



## 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.

2.

3.

4.

5.

6.

All the Best

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

Renewable energy means energy derived from solar energy, wind energy, hydro energy etc. India has set the target of 100 GW renewable energy by 2022. However, scaling it up has certain challenges.

CHALLENGES	SOLUTIONS
(i) Huge dependency on non-renewable source. eg. <u>70% energy</u> in India is derived from coal.	(i) <u>Incentives</u> to private sector and industries to shift to renewable sources.
(ii) Its promotion require <u>large scale imports</u> of solar panels, technology etc. Domestic market is either not capable of manufacturing as prices are high.	(ii) Large scale manufacturing under ' <u>Make in India</u> '. <u>Import duties</u> in line with WTO norms.
(iii) <u>Aggressive bidding</u> results in lower	(iii) Bidding should not only be on lower prices

prices. For eg. Solar energy in Gujarat was sold to private entities at ₹3/W.

but also on factors like imports, employment etc. Minimum cap can be introduced to incentivise private sector to produce renewable energy

(iv) Lack of electric supply to remote villages. Discoms are already under huge debt trap.

(iv) Off-grid production should be promoted. In the long run, households can be incentivised to add extra energy to main-grid.

Renewable energy can serve <sup>as</sup> excellent means for India to fulfill its goals under Saubhagya Yojana, Paris Climate deal etc. It must be suitably promoted.

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।

Urban development through policies and schemes like SMART CITY initiative, AMRUT Mission, Livelihoods Mission, Awas Yojana etc. require large amounts of funding. However, funding faces many challenges.

### CHALLENGES

- Inadequate realisation of property tax.
- Low credit rating of municipal bonds.
- No specific taxing powers under new GST Regime.
- Economic Survey 2017-18 pointed out that urban bodies are able to finance only 40-44% of their projects.
- Escalated costs due to delays.

### POUCIES + INDICATORS BY GOVT.

- High credit rating to municipal bonds

backed up by states.

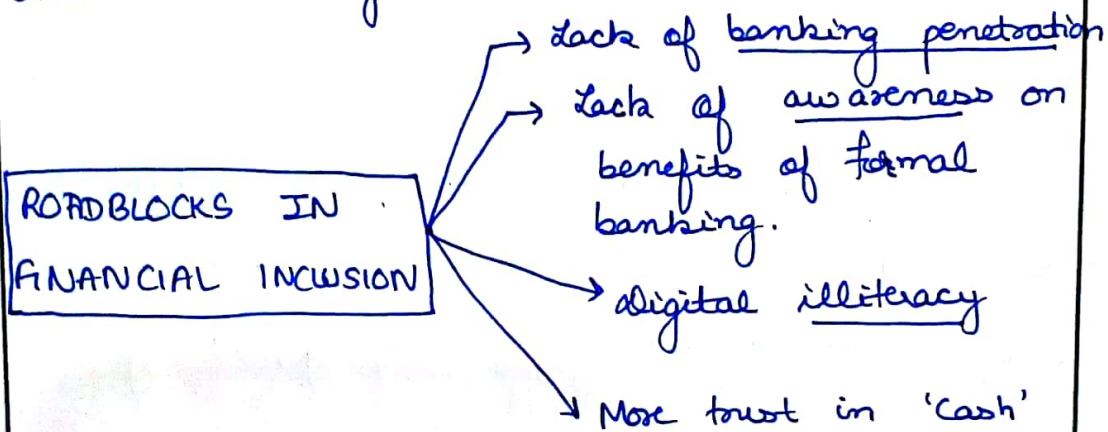
- Chennai has introduced drone mapping of city for effective realisation of property tax
- Value added levy for metro projects, highways etc.
- Competitive federalism by ranking cities and incentivising them for better financial management.
- MUNICIPAL BONDS to allow them to raise independent financial resources and reduce state's discretion in devolving funds.

Therefore, Govt has taken many steps to finance urban development. City GST Bill should also be considered, so that urban finance doesn't get ignored in new GST regime.

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 inclusion means bringing the population under formal banking sector.  
 ~ 60% rural population is financially excluded today.



Recent CAG Report highlighted that India saved ₹ 5700 Crore in Direct Benefit Transfer under schemes like PDS, MGNREGA etc. Therefore, financial inclusion is important for the development of the country.

