effects, possibly reduced cost and simpler logistics of distribution relevant to situations of limited resources as in the case of India.

**Disadvantages of FDCs in India**
- **Side effects**: There are increased chances of adverse drug effects and drug interactions if medicines are combined instead of being taken separately.
- **Drug resistance**: Unnecessary use of combination drugs makes the human body resistant to treatment.
- **Irrational usage**: The easy availability and affordability encourage irrational and indiscriminate use by peoples. Irrational use of FDCs of antibiotics is among the major causes of antibiotic resistance in India.

FDCs are often prescribed to cover up for diagnostic imprecision encouraging the practices of **quack doctors**.

**Conclusion**
- Drugs Technical Advisory Board is a statutory body constituted under the Drugs and Cosmetics Act, 1940 advises Central and State government on technical matters related to drugs and cosmetics.
- Government constituted **C.K. Kokate Committee** to examine the safety and efficacy of unapproved FDCs. It has recommended prohibiting the production and consumption of these drugs.
- Apart from the regulation of irrational usage of FDCs, the government needs to make people aware of the safe usage of FDCs.
What do you understand by the term designer babies? Explain along with its related advantages and concerns. (250 words)

**Approach**

- Define designer babies, briefly explain with an example
- Discuss the merits of designer babies
- Discuss the demerits of designer babies.
- Conclude suitably

**Designer babies:** The term “Designer Baby” was taken from “Designer clothing”. Similar to the way clothes can be designed according to our preferences, the Designer babies envisions Genetic Engineering of Babies where their genetic makeup is pre-selected during the fetal development stage of life.

- The goal of this process is to eradicate specific defects which are present in the child’s genome for eg: defective mitochondria which can be cured by gene editing involving a 3-parent-child.
- As with all novel technologies, there are some pros as well as cons of having a designer baby.

**Merits of designer babies:**

- **Increases life expectancy:** By editing out an unborn baby’s defective genes and only retaining the healthy genes, the baby will grow up healthier. Therefore, you may increase their overall life expectancy.
- **Treatment for incurable diseases:** It might help prevent genetic diseases such as Alzheimer’s, Huntington’s Disease, down syndrome, Spinal Muscular Atrophy, and many others.
- **Ease of living:** Instead of pushing the child to study hard and do well in the academic field, his/her’s mental capabilities can be enhanced before the child is even born.
- **Domino effect in Medical science:** Designer babies will be possible by advancement in Gene-editing technology, which in turn can lead to new advancements in other areas of medical science.
- **Treats societal discrimination:** Physical attributes of a person like colour, physical makeup etc. sometimes are the reason for prejudice in society. By genetic engineering of a child, these physical attributes can be easily modified.

...continued
What do you understand by the term designer babies? Explain along with its related advantages and concerns. (250 words)

Demerits of designer babies:

- **Safety issue**: The technology used is not 100% safe yet.
  1. It is only in the experimental stages at this point.
  2. Genetics are not always a hundred per cent sure, which means that it is very likely possible that error may come up at some point in the future in case of designer babies.
  3. Also, an accidental error could give rise to some new form of illness.
- **Against the rights of the child**: With the process of creating a designer baby, essentially there is in change the life and mind of a living human being without taking the person’s permission or choice, as a foetus is no way in a position to give its consent.
- **Social disparity**: Designer babies would most likely be better looking, smarter, etc. This would create “classes” between designer and non-designer babies.
  Also, most people will seek out good-looking, intelligent babies with other optimum characteristics, everyone will be relatively similar.
- **Ethical dilemma**: It is almost the same as carrying out an abortion when you have plenty of choices to eliminate the unwanted ones.
  Sometimes parents do it for money they will get as compensation for donating the stem cells and have no thought whatsoever of the baby.
- **Genetic doping**: Allowing designer babies may encourage Gene doping. Genetic doping involves inserting DNA for the purpose of enhancing athletic performance.
- **Bio-Weapon**: Designer babies can lead to a scenario where a human can be reared like animals so that it can lead to the formation of genetic bioweapon.
- **Disruption in human evolution**: Designer babies will bring an irreversible change in human evolution, as till now human are evolved on the basis of natural selection, Genetic engineering is a novel concept, which holds immense possibilities that can help mankind beyond imagination, but such type of interventions should be assimilated in human life till the extent they provide ease of humanity not the destruction of it.
Examine the objectives and significance of National Supercomputing Mission in India along with the challenges involved. (250 words)

Approach

- Give a brief idea on India’s Supercomputing Mission.
- Mention its objectives.
- Enumerate its advantages and challenges.

Introduction

- National Supercomputing Mission is an important initiative by the Government of India to boost indigenous efforts at improving supercomputing capability for socio-economic development of the nation.
- The mission is jointly steered by the Ministry of Electronics and IT and Department of Science & Technology.

