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R N

GENERAL STUDIES (TEST CODE : 1244)

Name of Candidate	Avadh singhal	Registration Number	139489
Medium Eng./Hindi	English	Date	01/09/2019
Center	Online		

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
2	10	
3	10	
4	10	
5	10	
6	10	
7	10	
8	10	
9	10	
10	10	
11	15	
12	15	
13	15	
14	15	
15	15	
16	15	
17	15	
18	15	
19	15	
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।

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Delhi- 110009

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. Discuss the need of an Independent Fiscal Council (IFC) in bringing about transparency and accountability in fiscal processes in India. (150 words) 10

भारत में राजकोषीय प्रक्रियाओं में पारदर्शिता और जवाबदेही का समावेश करने हेतु एक स्वतंत्र राजकोषीय परिषद (IFC) की आवश्यकता की चर्चा कीजिए।

NK Singh Committee in 2016 proposed constitution of an independent fiscal council for monitoring and guiding prudent fiscal management in India.

Need of IFC in Transparency

- ① CAG report shows government has given wrong budgetary estimates in 10+20 years
- ② Increasing use of creative accounting methods to manage fiscal deficit
→ harmful for long term sustainability
- ③ Recent controversy of RBI's reserve shifting raises question on long sustainability and independent functioning of institutions.
- ④ Current assessment is by government itself - hence potential conflict of interest

Need of IFC in accountability

⑤ FRBM Act 2003 has been ammended multiple times to refute targets of fiscal deficit

↳ IFC can monitor performance during the year.

⑥ States have seen increasing Debt to GDP ratio thus close monitoring to hold states accountable

⑦ Poor fiscal performance lead to bond rating decrease affecting investments

⑧ Concerns around inter-generational parity. IFC can be torch bearer of future generations.

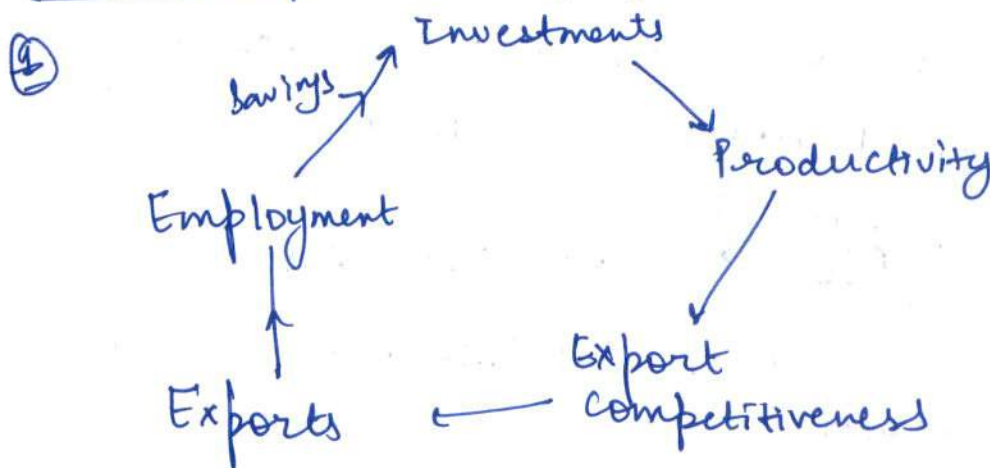
IMF has recognized IFC as key enabler in ensuring prudent fiscal management, hence need arise for instituting IFC

2. Recognizing the potential of exports in generating employment, a number of steps need to be taken to address India's weakening export competitiveness. Analyze. (150 words) 10

रोजगार सृजन हेतु निर्यात क्षेत्र की क्षमताओं की पहचान करते हुए, भारत की कमजोर होती निर्यात प्रतिस्पर्धा को संबोधित करने हेतु कई कदम उठाए जाने की आवश्यकता है। विश्लेषण कीजिए।

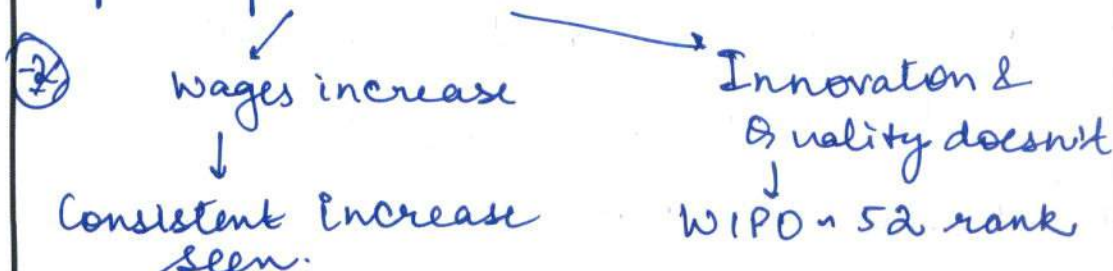
Recently, Economic survey called for creating a virtuous cycle of growth driven by savings, investments and exports to achieve \$5 Tr economy dream

