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GENERAL STUDIES (TEST CODE : 1515)

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Medium Eng./Hindi	ENGLISH	Registration Number	1222481
Center	ONLINE	Date	17/12/2021

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
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15	15	
16	15	
17	15	
18	15	
19	15	
20	15	

Total Marks Obtained:

Remarks:

INSTRUCTIONS

1. Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).
उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)।
2. There are **TWENTY** questions printed in **ENGLISH & HINDI** इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
3. **All questions are compulsory.** सभी प्रश्न अनिवार्य हैं।
4. The number of marks carried by a question/part is indicated against it.
प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
5. Answers must be written in the medium authorized in the Admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in medium other than the authorized one.
प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे।
6. Word limit in questions, if specified, should be adhered to.
प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
7. Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off.
उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।

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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. Explain the meaning of off-budget borrowings and its role in helping the government raise funds for various expenditures. Also, comment on its desirability. (150 words) 10

बजटेतर उधारी (ऑफ-बजट बॉरोइंग्स) का अर्थ स्पष्ट कीजिए और विभिन्न व्ययों के लिए धन जुटाने में सरकार की सहायता करने में इसकी भूमिका का उल्लेख कीजिए। साथ ही, इसकी वांछनीयता पर टिप्पणी कीजिए।

Off budget borrowing is defined as the borrowing which is done by the entities like PSUs and other government companies on directions of government -

Role of helping govt. in Raising Funds

- ① Borrowed amount does not count in Fiscal Deficit.
- ② Help to keep a good rating in Credit Rating Agencies
- ③ Promote investments in ~~conf~~ economy
- ④ Help govt. to spend on welfare measures.

⑤ Funds available for emergency
expenditure ~~as~~

[eg] CAR Report 2019 says Food Corporation
of India borrowed 2.2 lakh Cr. (2016-19)
from NSSF.

ways of off Budget borrowing :

- ① By issuing Bonds
- ② By borrowing from Savings.

Is such borrowing Desirable?

- ① Leads to opacity in budgeting.
- ② Decreases Fiscal Accountability.
- ③ Decreases Working efficiency or credibility
of these companies.

→ Recent transparency induced by the
govt. to clear off FCI dues is a welcome
measure as Transparency in budgeting
helps to clear Fiscal Accountability & Management.

2. It is argued that genetically modified food crops are required to ensure food security of India. Examine in view of concerns regarding introduction of GM crops. (150 words) 10

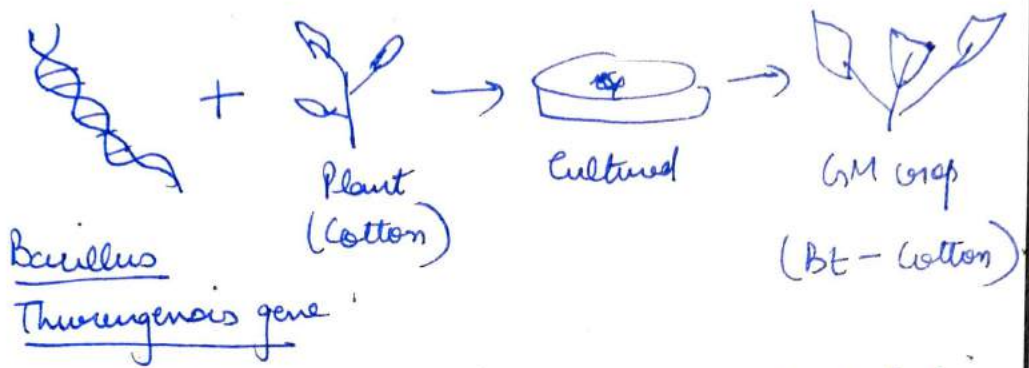
यह तर्क दिया जाता है कि भारत की खाद्य सुरक्षा सुनिश्चित करने के लिए आनुवंशिक रूप से संशोधित खाद्य फसलों की आवश्यकता है। जी.एम. फसलों की शुरूआत से संबंधित चिंताओं के आलोक में परीक्षण कीजिए।

Genetically Modified Crops are GM crops

are defined as crops produced by deliberately altering the genetic structure by genetic engineering to increase crop resilience.

Requirement for Food Security

- ① Promotes pest and help in pest Management.
- ② Protects plants from diseases.
- ③ Ensures high yield per unit area.
- ④ High returns to the farmer.
- ⑤ Resource efficiency improves.



[eg] Only Bt-cotton is allowed in India

Concerns regarding Introduction

① May lead to resistance in pest

[eg] American Bollworm developing resistance from Bt-cotton

② Environmental concerns regarding Bioaccumulation & Magnification.

③ Weeds may become resistant.

④ Will replace Natural crops affecting Cropping Pattern.

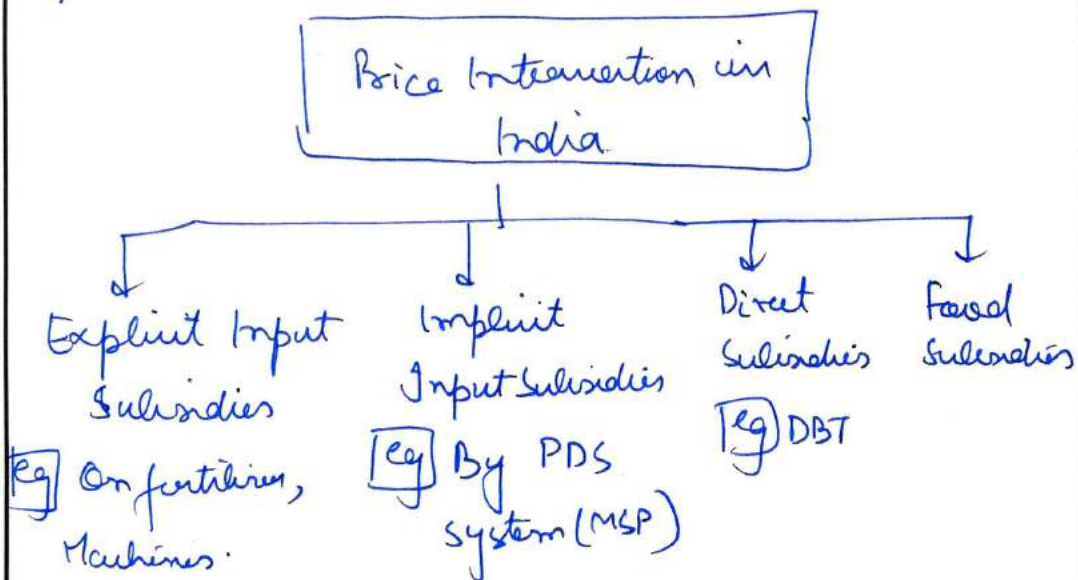
→ Hence though efficient use of GM crops leads to higher benefits and produce, its use in food crops like Bt-Brinjal and Mustard need to be studied before introduction.