Body

Objectives of the Mission

- **Strengthening Institutional Capacity:** The Mission aims to empower the national academic and R&D institutions spread over the country by installing a vast supercomputing grid comprising of more than 70 high-performance computing facilities.
- **Pooling supercomputing resources:** These supercomputers will also be networked on the national supercomputing grid over the **National Knowledge Network (NKN)**, Academic and R&D institutions, as well as key user departments/ministries, would participate by using these facilities and develop applications of national relevance.
- **Capacity Building:** The Mission includes the development of highly professional **High-Performance Computing (HPC)** aware human resource for meeting challenges of development of these applications.

Significance

- It will provide significant qualitative and quantitative improvement in R&D and higher education in the disciplines of Science & Technology.
- The mission will bring India into the select league of advanced countries such as the US, Japan, China and the European Union (EU) which share top supercomputing machines in the world.

...continued
Examine the objectives and significance of National Supercomputing Mission in India along with the challenges involved. (250 words)

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- Supercomputing facilities will enable India to build capabilities in areas such as designing vehicles, aeroplanes, massive structures like high rise buildings and bridges, infrastructure, the discovery of new life-saving drugs, discovery and extraction of new energy sources including oil, natural gas etc.
- It will enable more accurate weather forecast as well as real time tracking of natural phenomenon, timely warning of cyclones etc.
- It would be an enabler for the Digital India vision of the Government by making available huge data storage space and linking systems together.
- The mission envisages manufacturing of supercomputing systems in India contributing to Make in India and generating employment.

Challenges

**There has been a continuous delay in implementing programme**-

- India lacks highly skilled workforce for supercomputer development.
- India needs to work on policies to attract talent from all over the world as well as retaining the indigenously available talent through financial and other incentives.
- India is facing a funding crunch for the mission.
- While India’s stronghold is in the field of software development, it has to depend on imports to procure the hardware components required for building supercomputers

Conclusion

National Supercomputing Mission is a timely effort to ensure India does not lag in new area as Industry 4.0 transforms the way of doing work, equipping Indian R&D establishment to develop and master newer technological applications to resolve developmental challenges India is facing.
India is the 10th most disaster-prone country in the world. Explain the measures taken by the government to improve both, the disaster preparedness and response towards it. (250 words)

**Approach**
- Briefly explain the reasons for India’s disaster vulnerability.
- List the measures taken by the government for disaster preparedness and response.
- Explain the challenges and issues related to government measures.
- Suggest a way forward.

**Introduction**
- India is the 10th most disaster-prone country in the world with 27 out of the 29 States and all of the seven Union Territories being most vulnerable.
- About 60% of the landmass is prone to earthquakes of various intensities, over 40 million hectares is prone to floods, about 8% of the total area is prone to cyclones, and 68% of the area is susceptible to drought.

Some challenges to disaster preparation and disaster response in India are:
- geo-climatic conditions combined with a high population density
- urbanization and industrialization,
- development within high-risk zones,
- environmental degradation and climatic changes
- absence of an institutional framework at the Center/State/District level,
- poor intersectoral coordination,
- lack of an early warning system,
- slow response from relief agencies,
- lack of trained/dedicated search and rescue teams,
- Poor community empowerment

**Body**

**Government Measures for Disaster Preparedness and Response**
- India was one of the pioneering countries to establish a three-level disaster management institutional setup. Disaster Management Act, 2005 laid down institutional, legal, financial and coordination mechanisms at the National, State and District levels.
- The National Institute of Disaster Management (NIDM) for capacity building and the National Disaster Response Force (NDRF) for response purpose have been set up under the Act.
- With National Disaster Management Plan (2016) India has aligned its National plan with the Sendai Framework for Disaster Risk Reduction 2015-2030, to which India is a signatory.

1. The plan aims to significantly decrease the losses of life, livelihoods, and assets in terms of economic, physical, social, cultural, and environmental.
2. It aims to maximize the ability to cope with disasters at all levels of administration as well as among communities.

continued
India is the 10th most disaster-prone country in the world. Explain the measures taken by the government to improve both, the disaster preparedness and response towards it. (250 words)

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- **Environmental measures:** Measures have been taken for environmental protection to ensure climate-change adaptation, vulnerability reduction, and post-disaster relief, recovery and reconstruction aspects of disaster management.

- **Economic measures:** State Disaster Response Fund which is supplemented by National disaster response fund, has been constituted by each state under the provisions of Disaster Management act 2005.
  1. It was constituted based on the recommendations of the 13th Finance Commission.
  2. The government of India contributes 75% and 90% of the total yearly allocation of SDRF to general states and special category states respectively.
  3. India has built a seed storage facility with over 5,000 seed accessions at Chang La in the Himalayas to ensure food security in the face of any calamity.
  4. Also, the government is promoting the growth of climate resilient crops like millets.