Measures taken by Govt. :

- DBT for schemes like PAHAL.
- SHG-Bank linkage programme.
- Formal credit facilities under MUDRA.

### Steps taken by RBI

- Payment Banks
- Mobile banking
- Incentives for banks to open branches in rural areas
- Banking Correspondents.

### FURTHER STEPS:

- Promotion of schemes like Subanya Smeiddhi Yojana to open bank accounts at early age
- Awareness on benefits of banking, saving culture.
- Banking facilities at doorstep.

These steps will ensure that India is financially included.

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।

Environment Accounting means measuring the costs and benefit analysis of a step on the environment.

eg. Measuring the impact of dam construction on biodiversity, rivers, people surrounding that area.

Rationale behind its introduction :-

- Better assessment of impact of the project
- Comprehensive approach can be taken to address the issues involved.
- Ensures 'sustainable development'
- Conservation of natural environment
- Rational use of natural resources.

~~The~~

### Status in India:

- Concept of Environment accounting is underutilised.
- Doesn't have any statutory backing.
- Done on voluntary basis by few industries of coal, oil etc.

Environment Impact Assessment under EPA, 1986 is on the same lines but it lacks financial accounting. This loophole can be plugged by Environment Accounting. Therefore, it must be provided with statutory backing.

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।

Recent NITI Aayog Report titled 'Composite Water Management Index' highlighted that 60 crore Indians are facing severe water stress today. This brings in the need of efficient water use.

Agriculture uses ~85% of groundwater resources. This highlights the need of balancing irrigation with water use.

### Importance of Irrigation

- Greater production
- Increased rural demand
- Food security
- Reduced import bill
- Increased farmers income
- Employment.

### Importance of Efficiency of water use

- Depleting ground water reservoir
- ~64% India drought affected.

- Water stress is increasing.
- To maintain sustainable growth.
- Affects rain water cycle.

Thus, both irrigation and efficient water use is important. Need of the hour is to balance both of these.

- Schemes like Per Drop More Crop can go a long way.
- Rain Water Harvesting techniques.
- Use of treated industrial discharge in agriculture.
- Drip irrigation, Sprinkler irrigation instead of water pumps.
- Soil mulching to reduce evaporation.

For sustainability of agriculture in India, these steps are must.

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।

Local knowledge and indigenous traditional knowledge can play a key role in holistically reducing disaster risks.

→ Earthquake resistant houses like Bhongas in Gujarat, Ekra in Assam. ~~etc~~

→ Local varieties of trees for handling tsunamis, cyclones.

eg. Nalvedapathy village in Tamil Nadu faced minimal damage during 2004 Tsunami due to community forestation.

→ 80% search and rescue operations are carried by the communities. Their knowledge can help in proper rescue and rehabilitation.

However, such traditional knowledge is of no use if it is not mainstream and linked to modern technologies.

- Providing them with adequate training to use such knowledge.
- Supplementing such knowledge with early warning system can do wonders.
- Capacity Enhancement by providing adequate materials for earthquake resistant houses.

Thus, this approach can help India save 3% GDP which is wasted ~~on~~ due to disasters.



sector in India. It currently contributes 8% to GDP. Increased irradiation can help in meeting international standards and thus promote food processing in India.

However, food irradiation requires appropriate technology and skills to use it. India must focus on it given its relevance.

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।

Recent Karbi Anglong violence fuelled by fake news on platforms like Facebook, whatsapp has raised concerns for misuse of technology.

### MISUSE OF TECHNOLOGY

- Morphed videos, images
- instant and wide spread.
- Anonymity, hence easy to spread fake news.
- Easy target population on social media

This misuse can be handled by the aid of the technology. Technology is not the issue but rather how it is used.

- o whatsapp new feature of 'forwarded message' tag and limits on no. of forwarded message can curb the menace. It can also help in track the culprit.

- Constant vigilance on social media through the use of BIG DATA, AI can help in evidence-based policing.
- Google has collaborated with many private companies to identify fake news circulating on internet.
- Wider reach to public through this very social media to aware them against such fake news.

Thus, aid of technology can help in spread of such fake news.

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?

India has recently established defence Planning Committee as a permanent body. It will consist of <sup>Chairman</sup> Chiefs of Staff, Secretary of defence, foreign affairs etc.

### Features:

- It will define national security priorities.
- It will undertake security risk assessment.
- Prepare a roadmap to enhance domestic manufacturing for defence.
- Streamlining of foreign deals in defence technologies.