3. India's price intervention policies to support its agricultural sector not only create a broken system but also complicate matters related to international trade rules. Critically discuss. (150 words) 10

अपने कृषि क्षेत्र का समर्थन करने के लिए भारत की मूल्य हस्तक्षेप नीतियां न केवल एक अप्रभावी व्यवस्था का निर्माण करती हैं बल्कि अंतर्राष्ट्रीय व्यापार नियमों से संबंधित मामलों को भी जटिल बनाती हैं। समालोचनात्मक विवेचना कीजिए।

Price Intervention Policies in agriculture

followed by Indian govt. involves support (monetary or otherwise) given by govt. to agri-businesses and farmers for augmenting their income & ensuring price stabilization.

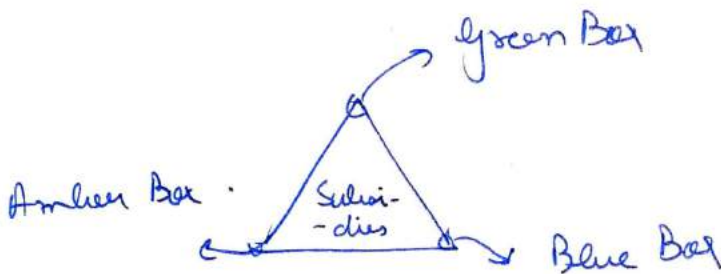


Creation of Broken System

① Leads to Food Inflation by Demand ^{intervention}

- ② Leads to Monoculture farming
- ③ Rampant use of Natural Resources.
- ④ Regional Imbalance in agriculture increases
- ⑤ Ruth farmers are benefited more.

Issues in International Trade Rules



- ① Considered as Amber Box Subsidy in Agreement on Agriculture (AoA) at WTO
- ② Issues related to 10% cap.
- ③ Issues related to Peace Clause for developing Nations

→ Hence Indian govt. intervention in agriculture pricing is still under review at WTO. India demands a permanent solution to the issue of Developing Nations welfare measures and related interventions.

4. India has an opportunity to become a leading global food supplier provided it has an efficient supply chain and the right marketing strategies.
Elucidate. (150 words) 10

भारत के पास एक अग्रणी वैश्विक खाद्य आपूर्तिकर्ता बनने का अवसर है बशर्ते उसके पास एक कुशल आपूर्ति श्रृंखला और सही विपणन रणनीति हो। विशदीकरण कीजिए।

Post green revolution, India has
witnessed a rapid increase in food

production achieving self sufficiency.

However, it still lags to claim fair

share in international Markets.

Need for Efficient Supply Chain

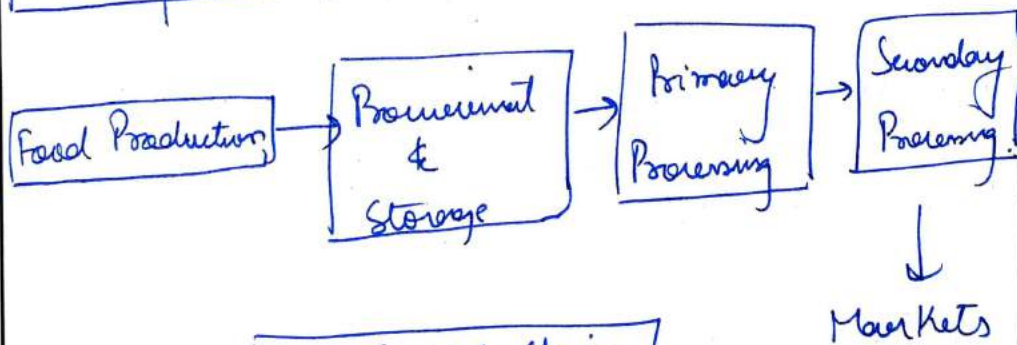


Fig: Supply Chain

- ① As per current data, only 2% of
Indian produce is processed ⇒ Need more
food Processing.

- (2) Better Transport is required as per improving upstream processes
- (3) Better Storage for better Downstream process
- [eg] As per NITI Aayog, 90,000 Cr Rs wasted due to food waste (2014-19)
- As per Shanta Kumar Committee Report (2014)
- (4) Better Forward & Backward Linkages needed
- (5) More Machine handling and less Manpower use

Need for Marketing Strategies

- (1) Need for Value addition in Food Processing
- (2) More investment needed in Tertiary processing
- (3) Need of Auxiliary processes like grading, Packaging to be more efficient -

→ Hence, though produce is high, a better implementation of recommendations of Shanta K's Committee Report by leveraging on Technology & Innovation is needed.

5. Land banks are increasingly gaining prominence in India to encourage land-use efficiency and enable economic growth. In this context, discuss the benefits of a land bank and state the concerns associated with it.

(150 words) 10

भूमि उपयोग दक्षता को प्रोत्साहित करने और आर्थिक वृद्धि को सक्षम बनाने के लिए भूमि बैंक भारत में तेजी से प्रमुखता प्राप्त कर रही हैं। इस संदर्भ में, भूमि बैंक के लाभों तथा इससे संबंधित चिंताओं का उल्लेख कीजिए।

Land Banks are defined as a policy of govt. to constitute bodies to manage the utilisation of existing land owned by govt. / private entities scrupulously for productive purposes.

