



# VISION IAS

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R N 30 NOV 2015  
SUBMITTED ANSWERS  
RECEIVED

## GENERAL STUDIES (TEST CODE : 637)

Name of Candidate	PULKIT GARG		
Medium Hindi/Eng.	ENGLISH	Registration Number	4540
Center	RAJ. NAGAR	Date	30-11-15

INDEX TABLE			INSTRUCTIONS
Q. No.	Maximum Marks	Marks Obtained	
1	12.5		<ol style="list-style-type: none"><li>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)।</li><li>There are TWENTY questions printed in HINDI and ENGLISH. इसमें बीस प्रश्न हैं तथा हिन्दी और अंग्रेजी दोनों में छपे हैं।</li><li>All questions are compulsory. सभी प्रश्न अनिवार्य हैं।</li><li>The number of marks carried by a question/part is indicated against it. प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।</li><li>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।</li><li>Word limit in questions, if specified, should be adhered to. प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।</li><li>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।</li></ol>
2	12.5		
3	12.5		
4	12.5		
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16	12.5		
17	12.5		
18	12.5		
19	12.5		
20	12.5		
Total Marks Obtained:			
Remarks:			
Signature of Examiner			

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## EVALUATION INDICATORS

1. Alignment Competence
2. Context Competence
3. Content Competence
4. Language Competence
5. Introduction Competence
6. Structure - Presentation Competence
7. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

All the questions are compulsory and carry 12.5 marks each. NOT MORE THAN 200 WORDS.

1. Many experts believe that India is a bright spot in the world economy today. However, indicators like export growth, household savings, non-performing assets, manufacturing growth etc. paint a different picture. Discuss these two contradictory positions.

कई विशेषज्ञों का मानना है कि आज भारत का विश्व अर्थव्यवस्था में अग्रणी स्थान है। हालांकि, निर्यात-वृद्धि, घरेलू बचत, गैर-निष्पादित परिसंपत्तियां, विनिर्माण में हुई वृद्धि आदि जैसे संकेतक अलग ही छवि प्रस्तुत करते हैं। इन दो विरोधाभासी स्थितियों पर चर्चा करें।

India's economy is growing at an average rate of 6-7% at a time when the rest of the world is witnessing a slow-down.

India has become the fastest growing major economy, even overtaking China. All reports point to an even higher growth rate of around 8%. Thus India is an oasis of growth, amidst a scenario of gloom.

However, surprisingly, along with a high growth rate, other indicators of the economy are not doing as well.

Our exports are registering a negative ~~and~~ growth, primarily because of reduced demand in external markets.

NPAs have grown to an all time high of around 5% of the GDP, based on very poor performance in some sectors such as steel, power, civil aviation etc.

Private investment by corporates is at an all time low due to the "balance sheet syndrome" as reported by Economic Survey. Our firms are over leveraged.

Manufacturing growth is not spectacular at all, with some sectors even registering a declining growth rate.

Reversing the high growth rate of economy, with poor results in the above indicators is a difficult task.

This ~~has~~ led to doubts on the genuineness of our economic growth rates, whose methodology was recently changed. Hence, leading to a scepticism that India is still not out of the low growth phase and needs to do more.

2. In context of the recent surge in prices of pulses, explain the reasons for low production of pulses in India and give the reasons behind the price volatility of pulses. Enumerate the measures that need to be taken by Central and State governments to control the prices.

दाल की कीमतों में हाल ही में आई उछाल के संदर्भ में, भारत में दालों के कम उत्पादन के कारणों की व्याख्या करें और दालों की कीमतों में अस्थिरता हेतु उत्तरदायी कारणों को बताएं। कीमतों को नियंत्रित करने के लिए केंद्र और राज्य सरकारों द्वारा उठाये जाने वाले कदमों को सूचीबद्ध करें।

Price of pulses have recently shot through the roof. This is primarily due to supply-demand mismatch with demand far greater than supply, due to low production of pulses in India.

### Reasons for low production

1. Very high MSPs for rice & wheat - while pulses have had an unattractive MSP.
2. No open procurement for pulses by FCI unlike that of wheat and rice.
3. High price volatility of pulses
4. Low yields of pulses due to poor quality of seeds, and farming practices.

