

**VAJIRAM & RAVI**  
SURE SHOT TEST SERIES FLT 2024

**GENERAL STUDIES**  
**Full Length Test**  
**Test - 3 (GS3 CT)**

Time allowed: Three Hours

Maximum Marks: 250

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SUBMISSION DATE: 16/09/2024

**UPSC IFS 2024**  
**AIR-40**

**QUESTION PAPER SPECIFIC INSTRUCTIONS**

*Please read each of the following instructions carefully before attempting questions: There are **TWENTY** questions printed in **ENGLISH**. All the questions are compulsory. The number of marks carried by a question/ part is indicated against it. Word limit in questions, wherever specified, should be adhered to. Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.*

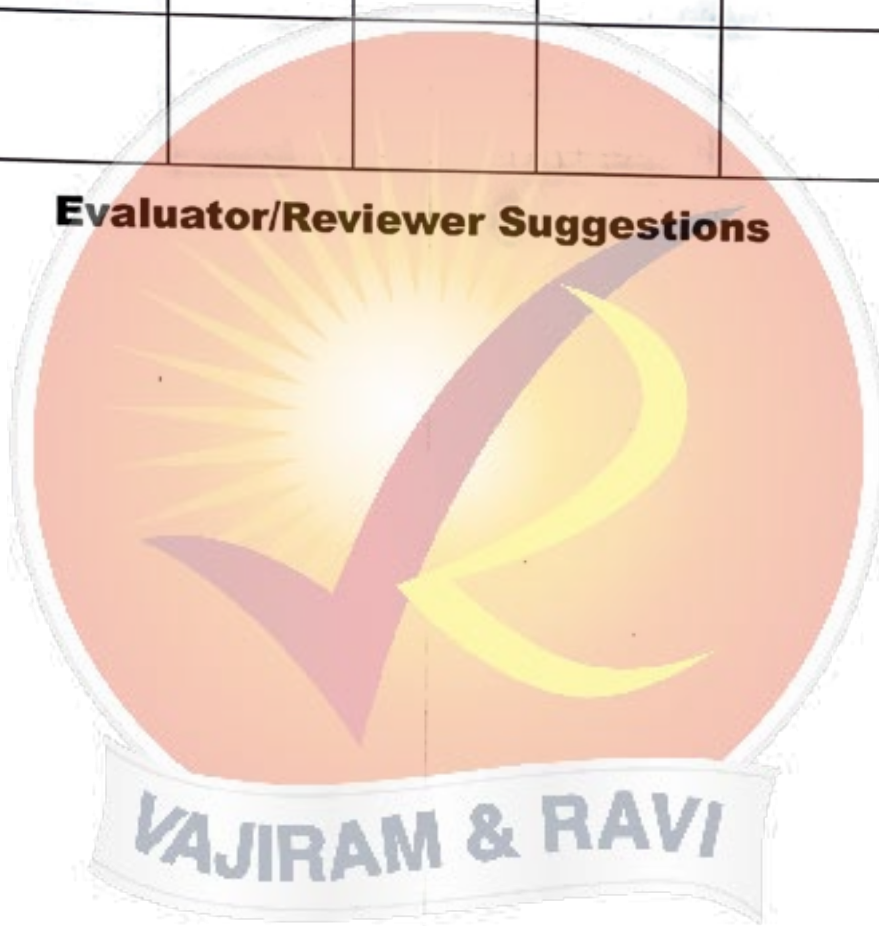
Q No.	Marks	Q No.	Marks	Q No.	Marks
Q1	/10	Q8	/10	Q15	/15
Q2	/10	Q9	/10	Q16	/15
Q3	/10	Q10	/10	Q17	/15
Q4	/10	Q11	/15	Q18	/15
Q5	/10	Q12	/15	Q19	/15
Q6	/10	Q13	/15	Q20	/15
Q7	/10	Q14	/15	Total	/250

**Follow these steps to avail the facility of mentoring –**

1. Go through the soft copy of your evaluated answer sheet and analyse all the comments and suggestions given.
2. Call 9717565805 between 11:00 am to 5:00 pm to fix your mentoring slot.
3. Please follow the mentoring appointment timings properly.

Parameters	Excellent	Very Good	Good	Average	Poor	Very Poor
Language and Articulation						
Structure and Presentation						
Conceptual clarity and Content						
Number of Attempted questions						

**Evaluator/Reviewer Suggestions**





(Answer questions in NOT MORE than the word limit specified for each in the parenthesis. Content of the answer is more important than its length.)

1. What do you mean by off-budget borrowings? Discuss the various issues associated with them. (10 marks, 150 words)

Off-budget borrowings refers to the out of pocket expenditure of the government, which are not accounted in the total borrowings of Annual financial statement..

(For example, Government back loans taken by public sector enterprises).

Issues associated with off-budget borrowings:

- ① Not accounted in the fiscal deficit, hence targeting the reduction is neglected
- ② Against Fiscal responsibility and Budget Management principles
- ③ creates crowding<sup>out</sup> effects - as there is more capital flow to government entities, availability reduces for private.

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- ④ creates additional burden on the government, in addition to public debt.
- ⑤ May lead to inflation in the market.
- ⑥ can result in reduced sovereign credit rating in the external market.

In recent years, both government and RBI are actively engaged in reducing off-budget borrowing. (Even NK Singh Committee recommended the same)

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Introduction	Suggestions:
Body	
Conclusion	
Presentation	
Marks:	

2. Do you agree that the agriculture sector in India needs a separate budget for its transformation? Substantiate. (10 marks, 150 words)

Indian Agriculture sector contributes 18% on average to India's GDP, with 46% employment in the sector. But, the growth rate is 4.6% on average (2018-2023), where total economic performance is 6% growth (on average).

Need for Separate budget for Agriculture Sector.