Benefits of Land Banks

- ① Improves Land Use Efficiency.
- ② Utilising locked capital from unused land resources.
- ③ Development of Land Market.
- ④ Boost to Infrastructure Development due to easy allocation & disinvestment.

- (5) Charles Black Marketing and Land Mafia.
- (6) Provides much needed capital and Multiplier effect on economy.

Concerns Associated

- (1) May lead to eruptions of power who are inhabiting this land.
- (2) Political issues related to regulatory Measures and Land use.
- (3) More leverage of technology is needed using GIS land processes.
- (4) May lead to unsustainable use of land leading to Environmental concerns.

→ Hence though Land Banks are a promising way forward, assistance of Technology and Environmental Sustainability is needed.

6. Desertification has been described as one of the greatest environmental challenges of our time and climate change is making it worse. Discuss. (150 words) 10

मरुस्थलीकरण को वर्तमान समय की सबसे बड़ी पर्यावरणीय चुनौतियों में से एक के रूप में वर्णित किया गया है तथा जलवायु परिवर्तन इसे और बदतर बना रहा है। चर्चा कीजिए।

Desertification is defined as the loss of
arable land and ecosystem and its
rapid degradation into a desert
ecosystem.

Desertification as a greatest Challenge:

① Loss of arable land.

② Lead to food Insecurity.

[eg] UN WFP report predicts around
700 million people are food insecure.

③ Loss of Biodiversity.

④ Asymmetric effect on Women as they
find it hard to find resources.

⑤ Economic losses due to demand production

Climate Change & Desertification

- ① Increasing Temperature : IUCN report says 2°C rise can push more than 190 million people in food insecurity.
 - ② Climate Migration and Desertification lead to overstrained resources
 - ③ Loss of groundwater resources due to climate change accelerate desertification.
 - ④ Climate extreme behaviours lead to loss of vegetation to further desertification.
 - ⑤ Tribals/Nomads living in ~~forest~~ desert are losing their only source of sustenance due to climate change.
- UN has declared 2021-30 as Decade for Ecosystem Restoration, hence green boundaries are needed to halt desertification at its worst to threat human existence.

7. In the context of intellectual property rights, discuss the advantages and disadvantages of releasing projects under an 'Open Source' license.

(150 words) 10

बौद्धिक संपदा अधिकारों के संदर्भ में, 'ओपन सोर्स' लाइसेंस के तहत परियोजनाओं को जारी करने के लाभ और हानियों पर चर्चा कीजिए।

Recently, technologies related to IT and softwares are being released as an 'Open Source' for people to use and innovate upon.

[eg] Aarogya Setu app has been made an Open Source software.

→ IPR concerns related to such a licensing regime is real.

Advantages of Open Source.

- ① Leads to Innovative use of Technology.
- ② Decreases cost of developing such Technology over and over again.
- ③ Leads to Social Welfare.

- ④ Proliferation and development of Accessory Technologies.
- ⑤ Open Source Technology used by low Income/developing countries.

Concerns related and disadvantages

- ① May decrease Motivation to build a new technology.
- ② No Rewards for generating and Innovation.
- ③ May lead to Data Concerns and Privacy Issues.
- ④ Restrictions related to Interoperability of such Source.

→ Hence, an Open Source Policy does promise social welfare and ~~profit~~ proliferates technology but under innovation in a long run.

8. "Indian space sector has been dominated by a single umbrella of government and government institutions." In light of the statement, discuss the significance of Indian Space Association in providing an impetus to space technology in India. (150 words) 10

"भारतीय अंतरिक्ष क्षेत्र पर सरकार की एकमात्र संस्था का प्रभुत्व रहा है।" इस कथन के आलोक में, भारत में अंतरिक्ष प्रौद्योगिकी को प्रोत्साहन प्रदान करने में भारतीय अंतरिक्ष संघ के महत्व की विवेचना कीजिए।

Space Sector in India, till very recent times was limited to cases for government and government companies like ISRO and Antrix. due to expertise, investment and operational concerns.

→ As per K. Sivan, India only holds a 2% share of world's space Economy.

Indian Space Association as an Impetus

- ① Increasing Private sector Investment in Space Sector.
- ② Will help in fund holding and Training.

③ Will increase Education and Job opportunities in Space Sector.

④ ISRO can also focus on high skills tasks like Gaganyaan Mission.

⑤ Will increase competitiveness of Indian technology and launching system in global Market.

[eg] NSIL recently launched Amaronia, a Brazilian Satellite

Further need of Action

① Increasing Students interest in Space Research.

② Encouraging global Investment in Indian Space Sector.

③ A consortium of players from govt. and private representatives for co-ordination

→ Hence, IN-SPACE and NSIL, are a welcome step to proliferate Space Technology in India.

9. Man and machine both have an important role in national security and making urban areas secure. In this context, discuss how technology is a major stakeholder in addressing the internal security challenges of India.

(150 words) 10

राष्ट्रीय सुरक्षा और शहरी क्षेत्रों को सुरक्षित बनाने में मानव और मशीन दोनों की महत्वपूर्ण भूमिका है। इस संदर्भ में, चर्चा कीजिए कि प्रौद्योगिकी किस प्रकार भारत की आंतरिक सुरक्षा चुनौतियों से निपटने में एक प्रमुख हितधारक है।

India has been facing Internal Security challenges of evolving Nature and hence the right co-evolution of Man-Machine based structure is need of the hour.

Threats to Internal Security

- ① Use of Bio-Terrorism by cross border agents.
- ② Cyber Security attacks on critical Information Infrastructure.
- ③ Use of Social Media to organize Terrorism.
- ④ Cryptocurrency used for Money Laundering.

→ Since, new Technology is leading to a new kind of ~~Physical~~ Threats to Security:

Technology as a Major Stakeholder

- ① Use of Frontier Technology like AI to secure Critical Infrastructure
- ② Regulating Cryptocurrency to clamp down Money Laundering.
- ③ Use of Technology to curb Radicalisation on Social Media.
- ④ Smart Borders and Sensors.
- ⑤ Use of CCTV and Facial Recognitions for Urban Security.

