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GENERAL STUDIES (TEST CODE : 1072)

Name of Candidate	ANIKUR KAUSHIK		
Medium Eng./Hindi	ENGLISH	Registration Number	26775
Center	ORN	Date	8/9

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
2	10	
3	10	
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20	15	

Total Marks Obtained:

Remarks:

INSTRUCTIONS

- 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)।
- There are **TWENTY** questions printed in **ENGLISH & HINDI** इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
- All questions are compulsory.**
सभी प्रश्न अनिवार्य हैं।
- The number of marks carried by a question/part is indicated against it.
प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
- 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।
- Word limit in questions, if specified, should be adhered to.
प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
- 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।

16-B, 2nd Floor, Above National Trust Building, Bada Bazar Marg, Old Rajinder Nagar, Delhi-110060

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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 why it is important to urgently address the problem of poor land records and infirmity of land titles in India. Also discuss how this problem can be addressed. (150 Words) 10

व्याख्या कीजिए कि भारत में खराब भू-अभिलेखों एवं भूमि अधिकारों के सुदृढ़ नहीं होने की समस्या का तत्काल समाधान करना क्यों महत्वपूर्ण है। साथ ही, चर्चा कीजिए कि इस समस्या का समाधान किस प्रकार किया जा सकता है।

India is endowed with 2.4% of global land resources, and being a majoritarily Agri based economy land records assume tantamount importance, in Indian subcontinent.

Importance of land Record Modernisation

- ① India supports 17% of total world population.
- ② Delays in land acquisition hinder developmt of sectors like Infrastructure, agriculture etc.
- ③ lack of conclusive land titles instigate excessive litigation and delays.
- ④ With focus on SEZ, promotion of clusters (APZ, CEZ, SEZ) land titles hold tantamount importance.
- ⑤ Obsolete laws like Registration Act, 1908 make it vulnerable to disputes
- ⑥ Lack of use of ICT in land records hinder

Addressing the Problems

- ① Use of ICT in land Records Modernization programme as identified by NITI Aayog.
- ② Establishing laws like Modern land leasing Act, Contract Farming laws.
- ③ Initiatives like land pooling, land Banks (Orissa Model) to ease land acquisition.
- ④ Enforcement of LARR Act, 2013 to ensure easier acquisition.
- ⑤ Arrangements like Value Capture Financing so as to alleviate supply side problems.
- ⑥ Engaging states as land is a state subject India has taken several steps in this direction viz. Modernization of land Records Programme, Model land leasing law, Model contract farming law to ensure smooth and swift land Issue Resolution.

2. What are the special features of the infrastructure sector that make its financing a challenge? What measures have been taken to facilitate adequate amount of finance to this sector?

(150 Words) 10

अवसंरचना क्षेत्रक के वे विशेष लक्षण क्या हैं जो इसके वित्तीयन को चुनौतीपूर्ण बना देते हैं? इस क्षेत्रक में वित्त की पर्याप्त उपलब्धता को सुनिश्चित करने के लिए कौन-से उपाय किए गए हैं।

Finance Committee 2009 defines Infrastructure sector as a "support service" and one with multiplier effects on economy. It identified sectors like Transportation, Logistics (2018), Communication, Energy etc as infrastructure sector.

Financial Challenges in Infra Sector

- ① Land acquisition laws are obsolete and litigation prone. (Regideta Act 1901)
- ② India needs 59 lakh Crores of Investment in Infrastructure sector (12th 5 year Plan)
- ③ Rising NPA's (8.4 lakh cr) with Banks increase their liability side.
- ④ Global and domestic economy slowdown.
- ⑤ Funds like Pension, Insurance can only invest in AAA credit sector.
- ⑥ Poor Risk allocation framework, Renegotiation

Measures Taken

- ① Introduction of Masala Bonds (Rupee denominated bonds) to promote investments.
- ② Setting up of IIFCL (Indian Infra Finance Corporation limit) to engage private investors.
- ③ Setting up InViT (Infrastructure Investment Trusts - (Mutual Fund based model)
- ④ Relaxing norms for investment in Pension and Insurance bonds (from AAA to AA)
- ⑤ NITI Aayog and ABB International signed agreement on boosting Infrastructure Investment.
- ⑥ Logistics sector has been given Infra status.

Way Forward

Infrastructure Sector with its Multiplier effects, needs to be complemented with all round incentives in land acquisition, PPP promotion for a desired economy growth.

3. Despite favourable circumstances, India's electronics manufacturing has been unable to respond to the rising demand. Discuss. What steps can be taken to address this situation? (150 Words) 10

अनुकूल परिस्थितियों के बावजूद, भारत का इलेक्ट्रॉनिक्स विनिर्माण बढ़ती मांग के प्रति अनुक्रिया करने में असमर्थ रहा है। चर्चा कीजिए। इस परिस्थिति को संबोधित करने के लिए कौन-से कदम उठाए जा सकते हैं?

India recently became 2nd largest Assembly destination for electronics (WRF report). With increasing wages in China's sphere. India with 150% less wages and spurt of schemes in electronics sector is a favourable destination for electronics manufacturing.

Demand-Supply Mismatch

- ① Regulation → labour laws, land laws make it difficult to set up electronics manufacturing zones.
- ② Investments → economy slowdown, NPA's make electronics manufacturing in want of demand.
- ③ Competition from China (largest electronics manufacturer)
- ④ IPR shortcoming Protection of patents, intellectual rights are lagged in India which keeps off FDI and Foreign manufacturers.

- ⑤ Nations like Mexico have increased the competition in favourable destinations for electronics manufacturing.

⑥ Inverted duty structure [PSB-40%] make it easier to import than to manufacture.

Steps Taken → lack of skilled employees and R&D

- ① M-SIPS to boost electronics manufacturing by setting up EMZ and cluster approach.
- ② Phase 2 Manufacturing Programme, Fast Track Task Force
- ③ NITI Aayog in its three year Action Agenda identified Electronics ESDM sector as sunrise sector
- ④ Schemes like Skill India, Land pooling, Early Harvest Program Scheme.