Arguments in favour

- ① Effective targetting and diversion of funds to Agriculture production & Resilience.
- ② Management of resources becomes easy and optimum utilisation is encouraged.
- ③ Year-on-year targets can be better accounted in separate budget.
- ④ Departments division can focus on each aspect of Agriculture (eg: production, Insurance, etc) seperately.

## Arguments Against.

- ① Division can reduce availability of funds
- ② Not effective administration - because no access of best economic experts, only agriculture experts are not enough.
- ③ Duplication of the policy framework.
- ④ Indiax had earlier done away with Railway Budget, so, no chance for bringing separate Agriculture Budget; practically right now.

Union budget 2024-25 focused "productive and Resilience of Agriculture" as one of the key pillars indicates that focus is already enough and just results are taking time.

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3. Growth of e-commerce has huge potential in revolutionizing the agriculture products supply chains. Discuss. (10 marks, 150 words)

e-commerce sector in India is a sunrise sector, with year-on-year growth since last 7 years. It is expected to become \$100 bn market by 2030 in India.

Potential in revolutionizing agriculture products supply chains

① According to Ministry of MSME — 'e-commerce' is one of the key pillars to establish Global Value Chain and Agriculture productivity, Food processing is another pillar.  
[Integration of both pillars is boost to Economy]

② India is the 2<sup>nd</sup> largest market in terms of number of customers on e-commerce platforms.

③ The Agro-climatic diversity, if aided with food processing and e-commerce marketing, doubles the growth in the sector.

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- ④ Agriculture export policy, 2018: Aims at exploring new markets to diversify base and e-commerce can aid.
- ⑤ Supply of fertilizers and pesticides through e-commerce platforms (especially by platforms of startups) can reinforce the upstream mechanism
- ⑥ Growing retailing market for Agri-products coincides with growing e-commerce penetration in India.

Looking at the potential, Indian government announced 100% FDI through Automatic route for e-commerce in advertising & promoting domestic retailers

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4. 'Water use efficiency is the keystone in the sustainable development of the Indian agriculture sector.' Examine. (10 marks, 150 words)

Water use efficiency refers to efficient and effective utilisation of the water resources without over exploitation & causing pollution - (promoted by SDG-5 goal).

### Current Issues with water-use in Agriculture

- ① 70% of the groundwater extraction is into the Agriculture irrigation.
- ② uranium, arsenic pollution is high in Green Revolution States (eg: Punjab, Haryana)
- ③ unsustainable Irrigation Mechanism by farmers (eg: Flood irrigation in rice fields).
- ④ Cultivation of high water required crops like Rice, Sugarcane

### Government Measures to tackle Inefficient water use

- ① Har Keth Ko Pani initiative - to provide irrigation facilities efficiently

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- ② 'per drop-more crop' - as mentioned in doubling of farmers income
- ③ precision Irrigation is promoted - eg: Drip irrigation, Micro & Sprinkle irrigation).
- ④ Increased Soil <sup>water</sup> Retention capacity by Rainwater harvesting schemes.

Under per drop more crop Fund, Navanagar in Gujarat turned from water deficient (500-700 feet depth + dissolved salts) to increased productivity by 60% within 6-7 years. This displays need for water-use efficiency is key for sustainable development.

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5. Robust economic growth requires a complementation between the public and private investment. Examine the statement with reference to falling private investments in the Indian economy. (10 marks, 150 words)

private investments contribute to 35% of the total GDP of the country (including FDI). In

Market economy, role of private extends to der inclusive potential for economic growth & development.

Need for complementation between public & private

- ① In Indicative planning mechanism of India, private are the key implementation partners.
- ② Government alone cannot fund all the projects, so need private to contribute.
- ③ Technical expertise of the private is also needed.
- ④ Multiplier effect: By private investment, employment generation, poverty reduction can happen.
- ⑤ Social Responsibility of private for utilising the community resources.

## Reasons for

### Falling private Investments in Indian Economy

- ① Savings are not invested to form capital in the market. (maybe inflation & global recession are reasons).
- ② Reduction in the Foreign Direct Investment.  
(From \$89 bn in 2022 to \$70 bn in 2023-24)
- ③ Global economic slowdown impact on India.
- ④ Attractive Interest Rates abroad. (eg: US Fed Tapering)

India is consistently promoting private Investments for giving financial incentives, viability gap fundings, reduced corporate taxes, Ease of doing business, etc to make Indian economy \$5 trillion by 2025-26.

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Introduction	Suggestions:
Body	
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Marks:	

6. Discuss several ways in which biotechnology can help in ensuring food security in India. (10 marks, 150 words)

Green biotechnology refers to use of biotechnology (living organisms and micro organisms) in the Agriculture sector to promote productivity & efficiency.

## Role of Bio technology in ensuring Food security

- ① Transgenic plants : [Genetically modified crops]  
By editing & introducing foreign gene, complete enhancing of the varieties in the species. (promotes faster growth, better yield, etc..)
- ② Bio fortification : adding the required proteins, vitamins to the crop by Bio Tech.
- ③ Advanced warehousing by promoting increase in the shelf life of the produce.
- ④ Mass production to meet the growing demand for food crops, within short time.

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⑤ Herbicide Tolerant plants to <sup>increase</sup> promote resilience for the Crops. eg: (HT-BT-cotton)

⑥ Food processing sector:

↳ preservatives to increase the shelf life

↳ processing of the food for value addition  
(eg: Alcohol making).

This high potential can be better utilised, if the issues with respect to regulation, Adulteration, quality, etc are addressed at the earliest.



