

EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

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1. There are many challenges in sustainably scaling up renewable energy in India. Analyse. Also, discuss what can be done to address these challenges. (150 words) 10

भारत में नवीकरणीय ऊर्जा को संधारणीय रूप से बढ़ाने में कई चुनौतियां हैं। विश्लेषण कीजिए। साथ ही, चर्चा कीजिए कि इन चुनौतियों से निपटने के लिए क्या किया जा सकता है।

Sustainable energy in India is a necessity in order to tackle the consequences of climate change & Global warming.

Current obstacles in scaling up of renewable energy adoption in India are:

- a) Public opinion: People, especially in educationally & economically backward areas still prefer to use highly polluting sources of energy.
- b) funding: Lack of funds for adoption of solar power in agriculture or high costs of EVs is an appropriate example.
- c) Govt. policies: The Govt's changing stances on GST on hybrid / EVs

as well as import duties on components of solar cells, have ramifications on the wider adoption of such technologies -

- d) lack of R&D by premier institutes, in potentially pioneering tech like biofuels, geothermal etc.

In order to address these challenges, the following ways can be looked upon:

- a) funding through green bonds - fund of funds like in startup India.
- b) marketing/advertising using campaigns similar to Swachh Bharat Abhiyan.
- c) focussing on govt. sponsored adoption: buying 10,000 EVs for govt., Intl. Solar Alliance leadership, mandatory ethanol blending are steps in right direction.
- d) creating separate hackathons, fellowships for R&D, intl. research collaborations.

The above methods if followed in letter and spirit can provide some push to the wider usage of renewable energy.

2. The policies and indicators introduced by the government, in recent times, to finance urban development in India are key in addressing the existing challenges. Discuss with special reference to municipal bonds.

(150 words) 10

हाल ही में, भारत में शहरी विकास का वित्त पोषण करने के लिए सरकार द्वारा आरंभ की गई नीतियां और संकेतक वर्तमान चुनौतियों से निपटने हेतु महत्वपूर्ण हैं। नगरपालिका बंधपत्रों (म्युनिसिपल बॉण्ड) के विशेष संदर्भ के साथ चर्चा कीजिए।

Govt's recent push towards smart cities, housing for all etc. has given a fresh impetus to the goal of urban development.

with regard to the above objective, the following policies have been in the spotlight:

- a) Municipal Bonds: Rules formulated by SEBI for municipal bonds' credit ratings, have formalised the funding process.
- b) RERA act has improved the regulation of real estate sector - creation of separate escrow accounts, better transparency have motivated investors to fund this sector.
- c) Housing for all: Various modes of collaboration, PPPs, in beneficiary led

development, Credit linked subsidy, in situ slum redevelopment etc, have created innovative avenues to tap private funding.

- d) Smart cities mission - tap investment of tech companies
- e) Ease of living index - to ensure outcomes are linked to increased funding.

with regards to urban financing, municipal bonds hold the maximum potential in the following ways:

- a) better method for people to invest in their city/neighbourhood - outcomes directly seen as compared to taxes.
- b) can help to collect international funding - formalisation of financing through stock markets.
- c) less burden on Govt. - better fiscal deficit, lesser subsidies.
- d) Better price discovery of infrastructure projects.

Thus, Govt's efforts at finding sources of revenue for funding urban infrastructure, are in the right direction and must be propelled further.

3. With a number of issues continuing to be a roadblock, a large section of India's rural population is still 'financially excluded'. Discuss. Analyse how these issues can be addressed and the measures taken by the government and RBI recently in this regard. (150 words) 10

कई मुद्दों के लगातार अवरोध बने रहने से भारत की ग्रामीण जनसंख्या का एक बड़ा हिस्सा अभी भी 'वित्तीय रूप से अपवर्जित' है। चर्चा कीजिए। इन मुद्दों से कैसे निपटा जा सकता है और हाल ही में सरकार तथा RBI द्वारा इस संबंध में उठाए गए कदमों का विश्लेषण कीजिए।

Financial exclusion is an issue that has repercussions for the entire socio-economic inclusion process of the backward sections of our society.

The factors that have acted as roadblocks to the inclusion process are:

- a) lesser banking penetration, low financial viability of branches in villages.
- b) less trust among people towards banks, compared to moneylenders - cumbersome procedures, unmatching of working times.
- c) educational backwardness of people, less awareness of govt. schemes,
- d) language issues, e) no-frills accounts have impact on bank profits.