Way Forward

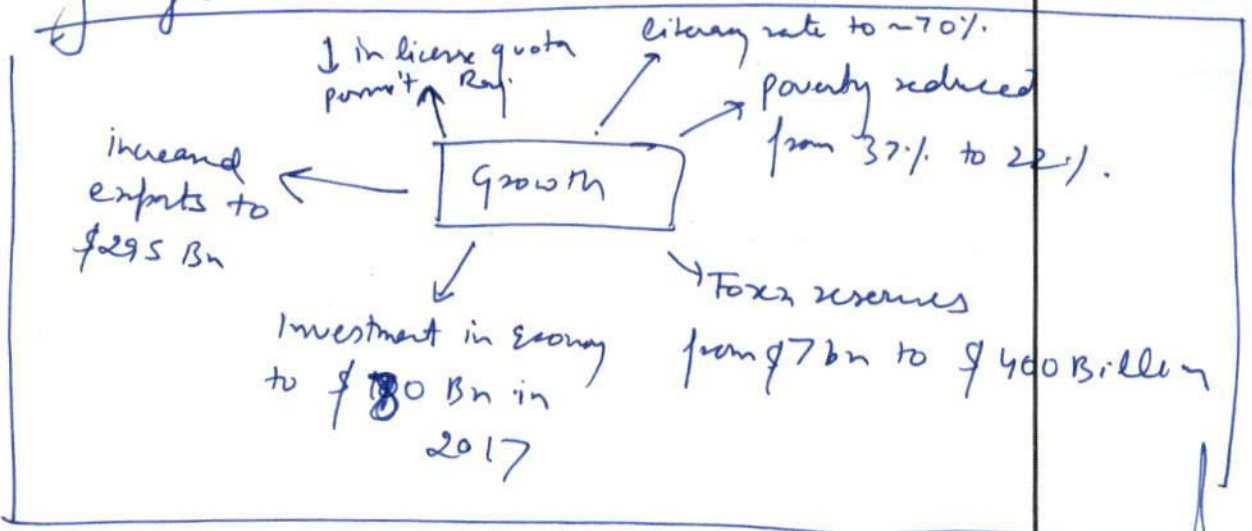
- ① Easing labour laws, land laws.
- ② Boosting Electronic Based skill development
- ③ Strengthening India's IPR policy to curb Intellectual Property Protection laws.
- ④ Involving Private Sector (IBM, TCS) to boost ESDM growth.

These steps will help set up India as favorable ESDM destination.

4. Despite registering a high growth rate in the post-reform era, India continues to witness a high incidence of poverty. Explain this paradox and suggest ways to resolve it. (150 Words) 10

आर्थिक सुधारों के बाद की अवधि में उच्च संवृद्धि दर दर्ज करने के बावजूद, भारत लगातार निर्धनता की अति व्यापकता का साक्षी रहा है। इस विरोधाभास की व्याख्या कीजिए और इसका समाधान करने के उपाय सुझाइए।

Post 1991, LPG (Liberalisation, Privatisation and Globalisation reforms) India registered a high growth rate in all sectors.



Despite these high growth indicators India still houses largest population of world's poor, and highest incidence of hunger and malnutrition in the world (Hunger report). According to Rangarajan committee $\frac{1}{3}$ every one in three people in India was poor.

R

- Reasons
- ① Sectoral divide While private sector saw a boost, health and education expenditures are lowest amongs BRICS countries.
 - ② Low skill development making large population unemployed (163rd rank in human capital index)
 - ③ Regional disparity While states like Maharashtra, TN benefited BIMAROD states still lacked Private sector involvement
 - ④ Urban-Rural Divide only 20% of ~~best~~ educational institutes cater to Rural areas.
 - ⑤ Agriculture sector still saw minimal investments and growth.

Solutions

- ① Boosting growth in Agriculture sector by P R O P, and productivity
- ② Skill development impetus (schemes like SKOOP, STRIVE, PMKVY)
- ③ Increasing jobs to 10mn per year from current 6.5mn
- ④ Strengthening of programmes like MNRREGA, NRLM et.
- ⑤ Increased Investment in Health and Education

5. In light of the argument that India has entered a regime of "permanent surpluses", discuss whether the time has come to remove agricultural commodities completely from Essential Commodities Act. (150 Words) 10

इस तर्क के आलोक में कि भारत "स्थायी अधिशेषों" के युग में प्रवेश कर गया है, चर्चा कीजिए कि क्या कृषि जिनसे को आवश्यक वस्तु अधिनियम से पूर्णतया हटा देने का समय आ गया है।

India in year 2017 produced 277 MT of cereal crops and 300 MT of horticulture crops (NSSO 74th round). The procurement by FCI was in excess of tone of 53% and also Post-harvest losses amounted to 1 lakh Crores. Above figures cite the bumper production in Indian subcontinent.

NITI Aayog's ~~its~~ Task Force on Agriculture and Shanta Prasad Committee vouched for reforms in ECA to curb losses and permanent surplus problem.

ISSUES IN ECA

- ① Essential Commodities Act provides for action against hoarders, Black marketing and stocking of public commodities which includes Agricultural commodities as well.
- ② ECA fails to distinguish between processor, retailers, manufacturing units, etc.

making them vulnerable to legal action.

- ③ Moreover ECA has been misused by state in name of curbing hoarding,

Reforms

- ① Agricultural commodities must be kept out of ECA's ambit
- ② Retailers, Processors must be kept out of ECA's purview
- ③ Model Contract Farming law keeps out agriland horticulture products from ECA and APMC's jurisdiction.

Reforming ECA will ensure income security to farmers as well as protection to ~~stockers~~ legally enterprises and innocuous retailers.

Alongside APMC reforms, provision for NCR's and cold chain systems will help curbing menace of permanent surplus.

6. The 1988 National Forest Policy (NFP) was visionary in its scope and ambition. However, there is a need for a new forest policy in the current context. Discuss. (150 Words) 10

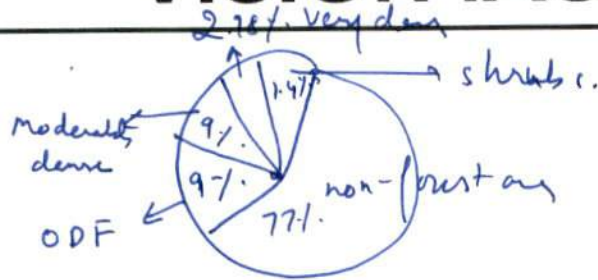
1988 की राष्ट्रीय वन नीति (NFP) अपने विषय-क्षेत्र और लक्ष्य की दृष्टि से दूरदर्शी थी। हालांकि, वर्तमान संदर्भ में एक नवीन वन नीति की आवश्यकता है। चर्चा कीजिए।

India ranks 10th in Global Forest Area and houses 23% of Forest to total Land Area. With changing global scenario the need for a dynamic policy has come into light.

NFP, 1988

- ① Increasing forest cover area to $\frac{1}{3}$ of total Area to improve ecosystem service.
- ② Setting up National Afforestation Board to increase and implement 33% goal
- ③ It catered to rights of Traditional communities and provide for wildlife protection.
- ④ Also NFP 1988 provided for Penal provisions and integration with FRA, 2006.

Hence NFP 1988 was visionary both in scope and ambition which resulted into



- Also forest cover saw an increase from 19% to approx 22%, ~~in forest cover~~

Need for New policy

Climate change, increasing anthropogenic emissions, India's commitment to Paris meet (INDC's), Traditional Forest rights and concerns with man-animal conflict make it imperative to draft & modify a new policy.