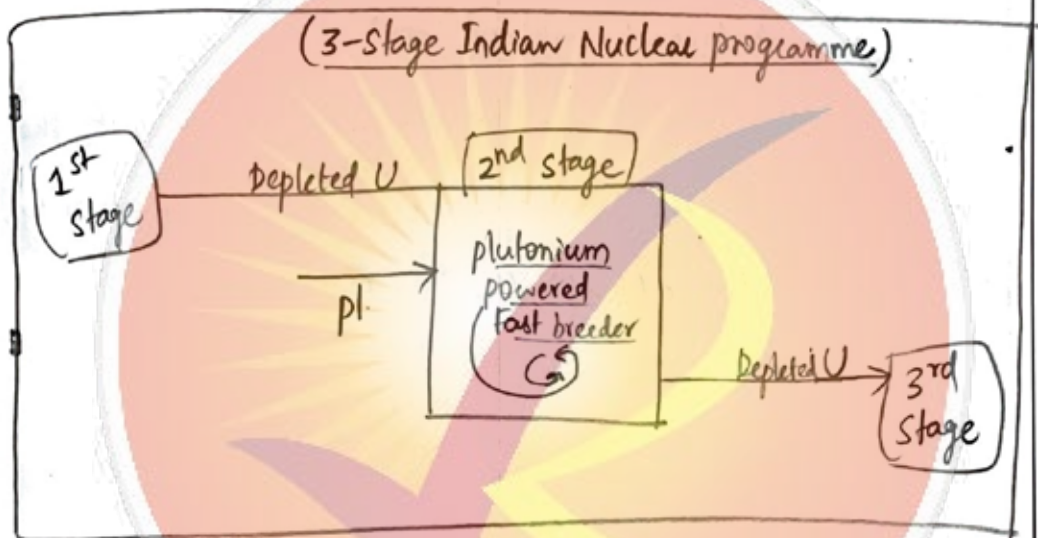
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Introduction	Suggestions:
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7. Explain the significance of the Fast Breeder Reactor (FBR) in achieving the goals of India's Nuclear energy program. (10 marks, 150 words)

Fast breeder Reactor (FBR) are the nuclear reactors which doesn't use moderators to slow down the chain reaction, thus creating scope for more energy production.



(Significance of FBR)

- ① can utilise the plutonium & depleted uranium from first stage.
- ② Energy positive; produces more energy than the provided fissile material

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- ③ Low waste generated compared to 1<sup>st</sup> stage and also produce fuel source to 3<sup>rd</sup> stage.
- ④ Generation of energy is faster due to absence of moderators. [Reduced cost also].

However, the incomplete first stage of Nuclear program is delaying the implementation of FBR. But currently, the technological demonstration is completed and also, India is focussing on small Modular reactors (< 300 Mw) as well.

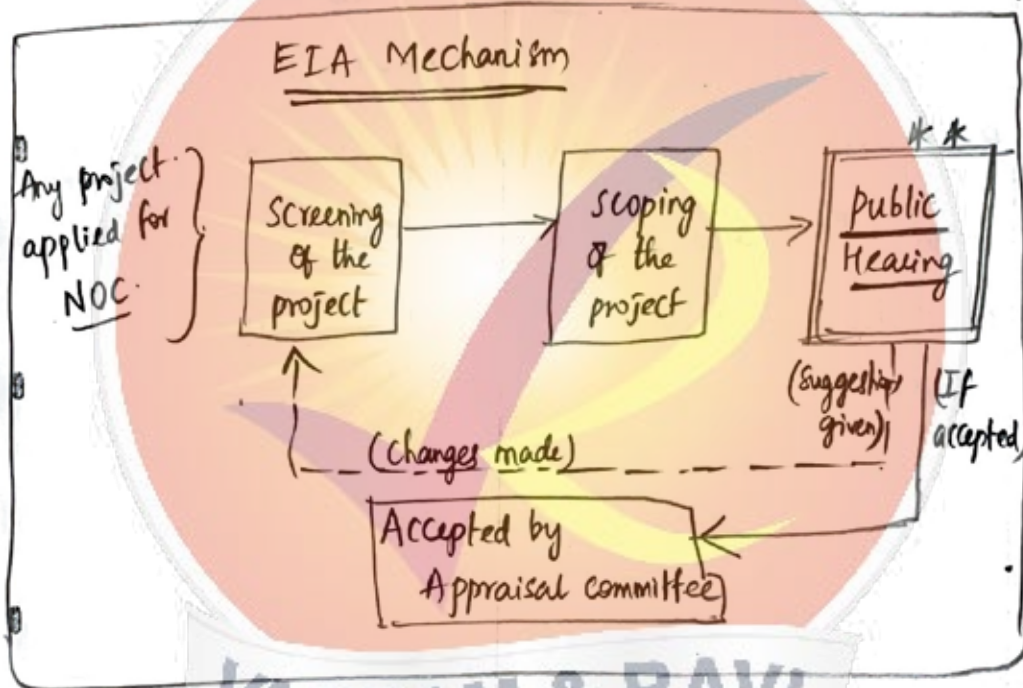
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Marks:	

8. Public awareness is primary in inculcating environmental consciousness. How does the Environmental Impact Assessment (EIA) promote environmental awareness?  
(10 marks, 150 words)

Environmental Impact Assessment (EIA) is a mechanism of predicting & prospecting environment challenges associated with project before hand and reducing future impacts of it by mitigation



## Role of EIA in promoting Environment Awareness

- ① public Hearing : (30 days) helps in making the people as the participates in environment conservation practises.

② Stakeholder value - EIA provides for general 'public to be a stakeholder' in any project involving environment issues.

③ Compliance Report - from the officer every 6 months ensures the transparency & Accountability.

④ Grievance Redressal Mechanism available for public to complain any violations in projects.

The EIA Rules, 2010 - diluted the procedure by decreasing public hearing to 20 days, compliance report Annually once, etc. which are not welcoming, with growing environmental challenges.

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Introduction	Suggestions:
Body	
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Marks:	

9. Overexploitation strains the quality as well as the quantity of our groundwater resources. Analyze. (10 marks, 150 words)

India has 18% of the global population with only 4% of water resources, thus leading to more groundwater extraction. Also, 70% of extracted groundwater is used for Irrigation in agriculture.