In order to resolve these issues, the following solutions can be proposed:

- a) Vernacular mobile applications of banks.
- b) banking awareness right from school level.
- c) Promotion of branchless banking through post offices, bank correspondents.
- d) Attractive schemes, priority lending, one-click banking.
- e) Spreading awareness about investment products like stocks, equity for faster income growth.

Govt. and RBI have addressed some of these issues as follows:

- a) Priority sector lending norms - even for foreign banks.
- b) Subsidies, salaries through Jan Dhan accounts - for MGNREGA, Ujjwala Yojana.
- c) Allowing zero-balance accounts,
- d) Post office insurance schemes,
- e) Credit guarantee by NABARD, MUDRA, ~~ADHG~~ Aajeevika scheme etc.

Thus, by making a few tweaks in the Policy, financial inclusion can be brought back on track.

4. What do you understand by the term 'Environmental Accounting'? Discussing the rationale behind introducing environmental accounting, highlight its status in India. (150 words) 10

'पर्यावरणीय लेखांकन' पद से आप क्या समझते हैं? पर्यावरणीय लेखांकन आरंभ करने के औचित्य की चर्चा करते हुए, भारत में इसकी स्थिति पर प्रकाश डालिए।

Environmental accounting is the process by which actions that bear an impact on the environment, are quantified in monetary terms, keeping in mind the value of resources that the environment provides as well as the services that it performs.

i) For years, it was felt that while diverting ecological resources for creating infrastructure such as clearing forests for dams, cities etc., the true ecological ^{costs} value of the diversion were not properly compensated for.

ii) Thus, the concept of ecological or environmental accounting originated as a corollary to financial accounting.

iii) The concept ensures that the funds collected as compensation are used for regenerating the ecological resource elsewhere, thus ensuring sustainable usage.

With regards to India, the following points elaborate on the usage of this concept:

- a) CAMPA: Compensatory afforestation fund at both national & state level, ensures that infrastructural diversions of forest land are appropriately compensated for.
- b) Environmental Impact Assessment, 2006: wherein, the impact of polluting activities is measured in both ecological & monetary terms.
- c) finis, imposed by National Green Tribunal, after calculate true value of resources while judging the environmental cases.

Thus, India has incorporated this concept in some areas, but it must be further adopted in budgeting as done in case of gender budgeting.

5. While access to irrigation is important, efficiency of water use is equally, if not more, crucial. Examine. (150 words) 10

जहाँ सिंचाई तक पहुँच महत्वपूर्ण है, वहीं जल उपयोग दक्षता भी यदि अधिक नहीं तो उतनी ही महत्वपूर्ण है। परीक्षण कीजिए।

India is a country where around 50% of the area under agriculture depends on rains. In such a situation, both the access to irrigation as well as the efficiency of every drop becomes necessary for food security & development as follows:

a) Overuse of water

- leads to soil erosion
- waterbody pollution, eutrophication
- wastage of water
- Growing crops that use too much water, in drought prone areas
 (sugarcane in canary region)

b) Underuse of water : Even with the access to irrigation, it is necessary that every localised area of a farm gets

access to water at its roots.

c) Lack of data: Sometimes indiscriminate usage of irrigation water, leads to environmental issues like:

- i) Groundwater depletion
↳ Green revolution states
- ii) Increase in soil salinity
- iii) Overusing water even for drought resistant crops.

Thus looking at the above facets of water usage, it becomes necessary to follow the principle of more crop per drop, adopting technologies like drip or sprinkler irrigation, so that efficiency of water absorption is improved. Even the agricultural inputs such as fertilisers can be modified, like using urea coated urea to prepare for situations of accidental overusage / floods etc.

6. For a holistic approach to disaster risk reduction, there is a need to mainstream indigenous traditional knowledge and link it with modern technologies. Analyse. (150 words) 10

आपदा जोखिम न्यूनीकरण के एक समग्र दृष्टिकोण के लिए, देशज पारंपरिक ज्ञान को मुख्यधारा में लाने और उसे आधुनिक तकनीकों से जोड़ने की आवश्यकता है। विश्लेषण कीजिए।

Disaster risk reduction, as defined under the Sendai Framework as well as the SDGs, focusses on building back better. In order to focus on disaster resilience, indigenous knowledge helps in the following ways:

- a) Indigenous communities have knowledge about common local areas which are highly disaster prone.
- b) These people are the first point of contact during any disaster - their local language, access routes, common emergency protocols, can come in handy for rescue efforts.
- c) Their awareness about local building materials, such as bamboo in north-east India,

Igloos in the arctic or the thick clothes worn in Saharan Africa, are all examples where locals have adapted to disaster risk reduction.