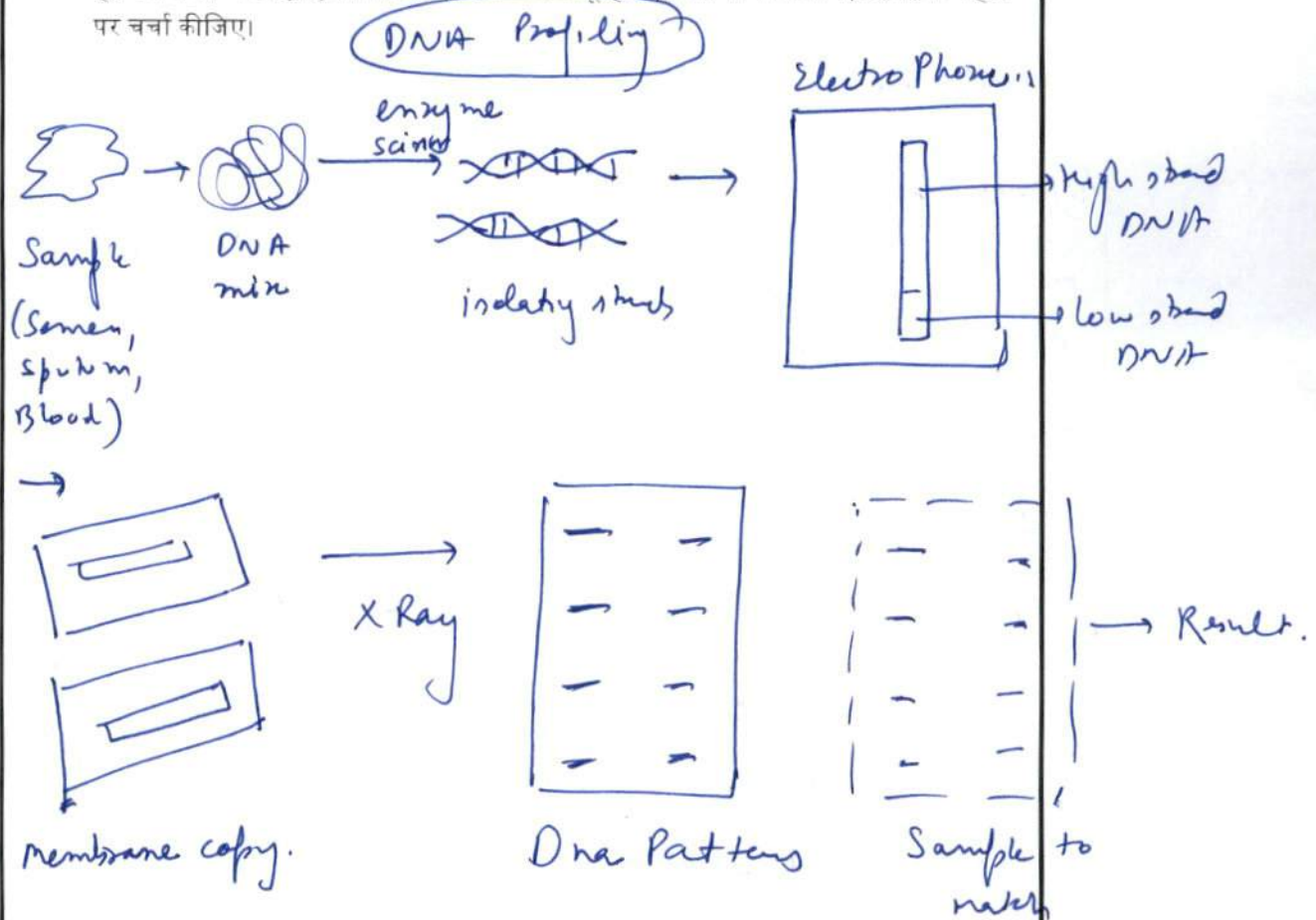
In this regard, India has come up with draft New Forest policy which accounts for above challenges and is based on Vision of Greener, Better, Integrated Biocentric India.

7. How does rapid urbanization increases the vulnerability to major disasters? Explaining with examples, suggest measures to develop disaster-resilient cities. **(150 Words) 10**

दुत शहरीकरण प्रमुख आपदाओं के प्रति सुभेद्यता को कैसे बढाता है। उदाहरणों के साथ व्याख्या करते हुए, आपदा-प्रत्यास्थ शहरों का विकास करने के उपाय सुझाइए।

8. Explain DNA profiling and highlight its forensic application. Also discuss the significance of DNA Technology (Use and Application) Regulation Bill, 2018 in this regard. (150 Words) 10

डीएनए प्रोफाइलिंग की व्याख्या कीजिए और इसके फॉरेंसिक अनुप्रयोग पर प्रकाश डालिए। साथ ही, इस संबंध में डीएनए प्रौद्योगिकी (प्रयोग और लागू होना) विनियमन विधेयक, 2018 के महत्व पर चर्चा कीजिए।



DNA Profiling is a ~~branch~~ ^{tool} of molecular Biology that is used to ascertain veracity of DNA claims, Finger print matching, Identification of missing person etc. As stated by NITI Aayog in its L20 report DNA profiling can help boost investigation, settling

identity claims and also identifying and convicting missing persons.

Recently introduced DNA Bill holds significance as it :-

- ① Sets up DNA regulatory Authority to monitor labs, forensic departments and boost DNA prof. by
- ② Setting up Data Banks to collect, store, DNA data
- ③ Penalizing for data misappropriation to tune of 10 lakhs
- ④ Makes DM's assent compulsory to acquire DNA samples
- ⑤ Consent of ~~same~~ person required except in certain offences.

This will help set up a regulatory regime for improving criminal investigation and missing person identification. A few lacunas like explicitly detailing of offences where consent is not mandatory will boost

9. What is meant by the term Blue Water Capabilities? In this context, identify the key measures that have been undertaken to enhance the blue water capabilities of the Indian Navy. (150 Words) 10

ब्लू वाटर क्षमताएँ पद का क्या अर्थ है? इस प्रसंग में भारतीय नौसेना की ब्लू वाटर क्षमताओं का संवर्द्धन करने के लिए किए गए प्रमुख उपायों की पहचान कीजिए।

Blue water capabilities denote a nation's capability to carry out offshore operations in international seas and naval prowess of a nation.