Role of exports in Employment



Concerns regarding export competitiveness

- ① Middle income trap (\$1000-12000 per capita)



- ② Tariff barriers eg withdrawal of GSP by US.
- ③ Deglobalization eg Shifting of bases to home countries
- ④ Decline in merchandise trade

Steps to be taken

- ① RnD expenditure - 3% of GDP (Eco Survey 2017-18)
to increase quality
- ② Multi-lateralism and WTO focus
to fight against barriers.
- ③ FTE ^(contract) for sectors like textile
where extreme competition by others
(Bangladesh)
- ④ Managing input costs (eg. oil)
to prevent impact on exports.

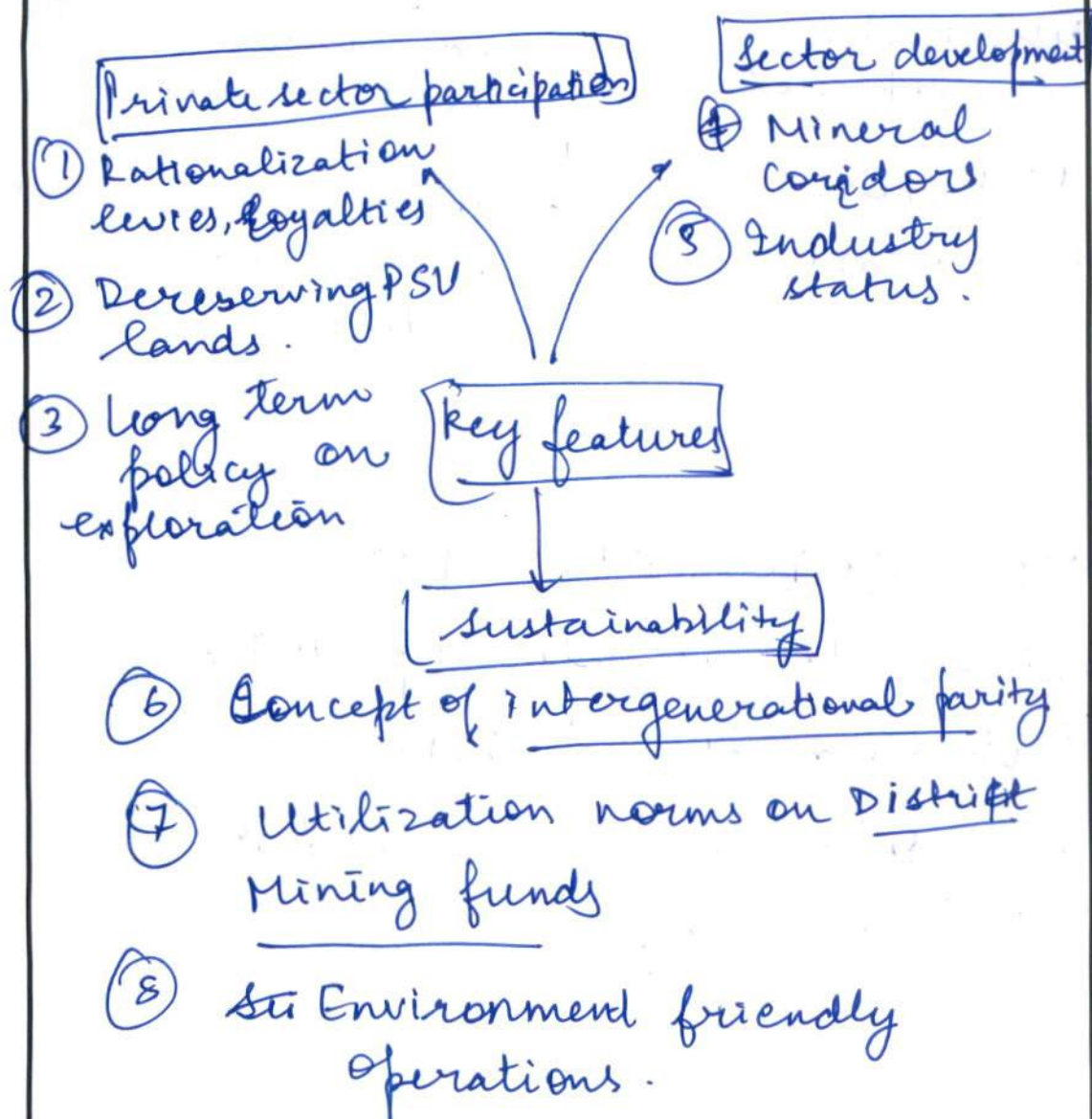
India needs to take multiple techno.-economic and diplomatic steps to ensure export competitiveness of its products.