Despite the positives of using local knowledge, the locals face the following hurdles:

- i) Lack of medication knowledge in epidemics - Ebola, Zika, Nipah virus etc.
- ii) Lack of funds - excess time spent in reconstruction
- iii) Using Lack of disaster prediction tools.
- iv) Lack of recorded data on disasters to be used for R&D.

In light of the above points, it becomes necessary to use modern technologies like machine learning, data analysis, geoen지니어ing, hydrology, etc., in synergy with the traditional knowledge, to support the motto of prevention, mitigation & rehabilitation.

7. What do you understand by food irradiation? Highlighting some of its unique applications, examine its relevance for India. (150 words) 10

खाद्य विकिरण (food irradiation) से आप क्या समझते हैं? इसके कुछ विशिष्ट अनुप्रयोगों पर प्रकाश डालते हुए, भारत के लिए इसकी प्रासंगिकता का परीक्षण कीजिए।

Food irradiation is a technique wherein low levels of non-ionising radiation is used to improve the shelf life and quality of perishable food commodities.

Some of the applications of food irradiation are :

- Preventing spoilage of fruits, vegetables, especially before long term storage in godowns.
- Killing microorganisms that can be harmful to humans & cause food poisoning.
- Unlike some techniques that end up reducing the quantity of food while maintaining quality, irradiation is a non-intrusive process that doesn't affect the quantity.

d) Irradiation doesn't affect the molecular structure of the food and is done to improve the longevity of processed food too.

In the Indian context, the concept has the following relevance:

- a) Ensuring longevity of processed crops in FCI godowns.
- b) Taking care of Sanitary / Phytosanitary issues - especially for export to European countries.
- c) BARC in collaboration with FSSAI is focussing on research on food irradiation - application in milk processing, longevity of canned food etc.

Food Security involves both adequate production as well as storage of food that can be released to the needy, and irradiation is a technology that takes care of the latter.

8. Whereas misuse of technology has abetted the spread of fake news, it is with the aid of technology that this menace can be curbed. Elaborate.

(150 words) 10

जहाँ प्रौद्योगिकी के दुरुपयोग ने फेक न्यूज़ (झूठे समाचारों) के प्रसार को बढ़ावा दिया है, वहीं प्रौद्योगिकी की सहायता से ही इस खतरे पर अंकुश भी लगाया जा सकता है। मविस्तार वर्णन कीजिए।

Fake news, as a concept refers to the propagation of unverified & / misleading facts through modes of communication, that tend to alter people's understanding of events around them.

Technology has been at the forefront in the spread of fake news as follows:

- a) Strongly interlinked communication networks / social media, that transfer fake news at the click of a button - Cambridge Analytica case.
- b) Using advanced tools like AI, machine learning to identify hot topics that strongly influence public sentiments & spreading lies around them.
- US elections, Brexit.

- c) Pushing the fake news to the educationally backward social strata to propagate violence - mob lynchings in India, role of whatsapp.

Despite the above glaring cases of misuse, technology can also act as an enabler, preventing fake news:

- a) Identifying fake news before it becomes the 'news' by using predictive tools like deep learning.
- b) Preventing access to sensitive issue related fake news, to the unaware people, by limiting their exposure.
- c) Creating regulatory regime - data localisation, privacy strengthening data monitoring by authorities etc.

Thus, the role of technology in the curbing of fake news is defined by the intentions of its very users.

9. Explain the salient features of the recently established Defence Planning Committee. How can it help in credible defence preparedness?

(150 words) 10

हाल ही में गठित रक्षा नियोजन समिति (डिफेंस प्लानिंग कमेटी) की प्रमुख विशेषताओं की व्याख्या कीजिए। यह विश्वसनीय रक्षा तैयारी में कैसे सहायता कर सकता है?

The defence ministry has recently come up with the proposal of setting up a defence planning committee to contemplate on the long term strategic defence procurements & defence policy.

It has the following features:

- a) Headed by the National Security Advisor
- b) Responsible for interacting with the 3 defence forces & align their long term requirements - like helicopters, fighter planes etc.
- c) Increasing defence preparedness - conducting regular monitoring

of inventory levels, Obsolescence of weapons etc.

- d) focussing on Make II procedure :
Supporting startups, etc. by using policy tools → create enabling environment for make in India.

In particular, the committee will improve defence preparedness in the following ways:

- a) focussing on Strategic Partnerships - for technology transfer
- b) Decide on weapon requirements, well in advance
- c) Improve coordination, not just between the 3 forces but also between other govt. departments, like ISRO, IITs etc.