(Need)



(Measures Taken)

- ① Setting up Integrated Action Theatre Command in A2N islands
- ② Building indigenous nuclear capable submarine like ARIHANT

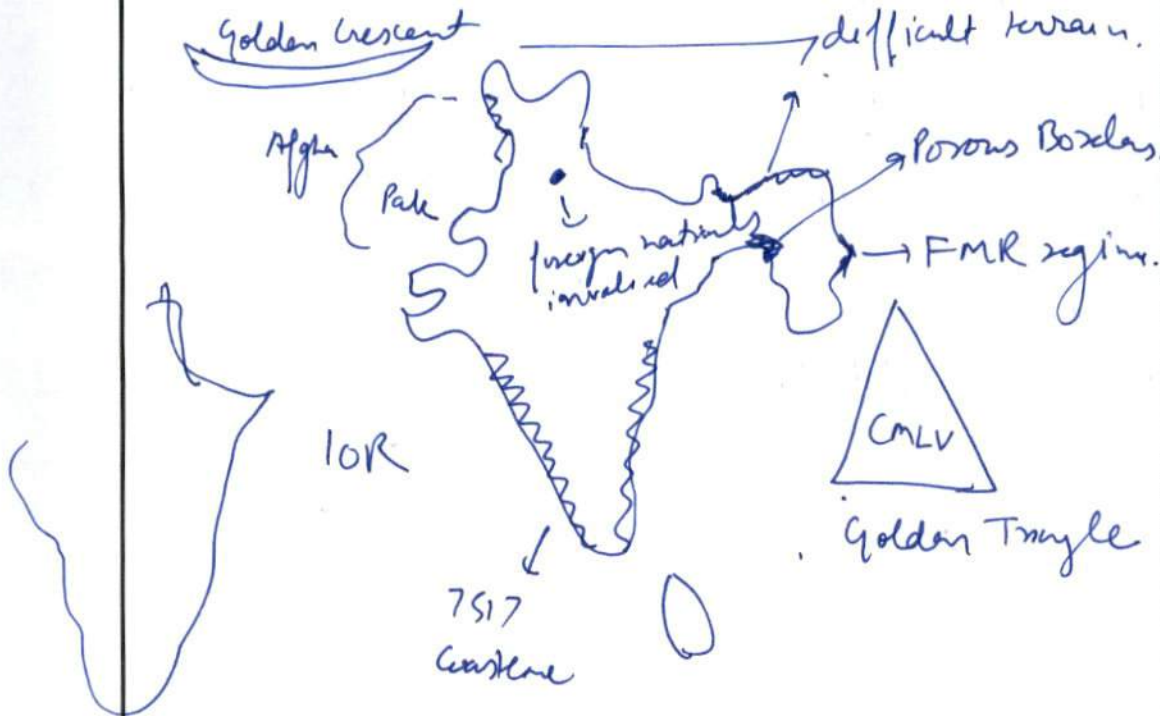
- ③ Acquiring CHAKRA vessels etc.
- ④ National offshore patrol vessels like Shavya etc.
- ⑤ Enhanced cooperation with foreign navies like MAHABAR exercise, ION-symposium
- ⑥ Setting up Indian Coast Guard unit to step up Coastal monitoring and security.
- ⑦ India is a member of IOR-ARC and other platforms.
- ⑧ Invest India has identified Naval ~~to~~ Capacity Building sector for PPP growth

A nation's security rests on its hard power which involves Naval might as foremost pillar. With India taking up enhanced role in Global affairs.

Boosting Naval capabilities via forwarded ~~and~~ measures strengthen India's image and footprint

10. Identify the factors that make India vulnerable to drug trafficking? Also discuss the key steps taken to deal with it in our country. (150 Words) 10

उन कारकों की पहचान कीजिए जो भारत को ड्रग तस्करी के प्रति सुभेद्य बनाते हैं? साथ ही, हमारे देश में इससे निपटने के लिए उठाए गए प्रमुख कदमों की चर्चा कीजिए।



A mix of factors like proximity to Global Drug markets, porous Borders, difficult terrain make India prone to increased instances of Drug Trafficking. Moreover increased connivance with officials and drug peddlers, pop-culture, unemployment of youth and foreign unregulated contacts add to India's woes.

Steps Taken

- ① Drug trafficking is included under VAPA 1967, PMCA act 2002 which entails strict punishment.
 - ② Drug and psychotropic substances act regulates sale of drugs without prescription.
 - ③ Partnership with health centres and NGOs like NoDrug Association.
 - ④ Increased border surveillance under CBMS, setting up integrated check posts.
 - ⑤ Customs regulations for Airport and sea enlist drug traffickers as serious offence.
 - ⑥ signing up international accords like Way Forward UN Convention against drug trafficking (ECOSOC).
- ~~To prevent drug trafficking~~
- ⑦ India is a member to ECOSOC's office against drug peddling.

11. How do higher global crude oil prices affect the Indian economy? What steps can be taken to gradually insulate India from global oil price volatility in the long term? (250 Words) 15

कच्चे तेल की उच्च वैश्विक कीमतें भारतीय अर्थव्यवस्था को कैसे प्रभावित करती हैं? दीर्घावधि में भारत को वैश्विक तेल की अस्थिर कीमतों से सुरक्षित करने के लिए उत्तरोत्तर कौन-से कदम उठाए जा सकते हैं?

India is world's 3rd largest importer of crude oil hence oil payments has a serious affect on Indian economy.

Higher prices and effects

- ① Higher prices leads to Current account deficit as India is a major exporter
- ② Higher prices lead to higher raw material cost for sectors like fuel, fertilizer which causes inflation.
- ③ Linking of domestic prices to global prices affects fuel needs of almost 23 crore vehicles and population at large in India.

④ Asian Premium by OPEC countries has also added to differential pricing b/w West and Rest and adds to disadvantage in global trade.

Steps to Insulate

- ① Procurement of oil from countries like Jordan, Iran which offer domestic currency acceptance to mitigate against oil prices.
- ② Dependence on oil must be reduced by increasing investments in renewable sector
- ③ Methanol based economy, Bio-fuel oriented economy focus
- ④ Engaging with nations like Angola, Ecuador on a bilateral basis to alleviate oil pricing issues.

Measures Taken

- ① National Biofuel Policy → to generate fuel from 600 million acres of Biomass
- ② ↓ duties and GST on ethanol and Methanol
- ③ Move from BS III - BS IV for efficient oil usage.
- ④ Renewable energy target ^{to} 175 GW by 2022
- ⑤ National offshore wind energy policy
- ⑥ HELP, Identification of sedimentary Basins, Coal Bed methane programme and identification of shale-gas basins for reducing dependence on import.
- ⑦ Engaging with African and middle-eastern nations on bilateral basis.

12. Critically discuss the role of private sector in skill development in India in recent years. In this context, what are the measures required to improve oversight as well as financing in the skill development sector?

(250 Words) 15

हाल के वर्षों में भारत में कौशल विकास में निजी क्षेत्र की भूमिका की समालोचनात्मक चर्चा कीजिए। इस संदर्भ में, कौशल विकास क्षेत्र में निरीक्षण और साथ ही वित्तीयन में सुधार के लिए कौन-से उपाय आवश्यक हैं?

India houses more than 31.5 mn unemployed and only 2.3% of the workforce is skilled (CMIE). Skill development holds critical importance in various fields like increasing GDP, boosting economy and improving human capital formation.