Reasons behind price volatility

1. Poor mechanisms of price discovery - commodity exchanges have not really been very effective till now.
2. Inconsistent export - import regime for pulses.
3. Pulses production is seasonal in nature, hence higher prices during non-production season.

Measures need to be takenImmediate, to control prices

1. Duty free imports, restricting exports.
2. Setting up stock holding limits & crackdown on hoarders.
3. Suspending trading on commodity exchanges.

Long term Measures to boost production are:

1. Setting attractive MSPs for pulses to incentivize production.
2. Procurement by FCI of pulses as well.
3. consistent export - import policy.
4. Having a buffer stock of 2-3 million tonnes.
5. Supporting effective price discovery mechanism through commodity exchange and futures trading.
6. Further investment in research and extension for higher yielding variety of pulses.

The above steps are essential for making India self sufficient in ~~protein~~ <sup>pulses</sup>, and keeping ~~the~~ our major source of proteins affordable for masses.

3. Skill India is a daunting task of keeping sight on the manpower requirements of the industry and the infrastructure needed for achieving the targets of skilling. Discuss. Further examine how the 3I's of skills - Investment, Innovations and Institutions - can help in improving the quality of training, assessment and jobs.

स्किल इंडिया, उद्योगों की श्रमशक्ति संबंधी आवश्यकताओं और कौशल विकास के लक्ष्यों को प्राप्त करने हेतु आवश्यक अवसंरचना पर दृष्टि रखने का चुनौतीपूर्ण कार्य है। चर्चा करें। साथ ही इस बात का परीक्षण करें कि कैसे स्किल के 3 आई- निवेश, नवाचार और संस्थान (इन्वेस्टमेंट, इनोवेशन और इंस्टीट्यूशन), प्रशिक्षण, मूल्यांकन और काम की गुणवत्ता में सुधार लाने में सहायता कर सकते हैं।

Skill India Mission is a programme

launched by Government of India to skill 500 million people by 2022. It would boost employability of people, their productivity, income and lead to higher growth rates for economy, supporting Make in India & Digital India -

Main challenges in its implementation:

1. Demand - supply mismatch

To skill people as per the needs of the industry is imperative.

- At a time when technology & manufacturing practices are changing rapidly, it is

difficult to skill people in  
advance for employability.

- Skilling has to be area specific  
as well - i.e. as per the  
industries & opportunities of  
that area.
- High growth sectors, with high  
potential demand in future,  
need to be identified & people  
need to be skilled.

## 2. Infrastructure challenge

- Establishing right training facilities,  
labs, with all necessary  
equipment, as per the needs  
of a specific region & catering  
to different sectors is  
a daunting task - very capital  
& skill intensive in itself.

3Is of skills are very important  
in ~~over~~ a successful skill  
India mission.

Investment - in infrastructure, manpower is the need of the hour for high quality of training.

Innovation - in delivering skill development courses, in their assortment across sectors to overcome challenges of size & scale.

Institutions - such as NSDC, NSDM, Ministry of Skill Devt. - to implement the envisioned program.

These would proved to be crucial in creating a highly skilled India

4. Explaining the Hybrid Annuity Model, discuss how far it can help to revive private participation in large infrastructure projects.

"हाईब्रिड अन्वुटी मॉडल" की व्याख्या करें। साथ ही, इस बात पर चर्चा करें कि यह बड़ी आधारभूत संरचना परियोजनाओं में निजी भागीदारी को पुनर्जीवित करने में किस सीमा तक सहायक हो सकता है।

A large number of infrastructure projects, particularly road projects have been languishing due to failure of PPP model. This has led to stuck investment in existing projects, and lower interest in upcoming projects by private sector.

To overcome this challenge, hybrid annuity model is proposed.

In this model, the government contributes a fixed % of cost of project every year, along with the private sector. This leads to solving problems of cash - flows during construction.

For sharing of revenues, a  
pre decided % of income  
from toll is collected by  
the government - to allow  
easy recoveries from toll for  
the investment by private sector.

Hybrid annuity model is showing  
great promise, with investors  
showing interest again in  
road projects. This is  
because it leads to equitable  
sharing of risks between  
the government & private sector,  
hence ~~is~~ kickstarting investment.

However, this alone won't be  
sufficient. "Plug and play"  
models, where clearances  
for land & environment have  
already been taken by  
government needs to be

employed. Financial support  
should be provided to  
the stuck projects in  
food sector.