→ Hence, since emerging nature of threats rely on technology, a tech based response to such challenges is need of the hour.

10. National Security Guard (NSG) has emerged as a formidable force equipped to handle various manifestations of terrorism. Discuss the mandate and achievements of this force. (150 words) 10

राष्ट्रीय सुरक्षा गार्ड (NSG) एक पराक्रमी बल के रूप में उभरा है जो आतंकवाद के विभिन्न रूपों से निपटने के लिए सुसज्जित है। इस बल के अधिदेश और उपलब्धियों की विवेचना कीजिए।

National Security Guard (NSG) is a

sub division of Indian defence forces,
primarily under Indian Army which
are trained specially to deal with
unprecedented emergency challenges like
Terror attacks

Mandates

- ① Swift response to emergency situation
- ② Diffusing the emerging threat based on intelligence.
- ③ Use of new technology and weapons to diffuse such situation.

- (4) To fight against terrorist attacks and other violent upsurges.
- (5) To give oneself, to some the country in need.

Achievement

One of the greatest achievement was fighting against the 26/11 attacks by terrorist where NSCs successfully pinning down terrorists and even arrested one to be presented

→ Hence NSCs as a special force is irreplaceable to fight security challenges of our country.

11. What do you understand by asset monetisation? Why is it needed in India? In this context, discuss the issues that need to be addressed for the National Monetisation Pipeline to succeed. (250 words) 15

परिसंपत्ति मुद्रीकरण से आप क्या समझते हैं? भारत में इसकी आवश्यकता क्यों है? इस संदर्भ में, उन मुद्दों पर चर्चा कीजिए जिन्हें राष्ट्रीय मुद्रीकरण पाइपलाइन के सफल होने के लिए समाधान करने की आवश्यकता है।

Asset Monetisation is defined as a policy recently being used by govt. of India to lease off some of its assets to private entities in exchange of a lumpsum amount without losing ownership.

Need of Asset Monetisation in India

- ① Provides Much needed capital to the government.
- ② Govt. can invest this capital to further develop infrastructure.
- ③ Unlocks the capital locked in assets.

- ④ Introduces efficient Technology in asset operation.
- ⑤ Under utilised assets gain benefits due to Private Investment.

→ In India, going through an economic slowdown and unemployment, this is a much needed policy.

Issues to be Addressed for NMP

- ① All projects may not attract private Investments.
- ② Govt. may lose profits in over-utilised assets in long run.
- ③ May lead to increased cost to Consumers.
- ④ Employee uproar in the sectors which is seen as Privatisation need to be addressed.

⑤ Private entities may degrade or use assets unsustainably.

Sectors to be Monetised → Airports, Railway, Telecom, Highway, etc.

Routes used in NMP → PPP Model
↳ InvIT Model

Way Forward ∴

- ① An independent Asset Monetisation Regulatory Commission should be set up.
- ② Monitoring the use based on contractual agreements.
- ③ Keeping doors open for govt. intervention if cost to consumer increases.

→ Clearly, NMP is a welcome step to provide a fillip to a slowing economy but regulation, improved governance and efficient use is key to a sustainable use.

12. What is social stock exchange (SSE)? Discuss the need for setting up of SSEs and key challenges in their effective implementation. (250 words) 15

सोशल स्टॉक एक्सचेंज (SSE) क्या है? SSEs की स्थापना की आवश्यकता और उनके प्रभावी कार्यान्वयन में विद्यमान प्रमुख चुनौतियों पर चर्चा कीजिए।

Social Stock Exchange (SSE) is defined as the platform instituted by the govt. where people/companies can buy bonds listed by firms/NGOs for funding the Social Welfare Measures.

→ Such exchanges, though first in India are already in operation in Europe and USA.

Need for setting up SSE

- ① Provision of funding to Social sectors like Health, Education.

- ② Welfare approach to governance is ensured through such exchanges.
- ③ Better tracking of funds invested in Social Sector.
- ④ Decreases fund diversions for unsavoury purposes.
- ⑤ Human Capital indicators like Nutrition, Skills of weaker section, etc. to be improved by private investment. Hence reduces load on govt.

Key Challenges

- ① Tracking of funds raised by such exchange is a challenge.
- ② Credibility of organisation being listed on SSE needs to be ensured.

- ③ If not monitored, may lead to another window for Money Laundering Activities.
- ④ May not attract the required Investments from private entities.
- ⑤ Less players may come up for enlisting on SSE due to over regulation.

Way Forward

- ① Provision of an Independent agency to monitor credible use of funds.
- ② RBI and SEBI must have some control over Social Stock Market.
- ③ Firms using SSE as a route of CSR compliance must be audited to avoid Money Netting and Integration.

→ Hence, SSE is a needed to ensure Transparency and Accountability in Social Stock Market. Govt and private entities can be equal partners in Welfare.

13. In the context of India, highlight the importance of agriculture extension. What are the challenges faced in provisioning of agriculture extension services? How does the National Mission on Agricultural Extension & Technology (NMAET) address these issues? (250 words) 15

भारत के संदर्भ में, कृषि विस्तार के महत्व पर प्रकाश डालिए। कृषि विस्तार सेवाओं के प्रावधान में सामना की जाने वाली चुनौतियां कौन-सी हैं? कृषि विस्तार और प्रौद्योगिकी पर राष्ट्रीय मिशन (NMAET) इन मुद्दों का कैसे समाधान करता है?

Agriculture Extension is defined as application of new knowledge, Techniques and Technology in agriculture by means of formal education & Training.

→ India is at forefront of such practices under National Mission on Agricultural Extension & Technology (NMAET) as a part of Krishnotti Yojana.

Importance of Agriculture Extension

① Help in ensuring sustainable agriculture practices.

[eg] Training of farmers on Zero Tillage Farming

(2) Ensures Resource use efficiency.

[eg] Training farmers on Drip Irrigation.

(3) Increases Economic returns to farmers.

by boosting production.

(4) Help in increasing Mechanisation hence labour efficiency on farm.

(5) Increases availability of Agriculture

Credit and Finance.