Given the threat India faces from its hostile neighbours and in Indian Ocean region, such Committee was essential to enhance its defence preparedness.

- India imports 90% of its defence requirements and is largest importer of such technologies. indigenisation will help in reduction in reliance on other countries for such crucial sector.
- Streamlining of foreign deals will ensure better objectivity and prevent corruption.
- Defining priorities will help in taking coordinated steps.
- Security risk assessment will help in making short-term and long-term plan.

Formation of DPC is a commendable step. Its objectives must be fulfilled for better regional and territorial security.

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 जाँच करने का महत्व रेखांकित किया है। चर्चा कीजिए।

India faces various internal security threats in the form of Naxalism, left-wing extremism, Terrorism etc.

Reports of Maoists having huge assets point towards their inter-linking and need for a comprehensive approach to resolve these threats.

Sources of money for Maoists :

- Extortion Money from public officials, private individuals etc.
- Bribes for smooth functioning of projects.
- Hawala transactions
- Money from International charities
- State-funded to create instability in India.

## Significance of probing funding under anti-terrorism efforts. :-

- (i) Recognize the role of countries like Pakistan to fuel Naxalism in India.
- (ii) Identify deep channels of funding.
- (iii) Comprehensive approach towards handling it.
- (iv) Reveal the true face of Naxals who claim to work for people's interest.

Therefore, it is a need to probe funding sources of Naxals under Anti-terrorism efforts. It will help identify clear links between them.

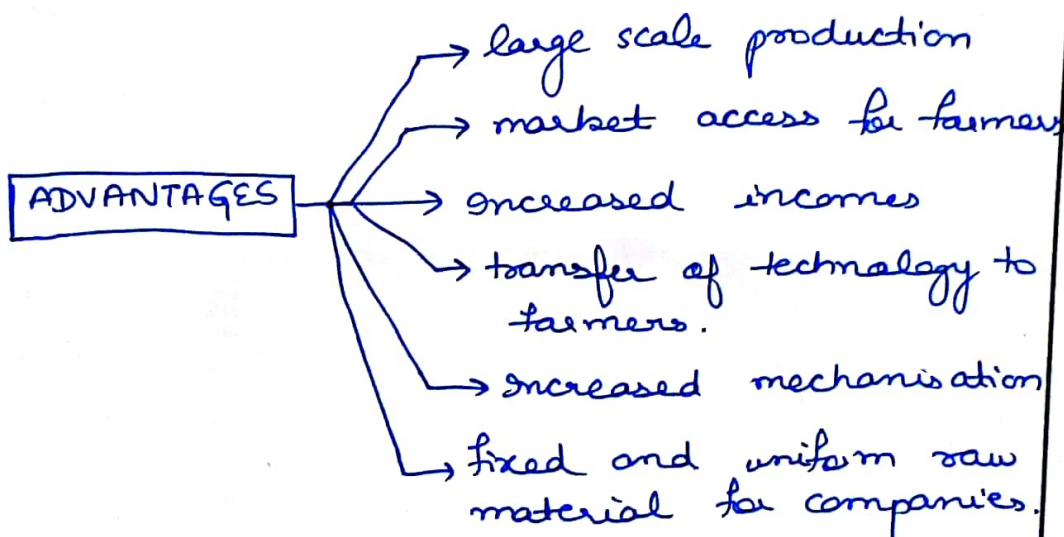
11. Not only do services MSMEs contribute mightily to the overall GDP growth, they have a powerful, multiplier impact on the local economies as well. Elaborating on the statement, highlight the problems faced by service sector MSMEs. How can the government make it easier for MSMEs to start and grow a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

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। सविस्तार 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 refers to the farming done to fulfill the contract between private businesses, companies, industries and farmers.



However, Contract Farming suffers from many MARKET FAILURES :—

- i) Cartelisation of prices by the private sector.

- (ii) Change in land ownership and transferred to private sector in case of non-fulfillment of contract.
- (iii) Commercialisation of agriculture and thus increased prices of food crops.

### Govt. steps that can be taken

- (i) Balance the needs of both farmers and private sector.
- (ii) Since agriculture is a state level, states should proactively adopt a uniform law.
- (iii) Introduction of leasing of land as given under NITI Aayog's model land leasing Act <sup>can</sup> go a long way.
- (iv) Provide incentives for crops grown according to agro-climatic zoning.
- (v) Relaxation w.r.t exports.
- (vi) Do not allow exploitation of farmers by shifting of land ownership.