This would boost food  
sector, which is essential  
for growth of economy.

5. The rail ministry is ignoring the fundamental change required to transform Indian railways to suit 21st century demands. The way forward is to dismantle the archaic organizational structure set up during the 19th century and establish a more efficient mechanism to operate the 17 zones. Discuss in the context of Bibek Debroy panel committee recommendations.

रेल मंत्रालय, 21वीं सदी की मांग के अनुरूप भारतीय रेलवे के रूपांतरण/कायाकल्प हेतु आवश्यक मूलभूत परिवर्तन की अपेक्षा कर रहा है। 19वीं सदी के दौरान स्थापित पुरातन संगठनात्मक संरचना को समाप्त करना और 17 जोनों के संचालन के लिए अधिक कार्यकुशल तंत्र स्थापित करना भविष्य पर कदम हो सकते हैं। बिबेक देवराय समिति की अनुशंसाओं के संदर्भ में चर्चा करें।





6. Digital currency represents a decentralized form of money that is more secure, more fungible and more functional than anything we've seen before. Examine.

डिजिटल मुद्रा, मुद्रा के ऐसे विकेंद्रीकृत प्रारूप का प्रतिनिधित्व करती है, जो पूर्व में उपलब्ध किसी अन्य मुद्रा की तुलना में अधिक सुरक्षित, अधिक प्रतिमोच्य (विनिमय करने योग्य) और अधिक प्रकार्यात्मक है। परीक्षण करें।

Digital currency refers to non-material / non-currency form of money which includes :

1. Online transactions such as digitally - through online payment mechanisms & net banking.
2. mobile banking - m-pesa

These modes of digital currency provide immense benefits such as :

1. Decentralized - could be accessed anywhere

and everywhere ~~to~~ by  
anyone who is aware &  
capable.

2. More secure - as it does  
not involve any physical  
handling of cash - lesser  
chances of theft  
- lesser headache of keeping  
it safe.

3. Ease of use

4. Would flush out black  
money - as every transaction  
could now be digitally  
recorded & verified with  
reported incomes.

5. More functional - reduces  
transaction costs -  
boosts transactions &  
trade activities.

6. Reduces burden & cost of printing money & keeping it secure.
7. Reduces chances of using of counterfeit notes.
8. Promotes financial inclusion  
Hence, in view of immense benefits of digital currency it is imperative that government provides necessary support to boost digital transaction in terms of lower service fees & tax rebates.

7. Maritime Transport is critical for the social and economic development of a country. What are the key features of the 'Vision for coastal shipping, tourism and regional development' released by the Ministry of Shipping? What are the challenges in realizing that vision?

समुद्री परिवहन देश के सामाजिक और आर्थिक विकास के लिए महत्वपूर्ण है। जहाजरानी मंत्रालय द्वारा जारी 'तटीय नौवहन, पर्यटन और क्षेत्रीय विकास विजन' की मुख्य विशेषताएं क्या हैं? इस परिकल्पना को साकार करने में प्रमुख चुनौतियां कौन सी हैं?

Maritime transport is one of the most efficient means of transport - with lowest per ~~cost~~ unit cost for transport - more fuel efficient & hence also more eco friendly.

It is also best for transport of bulky & heavy material.

At present, potential of maritime transport is not fully explored. To provide a boost to it, ministry of shipping has

revised a vision plan  
whose main features are:

1. Boosting connectivity by  
roads to inner areas  
& hinterlands from ports.

~~2. Boosting~~

2. Bharatmala - to connect  
all coastal cities via  
good road infrastructure

3. SagarMala - to create  
good infrastructure belts  
around the coasts of  
India  
- better connectivity &  
trade across them.

4. Improving infrastructure  
of existing ports

- reducing turnaround time
- more capacity.

### Challenges

1. Financial constraints -  
would require huge  
funds - roads + ports.
2. Governance issues  
in handling ports.
3. Implementation of  
such projects - whether  
completed on time.

8. The central government has recently launched KISAN project for crop insurance in agriculture sector that will use geo-informatics system along with high-resolution data from UAV based imaging. How can space, drone, weather and other high-end technologies be used for crop insurance programme? What are the challenges in their implementation? Discuss.