Thus, defence planning committee is a step towards a holistic approach of looking at the country's defence in an integrated manner.

10. Recent reports of Maoist leaders having amassed huge assets in property and cash underlines the significance of probing the funding network as part of counter-terrorism efforts. Discuss. (150 words) 10

संपत्ति और नकदी के रूप में विशाल परिसंपत्तियां एकत्रित करने वाले माओवादी नेताओं की हालिया रिपोर्टों ने आतंकवाद-रोधी प्रयासों के भाग के रूप में वित्त पोषण नेटवर्क की जांच करने का महत्व रेखांकित किया है। चर्चा कीजिए।

Since independence, Maoism has been a persistent problem faced by the country, and the recent revelation on their funding network, emphasises on curbing their resources in order to eliminate their actions at the very source.

The various sources of Maoist funding are:

- a) Hawala route, benami transactions
- b) International funding by rogue elements in neighbouring countries.
- c) Drug peddling: like the ones discovered in Andhra Pradesh
- d) Extortions, ransoms in kidnapping

The amassing of huge amounts of assets by Maoist leaders

shows that their resources can be curtailed in the following ways:

- a) Using concept of SAMADHAN & smart police - adept with IT tools for tracking funding
- b) Cracking down on financiers by ED, CBI etc.
- c) Taking development to the affected areas - to improve interaction of people with state like the Gurupriya Bridge in Odisha.
- d) Improving surveillance on drug peddling, especially on international routes in the north east.

Thus, terror financing must be tackled at its very origin, so that the influence of black money in destabilising initiatives is ~~less~~ completely eliminated.

11. Not only do services MSMEs contribute mightily to the overall GDP growth, they have a powerful, multiplier impact on the local economies as well. Elaborating on the statement, highlight the problems faced by service sector MSMEs. How can the government make it easier for MSMEs to start and grow a business? (250 words) 15

MSMEs से संबद्ध सेवा उद्यम न केवल समग्र GDP संवृद्धि में बहुत अधिक योगदान देती हैं, बल्कि उनका स्थानीय अर्थव्यवस्थाओं पर भी एक सशक्त और गुणक प्रभाव है। इस कथन का सविस्तार वर्णन करते हुए, MSMEs सेवा क्षेत्रक द्वारा सामना की जा रही समस्याओं पर प्रकाश डालिए। सरकार MSMEs के लिए किसी व्यवसाय को आरंभ करने और उसके विकास को कैसे आसान बना सकती है?

The Indian economy in recent times, has become increasingly dependent on the Services

Sector (~65% of GDP), and about over 90% of India's GDP is contributed by the MSME Sector.

Thus, the importance of MSME Service Sector must be understood in the above background as follows:

- Generate employment for the lower income groups.
- Involvement in exports and improve the current account deficit.

c) Cater to the demand of several India, to which the MNCs still have a limited access.

MSME services have a multiplier effect on local economy in the following ways:

- a) NBFCs, moneylenders ~~and~~ businesses, ~~create~~ fulfill credit demands of MSMEs as well as farmers who wish to enter non-farming activities.
- b) Local tourism services, carried out by MSMEs, improve the earnings for the local artisans, restaurants etc.
- c) Use of IT tools, like in BPOs, Common Services Centres etc, enable the participation of women, help in skill advancement of the masses and inculcate an entrepreneurial

Spirit among the aspiring youth.

Problems or roadblocks for MSME Services are:

- a) Lack of funding - MUDRA scheme should focus on Special needs of Services like.
- b) Low skills of employees: Skill India mission should use MSME Services to improve skills as well as employ the graduates in these enterprises.
- c) High level of obligations, labour laws etc - Being at a budding stage, laws must be streamlined for an easier process of business establishment.

Thus, in view of the impact of MSME Services on the economy, the focus must be on understanding their special needs and factoring them accordingly.

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12. Contract Farming has many advantages, however it suffers from market failures. Elaborate. What can the government do to correct problems that lead to contract failures? Also, discuss whether the Model Contract Farming Act, 2018 is a step in the right direction. **(250 words) 15**

संविदा कृषि (कॉन्ट्रैक्ट फार्मिंग) के कई लाभ हैं, हालांकि यह बाजार की विफलताओं से ग्रस्त है। सविस्तर वर्णन कीजिए। सरकार, संविदा विफलताओं का कारण बनने वाली समस्याओं को ठीक करने हेतु क्या कर सकती है? साथ ही, चर्चा कीजिए कि क्या मॉडल संविदा कृषि अधिनियम, 2018 सही दिशा में उठाया गया एक कदम है।

Contract farming is a method for empowerment of farmers & increasing their incomes in the following ways :

- Regularization of agriculture - by collaboration with corporate sector.
- Higher investment in land, technologies for faster growth
- Access to credit from banks, bond market etc.