MODEL CONTRACT  
FARMING ACT, 2018

→ protects farmers interest by disallowing change of land ownership

→ Promotes contract farming and thus, great remuneratives.

→ Insurance to farmers

Though, Model Contract Farming Act is a step in right direction, it is heavily tilted in favour of farmers. Huge cost is borne by the private sector. Therefore, changes need to be made to have a balance legislation.

This law has capability to address farmer suicides (7 per day) and double their income by 2022.

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।

31 million people in India are <sup>un</sup>underemployed today. Many more are expected to face the threats brought by technologies like Artificial Intelligence, Fourth Industrial Revolution etc.

### CHANGES Brought by DISRUPTIVE TECHNOLOGIES

- Machines will be able to replace the humans and their needs.  
eg. Cotton plucking earlier employed large no. of people. Now, machines are used for the same.
- Shift towards greater-skill requiring jobs. Since India is yet to cope-up with such skills, many will face unemployment.
- Rising inequalities in the society.
- India might lose on its demographic dividend.

Economic Survey 2016-17 pointed out that 68% Indian population is under 35 years. India must take the advantage the macro GDP growth rate of 8%.

Measures needed to improve employability of labour force :-

- Skills according to the current demands.
- Recognition of Practical Learning.
- World Bank pointed that only 16% graduates in India have required Industry skills. Partnership with industries is need of the hour.
- Vocational courses at large scale.

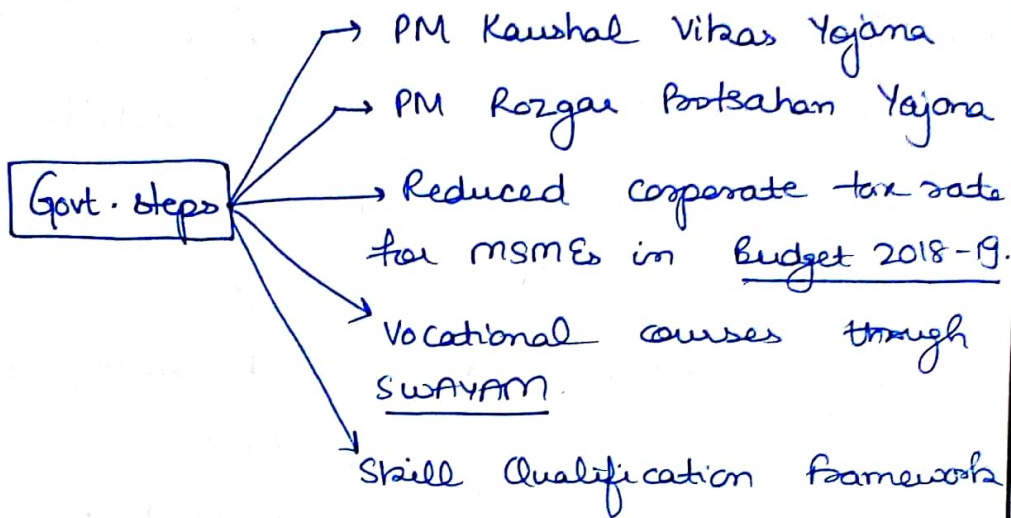
Measures needed to increase opportunities of employment :-

- (i) Focus on labour-intensive sectors like foot apparel, leather, textile etc.
- (ii) Sunrise sectors like food processing,

Tourism to be extensively promoted.

(iii) Increased bargaining power.

(iv) 'data' as a new modern industry can employ many.



Further measures must be taken by the govt. to prevent its 'demographic dividend' turning into 'demographic disaster'.

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।

India today holds only 2.2% export share of agriculture in the international market.

This is due to ad-hocism and pro-consumer bias in agricultural policy.

- (i) Essential Commodities Act fail to distinguish between consumers, traders and food processors. Due to this, only 10% products in India are processed as compared to 80% in developed countries. This prevent farmers from earning extra income through value addition.
- (ii) Temporary increase and decrease in MSP according to domestic needs reduces exports potential.
- (iii) Excessive stockholding under PDS. FCI

holds more than 30% agricultural products as compared to its need. Absence of any release policy, prevents its use for exports.