## Overexploitation of Groundwater

### Reduced Quality

- ⇒ High pollution in the Green Revolution States (eg: Punjab, Haryana - Uranium and arsenic pollution).
- ⇒ Hardening of the surface and low water retention.
- ⇒ Soil Desertification (making the top soil gone &

### Reduced Quantity

- ⇒ CAF Report, 2021 ⇒ water regeneration rate is less than utilisation rate
- ⇒ 27/31 Global Aquifers are disappearing.
- ⇒ Water stress (eg: urban - Bangalore - 2024).
- ⇒ 26% of Indian Agriculture irrigation already lost access to groundwater.

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## Government Steps to Address Overexploitation

- ① promoting Sustainable Agriculture practises  
(Micro Irrigation, Dry Crops-Millet, Crop diversification)
- ② Integrated watershed Development programme  
(Hae Keth ko pani - initiative, Rainwater harvesting programme)
- ③ Atal Bhujal Yojana (world Bank Supported) to water Stressed states, etc.

The Ecosystem Services provided by soil are limited and with over-exploitation, the entire ecosystem comes under serious threat

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Introduction	Suggestions:
Body	
Conclusion	
Presentation	
Marks:	

10. Disinformation has become a serious threat to internal security.' In the light of the statement, mention the role of the State in prevention of fake news.

(10 marks, 150 words)

Disinformation refers to any information which is not backed by any truth. It can be half truth;

Fake news, rumours, etc. With the rise of social media, disinformation is becoming Internal security threat.

For example:

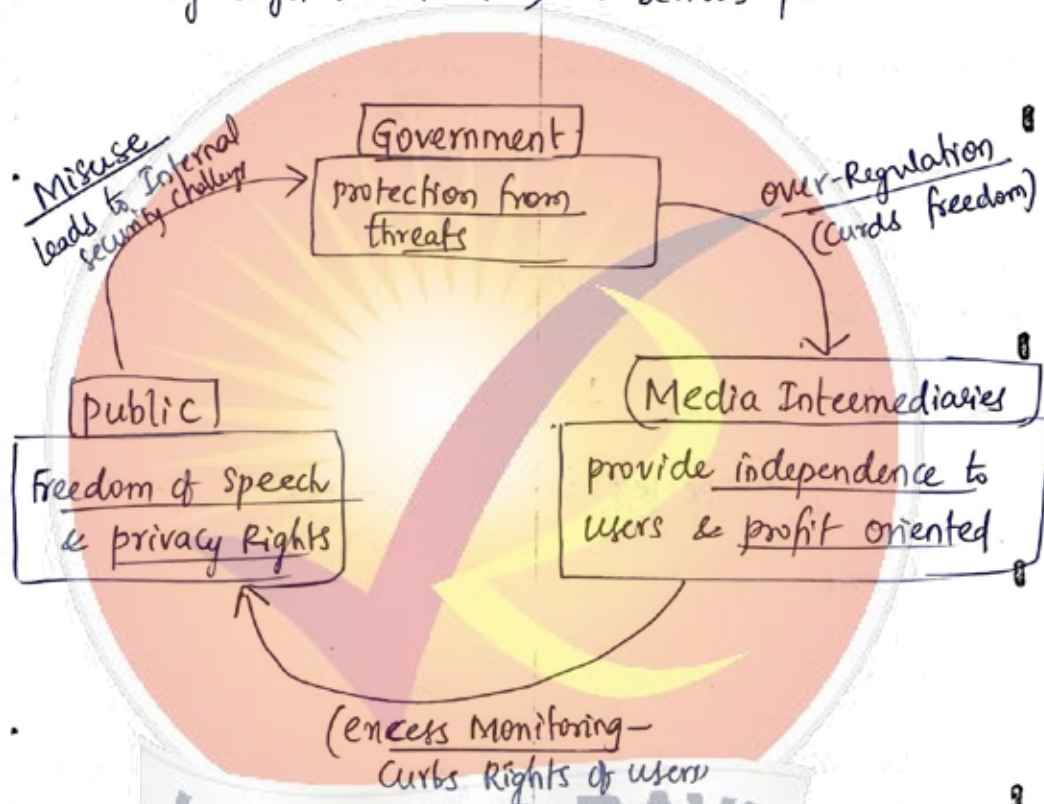
- ① Exodus of Bihar, Jharkhand migrant labours from Tamil Nadu, due to false news of violence targeting them (2023).

Role of state in prevention of fake news.

- ① people have "Right to access to Authentic Information"
- ② Establishing "Fact checking units" to tackle fake news with Authenticity. (eg: PIB-FCU):
- ③ Regulation of social media intermediaries to taken down any fake news

④ Educating the people about fake news and bring awareness.

(eg: It is observed whatsapp-used mostly for circulation of fake news in last 2 years) which is used even by Digital illiterates) - is serious problem.



This impossible Trinity needs to be balanced for effective regulation of fake news circulation.

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Introduction	Suggestions:
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Conclusion	
Presentation	
Marks:	

11. 'Employment opportunities in India are experiencing a rapid transformation.' In the light of the statement, discuss the preparedness of the Indian labor force to adapt to this transformation.  
(15 marks, 250 words)

• Growth of Gig Economy, Flexi workers, small organised sectors etc are witnessed in Indian employment opportunities, which also raises more concerns.

## Rapid Transformation

- ① Gig Economy: 1-5% of work force currently in gig (expected to 4% by 2020) — by NETI-Aayog Report.
- ② Flexi workers: 1% of work force (which are contract based, temporary), .. Mostly concentrated in logistics, food production,
- ③ Employees in small industries (less than 100 employee companies) — 79.89% of total work force according to Annual survey of Industries.

- ④ Technological Transformation (web 3.0, Industrial revolution 4.0 - Skilled jobs, AI penetration)
- ⑤ Other changes - by Climate change & energy transition, growing lifestyle activities...)