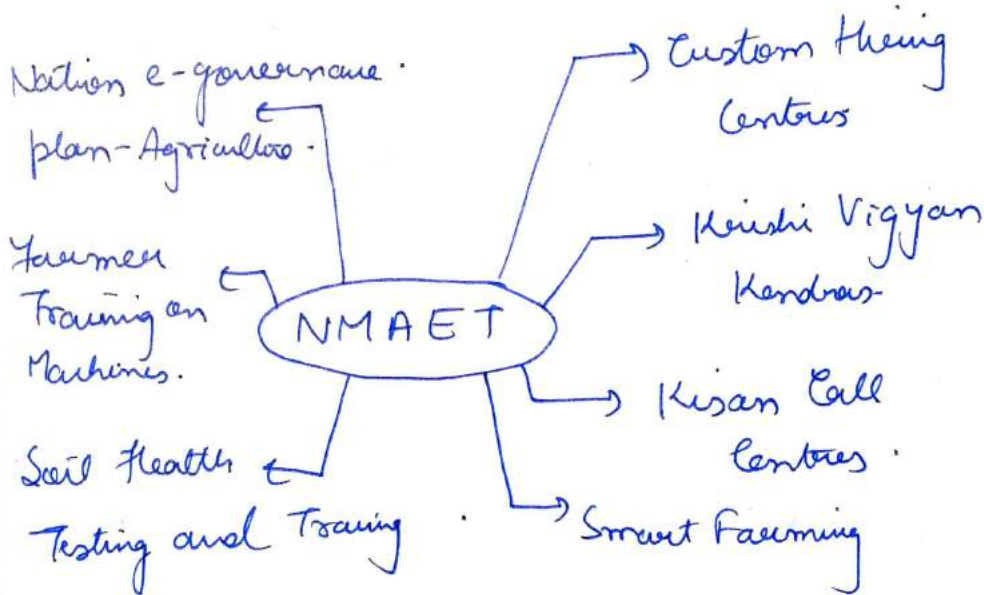
[eg] As per NABARD, agri. credit has increased from 4.75 lakh Cr to 15 lakh Cr (2020)

Challenges faced in Agri Extension Services

(1) Digital illiteracy of farmers.

(2) Reluctance of farmers to change his age old farming practices.

- ③ Trust deficit between officials and farmers
- ④ Non availability of electricity/connectivity to estimate farmer's complement Measures
- ⑤ Paucity of Funds due to high fiscal burden on government.



→ Hence, NMAET is assisting Indian farmers to leverage on technology.
 Farmers to realise Ashta Dalwai Committee's objective to double farmers income, little needs to deliver such measures to farmers and need to be addressed.

14. Clearly delineate the 'employment problem' that India currently faces. Also, explain the fundamental reasons behind existence of this problem. (250 words) 15

भारत वर्तमान समय में जिस 'रोजगार समस्या' का सामना कर रहा है, उसे स्पष्ट रूप से निरूपित कीजिए। साथ ही, इस समस्या के अस्तित्व के मूल कारणों की व्याख्या कीजिए।

The 'Employment Problem' in Indian economy has kicked in after the period of Jobless growth i.e. the GDP was increasing without proportional increases in employment.

Current Issue of Employment

- ① As per Centre for Monitoring Indian Economy (CMIE), at least 10 million jobs were lost during pandemic.
- ② As per usual Status, PLFS survey says unemployment reached 20% mark in April 2020.

- (3) Jails are concentrated in Urban areas leading to underspread migrations.
- (4) Underemployment of weaker sections like STs and SCs.
- [eg] As per Assessment Report of Ministry of Tribal Affairs, 51.3% STs are underemployed.
- (5) Automation of machines may replace at least 400 million workers by 2030.

Fundamental Reasons

(1) Skill - Gap in Market:

[eg] As per NSO data, only 2.3% of Indian workforce is skilled.

(2) Lack of Reskilling to tune with Industry 4.0 and digital Technology Revolution.

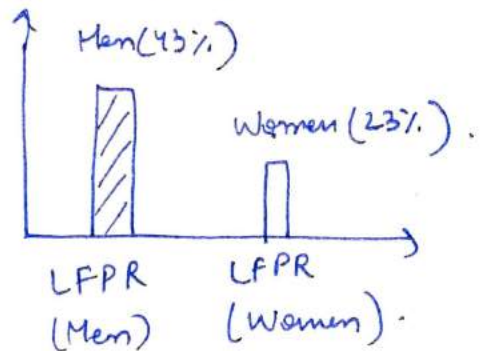
③ K-shaped recovery in growth leading to increasing divergence.

④ Concentration of wealth in few hands.

[eg] As per few research, 75% of National wealth is held by top 10%.

⑤ gender disparity in Employment sector:

[eg] As per PLFS data:



Urban Employment
guarantee
Scheme.

Decreasing Unpaid
Labour.

Investment must
be increased

Way Forward

Skill development

Reskilling as per
Industry 4.0.

Inclusive gender
parity in growth.

→ As data suggest, Investment has decreased in economy from (38% → 31.4%). Hence More investment leads to multiplication effect & creates jobs which is need of the hour.

15. Although steps have been taken for integrating the dispersed logistics activities of maritime trade, much more needs to be done to make India a maritime powerhouse. Discuss. (250 words) 15

हालांकि समुद्री व्यापार की विखंडित लॉजिस्टिक गतिविधियों को एकीकृत करने के लिए विभिन्न कदम उठाए गए हैं, फिर भी भारत को एक समुद्री पावरहाउस बनाने के लिए और भी बहुत कुछ किए जाने की आवश्यकता है। चर्चा कीजिए।

Maritime Trade refers to the trade that is met using Sea lanes of communication in International Sphere.

→ Indian Maritime trade accounts for 95% trade by Volume and 65% by Value.

Steps Taken to Integrate Logistics

① Sagarmala Project :

- ① Aims at port led industrialisation
- ② Integration of Ports domestically and internationally.

- ③ Development of Coastal Communities
- ④ Investment in Port Infrastructure
- ⑤ Promotion of studies in Ship designing and Oceanography.