केंद्र सरकार ने हाल ही में कृषि क्षेत्र में फसल बीमा के लिए किसान (KISAN) परियोजना का शुभारंभ किया है। यह यूएवी आधारित इमेजिंग से मिलने वाले हाई-रिजोल्यूशन डेटा के साथ-साथ भू-सूचना प्रणाली का उपयोग करेगा। फसल बीमा कार्यक्रम के लिए स्पेस, ड्रोन, मौसम और अन्य अति आधुनिक प्रौद्योगिकियों का उपयोग कैसे किया जा सकता है? इनके कार्यान्वयन में सामने आने वाली चुनौतियां क्या हैं? चर्चा करें।

High end-technologies such as space, drone etc. have immense utility in crop insurance programme.

1. Measuring plot-wise average yield in normal weather seasons scientifically using drone & space tech.
2. During the time of drought, floods etc, assessing the yield during that season.
3. Accurate measurement of above two, would lead to accurate assessment of the losses of farmers.

at individual level. rather than at the village / community level as is being done now.

4. Geo-spatial technology can also be used to quantify risk to a farmerland / baranar through flood/drought etc, depending on type of land, crops grown

- to decide premiums to be paid by farmers on the basis of risk.

5. Early weather-prediction technologies - could be used to warn farmers - to advise insurance companies to mobilize for early disbursement of claims.

Thus, high level technology has great potential in better assessment of losses.

more effective & timely  
compensation, thus providing  
a better & more effective  
safety net to our farmers.

9. The long-standing demand of merging FMC into SEBI has materialized recently. How is this move expected to affect the commodity trading space in India? Explain.

एफ.एम.सी. का सेबी में विलय किये जाने की लंबे समय से चली आ रही मांग हाल ही में साकार हो गई। यह कदम भारत में जिस व्यापार (कमोडिटी ट्रेडिंग) क्षेत्र को कैसे प्रभावित कर सकता है? व्याख्या करें।

The NSEL scam has catalysed the merging of FMC into SEBI, which was a long standing demand of many committees including Shri B.N Shrikrishna committee.

This move would lead to :

1. Commodity trading to be regulated by a legally much more empowered & independent regulator SEBI in comparison to FMC.
2. SEBI has created a great level of trust for itself through objective

regulation of capital markets in India. Hence, it is expected that quality of regulation of commodity exchange would also increase.

3. Would lead to much lower probability of fraud & scams in commodity exchange.

4. would lead to better price discovery mechanism for all commodities, including agricultural commodities. This would bring in much needed predictability & need / demand based production.

5. Boost volumes of commodity trading by

including more commodities  
for trading and expanding  
base of traders.

Hence, it would significantly  
boost commodity trading space  
in India, which would  
contribute to accelerated  
growth of the country.

10. "Indradhanush- the seven-pronged strategy for public sector banks announced by the government- lacks measures to tackle NPAs". Discuss the various internal and external factors responsible for NPAs.

"सार्वजनिक क्षेत्र के बैंकों के लिए सरकार द्वारा घोषित सात सूत्री रणनीति इंद्रधनुष में गैर-निष्पादित परिसंपत्तियों (एन.पी.ए.) से निपटने वाले उपायों की कमी है।" गैर-निष्पादित परिसंपत्तियों (एन.पी.ए.) के लिए उत्तरदायी विभिन्न आंतरिक और बाह्य कारकों पर चर्चा करें।

Recently Indradhanush was announced to tackle governance, capitalisation & NPA problem of banks. However, there is still scepticism about it would lead to solving problem of NPAs.

### Factors responsible for NPAs

#### External

1. slow-down in global & Indian economy following 2007-09 recession - led to lower repayment capacity of borrowers, - as lower profits & demand of the people in the economy.

## 2. Stalled Projects

- In road sector, and infrastructure
- due to poor governance
- delays in ~~land~~ acquisition, in environmental clearances
- failure of PPP model

## 3. Poor health of discoms

- due to populist pricing
- high T&D losses
- inadequate metering

## 4. Willful defaulters

## 5. Slump in commodity prices

- such as steel - also due to slowdown of chinese economy
- dumping of steel in India

## Internal

### 1. Poor appraisal mechanisms

- to judge if a loan should be given or not to a borrower.

## 2. corruption in PSBs

leading to firms, unsecured & without proper checks.

eg. arrest of Syndicate Bank head.