## India's preparedness

- ① India is focussing on promoting security and social benefits to Gig Economy
- ② Targets to eliminate contracted labours & reduce Flexi workers, especially in low level jobs
- ③ Skilling, Reskilling and upskilling to promote skilled workforce to meet needs of growing employment opportunities in Technology sector
- ④ unique employments (eg: Surya Mitras, Nal jal mitras, Manitanence Repair operations, etc) to aid the Transition & Conservation of Environment

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⑤ Industries - Academia linkages to promote practical knowledge (eg: Apprenticeship <sup>ship</sup> ~~stint~~ programmes, Internships in Industries, work shops for better education by Industries)

Government budget 2024-25 announced PM package of 5 schemes for employment & skilling of 4-1 cr youth and with 2 lakh crore capital. Also, the growing demographic dividend in favour of India aids to secure jobs in foreign also



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Introduction

Body

Conclusion

Presentation

Marks:

Suggestions:

12. Liberalized Indian economy expanded rapidly at the cost of social equity. Elaborate. Also, suggest measures for promoting inclusive economic growth.

(15 marks, 250 words)

1991 Economic Reforms of India are aimed at Liberalisation, Globalisation and privatisation, which lead to increased Economic growth over the year. However the inclusive growth remained a dream.

(Post-1991 Reforms)

- (+) Economic Growth
- Service sector boomed (60% of GDP now)
  - Foreign Direct Investment drastic increase
  - Became 3<sup>rd</sup> largest economy (in PPP)
  - on verge of \$5 trillion Economy by 2025-26
  - Boom of private sector.

Balanced growth of sectors - not done ←

Poverty : 11% of people - MPI - poor ←  
Inequality increased

Employment : unorganised casualisation ←  
(79.2%)

Impact on the Environment by the over exploitation, had multiplier effect. ←

Malnutrition (Anaemia, Stunted, etc) ←  
Continuous to trouble)

(-) Economic Development.

## Measures required to promote Inclusive Growth

- ① Targetted approach towards the social sectors (egs poverty reduction aimed at various levels - like extreme poor, lower middle class, etc - to have better targets).
- ② Focus on the Middle class.  
(Benefits should aid middle class, in order to reduce risk of being slipped to poor).
- ③ Development of Health facilities  
(Health is important for economic activity. proactive health measures, infrastructure development needed)
- ④ Increased Balanced growth of sectors  
(Reducing employment in agriculture & increasing their participation in Industries, also balanced growth)
- ⑤ Financial Inclusion & Digital Transformation.  
(Digital services associated with banking needs to promoted by bridging Rural-urban Divide, and encouraging Digital

⑥ Regional Equality

(bridging Rural-urban divide, also state level inequalities (eg: Chhattisgarh - 44% poor but Delhi 6%))

⑦ Environment sustainability:

Eco friendly growth reducing the negative externalities of the Economy

⑧ Women empowerment:

(promoting education, reducing gender pay gap, diversifying job opportunities, etc..)

⑨ Law enforcement to reduce burden of the

parallel economy. (eg: Black money, money laundering..)

Inclusive Growth is the means of achieving Economic development and thus focussed approach need to followed systematically

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Introduction	Suggestions:
Body	
Conclusion	
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Marks:	

13. Livestocks play a key role in improving the socio-economic conditions of the rural masses. In this light, discuss the potential opportunities for the livestock farmers in India. (15 marks, 250 words)

Agriculture allied sector contributes to 40% of the total Gross Value addition of primary sector. India ranks 1st in livestock Rearing in the world with 8-9% share.

Role of livestock in Socio-Economic development of the Rural Masses.

Social

- ① promoting community partnership (eg: Cooperatives)
- ② Helps in Cultural Activities (eg: Festivals, Marriages)
- ③ Familial consumption (eg: Milk from dairies)
- ④ uplifting the social conditions (eg: Education)

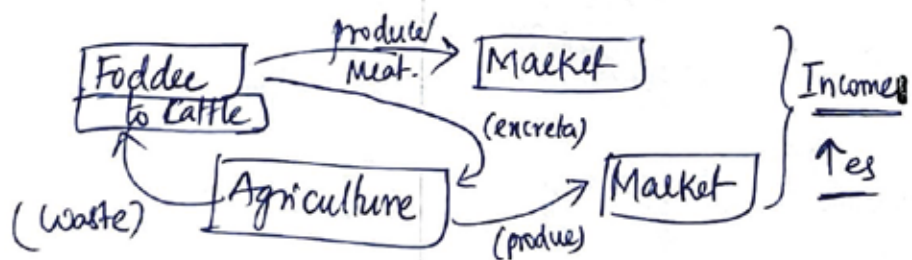
Economic

- ① source of Additional income to the farmers (eg: Integrated Farming)

- ② Mobilising the resources and pooling for export to various markets. (eg: AMUL Model)
- ③ Insurance against crop failure, as allied sectors can give returns during same time.
- ④ Large scale food processing units can be set up & utilised by farmers to sell produce from allied activities

## Potential opportunities for livestock farmers in India.

- ① Allied sectors helps in doubling of farmers income (eg: by fish culture, cattle rearing, etc.) (2016-22).
- ② Integrated Farming Systems - To promote the sustainable utilisation of resources while ensuring diversified production and secured income.



③ Export potential - By increased food processing and quality standards (eg: 24% of milk production in India, yet not much presence in global exports).

④ Hedge against the Natural disasters and climate change issues - by promoting climate resilient Agriculture

⑤ National livestock Mission, by government aimed at utilising this potential, by providing vaccination, veterinary care, fodder supply chain, Market promotion, etc. This can help in realising the potential.

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14. What are the objectives of the Production Linked Incentive (PLI) scheme? Analyse its role in the growth of indigenous semiconductor industry.