### Govt. Initiatives

- (i) Agricultural Produce under Merchandise Export Incentivisation Scheme (MEIS) under FTP 2015-2020.
- (ii) Push towards food processing to increase export potential.
- (iii) Increased coverage of crops under MSP.
- (iv) Agriculture as an enterprise under Budget 2018-19.
- (v) Duty rebate on exports.

### Steps Ahead :-

- (i) Automatic kick-in of Policy on excessive storage under FCI to be used for released in international and domestic market as suggested by SHANTA KUMAR COMMITTEE.

- (ii) Repeal of Essential Commodities Act.  
Handle Black-Marketing under Prevention of Black-Marketing and Hoarding Act, 1950.
- (iii) Promotion of Contract Farming.
- (iv) Cooperative Farming to increase mechanisation and thus, increased produce.
- (v) Focus on exports of organic agriculture.

To ~~realise~~ realise the goal of doubling farmers income by 2022, it is necessary to increase export opportunities for farmers.

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 इकनॉमिक 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 tells about the relative value of one currency wrt other. It is based on many factors like trade balance, demand of currency, foreign investment, domestic stability etc.

It is considered a suitable measure of relative economic performance as

- easy to measure
- tells about economic opportunities in the country.
- hints on stability of economy.

However, it lacks certain factors.

- doesn't tell anything about sustainability of economy.
- measuring along single currency like dollar, excessively favours it.

- Purchasing power parity which is an important indicator is ignored.

India currently is 3rd largest economy according to Purchasing Power Parity and 6th largest based on currency exchange rate.

Trade deficit in India today stand at 16 billion dollars.

### REASONS

- India meets 80% of its oil needs through imports.
- It is largest importer of defence technologies.
- Rising oil prices by GCC impacts its import bill.
- Dumping by China
- Restrictions on its exports due to

discriminatory tariffs by countries like US

- Competition in exports from countries like Bangladesh, Vietnam.
- Reduced competitiveness in Exports due to issues in MSME sector.
- Less focus on value addition of food products. eg. India exports 0.3% milk products whereas New Zealand exports 25% of its production.

Therefore, trade deficit needs to be handled.

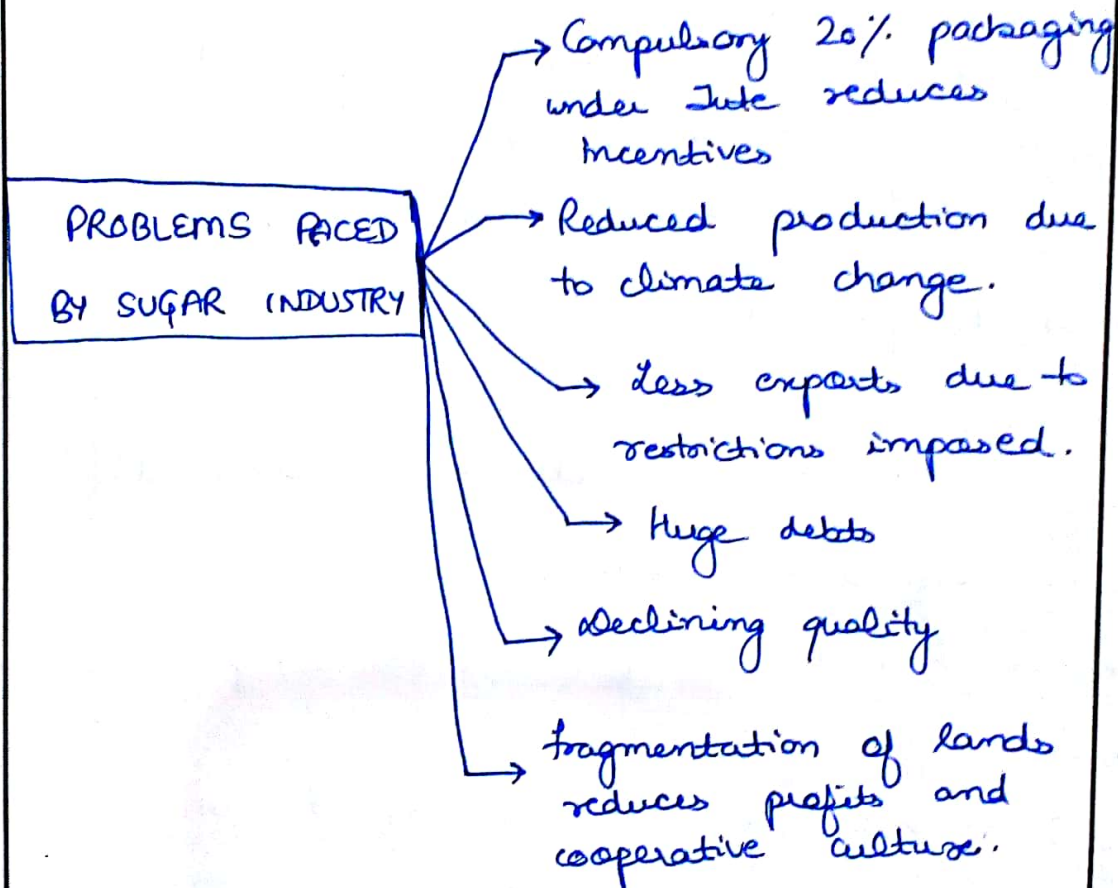
- Asian cooperation against Oil Bremium.
- National Biofuel Policy, 2018 can help reduce imports.
- Make in India to be excessively promoted.
- Increased quality through 'Zero defect, Zero Effect' for MSMEs.