- **Social measures:** Government’s approach to disaster preparedness and response increasingly focus on Community Based Disaster Management.
  1. Through awareness generation, capacity building, social mobilisation and financial support the government encourages community evolved plans for designing infrastructure in vulnerable areas.
  2. The traditional wisdom of local communities is being given the due consideration in the formulation of disaster planning.

- **Technological measures:** National Disaster Management Services (NDMS) was conceived by NDMA during 2015-16 for setting up of Very Small Aperture Terminal (VSAT) Network connecting MHA, NDMA, NDRF etc. to provide the failsafe communication infrastructure and technical support for Emergency Operation Centre (EOC) operations across the country.
  1. NDMA through Building Materials & Technology Promotion Council (BMTPC) has prepared Upgraded Earthquake Hazard Maps and Atlases for the country for better planning and policies.
  2. NDMA has taken up a project for disaster risk management by establishing GIS Server and creation of a database to integrate data obtained from various stakeholders to increase disaster preparedness, mitigation, damage assessment, response and relief management efforts.

- Major disasters like Kerala Floods and responses to it are being analysed and studied by the government to both understand and test the disaster preparedness of the country.

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India is the 10th most disaster-prone country in the world. Explain the measures taken by the government to improve both, the disaster preparedness and response towards it. (250 words)

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- Regional Response Centres and Emergency Medical Relief Divisions have been set up in all the states to provide emergency communication and medical response.

Loopholes in the measures
- A performance audit of the disaster preparedness by CAG revealed that the National Disaster Management Authority was found ineffective in its functioning in most of the core areas.
  1. It neither had information and control over the progress of work at the State level nor was it successful in the implementation of various projects.
  2. Coordination between NDMA and nodal Ministries for various disasters needed to be improved.
  3. Roles and responsibilities amongst the apex bodies at the national level also needed to be clearly specified.
- Disaster Management in India has been more concerned with responsive measures than with the preparedness.
- The development policies are not people-centric.
  For eg: The latest Coastal Regulation Zone notification does not take into consideration the issues put forth by the fishermen in these regions.
- Standard Operating Procedures (SOP) are virtually non-existent and even where such SOPs exists, the authorities concerned are unfamiliar with it.

Way Forward
- Public-private partnerships can be looked as alternative modes of disaster financing.
  Eg: Surat Climate Change Trust, a collaboration between the private sector and the urban local body in Surat, Gujarat.
- Risk-transfer mechanisms and insurance should be scaled up to support risk reduction.
- There is a need to expand capacity-building activities on disaster management within departments so that they include all stages of the disaster cycle, rather than the current emphasis on emergency response.
- There is a need for decentralised planning, implementation and monitoring and control of the disaster preparedness planning and response.
- Disasters are no longer to be considered as occurrences that are to be managed through emergency response services. So, there is a need to foster a culture of prevention and identification of the key issues to be addressed especially in the development process.
- A strategy aimed at holistic human development integrating the sustainable development goals is the way ahead to reduce the country’s vulnerability towards disasters.
Disaster resilient infrastructure is a crucial driver of economic growth and development. Explain. (250 words)

**Approach**
- Briefly discuss the need for disaster resilient infrastructure.
- Discuss how it will augment economic growth and development.
- Conclude suitably.

**Introduction**
- Natural hazards like floods, earthquakes, typhoons, and climate change—pose growing risks to development.
- When infrastructure fails during a natural disaster, it can interrupt vital services, also it deploys already scarce capital in disaster recovery and rehabilitation. Thus, there is a need to build Disaster resilient infrastructure.
- Resilient infrastructure refers to a system’s ability to anticipate, absorb, and recover from a hazardous event in a timely and efficient manner.
- Making infrastructure disaster-resilient encompasses structural and nonstructural measures.

1. Structural measures: Actions taken in the aftermath of disasters have major impacts on processes that follow for example flood control systems, protective embankments, seawall rehabilitation, and retrofitting of buildings.
2. Nonstructural measures refer to planning ahead for disasters and investing in resilience to reduce vulnerability to multiple hazards.

**Body**

**Disaster-Development Co-relation**
1. Disasters set back development programming, destroying years of development initiatives.
2. Unplanned development programmes can increase an area’s susceptibility to disasters.
3. Disasters affect the vulnerable section of society the most. Thereby further adding to their miseries and delaying their development process.
- There is a strong need to integrate development and disaster strategies. Disaster risk reduction should become an integral part of the planning process.
- According to the UN office for disaster risk reduction every $1 invested in disaster resilient infrastructure can save up to $7 or more in response and recovery cost.