3. Highlighting the main features of National Mineral Policy, 2019, discuss how it can help in ensuring sustainable and responsible mining.

(150 words) 10

राष्ट्रीय खनिज नीति, 2019 की मुख्य विशेषताओं पर प्रकाश डालते हुए, चर्चा कीजिए कि यह संधारणीय और उत्तरदायित्वपूर्ण खनन सुनिश्चित करने में कैसे सहायता कर सकती है।

Recently government released National Mineral policy (NMP) 2019 on recommendation of K. Rajeshwar Rao Committee.



Positives that address sustainability/responsible mining

- ① Focus on mindful use for future generations
- ② Inter-ministerial coordination for sustainable development.
- ③ DMF for welfare of locals.

Gaps that remain

- ① Limited focus on tribal rights
- ② Doesn't address the upstream (steel) & downstream industry pollution concerns and concerns like child labor
- ③ Silent on role of civic bodies

NMP 2019 is right step for mining sector as India imports 90% of its demands but better inclusivity must be ensured in its implementation.

4. Highlighting the salient features of the PM JI-VAN Yojana, analyze how it can assist in achieving the vision and goals of the National Policy on Biofuels, 2018. (150 words) 10

“प्रधानमंत्री जी-वन योजना” की मुख्य विशेषताओं पर प्रकाश डालते हुए, विश्लेषण कीजिए कि यह जैव ईंधन राष्ट्रीय नीति, 2018 की दृष्टि और लक्ष्यों को प्राप्त करने में किस प्रकार सहायक हो सकती है।

PM JIVAN Yojana aims to promote 2G biofuels to create a streamlin-
-ed ecosystem and value chain

Salient features of scheme

- ① Financial support for 10 commercial and 10 demonstration of 2G biofuel projects (2G → non-food crops, lignite material)
- ② 10% norm adherence by oil marketing companies on mixing ethanol + Diesel
- ③ Developing local capability and value chain for self-sustenance
- ④ Viability fund gap for providing support.

Role in achieving Biodiesel policy vision

→ Enable transition to 10% biodiesel by 2020

→ Helps reduce the oil imports by building sustainable and low cost alternatives

→ Enable transition to low emission economy

→ Further development towards 3G, 4G to reduce pressure on 1G supply side issues.

As it is said, "We do not inherit earth from our ancestors but borrow it from our children". Biodiesel and PM-JIVAN gives new life to the famous quote.

5. Zero Budget Natural Farming (ZBNF) provides an alternative to capital and chemical intensive agriculture currently being practiced in India. Analyze.
(150 words) 10

जीरो बजट प्राकृतिक कृषि (ZBNF), भारत में वर्तमान समय में प्रचलित पूंजी और रसायन गहन कृषि का एक विकल्प प्रदान करती है। विश्लेषण कीजिए।

Finance Minister in her budget speech 2019-20 asked for nation to adopt Zero Budget Natural farming thus bringing the indigenous technique practiced in states like AP, MP into focus.

Concept

ZBNF refers to utilization of minimum resources (thus zero budget) and relying on natural methods to improve farming.

Alternative to capital intensive agriculture

- ① Requires farmer to use natural ecosystem approach using old techniques thus reducing need for capital in form (tractors, harvesting) etc.
- ② Farmers are also advised to use use

Zero tillage farming thus reducing
winnowing and ploughing efforts

Alternative to chemicals

③ Co survey observes reduction in fertilizer
response ratio thus rendering a need
for alternative.

④ ZBNF calls for organic farming
using natural insecticides, manures
and pest management systems.