These steps will help in narrowing the trade deficit and increase foreign exchange reserves.

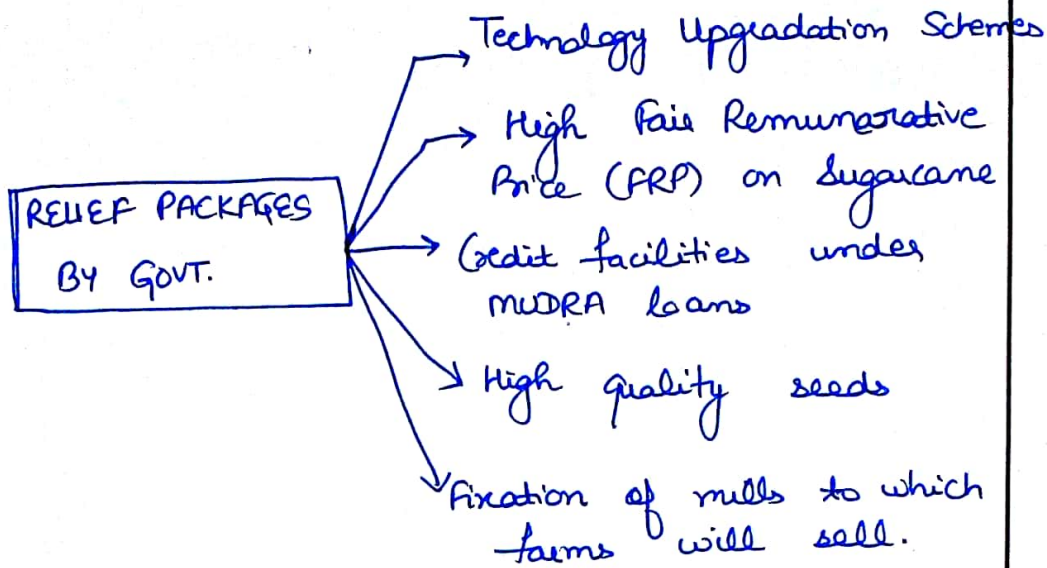
16. It will take much more than relief packages to address the problems being faced by the sugar industry in India. Discuss. (250 words) 15

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

Sugar industry, one of the major industries of India is facing problems today.



To handle these problems, Govt has provided with various relief packages.



However, more steps are needed to address it.

- Remove 10 km limit on farms to sell to nearby mills as suggested by MS Swaminathan. This will increase competitiveness.
- Better accommodation between FRP and SRP to benefit both farmer and ~~the~~ industry.
- Prevent dominance of large farmers in pricing
- Greater credit facilities without collateral.

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anything in  
margin  
(सुनिश्चित करें कि  
मार्जिन पर है)

17. MAR

These steps will ensure sustainability  
and profitability of sugar industries.

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 (NAPCC) has 8 missions under it. However, due to wide, unclear and lofty objectives, it has lacked in addressing climate change issues.

### ① National Solar Mission

Objectives: Promote R&D in solar energy  
Make it affordable.

Issues: Solar energy accounts for ~3.5% of total energy demands. 70% is still dependent on coal. This results in greater Green house gases emissions.