**However, making infrastructure resilient to natural disasters is a daunting challenge:**
1. Because of the vast area of coverage that includes transport, electricity, water supply and sanitation, and buildings and other structures.
2. A huge fiscal cost will be required in making current infrastructure disaster resilient.
3. The government can explore the alternative mode of funding apart from public expenditure in disaster risk reduction.

**Other steps that can be taken**
- **Disaster Impact Assessment** must be made a mandatory part of Environment Impact Assessment.
- The government needs to develop a disaster atlas of India for better preparedness and mitigation measures.
- The government needs to provide insurance cover to people who are more vulnerable to disasters.
- Disaster management approach needs to be more decentralised at the level of Panchayati Raj institutions and local urban government, as suggested by the Sendai Framework and 14th Finance Commission.

**Conclusion**
It is age-old wisdom that prevention is better than cure, any investment towards disaster risk reduction will add to India’s socio-economic development.
Instances of fire tragedies are the result of lack of preparedness at the various regulatory and organisational level. Comment.

(250 words).

Approach

- Briefly mention recent instances of the fire tragedy in India with some facts and findings.
- With some examples explain how fire accidents are the result of a lack of preparedness at the regulatory and organizational level.
- Provide way forward highlighting ways to strengthen preparedness at both regulatory and organizational front.

Introduction

- As per India Risk Surveys 2018, India is the third largest country in terms of fire accidents and had faced numerous fire accidents in the past few years like fire explosion in a cracker factory in Warangal and ESIC Mumbai Hospital, a massive blaze in Lucknow hotel and the recent fire tragedy at a coaching institute in Surat is a clear indication of the lack of preparedness at various regulatory and organizational level.

Body

Lack of preparedness at the organizational level:

- Poorly stored goods reduce the effectiveness of sprinkler systems.
- Increasing vulnerabilities due to poor planning: Inflammable materials used in interiors, inadequate fire escape routes, narrow bylanes, congested building plans.
- No monitoring mechanism to check fire safety norms, building plan rules are being adhered to by the builders and residents.
- Lack of adequate resources and infrastructural facilities in terms of fire safety:
  1. Based on a 2011 study, 65 percent deficiency was reported in fire stations.
  2. According to the Ministry of Home Affairs, in 144 towns with population over 1 lakh, there is a huge deficiency of fire fighting infrastructure.
  3. 78 percent of the budget allocated to buying fire safety equipment and rescue vehicles went unused across the state between 2010 and 2015.
- Public awareness (DOs & DONTs), conduct of regular mock exercises and evacuation drills are not conducted regularly.
- Fire safety workforce is not trained on a regular basis and lacks modern techniques, skills and real-time environmental understanding in the absence of fire training institutes.
- Vulnerability analysis is mostly not done.
- Lack of preparedness at the regulatory level:
- Unclear provisions of fire safety audit
- Violation of safety norms by high rise buildings

...continued
Instances of fire tragedies are the result of lack of preparedness at the various regulatory and organisational level. Comment. (250 words).

Lack of Uniform fire safety legislation in some of the state
Fire service is a state subject and has been included as a municipal function in the XII schedule of the Constitution.
Fire services in some states like Gujarat, Chhattisgarh, etc. are under the respective concerned municipal corporations. In other remaining states, it is under the department of Home Ministry.
Firemaster plans are not being updated or revamped.
Only 30% of the cities in India have any master plan.

Laws and Government Interventions:
- Briefly mention recent instances of the fire tragedy in India with some facts and findings.
- With some examples explain how fire accidents are the result of a lack of preparedness at the regulatory and organizational level.
- Provide way forward highlighting ways to strengthen preparedness at both regulatory and organizational front.

Way forward:
- **Regular fire safety audit** of critical fire prone establishments like (like high rise buildings, multiplexes in congested areas) Hazard Identification & Risk Assessment (HIRA) to be implemented and adhered to.
- **Modernization** of fire equipment:
  Financial support and assistance in augmenting and modernizing the fire departments.
- **Awareness programs:**
  Fire fighting workshop and fire safety drills once in six months at the residential colonies, schools, and such other institutions/organizations should be conducted.
- **Proper demarcation of entry and exit points** in crowded buildings, installation of fire fighting equipment and their regular maintenance, periodic renewal of No-objection certificates by building owners in order to ensure fire preparedness.

Conclusion:
- Summarize answer with the recommendations 13th Finance Commission on fire safety and organization.
- All Municipal Corporations with a population of more than one million (2001 census) must put in place a fire hazard response and mitigation plan for their respective jurisdictions
- A portion of the grant allocated by the commission to the Urban Local Bodies may be spent on revamping the fire services in their jurisdiction.
- The ULBs may extend financial support to State Fire Services Department in this effort.