## 3. Lack of follow-ups & early identification of bad loans

## 4. Political interventions

To prod PSBs to give loans for extraneous reasons that did not make commercial sense

eg. lending to Kingfisher & All India

## 5. Pool recovery of loans

- due to clogged dispute resolution mechanisms - such as SARFAESI Act & DRT.

## ~~6.~~ Absence of Bankruptcy Code

Hence, there is a pressing need to correct NPA's for accelerated growth of country

11. Food and nutritional security, increasing farm income, poverty alleviation and minimizing crop production risks on account of climate change are the priority challenges faced by Indian agriculture. Comment. Also, suggest measures to address these challenges on priority basis.

खाद्य और पोषण सुरक्षा, कृषि क्षेत्र की आय में वृद्धि, गरीबी उन्मूलन और जलवायु परिवर्तन के कारण फसल उत्पादन संबंधी जोखिम को कम करना, भारतीय कृषि की प्राथमिक (सामना की जाने वाली सर्वप्रमुख) चुनौतियां हैं। टिप्पणी करें। इसके साथ ही प्राथमिकता आधार पर इन चुनौतियों का सामना करने हेतु उपाय सुझाएं।

Priority challenges faced by Indian agriculture are.

### 1. Ensuring food & nutritional security

- To meet increasing demands from ever growing population
- to ensure balanced, nutritious food in form of proteins, vitamins etc to overcome the widespread malnutrition in India

### 2. Increasing farm income & poverty alleviation

Right now, majority of farmers are small & marginal - on the margins of impoverishment - subsistence farming

- under debt traps

Hence, to remove extreme poverty & to increase per capita incomes, necessary to boost growth.

### 3. Minimizing climate change risk

When climate change is expected to be around 2-5°C, ~~it would~~ lead to:

- (a) lower levels of water availability.
- (b) Higher risks of pests & infection
- (c) Decling yields
- (d) Freak / Extreme weather events.

Hence one of most significant challenge.

To address above challenges on priority basis, need of the hour is:

1. To improve & boost investment in agricultural

infrastructure - such as  
irrigation & extension facilities.

- to make agriculture independent  
of weather & monsoons.

2. Better marketing & supply  
chain laws & infrastructure

- By adopting model APMC act  
- By boosting godowns, reelers  
vans, efficient price discovery  
through commodity exchange.

3. More research & extension facilities

In climate resilient seeds &  
methods of crop production.

4. Boosting digital penetration

To enable farmers to look up  
best farm practices - share  
ideas & innovation - learn  
from each other.

5. Facilitating credit

These steps need to be taken on  
priority basis for boosting agriculture

12. Despite their ecological richness and contribution to national economy, coastal and marine ecosystems have not received adequate protection. Discuss the challenges in marine management. How does the Integrated Coastal Zone Management Project seek to balance development with the protection of vulnerable ecosystems?

पारिस्थितिकी समृद्धि प्रदान करने और राष्ट्रीय अर्थव्यवस्था में अपने योगदान के बावजूद, तटीय और समुद्री पारिस्थितिकी तंत्रों को पर्याप्त संरक्षण नहीं मिला है। समुद्री पारिस्थितिकी तंत्र के प्रबंधन में आने वाली चुनौतियों की चर्चा करें। "एकीकृत तटीय क्षेत्र प्रबंधन परियोजना" विकास के साथ सुभेद्य पारिस्थितिकी तंत्रों के संरक्षण में कैसे संतुलन स्थापित कर सकेगी?

We have extensive & rich coastal & marine ecosystems.

Challenges faced in marine management are :

1. Very high population pressure along coastal areas - more than their carrying capacity.
2. Overfishing - due to use of mechanised trawlers
  - non eco friendly ways of fishing
  - would lead to livelihood problems & nutrition issues later.

### 3. Pollution by industries

Industries located close to coastal areas release industrial wastes without adequate treatment - smother ecology of the region.

### 4. Release of untreated sewage waste in seas & oceans.

### 5. Pollution by ships - such as oil leaks.

### 6. Reforestation - to make way of agricultural land & industries - e.g. in Sunderbans of mangroves.

To tackle this, Integrated Coastal Zone Management Program is launched. It seeks to :

- Create a land zoning plan - where land upto a fixed distance from

- coast could not be used for either living or by industries.
- Provides only for relatively less polluting industries to be established near coastal zones.
  - limits on construction activity for residential purposes.
  - Provides for common effluent treatment plants for industries that are set up.
  - Ban on deforestation.
  - To provide for a safe distance for movement of ships from coastal areas.