② Coastal Economic Zones created for seamless movement.

* Ship turnaround time has reduced to less than 4 days:

③ e-SANCHIT introduced for seamless clearance at ports.

Issues persisting in Maritime Trade

- ① Ports are not specialised in goods, leads to overlapping.
- ② Ship ownership is low, leading to high dependence on external cargo players.

- ③ Training of Port staff in digital modes needs to be done.
- ④ Infrastructure and Investment to leverage on frontier Technology is lacking.
- ⑤ Less support / involvement and training of coastal communities
- ⑥ Security concerns lead to delay

Way Forward

- ① Training of port handling staff in digital Technology.
- ② Specialisation of ports for specific goods.
- ③ Development of Inland Waterways.
- ④ Investment and Regulatory measures to promote shipbuilding & Ship ownership.

→ Recent Bill to give more Autonomy to Ports is a good way to ensure India's rank on World Bank's Logistics Index is improved to increase its attractiveness

16. Accounting for natural capital and ecosystem services is crucial to understand the link between the economy and environment. Discuss with specific references to India's initiatives in this regard. (250 words) 15

अर्थव्यवस्था और पर्यावरण के मध्य संबंध को समझने के लिए प्राकृतिक पूंजी और पारिस्थितिकी तंत्र सेवाओं के लिए लेखांकन महत्वपूर्ण है। इस संबंध में भारत द्वारा की गयी पहलों के विशिष्ट संदर्भ के साथ चर्चा कीजिए।

Natural Capital Accounting refers to

inclusion of ecosystem services by
quantifying them in economic terms as
 a factor of development and progress.

Importance of Natural Capital Accounting

- ① Increases Political will to conserve Ecosystem Services.
- ② Better Management of resources of Environment due to Quantification.
- ③ Further India's goals towards Sustainable Development.

④ Creates the necessary awareness towards
creating sensitivity to dwindling Natural
Resources.

* As per Dasgupta Review of IUCN
report, India's Natural Capital per
capita has reduced by 40% in last
2 decades.

⑤ Ethically sound on basis of Environemental
Ethic principles.

[India's Initiatives in this Regard]

① [NCAVES]: Natural Capital Accounting
valuation of Ecosystem Services.

- led by EU

- India, Brazil, Mexico and South
Africa are Members.

② EnviStats Report:

- Led by Central Statistical Office (CSO) in India as one of its kind

Valuation of Natural Capital

→ Hence, Valuation of Natural Capital Accounting ^{most} get a long way to Sustainable

development goals for 2030 as

Something that is Measured in Economic

Terms is Managed Well.

17. Rapid and unplanned urbanisation accompanied by population growth have increased both the risk and impact of natural disasters. Discuss the statement along with adequate measures to address the relevant concerns in India.

(250 words) 15

जनसंख्या वृद्धि के साथ-साथ तीव्र और अनियोजित शहरीकरण ने प्राकृतिक आपदाओं के जोखिम और प्रभाव दोनों को बढ़ा दिया है। भारत में विद्यमान प्रासंगिक चिंताओं के निवारण हेतु यथोचित उपायों के साथ इस कथन की व्याख्या कीजिए।

India has witnessed a Rapid Unplanned

Urbanisation post LPG Reforms 1991

which has lead to congested cities and

has increased risk and impact of

Natural disasters. [eg] As per World Bank, 40% of Indian population will be urban by 2030.

Reasons for Rapid Urbanisation

- ① Asymmetric growth both regionally and temporally.
- ② Lack of basic sanitation / infrastructure in villages.
- ③ Rapid increase in population.
- ④ Concentration of Industries in resource.

rich regions for labour.

- ⑤ Better standard of living in Urbanities
 → Hence both Pull and Push factors have
 led to Unplanned Urbanisation.

Risks and Impact of Natural Disasters

Risks:

- ① Urban Floods due to compromised
 sanitation and waste Management.
- ② Diseases spread creating a natural
 hazard due to congested living.
- ③ Unscientific cutting of slopes increase
 risk of landslides (done for housing
population & connectivity)
- ④ Heat Island Effect due to congested
 cities increase global warming.
- ⑤ Use of ~~can~~ lakes / deforestation to
 house increasing urban population increase
disaster risk.



Measures to Address

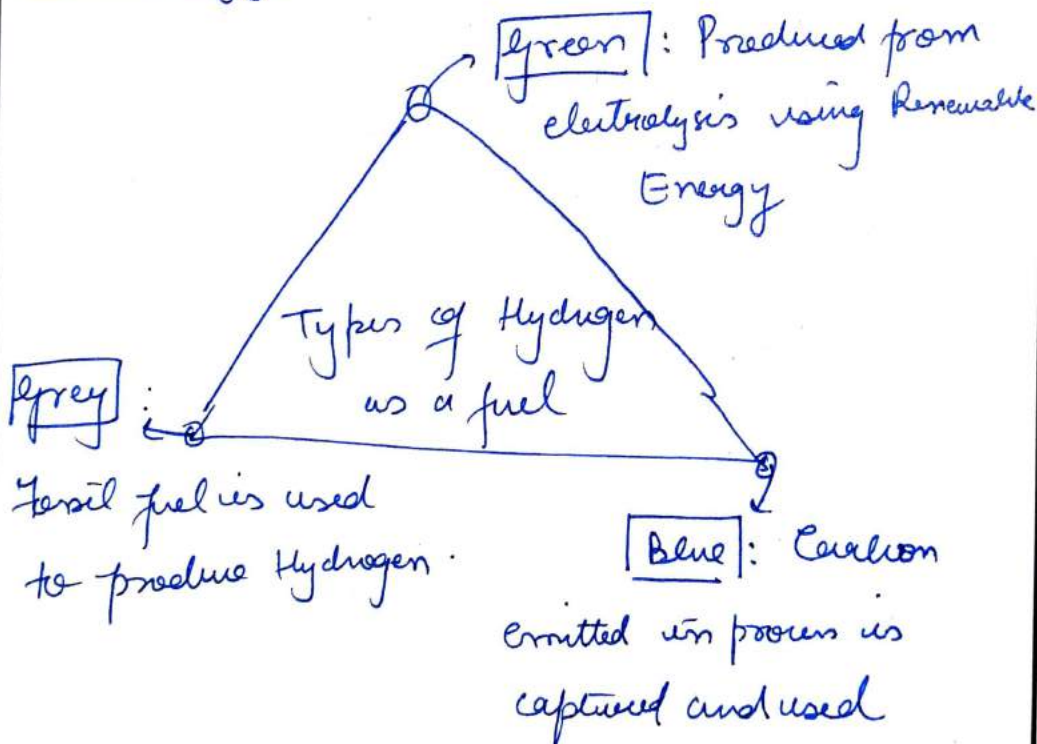
- ① Building Resilience based on Disaster Management Cycle.
- ② De-congest the cities by creating other Migration Magnet areas
- ③ Training locals for Disaster Recovery & Response.
- ④ Better land use for Sustainable living.