### ② National Mission for Sustainable Agriculture

Objectives: Make it resilient to climate change. Provide proper forward and backward linkages to farmers.

Issues: Agriculture growth is stalled at 2.2% GDP. More than >50% is rain-fed and rain is first victim of climate change.

### ③ National Water Mission

Objectives : Optimise water use efficiency and reduce wastage.

Issues : 60 crore Indians under severe water stress today. <10% rainwater harvested.

### ④ National Green Mission

Objectives : Afforestation, increase forest cover to 33%.

Issues : Forests acts as major carbon sinks for GHGs but forest cover in India stands at ~21.3% acc. to recent India Forest Survey Report, 2017.

### ⑤ National Mission for Enhanced Energy Efficiency

Objectives : Reduce vehicular pollution and promote electric vehicles.

Issues : Very low penetration of electric vehicles.

### ⑥ National Mission on Sustainable Habitat

Objectives : Planning and management of

waste.

Issues : Failed to address climate change.

## ⑦ National Mission for Sustaining Himalayan Ecosystem

Objectives : Maintain global commons

Issues : Melting glaciers due to  $\uparrow$ ed temperature.

Thus, NAPCC has not served as best methods to address climate changes. It needs objectively defined goals and incentivisation of meeting these goals. Independent assessment of fulfillment of these goals is also necessary.

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 are the most devastating weapons humankind has made till date.

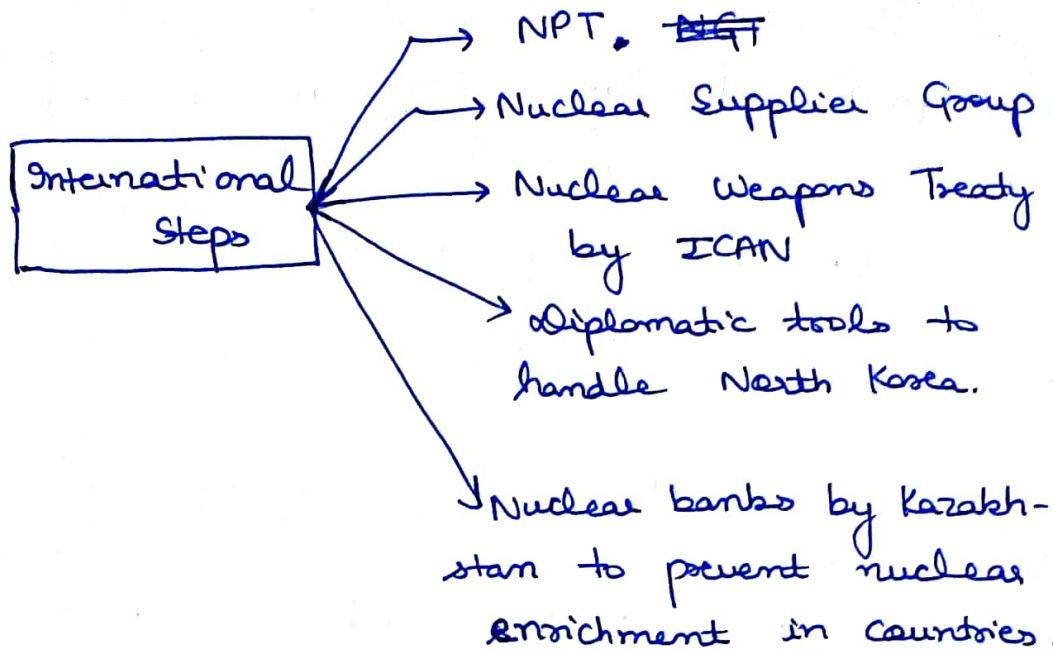
These have the capability to wash away entire population of earth. Probably, this is the reason why no country has dared to use it.

However, threats of its use exist.

- Tensions in the Korean peninsula and North Korea as emerging Nuclear power.
- Pakistan's threats to India for nuclear weapons use.
- Middle-East Asia under turmoil and Israel is a nuclear power.
- Threat of terrorists getting hands on nuclear weapons.

To address these, many international

steps have been taken.



### NON-EFFECTIVENESS OF THESE STEPS :

- There are many nuclear powers outside the purview of NPT, NSG.
- ICAN Treaty on complete ban of nuclear weapons is not ratified yet.
- North-Korea is still a major threat.
- More and more countries emerging as nuclear powers.