Thus it seeks to balance the needs of growth with environment sustainability by protecting rich marine biodiversity.

13. The heat wave in 2015 was the 5th most deadliest one in the recorded history. Describe the phenomenon of Heat Wave. What are its health impacts? What measures can the government take to avoid casualties from this recurring phenomenon?

वर्ष 2015 की "हीट वेव" ज्ञात इतिहास में 5वीं सबसे भीषण हीट वेव थी। हीट वेव की परिघटना का वर्णन करें। स्वास्थ्य पर इसके प्रभाव क्या पड़ते हैं ? सरकार इस आवर्ती परिघटना से होने वाले दुष्प्रभाव से बचने के लिए क्या उपाय कर सकती है?

There has been an increase in intensity & frequency of heat waves in recent past, as observed in 2015 too in the bottom of 5<sup>th</sup> most deadliest one.

This is primarily due to adverse effects of climate change, leading to such freak weather incidents.

Heat wave refers to a temporary & transient period of much higher temperatures than the long term average. It could also be characterised by hot winds (called loos in India) & lack of rainfall.

It has adverse health impacts on people, which includes rapid dehydration, due to high temperatures & ~~lack of~~ shortage of water facilities.

It also leads to strokes & seizures - which result in high number of casualties.

To avoid casualties:

1. Ensure adequate cool drinking water facilities.
2. cool water public bathing spaces - to provide respite from heat.
3. To ensure urban shelters - so people don't have to sleep in open.

4. To have the hospitals well prepared ⇒ steady & rapid treatment of victims of heat wave.

5. To tackle climate change through mitigation in long term - to reduce the frequency of occurrence of such heat waves.

14. Urban waste management is a crucial part of Smart City project. How can scientific treatment be utilized to tackle urban waste? What are the policy measures taken in this regard?

शहरी अपशिष्ट प्रबंधन स्मार्ट सिटी परियोजना का महत्वपूर्ण अंग है। शहरी कचरे के निपटान के लिए वैज्ञानिक उपचार का कैसे उपयोग किया जा सकता है? इस संबंध में किए गए नीतिगत उपाय क्या हैं?

In the government's flagship smart city project, urban waste management is a crucial part as well as in Swachh Bharat Abhiyan.

scientific management & treatment is a huge asset in tackling urban waste.

1. Segregation at collection level of urban waste  
- from households into reusable, degradable etc.
2. In view of growing electronic wastes, separate measures to tackle e-waste  
- scientific disassembly

- minimizing health hazard for handlers
- minimizing environmental pollution from toxic metals such as Si, Germanium, Lead.

### 3. Waste to Energy Projects

- To tackle growing wastes
- to create energy for needs of the city.

### 4. Incineration of waste

- using waste pellets
- minimize environmental pollution

### 5. Scientific management of landfills

- to prevent leaching of polluting chemicals in groundwater.
- to prevent air pollution.

Policy measures already taken in this regard are :-

#### 1. Swachh Bharat Abhiyan -

which provides for segregation of waste at collection & disposal points.

2. e-waste (collection & Handling) Rules, 2011

- which impose a responsibility on manufacturers
- 'Extended responsibility' to ensure collection of e-waste & their eco-friendly treatment

3. Solid waste (collection & Handling) Rules, 2000.

4. Waste to Energy Plants envisaged under India's INDC submitted to UNFCCC.

Urban waste mgmt is crucial for sustainable cities & hence there must be sustained emphasis on it.

15. Is there a need for constituting a separate ministry and a National Executive Committee as envisaged under the NDMA, 2005? Discuss in the light of recommendations by 2nd ARC.