→ Hence to Realise goals of Sendai Framework for disaster Risk Reduction, it's important to create opportunities distributed equally in region to reduce affected population.

18. National Hydrogen Mission can be a game changer for India's rising energy demands. Comment. (250 words) 15

भारत की बढ़ती ऊर्जा मांगों के लिए राष्ट्रीय हाइड्रोजन मिशन एक गेम चेंजर हो सकता है। टिप्पणी कीजिए।

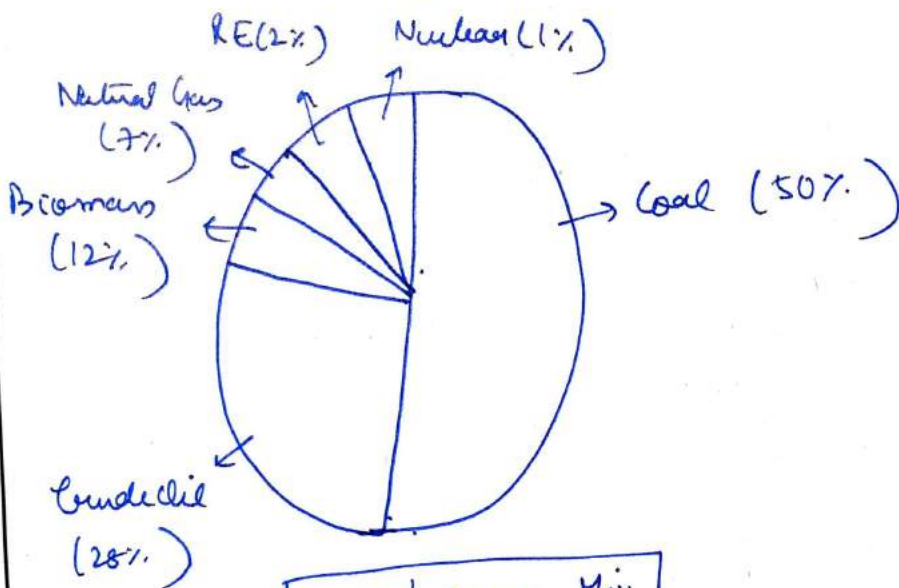
National Hydrogen Mission is an initiative by several governments including India to increase production of green Hydrogen and increase share of Hydrogen in Energy mix in their own countries.



→ India seeks to improve its capacity to produce green Hydrogen.

India's Rising Energy Demands

- As per International Energy Agency
Report on World Energy Outlook, 2021,
India's growth in energy needs until the
highest at 25%, overtaking EU the
become 3rd highest user by 2040.

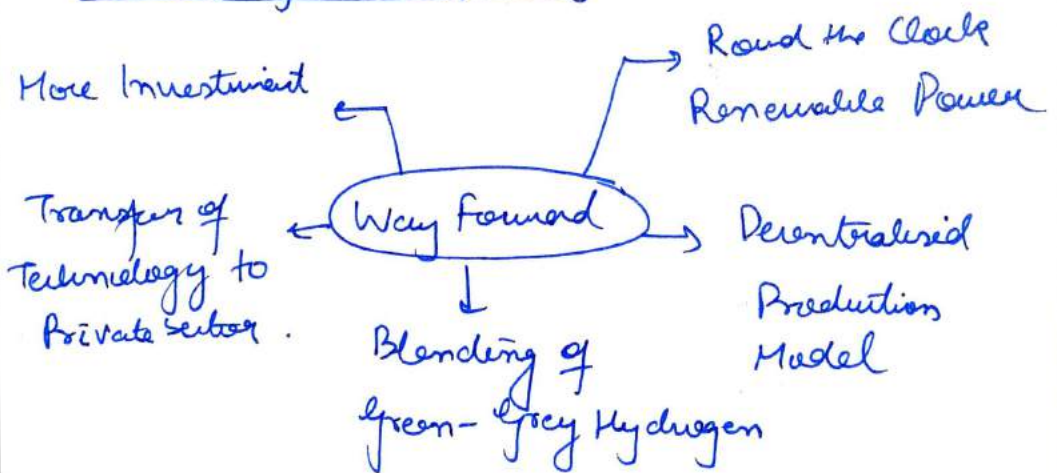


India's Energy Mix

→ Hence since India is highly dependent
on fossil fuel, further increasing
needs must be met through green
sources.

Hydrogen Mission as a game changer

- ① Clean fuel due to decreased C-emissions.
- ② Help in meeting global climate commitments (at COP26)
- ③ Easy availability as Hydrogen is most abundant element.
- ④ Flexible use as a Fuel cell or Fuel itself
- ⑤ Rapid spread capability due to wide availability and efficiency.



→ Hence, since India's energy demand is growing rapidly, to walk the COP 26 talk, National Hydrogen Mission is a likely way forward.

19. Despite geo-strategic instability of its region and a keen awareness of the cyber threat it faces, India has made only 'modest progress' in developing its policy and doctrine for cyberspace security. Critically examine.