Though the model of contract farming contains the provisions for benefiting farmers, it can also lead to abrupt failures in cases such as :

- a) Price distortion, which can also happen automatically when contracts focus on a single crop neglecting the others.
- b) Environmental consequences of growing highly priced, water/nutrient intensive crops - such as drought, soil infertility
- c) Exploitation of farmers, ~~to~~ to produce more crop from the same land → lessen transfer of profits downstream → leading to riots, market disruption
- d) Excess use of fertilizers → quality gets affected → leading to health & economic consequences.

With regards to the above issues, the government can ensure that contracts are followed in the following ways:

- a) Price stabilization mechanisms —
Bharat Krishi Yojana of MP
- b) Reducing subsidies & MSP for
water ~~intensive~~ intensive crops
- c) Regulating the markets to
prevent exploitation of farmers —
Gramen hats hats, modernize
APMCs, streamline enforcement
of contracts to ensure fair prices.

~~It~~ With respect to the above provisions, the Model Contract Farming act has the following features:

- a) Ensures land utilization rights to
farmers
- b) Ensures fair prices & prevent
exploitation → by creating district
monitoring committees
- c) Increased relevance of cooperatives
in making contracts for farmer
groups.

Though the act enhances contract enforcement, it must dwell in the
environmental impacts of land
exploitation, to become a holistic
scheme.

13. Suggest the measures needed to improve the employability of labour force as well as increasing number of employment opportunities in light of structural changes being brought by disruptive technologies.

(250 words) 15

विघटनकारी प्रौद्योगिकियों (डिस्ट्रिप्टिव टेक्नोलॉजी) द्वारा लाए जा रहे संरचनात्मक परिवर्तनों के प्रकाश में श्रम बल की नियोजनीयता में सुधार लाने के साथ-साथ रोजगार अवसरों की संख्या बढ़ाने के लिए आवश्यक उपायों का सुझाव दीजिए।

The world today is experiencing the 4th industrial revolution guided by AI, IoT, big data etc.

These technologies impact the employment conditions in the following ways:

- demand for high skilled labourer.
- Unemployability of manual workers → replaced by robots.
- Increased relevance of internet & digital economy → rapid adjustment required towards digital age.

Digital economy, targeted to become a \$1 trillion industry by 2022.

must be tackled such that labour employability can be

improved in the following ways:

- a) Skilling programs - Skill India Mission to focus on providing digital services like banking, tech. entrepreneurs.
- b) Improving digitization of economy - promote digital transactions, e-commerce jobs, spread computer / IT education (DIKSHA scheme)
- c) Collection of data - in an organized format, that can be readily stored & analysed for figures relating to employment especially in the unorganized sector.
- d) Support to MSME sector - to improve their capability to adapt to the digital age, MUDRA funds for digitization, tax incentives for introducing new technologies.

- e). Support to BPO Sector = which can serve as the first stepping stone for rural masses to enter the digital world.
- f). Improving education system - focus on providing IT / coding skills from primary school, modify RTE to ensure everyone gets the basic tech skills (surfing web, creating email) between 6-14 years of age.
- g). Use digitization to enhance linking of job seekers with job providers - digitized employment portals etc.

The above measures can be a guiding tool to the government for ensuring a sustainable transition of jobs in this new age.

14. India's trade policy in agriculture, marred by ad-hocism and pro-consumer bias, has constrained realization of export potential, and prevented the farmers from reaping the benefits. Examine the statement and discuss ways, including government initiatives, to improve agricultural exports.

(250 words) 15

तदर्थता और उपभोक्ता समर्थक पक्षपात से प्रभावित, कृषि में भारत की व्यापार नीति ने निर्यात सामर्थ्य की प्राप्ति को बाधित किया है तथा किसानों को लाभ उठाने से रोका है। इस कथन का परीक्षण कीजिए और सरकारी पहलों सहित कृषि निर्यात में सुधार लाने के तरीकों पर चर्चा कीजिए।

For years, the agricultural sector in India has stagnated at a growth rate of just 3% last year & its contribution of just 15% to the GDP, even though it employs over 50% of the population.