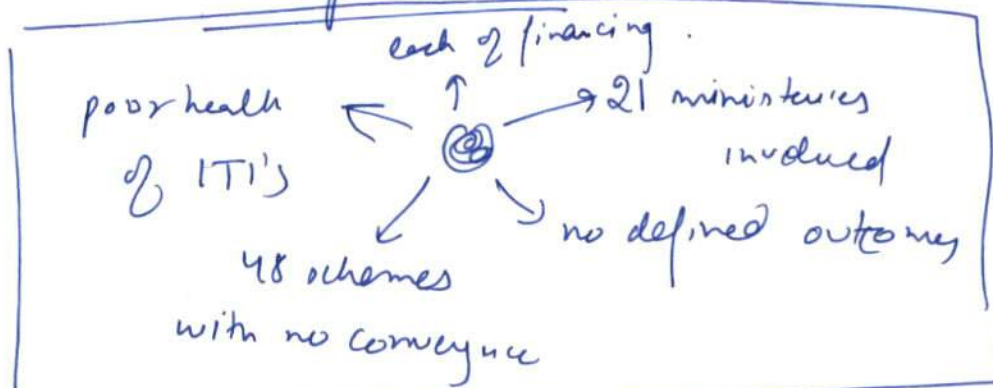
Role of Private Sector

- ① Setting up Skill Sector Corporations with help of Private Sector
- ② Setting up NSDC in a PPP model to increase skill penetration.
- ③ Jointly Providing NSQF (National Skill Quality Framework) to test skill certfication.

④ Private Sector is a recognised partner in National Skill development policy 2015.

⑤ Niti Aayog and FICCI jointly launched a Union statement for Skill India Mission
"Provide skills at large scale of high standards at high speed."

Issues and Challenges still remain as identified by Saunmaiya committee and Sharda prasad committee.



Hence, NITI Aayog and Economic Survey have identified following areas of improving oversight and financial support:-)

① Launch of Skill Impact Bonds where govt. reimburses private sector on meeting targets.

- ② Setting up online certification and platform to reduce leakages
- ③ A skill monitoring committee to check progress and achievement of outcomes
- ④ Using International support from Organisations like WB, UN etc.
- ⑤ Incentivising skill development as part of CSR activities
- ⑥ Skill mission ~~sto~~ to be listed under Priority Sector lending Norms.

These measures will help achieve Skill India's Mission of Connect employer-employee, correct demand mismatch, Catalyse skilling, Certify skill achievement.

13. The e-commerce sector has been booming in India for the last few years. Examine the need for its regulation in light of the recently proposed draft e-commerce policy. Further, identify the challenges that the sector is currently facing. (250 Words) 15

ई-कॉमर्स क्षेत्रक विगत कुछ वर्षों से भारत में तेजी से बढ़ रहा है। हाल ही में प्रस्तावित ड्राफ्ट ई-कॉमर्स नीति के आलोक में इसके विनियमन की आवश्यकता का परीक्षण कीजिए। साथ ही, इस क्षेत्रक द्वारा वर्तमान में सामना की जाने वाली चुनौतियां की पहचान कीजिए।

Annual E-commerce Stats (2018) identify Indian e-commerce sector as a 6500 crore industry with potential to be a 20,000 crore industry by 2026. With surge of stalwarts like Amazon, Walmart and increasing demand, urban lifestyles and incentives (India centric) like cash on delivery systems. The e-commerce sector in India has witnessed booming growth.

Need For Regulation

- ① Data Colonisation: With data centres located offshor, there is increasing concern regarding data manipulation and mis-use e.g. Google-EU issue.
- ② Domestic Manufacturers and Retail suffer because of the large capital base of e-commerce giants who can sustain losses.

• Amazon's and Flipkart's presence in Book supplies led to 65% of offline stores shutting down.

③ Page-3 note violation which prevented a company from having more than 25% of total sales in e-commerce market.

④ Violations have come to light in e-Pharma sector etc.

Model e-commerce policy, 2018

① E-commerce companies to have localised data centres.

② Incentivising setting up local data centres by providing tax rebates etc.

③ Increasing FDI presence in inventory based e-commerce giants.

④ Setting up an e-commerce platform for MSME sector.

⑤ Phasing out of deep discounts gradually

⑥ Stricter implementation of Page-III note.

Model e-commerce guidelines help catering to concerns of domestic manufacturers (MSME players), deep discounts and data colonization concerns, but still, e-commerce sector faces following challenges.

Challenges

- ① Setting up inventory stores face issue in land acquisition.
- ② With mobile & Internet penetration only 26%, the sector faces large demand shortage.
- ③ It increases Urban-Rural divide.
- ④ Data Security and Protection are major concerns.
- ⑤ Competition from 22 share companies like Alibaba et.

E-commerce sector with its challenges comes with far of benefits to India. Hence progressive policies like Data Protection framework, easing regulation and FDI norms help build a resilient e-commerce sector.

14. Explaining the importance, highlight the achievements of dairy sector in India. Examine whether over-production is the reason for the problems being faced by the dairy industry. Give some solutions to address the problems. (250 Words) 15

भारत में डेयरी क्षेत्र के महत्व की व्याख्या करते हुए, इसकी उपलब्धियों पर प्रकाश डालिए। परीक्षण कीजिए कि क्या अति-उत्पादन डेयरी उद्योग द्वारा सामना की जा रही समस्याओं का कारण है। इन समस्याओं को दूर करने के लिए कुछ उपाय सुझाइए।

In the latest EXIM reports, India has become the largest dairy and dairy product manufacturer across the globe. Dairy sector holds paramount importance in Indian subcontinent. →

Achievements

- ① India has largest livestock population in world (14% of total livestock)
- ② Largest dairy product manufacturer.
- ③ Programmes like NDDP, Operation Floods, Cattle Breeding put's Indian sector at par with global leaders.

Importance

- ① Provides livelihood opportunities to marginal landholders (85%)

- ② Increasing domestic demand and global demands for dairy products.
- ③ Is a helping tool in meeting India's National Nutrition mission objectives.
- ④ Setting up of milk-cooperatives helps the hinterlands and bridging rural-urban growth divide.

Problems Faced

- ① low milk productivity ($\frac{1}{3}^{\text{rd}}$ of NORDIC countries) in India
 - ② Quality of Feed and Fodder
 - ③ Veterinary services and doctors availability needs large scaling up
 - ④ India posts 1 lakh crore annual losses coz of inefficient cold chain management.
 - ⑤ Over-production which leads to demand-supply mismatch and losses to farmers and increased wastage.
 - ⑥ FTA's with countries
 - ⑦ Restriction in name of Sanitary & Phytosanitary norms.
- Over-production in dairy sector forms a reason for stunted growth in this sector

only when it is not matched with storage and enhanced demands globally.

Solutions

- ① Integrated cold-chain systems for increasing shelf-life and reducing losses
- ② Quality checking and accreditation labs so as to decrease restrictions (FMD) on Indian products.
- ③ veterinary services to cattle must be provided imply
- ④ Restrictions on exogenous species use in dairy sector must be done away
- ⑤ Bureaucratism, interference in access to capital by milk cooperatives via setting up cooperatives on line of ANAND model.