(250 words) 15

अपने क्षेत्र की भू-रणनीतिक अस्थिरता और इसके समक्ष विद्यमान साइबर खतरों के संबंध में व्यापक जागरूकता के बावजूद, भारत ने साइबरस्पेस सुरक्षा के लिए अपनी नीति और सिद्धांत विकसित करने में केवल 'साधारण प्रगति' की है। समालोचनात्मक परीक्षण कीजिए।

As per IT Act 2000, 'Cyber Security' is defined as protecting / preserving the Critical Information Infrastructure, computer software, information systems and the data stored therein from unauthorized access, use or leak.

Geo Strategic Instability and Cyber Threat

- ① China as a prime offender of India's cyberspace.

[eg] Red Echo attack which compromised Maharashtra power grid.

- ② Anonymity in cyber attacks offenders increases risk.
- ③ Not restricted by geographical borders.
- ④ Dependence of almost every sector on Critical Infrastructure.

[eg] Power Sector, Nuclear Power Plants, etc.

- ⑤ Cyber attacks as a Security challenge on Military capability.

[eg] HAL employee was duped to send aircraft designs to ISIS in Pakistan.

Modest Progress in India

— India has a 'National Cyber Security Policy 2013' but it falls short of current challenges as:

- ① Rapid change in Technology leading to new modes of cyber attacks.

② No digital literacy among officials
increased vulnerability to Social Engineering
attacks.

③ Economy has digitised with new ~~ways~~
modes of payment like UPI.

④ No Data Privacy law in India exist
till date.

⑤ New technology like AI uses Data as a
core resource, hence such changes needs a
new framework.

Policy to promote
Digital Hygiene.

Personal Data
Security Act.

Increasing Awareness
in Citizens.

Way Forward

Flexible Cyber
Security Policy.

More Technological
ability to
CERT-In.

Digital literacy is
needed.

→ Recent report by CERT-In reports 27000
attacks on Indian websites in last year.
Clearly a new Cyber Security Policy is needed.

20. Developmental interventions alone cannot play a defining role in the resolution of existing and protracted internal conflicts in various parts of India within a reasonable time frame. Discuss. (250 words) 15

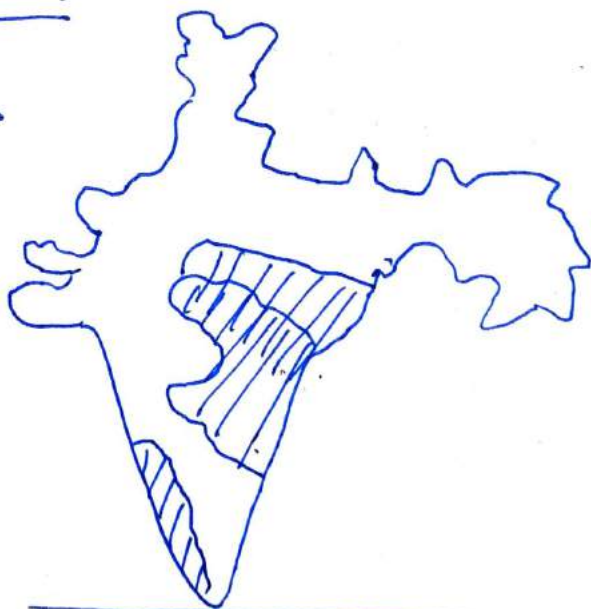
भारत के विभिन्न हिस्सों में व्याप्त और दीर्घकाल से जारी आंतरिक संघर्षों को उचित समय सीमा के भीतर हल करने में केवल विकासात्मक हस्तक्षेप एक निर्णायक भूमिका नहीं निभा सकते हैं। चर्चा कीजिए।

India since Independence has been dealing with wide range of internal conflicts ranging from Regionalism, Ethnic conflicts, Terrorism and Radicalisation, etc.

Existing Internal Conflicts:

① Left Wing Extremism

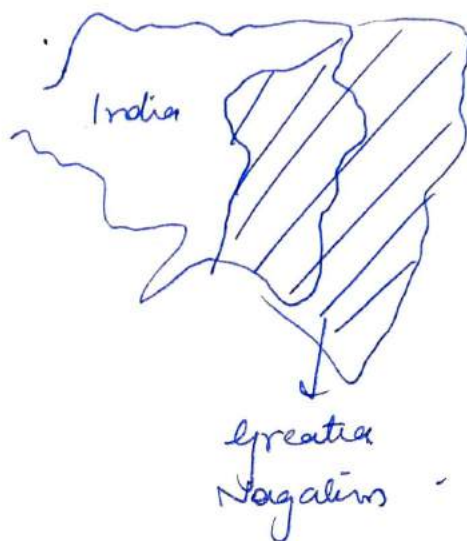
- Demand for a people's govt.
- Seeks to overthrow current regime by violent upsurge.
- Attacks on Indians, Local govt. employees, etc.



Affected area as per
MoHA, 2018

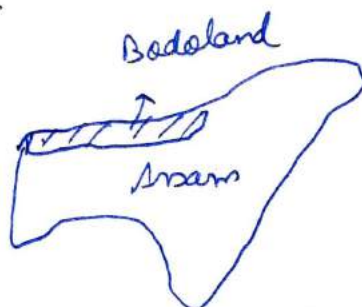
Development (2) Naga Conflict :

- Nagas in North East demanding an independent state of 'greater Nagalim' with a separate flag & constitution.



(3) Bodoland Movement :

- Bodos under National Democratic Bodhi Front violently demanding an autonomous region of Bodoland.



Development Measures Taken

- (1) Special Central Assistance from Centre.
- (2) Expenditure on Schools and PDS in affected area.
- (3) Line Action Programme in region.

Inadequacy of Development Measures

- ① Underdevelopment is used just to mask a radical ideology.
- ② Radicalised youth is provided and fed with violent ideas.
- ③ Loss of lives and property calls for a Security Response.
- ④ Elimination of prime leaders is important to break the Chain of Radicalisation.
- ⑤ If Security clampdown is not taken, development measures can't be delivered.

→ Hence, as the recent SAMADHAN doctrine to deal with Naxalism does, development with Security crackdowns needed. However Human Rights abuses during process must be checked to prevent further radicalisation.