वर्ष 2005 के एन.डी.एम.ए. अंतर्गत की गई परिकल्पना के आधार पर क्या एक अलग मंत्रालय और राष्ट्रीय कार्यकारिणी समिति का गठन करने की आवश्यकता है? द्वितीय प्रशासनिक सुधार आयोग की अनुशंसाओं के आलोक में चर्चा करें।

The recommendations of 2nd  
ARC are :

1. No need for a separate  
ministry of Disaster Mgmt.
- Would only add to already  
layered bureaucracy
  - would lead to turf wars as  
multiple ministries deal  
with issues concerning  
disaster management.
  - would delay coordination  
& slowing of pace of  
response to disasters
  - no net value addition ~~but~~ by  
such a ministry

2. Need for NEC - could  
be done away with

As we already have  
NCMC - National Crisis Mgmt.  
Committee headed by  
Cabinet Secretary.

Hence NEC would only  
lead to - duplication of  
efforts, - doublets / confusion  
regarding responsibility  
of NEC & NCMC

- turf wars & conflicting  
directions by NEC & NCMC

- As NEC is headed by  
Home Secretary, while  
NCMC by Cabinet Secretary,  
which is the head of

bureaucracy & most senior  
bureaucrat, hence NCMC  
would be more suitable  
for handling response to  
disasters & disaster management.

Hence, need for revisiting  
establishment of NEC,  
while no sufficient need  
is there for a separate  
ministry of Disaster Mgmt.

16. Tribal land alienation and socio economic deprivation has been linked to development of extremism. In this regard, discuss the measures suggested by Virginius Xaxa committee for overall development of tribals in India.

आदिवासी भूमि के हस्तान्तरण और सामाजिक-आर्थिक अपभ्रंश को चरमपंथ के विकास से जोड़ा जाता है। इस संबंध में, भारत में आदिवासियों के समग्र विकास के लिए वर्जीनियस खाखा समिति द्वारा सुझाए गए उपायों पर चर्चा करें।

Virginius Xaxa committee was constituted to identify the socio-economic development status of tribals, impediments in their growth & measures to accelerate their economic growth & development.

In this context, the ~~measures~~ <sup>problems</sup> identified ~~suggested~~ by this committee are:

1. Land alienation - for dept. projects & various purposes
  - dams, mining etc.
  - lead to upheaval in the lives of tribals
  - not adequately rehabilitated

- leads to wide scale resentment  
among tribals

## 2. Exploitation & harassment by government officials

- misapplication of laws
- threatening
- bribery
- sexual & physical harassment

## 3. Prevention of access to forests

- declared as protected
- deprives them of livelihood

## 4. Poor governance

leading to poor socio-economic  
indicators - of education,  
health & employment, income.

## suggested measures

### 1. Effective implementation of Forests Rights Act, 2006

- to prevent land alienation
- access to mineral forest  
produce.

- provide land rights.
2. Effective implementation of PESA, 1996
    - For effective decentralization of powers to tribal communities
    - prevent exploitation of their mineral resources
    - ~~has~~ prevent alienation of land.
    - better health & education services.
  3. Strengthening Tribes Advisory Council (TAC) in states.
  4. Establishing tribal universities for imparting education to tribals in tribal areas.
  5. Tribal language to be included at school level as medium of teaching.

Implementation of such measures is essential for inclusive growth.

17. Malabar-2015 and AUSINDEX are part of a broader collective effort to preserve the balance of maritime power in the Indo-Pacific littorals. Discuss.

मालाबार-2015 और आसिनडेक्स, भारत-प्रशांत तटीय क्षेत्र में समुद्री शक्ति संतुलन बनाए रखने के एक व्यापक सामूहिक प्रयास के अंग हैं। चर्चा करें।

Malabar - 2015 refers to maritime exercises between the Indian, American & Japanese navies.

AUSINDEX are maritime exercise between India & Australia.

They primarily involve exercise among country's navies to

(1) establish standard protocols of functioning together

(2) Better coordination at the seas.

(3) Exchange best practices.

Their strategic importance could be seen vis a vis

a growing & fast emerging China.

Chinese aggression in South China Sea has increased of late :

- To claim disputed islands such as ~~Spratly~~ ~~islands~~
- claims over territory - conflicting with Vietnam, Japan, Philippines, Malaysia & Brunei.
- creating artificial islands.

Hence, to assert freedom of navigation & air space

- ~~such~~ such exercises are meant to signal China to restrain its aggressiveness in South China Sea
- to stop building artificial islands

and to pressure it to  
solve territorial disputes  
through bilateral talks  
and not through military  
action

18. While technological innovation has been given a major thrust in recent times, there are certain impediments in the inculcation of scientific fervour in youth. Elaborate. How can the Rashtriya Avishkar Abhiyan help in fostering an innovative spirit?