Schemes like Cattle Genomics, Bovine Breeding programme, Animal Husbandry Fund of 10000 crore corpus. will help establishing India as Global dairy power.

15. There has been a focus on Textile and Apparels industry in India in recent years. Elaborate the potential of this industry and the challenges that lie in achieving it. What steps have been taken in this regard? (250 Words) 15

हाल के वर्षों में भारत में वस्त्र एवं परिधान उद्योग पर ध्यान केंद्रित किया गया है। इस उद्योग की संभावित क्षमता और उसे हासिल करने में निहित चुनौतियों की सविस्तार वर्णन कीजिए। इस संबंध में कौन-से कदम उठाए गए हैं?

Textile and Apparels sector employs second largest pop labour force population after agriculture. Recent years Textile and Apparels sector has seen increased focus with schemes like ATUFS, Integrated Silk development scheme, POWERTEX and SAATHI.

POTENTIAL

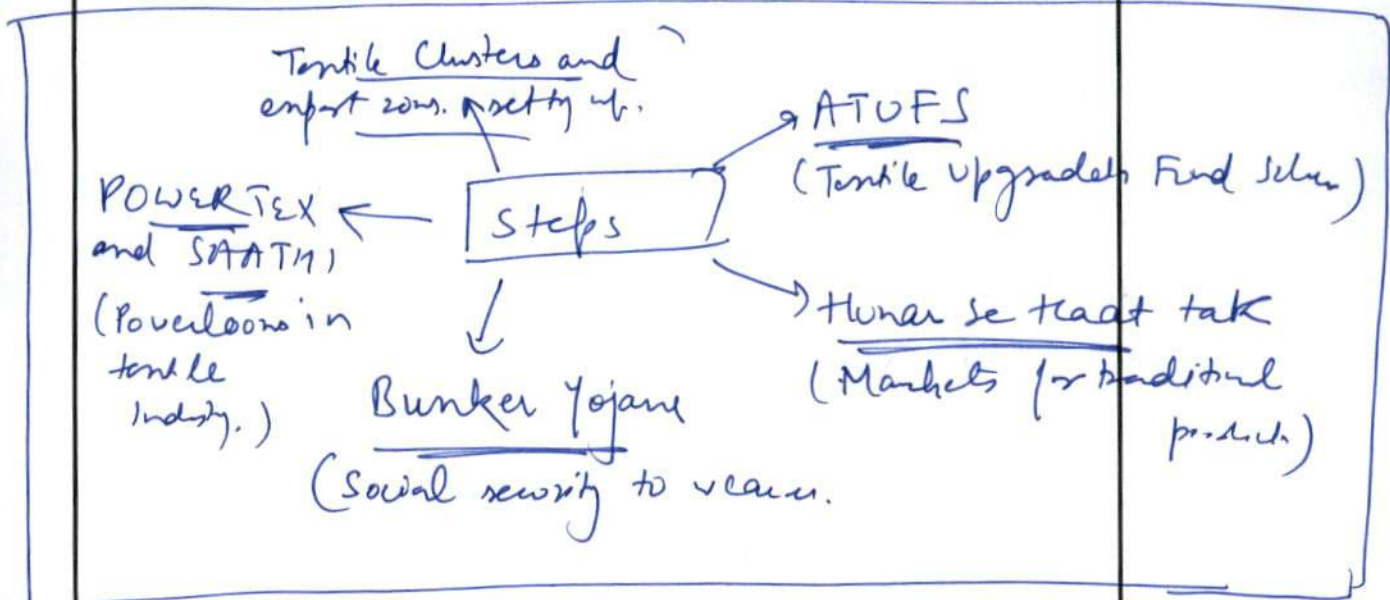
- ① Employment Generation: Currently employs 32 million of workforce and can provide employment to 100 mn workforce by 2030 [WITI Report]
- ② Increased demand of Indian Textiles and Apparels.
- ③ China's position of top textile manufacturer has dwindled because of increased labour wages.

- ④ India produces all 4 varieties of silk (Mulberry, Tassar, Eri, Muga)
- ⑤ Women participation in Textile sector is one of the highest and hence provides avenue for gender equality and participation.
- ⑥ Increased government incentives have made textile into a \$17 Billion industry (ASI, 2017)

Challenges

- ① Domination by emerging markets like Vietnam (\$35 Billis) and Bangladesh (\$75 Billis)
- ② Demand for ~~raw~~ synthetic fibres is replacing demand for handlooms and natural fibres like silk, wool etc.
- ③ Powerloom products are sold in name of handloom products.
- ④ Competition from China in textiles and Apparel Industry
- ⑤ GST structure 18% upstream and 5%.

- ⑥ Lack of R&D ~~and~~ and obsolete machinery leads to reduced production.
- ⑦ Land laws, labour regulations and Unorganised sector domination in the industry.



India to establish as a leader in tentile and Apparel industry needs to build R&D, encourage labour force participation, and upgrade skilling of labour. Moreover need to find markets and face competition by S-East nations via utilising Focus Market schemes would be welcome step.

16. How do transportation corridors in biodiversity rich areas impact the wildlife? Examine the current policy framework in this regard. Also, suggest measures to minimise the negative effects while balancing the need for development. (250 Words) 15

जैव विविधता से समृद्ध क्षेत्रों में परिवहन गलियारे वन्य-जीवन को कैसे प्रभावित करते हैं? इस संबंध में वर्तमान नीतिगत ढांचे का परीक्षण कीजिए। साथ ही, विकास की आवश्यकता को संतुलित करते समय इसके नकारात्मक प्रभाव को न्यूनतम करने के उपायों का सुझाव दीजिए।

Preserving Biodiversity (11% of World's Biodiversity) and also boosting Transportation (multiplic effect) and connectivity are a paradox as one inflicts shortcomings and losses on other sector.

According to recent WTI's Right to Passage report almost $\frac{2}{3}$ of India's highways cut across Protected Areas.

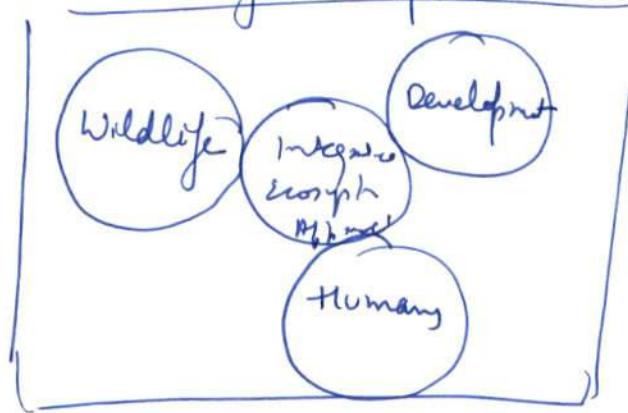
More than 100 elephants casualty because of roadkills were reported. And Inward instances of Man-human conflict led to loss of 400 human lives in past year. Moreover Increasing Transport corridors also led to Increase in timber smuggling and wildlife Trafficking in Biodiversity areas. (CIT's Report).