(15 marks, 250 words)

production linked incentive scheme is aimed at achieve domestic production by incentives on 'incremental sales' and 'incremental investments' in the 14 sectors selected.  
(eg: Semiconductor, Drones, Textiles, --)

Objectives of PLI.

- ① Reduce Import Dependency :  
(Key infrastructure to be self-produced to reduce the imports).
- ② Promote Domestic production :  
(By giving incentives, interest subvention in setting up domestic manufacturing units)
- ③ Make-in-India :  
(Appealing global production houses to <sup>come</sup> India to produce in domestic)
- ④ Promote Economies of scale :  
(Incremental sales are incentivised)
- ⑤ Promotion of Innovation, Technology :

## Performance of PLI so far.

Investments : 1 Lakh crore

Sales value : 9 Lakh crore

Exports value : ~~3~~ 3 Lakh crore

Jobs Created : 6 lakh

## Role of PLI in growth of Indigenous Semiconductor Industry:

- ① PLI for large scale electronic manufacturing, PLI for chip & display Fabrication providing interest subvention of 4-6%.
- ② setting up of Semiconductor chip Fabrication unit in Gujarat.
- ③ Design linked Incentive (under 'National Semiconductor mission'). - to promote incentives based on new designing.
- ④ setting up of ATMP (Assembly, Testing, Marking & Promoting) unit in Assam

- ⑤ 'Chips for Startup Initiative': for various startups involved in semiconductor industry.
- ⑥ PLI for photovoltaic cells for solar panels also encouraging domestic manufacturing

Few challenges like lack of availability of critical minerals, tough competition in global market from China, Taiwan, Korea and also pre-existed supply chains, etc with low level of investment is hampering the rapid success in this industry.

The investment needs to be increased by more aggressive & holistic mechanism than PLI to boost this sector quickly.

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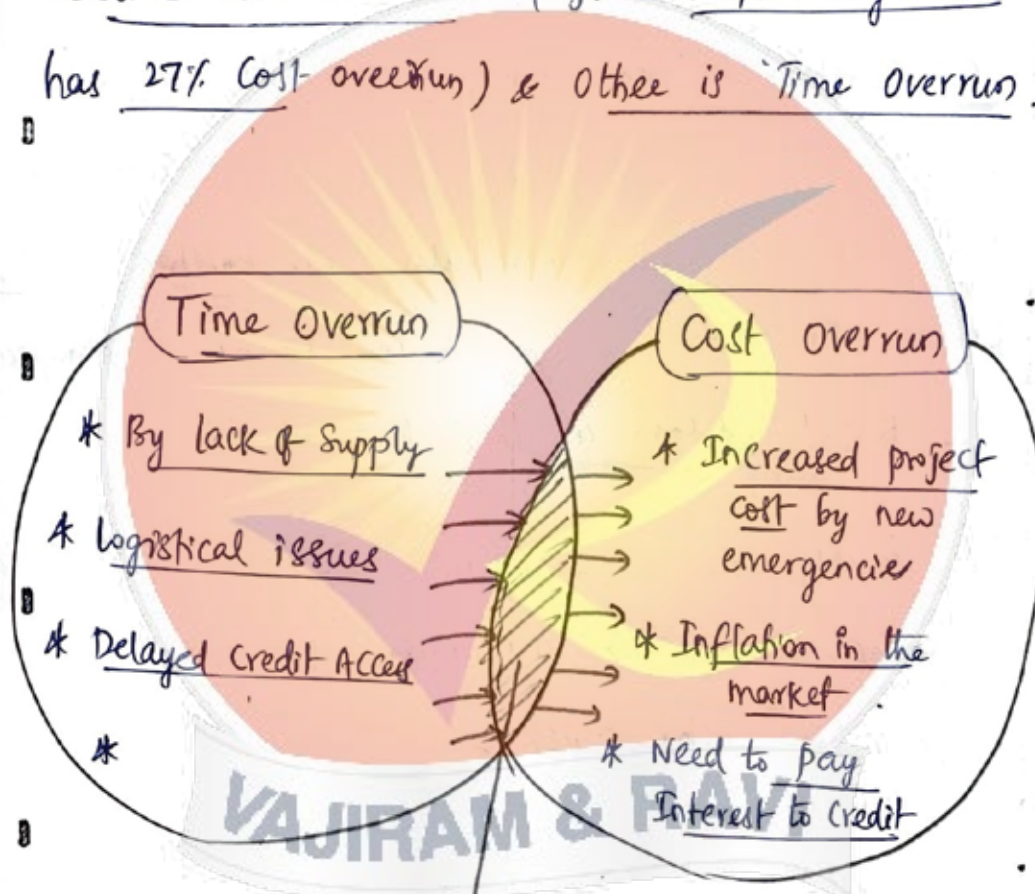
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Introduction	Suggestions:
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Marks:	

15. Delays in infrastructure projects create massive cost overruns. Elaborate the major causes of delays and potential solutions for timely project execution.

(15 marks, 250 words)

Infrastructure sector in India is suffering from various bottlenecks, one such is the massive cost overruns (eg; Manufacturing sector has 27% cost overrun) & other is Time overrun.



For example:  
\* In manufacturing sector,  
27% cost overrun is caused by 47% Time overrun.  
\* Mumbai-Ahmedabad Expressway delay resulted in 16% cost increase in 8 months.

## Major Causes of Delays

- ① Land Acquisition issues - (eg: 3 Km land requirement delayed Mumbai - Ahmedabad highway)
- ② Logistical challenges: (Movement of materials without inter-mined transport is tough).
- ③ political Hurdles - (protests from oppositions, change in government, etc)
- ④ Excessive Regulations - (stringent Environment Impact Assessments for few projects).
- ⑤ Litigation: (Delayed judgements and postponement of hearing).
- ⑥ Others: PPP issues, credit access, inflation, etc

## Potential solution

- ① Land Titling Mechanism - to establish ownership by digitisation of records
- ② Multi-Modal Transport Facilities and Continuous supply of power, etc need to be developed.