हाल के दिनों में जहां तकनीकी नवोन्मेष पर अत्यधिक बल दिया गया है, वहीं युवाओं में वैज्ञानिक भावना का समावेश करने में कुछ बाधाएं भी हैं, वर्णन करें। राष्ट्रीय आविष्कार अभियान नवोन्मेष की भावना को विकसित करने में कैसे सहायता कर सकता है?

Technological innovation is a must for fast growth of India, however, there are still certain impediments in inculcation of scientific fervour in youth such as:

1. Focus on rote learning in school assessments - rather than advancing an independent & scientific attitude.
2. Outdated syllabus & curriculum - not in sync with the modern times & practical life.

3. Poor ways of pedagogy
  - not engaging & interesting enough
4. Low quality of teachers
  - not able to excite youth
  - don't provide adequate explanation
  - can't promote scientific temper
5. Lack of good high quality higher education scientific institutions •
6. Scientist is ~~not~~ not seen as a lucrative career option - due to lower status & perks & salary associated with it.
7. Lack of role models in the field of science for youth to emulate.

Rastriya Avislkar Abhiyan  
will provide a competitive  
environment for identifying  
best low cost socially oriented  
innovations - would  
adequately reward them  
and give them recognition  
- provide hard holding support  
for upscaling such solutions

Hence it would go a long  
way in fostering scientific  
spirit & innovation for  
solutions to challenges of  
our nation.

19. Astrosat launched by ISRO has been described as the miniature version of the famous Hubble telescope. What are the objectives of this launch? How would it help in fulfilling the needs of our scientific community?

इसरो द्वारा प्रक्षेपित एस्ट्रोसैट को प्रसिद्ध हबल दूरबीन के लघु संस्करण के रूप में वर्णित किया जा रहा है। इस प्रक्षेपण के क्या उद्देश्य हैं? हमारे वैज्ञानिक समुदाय की आवश्यकताओं को पूरा करने में इससे कैसे सहायता मिलेगी?

### Objectives of Astrosat launch

1. To deploy a telescope in higher atmosphere.
2. To relay constant stream of data about stars, galaxies, black holes, nebulas etc.

### Benefits

- ~~Deploying~~ Deploying telescope in higher atmosphere leads to far more clear & detailed images about deep space - free of all disturbances & distortions present on surface of Earth.

- Would enable scientists to analyse data from stars, galaxies & black holes
- to know more about evolution of universe
- creation of planets
- to search for any planet which could have life on it.
- to plan for future space missions
- to guide our future advanced space jets.



20. While transfer of defence technology to India from the US could give a much needed shot in the arm for modernization of our armed forces, harvesting the same pose some challenges. Elaborate. Also, discuss the issues in the Defence Trade and Technology Initiative (DTTI) of the US Government that have implications for the further growth of defence cooperation between India and the US.

अमेरिका से भारत को रक्षा प्रौद्योगिकी के हस्तांतरण से एक ओर जहां हमारे सशस्त्र बलों के आधुनिकीकरण को अति आवश्यक प्रोत्साहन मिल सकता है, वहीं दूसरी ओर ऐसा करने से कुछ चुनौतियां भी खड़ी हो सकती हैं। इस कथन पर विस्तार से चर्चा करें। साथ ही, भारत और अमेरिका के बीच रक्षा सहयोग के भावी विकास को प्रभावित कर सकने वाले अमेरिकी सरकार के रक्षा व्यापार और प्रौद्योगिकी पहल (डी.टी.टी.आई) से संबंधित समस्याओं पर चर्चा करें।

Certain challenges are present  
in transfer of defence technology  
to India from USA. These are:

1. Only moderate, not highest  
class technology would  
be transferred.
2. Issues about co-production  
& co-development.
3. India is not a member of  
multilateral export control  
regimes such as MTCR,  
Wassenaar ~~Agg~~ Agreement.

Australia Agreement which hampers transfer of high class technology.

4. Costs of buying such technology are also a challenge.

Issues in DTII :

1. concern over offset provisions of the country.
2. not enough provision for co-production & manufacturing

These need to be looked into with immediate effect to overcome any challenge in ensuring national security for the country.