Current Policy Framework

- ① Changes to EIA, 2006 now includes Man-Human conflict as one of the parameters.
- ② Eco-corridors like Tandora-Andheri reserve for Tigers are set up by MoEFCC
- ③ FRA 2006 protects Critical Wildlife Habitats from transport corridor construction.
- ④ NGT and Supreme Court ~~is~~ debarred 27 projects in TN elephant reserves
- ⑤ National Wildlife Action plan 2017-2030 identified man-human conflict as one of the major concerns.
- ⑥ Fencing of Transport corridors in Protected Areas.

To balance needs of development and Biodiversity conservation, following measures need to be taken on a minimum-viable basis :-

① Integrated Ecosystem Approach



- ② Providing for eco-corridors e.g. Tadoba-Achalgarh ~~reserve~~ reserve.
- ③ Setting up Artificial lakes, Ponds to reduce Man-Human conflict
- ④ ICT use like camera traps, monitoring via drones to identify and secure areas of Man-human conflict
- ⑤ Engaging Traditional communities for security ~~for~~ Biodiversity
- ⑥ Demarcation of ESZ areas based upon Gadgil report to secure wildlife.

Development and ecosystem preservation should go hand in hand, it should be a cooperative model to develop both and not a competition model

17. The potential of technology to aid farmers in increasing productivity as well reducing susceptibility to climate change remains underutilized. Identify the reasons for the same and suggest measures to improve technological penetration in agriculture. (250 Words) 15

उत्पादकता में वृद्धि के साथ-साथ जलवायु परिवर्तन के प्रति सुभेद्यता को कम करने हेतु किसानों की सहायता करने के लिए प्रौद्योगिकी की क्षमता का पूर्ण दोहन नहीं हो पाया है। इसके कारणों की पहचान कीजिए और कृषि में प्रौद्योगिकी प्रसार में सुधार हेतु उपाय सुझाइए।

Agriculture contributes 48.5% to labour employment and 17% of nation's GDP.

With Technological inputs this magnanimous sector can boost its productivity and also decrease vulnerability.

Underutilized Potential

- ① Only 5.5% of land is under microirrigation
- ② Use of obsolete technology, power guzzling equipment.
- ③ Obsolete methods of seed plantation and using forage as seeds
- ④ Limited spread of GM technology etc.
- ⑤ Poor carbon sequestration and reducing ~~the~~ Agriculture emission methodology.

Potential of Technology

- Increase Productivity**
- ① Identifying soil quality and which crop is suited where via AI, Precision farming systems
 - ② GM tech to provide for high yield and pest resistant crops
 - ③ Use of low spray nozzles, SRI to reduce effort and increase productivity
 - ④ Satellite mapping; Big data to identify need of fertilisers etc.
- Climate Change**
- ⑤ Micro-Irrigation, Fertiliser Irrigation can help reduce climate induced water stress effects.
 - ⑥ Vertical farming methods will help guard against land shortages etc.
 - ⑦ Raised Bed planting reduces dependence on water availability.
 - ⑧ Techniques like Permaculture, ZBNF guard against climate change.

FAO reports that climate change will lead to reduction in 64% work hours and also NITI Aayog identified 20-25% losses in yield and farmers income because of climate change.

Measures

- ① GGM Crops
- ② ZBNF
- ③ Micro Irrigation
- ④ Stakeholder Agriculture Education via NARS, ICRAR
- ⑤ Listing Agri under Invest India priority sector
- ⑥ Education, Training, shelter of farmer.
- ④ Satellite tech
- ⑤ Boosting Investment
- ⑥ Fertilization

18. What is Intelligent Transportation System (ITS)? Explaining the need of ITS in India, identify the challenges in deploying it. (250 Words) 15

कुशल परिवहन व्यवस्था (इंटेलिजेंट ट्रांसपोर्टेशन सिस्टम: ITS) क्या है? भारत में ITS की आवश्यकता की व्याख्या करते हुए, इसके परिनियोजन में आने वाली चुनौतियों की पहचान कीजिए।

Transport stations



- App based schedules
- no. of vehicles enroute
- Routes of vehicles
- Pliability
- online Ticketing

Traffic



- ICT based data on delays
- Real time routes
- Online monitoring via GPS
- Interlinking transport systems
- AI, Bigdata use

Safety



- Panic Buttons
- GPS monitoring
- Hospitals, Police stations connecting
- Reporting incidents / Accidents

Model ITS Systems

Intelligent Transport integrates ICT with Transport sector right from Transport stations to Traffic management to Safety and Arrival. It makes use of techniques like AI, Big data to improve Transport.

ITS model has been adopted in cities like Mysore.

(Needs)

- ① Over-reliance on Private vehicles adds to Traffic mismanagement.
- ② Use of Public Systems will reduce Air pollution and Traffic
- ③ App based ticketing system will reduce time lag and increase efficiency.
- ④ Gurgaon in 2015 faced 20 hour long Traffic jams
- ⑤ Will be a linking pin in Transit-oriented development as identified by National Urban Transport Policy
- ⑥ National Green Transport Policy draft provides significant value to ITS.
- ⑦ Will improve upon safety and road accident issues.

Challenges

- ① Mobile Internet which forms backbone is only 26% penetration
- ② Integrating and Boosting ^{transport} मालवाहिका.
- ③ Before, ITS major overhauling of MRO (Maintenance Repair Overhaul) of Roads, rail networks
- ④ R&D to integrate AI, Big Data requires significant efforts.
- ⑤ Linking it with different cities and different modes of transports.
- ⑥ Over-dependence on private vehicles.
- ⑦ Incorporating private taxi aggregators etc. requires integrated model.

ITS to aim of swift, safe, sorted, speedy Transport network can help boost Urban development and will help multiplicative effect on economy, hence it must be gradually incorporated in a

19. Explain the concept and significance of Data Localisation. Also discuss its limitations in strengthening law enforcement efforts in the context of Srikrishna Committee report and the draft Personal Data Protection Bill, 2018. (250 Words) 15

डेटा लोकलाइजेशन की अवधारणा और महत्व की व्याख्या कीजिए। साथ ही, श्रीकृष्णा समिति की रिपोर्ट और ड्राफ्ट पर्सनल डेटा प्रोटेक्शन बिल, 2018 के संदर्भ में कानून प्रवर्तन प्रयासों को सुदृढ़ करने में इसकी सीमाओं की चर्चा कीजिए।

Data localisation refers to storage of data, and location of servers within territorial domain of nation.

Significance

- ① Prevents data colonisation as 21st century's currency is data
- ② Will help ensure cybersecurity and protection against cyber threats, data theft etc.
- ③ Will help better linkages with international guidelines like Budapest Convention.
- ④ Will ~~enhance~~ cooperation with nations like US (CLOUD) and EU (GDPR) guidelines.
- ⑤ Prevent misuse like Cambridge-Analytica, Google-EU issue.