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- ③ Long-term Concessionaire Agreements to reduce risks of change in governments (recommended by K. Kelkar Committee)
- ④ Project based EIA - to change the current one-size-fits all model
- ⑤ Special Courts and Tribunals and other out of court settlements (Mediation, Negotiations, etc) to solve conflicts
- ⑥ Developing the Corporate Bond Market, reduce the financial system from Non-performing assets

Infrastructure can have Multiplier effect, crowding in effect and reducing externalities. For every  $\text{₹} 1$  spent,  $\text{₹} 3.5-4$  can be earned by promoting infrastructure effectively.

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Body	
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16. The Indian Space sector exhibits huge growth potential. Analyze the opportunities for the private sector in the Indian space industry. (15 marks, 250 words)

According to National Space policy, 2023 - Indian Space sector is expected to become \$60 bn by 2030 and occupy 9% of global Market.

		Expected	
2013-14 → 2023-24	2023-24	By 2030	By 2040
Contribute \$25 bn to Economy & 96,000 jobs	9.3 \$ billion Market.	\$60 bn 2 Lakh jobs 9% of global Market Share	\$100 bn Economy

Opportunities for private sector in Indian Space Industry

- ① High valued market established by the ISRO ..
- ② Manufacturing of launch vehicles, Satellites and other equipment.

③ Commercial services - like private satellites, space tourism, etc.

④ Collaboration with ISRO for Research & Development

⑤ Future prospects of extraction of Resources from the space.

⑥ Establishing communication networks and Internet facilities in the space

(Government Initiatives to promote private in Space Industry.)

(Indian Space Policy 2023)

\* Allow private participants to involve in the space technology.

\* INSPACE - to single window clearance for private players. & Industry collaboration

\* NSIL (New Space India Limited) - developing demand driven model in commercial activities, with help of private players

## Recent developments

\* Vikram-S - first private rocket launched under Mission Prarambh

Few issues like providing level playing field to private, Regulation of them and addressing Space sustainability, needs to be evaluated by India before giving legal backing to the policy. In future

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Introduction	Suggestions:
Body	
Conclusion	
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Marks:	

17. Plastic waste has become near ubiquitous, threatening ecological stability. Explain. Also, discuss various measures taken by the government to contain further environmental degradation by plastic wastes. (15 marks, 250 words)

Globally, 79% of the total produced plastic is becoming waste, while only 9% is being recycled. Also, 82% of marine waste found is of plastic waste.

plastic waste threatening Ecological stability

- ① Reduced Soil Fertility :- penetration into soil & non-bio degradable nature resulting in this.
- ② Bio Accumulation & Bio Amplification :  
Entering food chain & disturbing the entire food web of the ecosystem
- ③ Marine Pollution : plastic waste in marine is serious threat to marine environment (eg: bulky balls, microplastics)
- ④ Increased Emissions - by the production of plastic also contribute to global warming and climate change

Measures taken by government to contain further environment degradation by plastic wastes:

## Plastic Waste Management Rules

- ① Extended producer responsibilities for the disposal & recycling of plastic. (EPR)
- ② polluter pay principle for charging the polluters
- ③ Ban on 'single-use plastics' in various products and ~~reduced~~ increased plastic bags to 120 Microns
- ④ Regular compliance reports to the government from the companies.
- ⑤ Classification of plastic waste -
  - ① Recyclable
  - ② Technically Recyclable
  - ③ Technically challenging
  - ④ Compostible
- ⑥ Introduced 'Micro plastics' as exclusion for Biodegradable plastics, as it causes marine pollution

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Few shortcomings in implementation of the rules and non-adoption by various states resulted in limited success of the government efforts.

However, constant push is being made to reduce plastic pollution.

Recent failure of negotiations for plastic Treaty globally, raises serious concerns in Global Environmental governance. India need to be proactive both externally and internally to address this menace.