The role of India's trade policy in this phenomenon has been the following:

o Enhancing growth:

a) trade policy ensured marketing of agri products, in international markets.

b) Quality control & export support, especially in horticulture &

- c) Export agreements with trading countries for reducing tariffs.
- d) Financial support, subsidies
like & support from EXIM
bank.

o Impeding growth :

- a) frequently changing import/
export duties.
- b) Importing pulses from
Africa to maintain goodwill
even during a domestic
glut situation.
- c) Import of cash crops like
coffee from Sri Lanka
China via Sri Lanka /
Bangladesh - misuse of
bilateral agreements.
- d) low high cost of labour/
production, leading to
low export competitiveness
with respect to South East Asia.

- e) roadblocks due to sanitary/phyto sanitary regulations.

The government can counteract in the following ways to improve the situation:

- a) Improving the foreign trade policy 2015-2020 to focus on agriculture, use of e-commerce, big data, AI for identifying new markets.
- b) Enhance productivity & logistics infrastructure to reduce export cost → more schemes like SAMPADA, SAGARMALA
- c) focus on organic products & quality monitoring especially towards EU.
- d) Tap the growing markets, providing credit support (like Letters of Credit).

Thus, the trade policies must be reconsidered and declared for the long term to enhance stability of exports.

15. Is currency exchange rate a suitable measure of relative economic performance of countries? Despite improving macro-economic fundamentals, trade deficit in India continues to widen. Bring out the factors responsible for this situation. (250 words) 15

क्या मुद्रा विनिमय दर देशों के सापेक्ष आर्थिक प्रदर्शन की एक उपयुक्त माप है? मैक्रो इकॉनॉमिक फंडामेंटल्स (समष्टि-आर्थिक आधारों) में सुधार के बावजूद, भारत में व्यापार घाटा निरंतर बढ़ा है। इस स्थिति के लिए उत्तरदायी कारकों को प्रस्तुत कीजिए।

Currency exchange rate is the value of a country's currency relative to those of other countries at purchasing power parity.

The exchange rate shows a country's economic performance as follows:

- floating exchange rates depend on a country's trade, export competitiveness
- A strong macroeconomic situation improves the strength & confidence for a currency.
- foreign reserves of a country, help to maintain the exchange rate at a reasonable level → a rapidly worsening exchange rate can indicate

depleting foreign currency reserves.

In spite of the above factors supporting a strong correlation, exchange rate suffers from the following drawbacks:

- a) fixed exchange rate doesn't give a true picture of the economy.
- b) Some countries like China have been alleged to indulge in currency manipulation to improve exports.
- c) Trade restrictions / sanctions like those on Iran & Turkey, can create reduce investor confidence in a currency temporarily.
- d) Exchange rates have to be in an optimum range for exports to increase & import bill to ~~increase~~ facilitate economic growth → a depreciating currency may indicate a

convergence towards the optimum value.

Through exchange rate & trade deficit
~~Since~~ have a strong correlation, govt.
can focus on the following factors
causing a widening of trade deficit:

- a) High import bill → due to rising oil prices
- b) External shocks → global trade wars between USA, China, leading to higher tariffs.
- c) Higher dependence on commodities like oil, coking coal, fertiliser, Pharma APIs.
- d) Inverted duty structure leading to higher imports of finished products.
- e) Lack of access to new markets, especially due to protectionism

Thus, the currency exchange rate despite having an influence on export competitiveness & import bills, is only 1 of the many factors affecting trade deficit.

16. It will take much more than relief packages to address the problems being faced by the sugar industry in India. Discuss. (250 words) 15

भारत में चीनी उद्योग द्वारा सामना की जा रही समस्याओं को दूर करने के लिए राहत पैकेज से आगे और कुछ करने की आवश्यकता है। चर्चा कीजिए।

The sugar industry in recent times has been facing a diverse set of problems, requiring quintessential support from the government.

The situation can be described as follows:

a) high prices of sugar in past years → led to increase in sugarcane acreage

b) Glut in sugar market leading to sharp fall in prices

c) Limitations put by Govt. on sugar export → to increase production of ethanol for blending with petrol.

d) Increasing acreage of the

sugar producing companies
towards the sugarcane farmers
, running to over ₹20,000 crore.