### INDIA'S POLICY

- India has always been a responsible nuclear

power. It has maintained its 'No first use policy'.

- It has signed Indo-Japan Nuclear Agreement that further stresses use for peaceful purposes.
- Publicly condemned nuclear threats by Pakistan.
- Trying to get membership of NSG.

However, India cannot consider joining NPT in its current form.

It is highly discriminatory and will give western powers edge over India. Given, the threats India faces in its neighbour, it cannot sign it.

It is required by international community that NPT be modified suitably to address global needs rather than narrow interests. Threats from nuclear weapons is real. We cannot wait it to turn into reality.

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।

Entry of terrorists of 2008 Mumbai Attack through the western seas of Indian Ocean highlights the threats in the region.

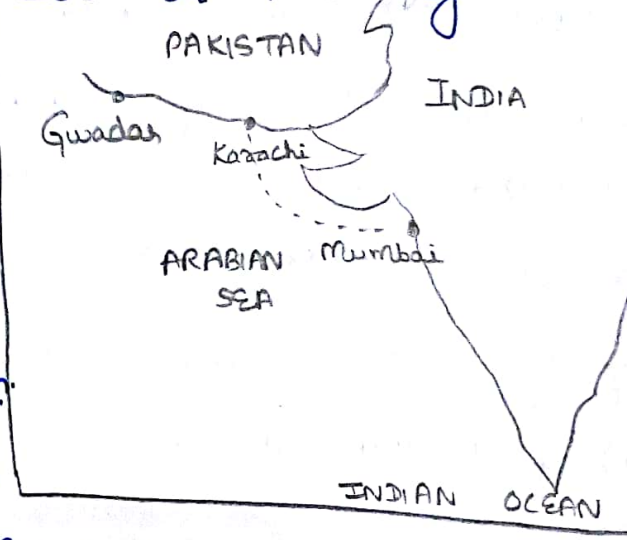
## THREATS

(i) Easy reach in Western Indian Ocean through Pakistan. Thus, prone to Terrorism.

(ii) Drug Trafficking as close to Golden Crescent.

(iii) Security threats from China as it has build its first naval base in Djibouti

(iv) Piracy issues. Huge piracy cases like Persian Gulf.



## NEED OF MULTI-LATERAL & REGIONAL COOPERATION

(i) Cooperation from countries of Indian Ocean

Region is necessary so that no country allows its land to be used against India.

- (ii) Multi-lateral grouping like QUAD GROUP [Japan, India, US, Australia] is necessary to strategically counter China.
- (iii) Military exercises like MALABAR etc. in the region acts as major deterrent.
- (iv) Regional Cooperation by India and Iran in Chabahar Port is necessary to keep check on Guadal Port.
- (v) Help of countries like SUDAN in handling Piracy cases.

Thus, collective multilateral & regional Cooperation is the way to combat such threats.

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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।

India's space programme has hitherto been a unique and exclusive project for civilian purposes and peaceful purposes.

- SAARC Satellite for neighbouring countries to help them in early detection of disasters, provide GPS etc.
- ISRO's Bhuvan portal for assets mapping under MGNREGA.
- Age-climatic zone mapping. Resource mapping.
- IRNSS for domestic navigation.
- Mars orbiter Mission for better understanding of earth.
- Other Mission like Chandrayan Mission, GSLV-Mk III etc. are also meant for peaceful purposes.

However, since the Cold War, space has been used as 4th ground of war after air, land, water by countries like US, Russia, China.

Also, there are increasing security concerns of today

- Territorial aggression by China.
- Security of Indian Ocean Region.
- India being surrounded under 'String of Pearls theory'.
- Underwater threats through modern weapons like nuclear submarines.

This highlights the need for India to visualise space as a measure to strengthen security.

- Vigilance on all other 3 grounds of war.
- Indigenous GPS tracking facilities to not rely on other countries at time of war.
- GSLV - Mk II can help in making of

missiles like Brahmas.

Thus, India needs to take immediate steps to strengthen its security capabilities through space.

- Defence Space Agency as suggested by Nagesh Chandra Panel.
- Greater resources availability to ISRO.
- Enhancing private participation.

However, these steps should be taken by keeping into mind international rules and regulations under Outer Space Treaty and PAROS Treaty.