Limitations

- ① India ranks poorly on Malware Index which showcase inability to take up data protection measures.
- ② Poor IPK laws and laggard implementation
- ③ R&D in Data is only 0.01% budget and hence a few local data mgmt institutions are in India.
- ④ Lack of laws / legal norms to enforce data localisation
- ⑤ May hamper India's ranking in ease of doing Business.
- ⑥ Giants like Amazon are megacorporations which now have unbridled presence in Indian domain. Enforcing norms on these giants is hard process.
- ⑦ India is not a signatory to Budapest convention which limits its capability to enforce norms.

Steps like BR

- ⑧ Lack of Data Insurance facilities in India.

Govt. Srikrishna Committee bases itself upon EU's
GDPR rules and provides for. and Draft
data protection Bill 2

- ① Data fiduciary i.e. data processors regulations
- ② Right to erasure of data
- ③ Right to consent before accumulating data
- ④ Right to know where data is used
- ⑤ Companies should set up data centres locally.
- ⑥ Data protection officers and complaints
authority to be set up.

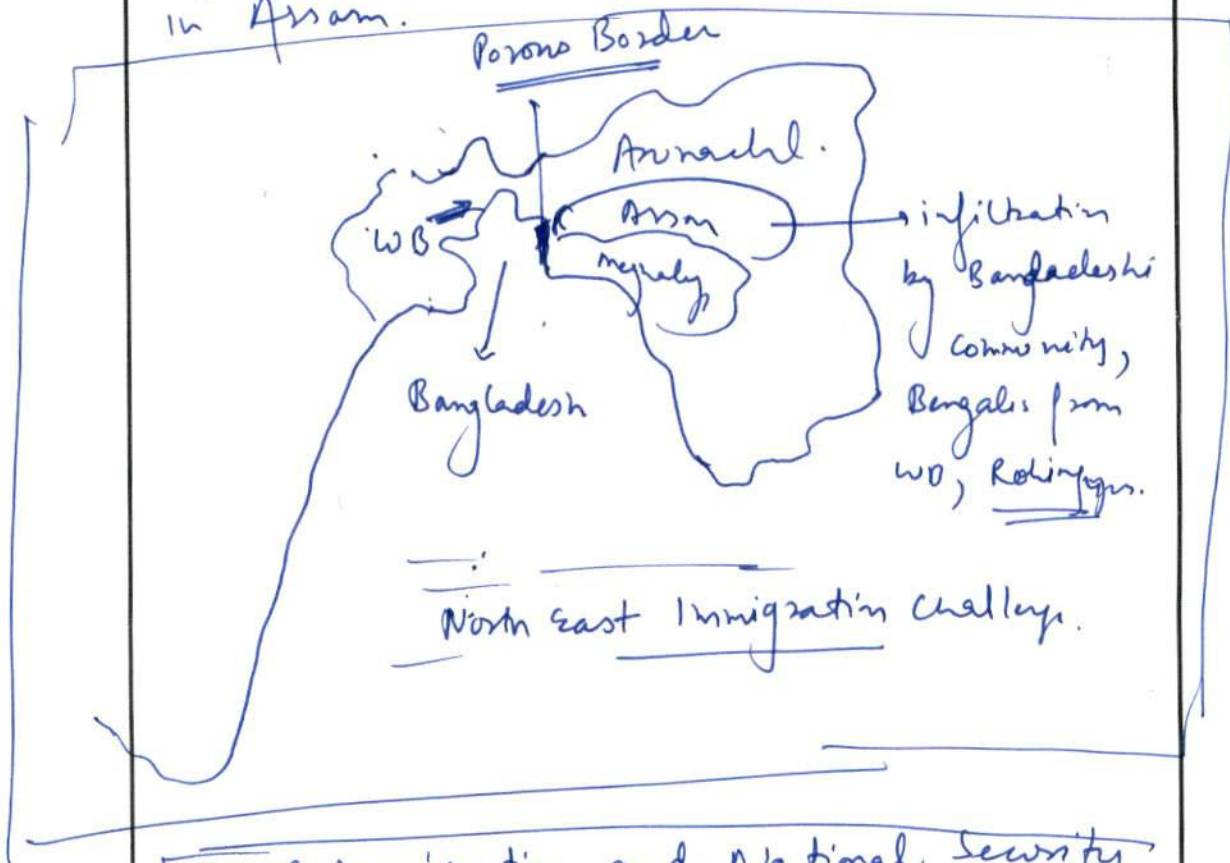
Also e-commerce policy 2018 enforces.
and incentivises local data centres.

These measures will help protect
against data colonisation and will
boost India's Digital India
objectives.

20. What is the link between illegal immigration and national security? In this context, critically discuss the exercise of creating a National Register of Citizens in Assam. (250 Words) 15

अवैध आप्रवासन और राष्ट्रीय सुरक्षा के मध्य क्या संबंध है? इस संदर्भ में, असम में नागरिकों के राष्ट्रीय रजिस्टर को तैयार करने की कवायद की समालोचनात्मक चर्चा कीजिए।

Following AASU and Government of India's Accord of 1985, newly NRC (National Register of Citizens) exercise is undertaken in Assam.



Illegal Immigration and National Security

- ① Burden on resources of states where immigrants migrate to
- ② Protection of rights of indigenous natives
via employment, housing etc.

- ③ Radicalisation amongst Immigrants as witnessed in Asakhan Rakhiw Fores (ARSA)
- ④ Increasing conflicts between indigenous and exogenous habitats. e.g., 2014 N.E riots
- ⑤ Immigration of unscrupulous elements, drug trade, arms smuggling across borders.
- ⑥ Exploitation of immigrants, violation of gender rights, rapes, etc.

To counter these challenges NRC exercise in assam sought to identify habitants prior to 1971 and detain or deport illegal immigrants under detention centres.

Issues

- ① The exercise has left almost 40 lakh people as doubtful category
- ② Civil servants, people with lost certificates have also been mistakenly kept out of NRC register.
- ③ Non-refoulement policy makes it difficult to deport immigrant.

- ④ Neighbouring states have refused to take back the doubtful citizens.

- ⑤ No uniform policy or action has been listed out by Government for Immigrants (as SC noted)
- ⑥ The major issue of porous borders still needs to be kept in check and regulated.
- ⑦ Multiple acts and laws like Foreign Citizens Act, Passport Registration Act add to legislative excess and no firm action.
- ⑧ It may make Doubtful Citizens prone to violence.

Way Forward

- ① Porous Borders must be identified and well regulated to keep off further immigrants.
- ② Uniform Immigrant policy based on New York convention must be formulated.
- ③ SC noted that government must provide an action plan for identified Immigrants.
- ④ Rights of immigrants must be recognized.
- ⑤ Need to curb upon increasing radicalization amongst immigrant communities.