The fact that the problems
have been created by factors
other than go in addition to
government policies, makes
it imperative to follow an
all round approach to solve
this crisis:

- a) Necessary to incorporate
price stabilization
mechanism for sugar
- b) Sugarcane MSP must be
set keeping in mind its
environmental impact →
high groundwater
depletion
- c) Excess sugar must be
exported at low until
the ethanol blending
programme reaches the

- desired level of progress.
- d) Data must be collected regarding regionwise sugarcane acreage, domestic demand in past years, needs for ethanol production, & international demands.
- e) Big data should be used to forecast the respective future demands.
- f) Sugarcane subsidies to be reduced to minimum to limit the environmental impacts.
- g) Robustness of sugar industry should be improved → more credit for export, automation of factories, marketing of exports, GI tags for jaggery & other derived products.
- Thus, relief packages tackle only 1 aspect of the issues that the sugar industry faces today.

17. NAPCC, almost 10 years old and formulated with lofty objectives, has not served as the best answer to cope with the impacts of climate change. Critically discuss. (250 words) 15

लगभग 10 वर्ष पुराने और उत्कृष्ट लक्ष्यों के साथ सूत्रबद्ध, NAPCC ने जलवायु परिवर्तन के प्रभावों का सामना करने संबंधी सर्वोत्तम अनुक्रिया के रूप में कार्य नहीं किया है। आलोचनात्मक चर्चा कीजिए।

National Action Plan on Climate Change, created in 2008 is a wide ranging initiative focussing on the diverse factors that contribute to Global warming.

The plan focusses on the following:

- a) Afforestation
- b) Reduced emissions during energy production, transportation
- c) Localized weather monitoring, climate disaster preparedness
- d) Air pollution reduction, especially in cities, like NCAP, NAQS (air quality standard)
- e) R&D on new technologies, like biogas, drought resistant crops etc.

Though the Plan seems to cover nearly all the diverse aspects of climate change, it has been limited in its impact, signified by India's rank at the bottom in air quality related deaths, climate related migration forecasts, & high levels of pollution.

The reasons for this are as follows:

- a) Poor monitoring - of pollution levels, very few air pollution monitoring centres even in Delhi where PM 2.5 frequently exceeds 500.
- b) financial distress of renewable energy sector - NPAs of banks, revision of power purchase agreements,
- c) Utilization of Compensatory Afforestation fund has been lacklustre.

- d) Ethanol blending programme has failed to reach finish its stages on deadlines.
- e) Over 1.2 million pollution related deaths every year
- f) Climate change phenomena causing floods in Kerala, Assam etc.
- g) Poor state of affairs with respect to exploitation of natural resources, coal mining, plastic pollution.

In spite of the above impediments, the plan has been successful in bringing climate change onto the discussion table.

This has enabled the formulation of policies & initiatives like International Solar Alliance. The only thing that these measures lack is proper implementation & a sense of responsibility towards the environment.

18. Proliferation of nuclear weapons and the threat of their use are key concerns for global security nonetheless existing International arrangements seem to be ineffective. Comment. Also, identify the salient features of India's policy in this context and discuss whether India should join the NPT in the current form. (250 words) 15

परमाणु हथियारों का प्रसार और उनके उपयोग का खतरा वैश्विक सुरक्षा की प्रमुख चिंताएं हैं, इसके बिना वर्तमान अंतर्राष्ट्रीय व्यवस्था अप्रभावी प्रतीत होती है। टिप्पणी कीजिए। साथ ही, इस संदर्भ में भारत की नीति की प्रमुख विशेषताओं को चिन्हित कीजिए तथा चर्चा कीजिए कि क्या भारत को वर्तमान प्रारूप वाले NPT में सम्मिलित होना चाहिए।

Nuclear weapons have been regarded as the flagbearers of human destruction, and their continued stockpiling poses a significant risk for humanity.

existing international arrangements to prevent nuclear proliferation are:

- Nuclear Suppliers Group - limiting access to raw materials for weapons.
- Non-Proliferation treaty - limiting transfer of sensitive technologies that can be used in weapons.

- c) Missile Control Technology
Control regime - Limiting
the capabilities of missiles to
carry weapons over long
distances.
- d) UN resolutions - demanding
the abolition of nuclear
weapons - supported by
Noble Peace Prize winning ICAN
initiative.

Despite these arrangements, significant
results have not been obtained
because of:

- a) Illegal transfer of tech. to
regime elements → from Pakistan
to North Korea.
- b) No solution for ensuring peace
without nuclear weapons.
- c) A symbol of becoming
global superpower → North
Korea's adventurism.
- d) Lack of effective control of

international agencies like UN, NSG.

India has the following nuclear policy :

- a) No first attack doctrine.
- b) Credible intimidation to ensure peace
- c) India supports a transparent mechanism that is based on rules and is equitable to ensure long lasting peace without nuclear weapons.