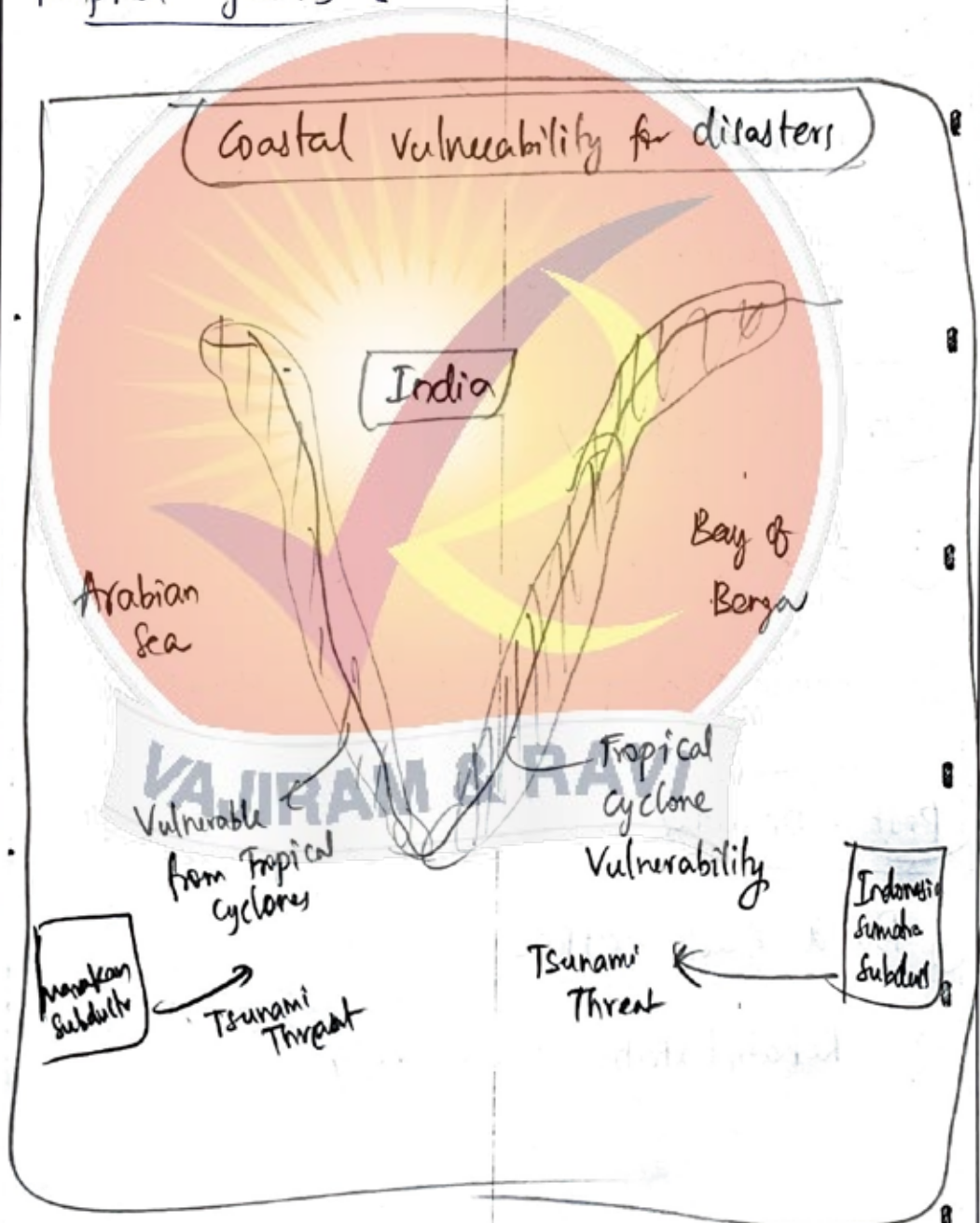
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Introduction	Suggestions:
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Conclusion	
Presentation	
Marks:	

18. Elaborate the disaster vulnerability of Indian coastal cities with examples. Examine the relevance of Sendai Framework in disaster management of coastal regions. (15 marks, 250 words)

5700 out of 7500 Km stretch of Indian coastline is prone to disasters like Tsunamis, Tropical cyclones.



2015 Sendai framework for disaster risk Reduction

Pre disaster

- ① Mitigation efforts by development of resilient infrastructure
- ② Effective Early warning System

During Disaster

- ① Deployment of Rescue forces
- ② Mobilisation of food & basic amenities

Post - Disaster

- ① Build - Back Better
- ② Rehabilitation & Recovery

- Coastal vulnerability Index by ENCOIS to know State wise & disaster wise vulnerability of Coastal regions is done to effective management.



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19. Alarming rising trend in cyber attacks endangers national security. Explain with examples. Elaborate the need for establishing a dedicated cyber security force to deal with the issue. (15 marks, 250 words)

Cyber attacks refers to crimes in the field of technological domain, which can be espionage, ransomware, virus, Denial of Service, etc

Recent examples of cyber attacks

- ① Revil (Ransomware-as-service) Collected average \$2.25 Million in 2022-23. as Ransome [Economic Threat]
- ② Attack on Indian power grids from China based cyber attackers, 2023 [Critical Infrastructure Threat]
- ③ Resecurity (US based): Reported 815 million Indian Aadhaar & PAN details available in Dark web. [Privacy Threat]
- ④ 2021: CAT (mba) Test applicant details got leaked. [Information Threat]
- ⑤ AIIMS Delhi Ransomware attack [Public Health Threat]
- ⑥ failed Cyber attack on Kudankulam Nuclear power plant. [Nuclear Threat]

- NCRB Data Shows 300% increase in cyber cases in Delhi from 2021-23 . -

Need for establishing dedicated Cyber security force to deal):

- ① India's current Framework is fragmented with different units working in different departments (eg: CERT-IN, NTRC, NCIIPC) --
- ② Most of the India's current focus is on the Defence and protection, while Mitigating the Risk..  
Thus, Cyber security force, can act as the Defence and Response force.
- ③ Cyber space is becoming new ground for warefare [cyber warfare] and can be subconventional in nature

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④ Need for protection of critical infrastructure by countering the cyber challenges.

As cyber security poses social, public, Economic and later existential threat by breaching privacy, we need cyber security force to take action against the criminals.



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Body	
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Marks:	

20. Socio-economic functions across the Indian border makes its management more complex. Discuss with suitable examples. (15 marks, 250 words)

Indian border management is covered by the Ministry of Home Affairs'. Border Management department, with policy "one Border - one ~~policy~~ Force"

(Socio-Economic functions across the Indian borders making its Management more complex)

① Cultural Ties

→ eg: Kuki, Zo Community ties between Mizoram and Nagaland led to increased movement of insurgents in the border.

→ Indo-Nepal border have cultural ties led to organised crimes like the, Fake currency notes, money laundering, etc

→ Indo-Bangladesh border: porous border often connected by Bengali Hindus, more cross border, which is threat of migration

→ Indo-Bhutan border: organised illegal. Wildlife trade is threat as people-to-people connections in tribes aid free movement

## Economic Ties

→ Nepal merchants having market access in Uttarakhand segment - leading to problems

→ Bhutanese people and Indian currency similar valuation - led to Economic challenges.

→ Indo-pakistan line of control cross border movement for economic activities - led to infiltration, etc

## Indian Measures

- ① Setting up of Integrated Checkpoints  
(to free cross-border movement with trade checks)
- ② Done away with free border movement with hostile nations (eg. Myanmar)
- ③ Fencing of borders and integrated border management.

The social-economic activities of locals in border also need to be honoured while addressing border security issues to have effective buffer

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Introduction	Suggestions:
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Marks:	

# Space for Rough Work