The NPT was established in 1974 to limit nuclear weapons to countries that had already become nuclear powers by then. NPT in the current form is :

- a) biased towards the haves,
compared to the have nots.
- b) No credible mechanism to check proliferation.
- c) Countries like North Korea, Iran etc. looking to have weapons shows the failure of NPT.

Thus, India should vouch for a more transparent process under UN that is just in nature.

19. The maritime security domain requires collective multilateral and regional cooperation to combat non traditional threats. Discuss in the context of threats in the Western Indian Ocean and the recent amendments in the Djibouti Code of Conduct.

(250 words) 15

समुद्री सुरक्षा प्रक्षेत्र (डोमेन) गैर-परंपरागत खतरों का सामना करने हेतु सामूहिक बहुपक्षीय और क्षेत्रीय सहयोग की मांग करता है। पश्चिमी हिंद महासागर में खतरों और जिवूती आचरण संहिता में हालिया संशोधन के संदर्भ में चर्चा कीजिए।

Maritime Security, especially in the western Indian ocean, is marked by cases of piracy, especially near Somalia, which threaten the flow of international trade especially in the Gulf region.

The threats of to maritime security in western Indian Ocean are as follows:-

- a) Lack of patrolling capabilities - especially of small island states & African coastal countries.
- b) Increasing militarization of Islands, like China's bases, pose a threat to

freedom of trade & navigation.

c) Region surrounded by
countries suffering from
instabilities → militants in
Gulf region

d) flow of critical commodities
like crude oil, through the
region → can have
strategic impact on a
nation's energy security.

In order to counter the threats,
unilateral actions are insufficient
because:

a) Activities in International
Maritime areas, on hijacking
of a country's ship in
other countries' EEZ.

b) Small Island states depend
on larger neighbouring
countries for large scale or
sensitive rescue operations.

Example → Operation Cactus in
Maldives against LTTE.

c) Countries with high amounts
of tech & economic resource
must collaborate with smaller
states for reconnaissance,
patrolling, monitoring, while
respecting their territorial
integrity.

d) A collective framework can
resolve boundary disputes &
ensure responsibility to specific
countries during distress.

The Djibouti Code of Conduct is one
such collective effort that ensures:

- a) No port is used as a military
base for selfish priorities by
any country.
- b) Respect for freedom of navigation
- c) Information sharing on real time
basis to resolve misunderstanding

Thus, countries especially under BIMSTEC,
RF Indian Ocean Region etc, should
collaborate on a more such frameworks
to ensure protection of sea lanes of
communication

20. India's space programme was initiated with the vision of utilising outer space for peaceful purposes, however with changing times it has the potential to play a significant role in strengthening security capabilities of India. Discuss with adequate examples. (250 words) 15

भारत का अंतरिक्ष कार्यक्रम, शांतिपूर्ण उद्देश्यों हेतु बाह्य अंतरिक्ष का उपयोग करने के दृष्टिकोण के साथ आरंभ किया गया था, हालांकि बदलते समय के साथ इसमें भारत की सुरक्षा क्षमताओं को मजबूत बनाने में महत्वपूर्ण भूमिका निभाने की क्षमता है। यथोचित उदाहरणों के साथ चर्चा कीजिए।

Outer Space today is being increasingly used, not only as an exploration arena, but also as a new battlefield to show military dominance.

In view of the above statement, India must reorient its space programme as follows:

- a) focus on surveillance capabilities: USA has its GPS, while EU is working on Galileo, Russia has Glonass & China too is creating its own navigation system for monitoring.

India, too can use its own IRNSS system of satellites,

to ensure, realtime accurate navigation information for its military.

b) Creation of unconventional defence weapons: USA has been working on LASER based weapons, while China too has come up with plans to install weapons in Space.

India, therefore must not be the one left behind in this Star Wars scenario, and should work on an integrated theatre command.

c) Satellites in recent times have been used for weather control, through localized heating, cloud seeding etc. Such technologies can work havoc in India during a war, and therefore defence preparedness becomes necessary.

- d) With USA's renewed efforts to set up a human colony on Mars, India must ensure that its Gaganyaan program is the first in a long series of human exploration missions, to ensure strategic advantage.
- e) Satellites have increased relevance in terms of Cybersecurity: China recently experimented with Quantum encrypted communication. India should work in this direction & ensure funds, for R&D in such fields.

In view of the above challenges, it is a stark reality that space that was once a ^{metaphorical} battleground between 2 superpowers competing to win the space race, is today on the verge of becoming an actual battleground & India must be ready for all adverse scenarios.