⑤ Also calls for water efficient
techniques and crops suited
to geo-climatic conditions

"ZBNF truly resonates with idea
of "back to roots" but implemen-
-tation requires provision of extension
services for its success

6. Marine life is facing 'irreparable damage' from the millions of tonnes of plastic waste which ends up in the oceans each year. In this context, examine the implications of plastic pollution on marine ecosystem and suggest some measures for addressing this problem. (150 words) 10

समुद्री जीवन, प्रति वर्ष समुद्र में पहुँचने वाले लाखों टन प्लास्टिक कचरे के कारण 'अपूरणीय क्षति' का सामना कर रहा है। इस संदर्भ में, समुद्री पारिस्थितिकी तंत्र पर प्लास्टिक प्रदूषण के प्रभाव का परीक्षण कीजिए और इस समस्या के समाधान हेतु कुछ उपाय सुझाइये।

As per scientific estimates each year ~13 Mn tonne plastic ends up in earth's oceans.

Implications on marine ecosystem

- ① Destruction of key biodiversity hotspots like corals by preventing sunlight etc.
- ② Under presence of UV lights break into microplastics (<5mm) becoming permanent part of food chain
↳ Also harming humans in long run
- ③ Plastics on pseudo-degradation produce toxins harming lifeforms in marine ecosystem.
- ④ Circulates as part of global gyres. inhibiting natural flow of animals

Steps to address the problem

- ① Global action :- Expanding the UNFCCC framework or taking it up under CBDR
- ② Waste management efficiency ! Not dumping

wastes of coastal cities and strict on-shore monitoring to prevent pollution by fishermen & sailor.

- ③ Awareness and campaigns

- ↳ #CleanSea campaign to be expanded
- ↳ Famous names to be associated
- ↳ Using school curriculum to create awareness.

70% of earth is water and it thus becomes key to prevent oceans to prevent global biodiversity balance.

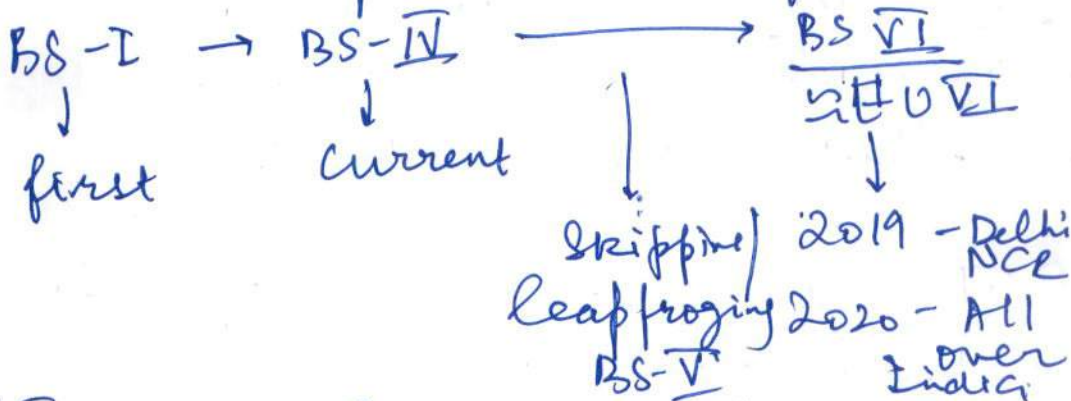
7. Write a short note on the evolution of Bharat Stage norms in India. Also discuss the significance and challenges posed by the planned introduction of BS-VI norms in India from the year 2020. (150 words) 10

भारत में भारत स्टेज मानकों के विकास पर एक संक्षिप्त टिप्पणी लिखिए। साथ ही, वर्ष 2020 से भारत में BS-VI मानकों को योजनाबद्ध रूप से लागू किए जाने के महत्व और उसमें आने वाली चुनौतियों की भी चर्चा कीजिए।

Bharat stage (BS) norms refers to emission threshold fixed for automobiles manufacturers that lead to reduced pollution and global warming.

Evolution

India adopted norms from EU



Focus on CO, HCx, sulphur et al.

Significance

- ① Air pollution cause loss of 1% of GDP (world Bank) -
- ② Transport sector is key polluter (second after industrial)

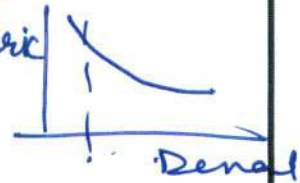
- ③ BS norms propel for better fuel efficiency hence also reduced oil consumption

Reduced
Oil imports
↓
Help CAD

Reduced
fuel price
↓
Savings
for consumer
in long run

Challenges posed by BSVI norms

- ① Automotive Industry in slowdown and BSVI would lead to higher price thus lower demand



- ② OEMs are not ready with technology

- ③ Implementation monitoring capacity in government institutes

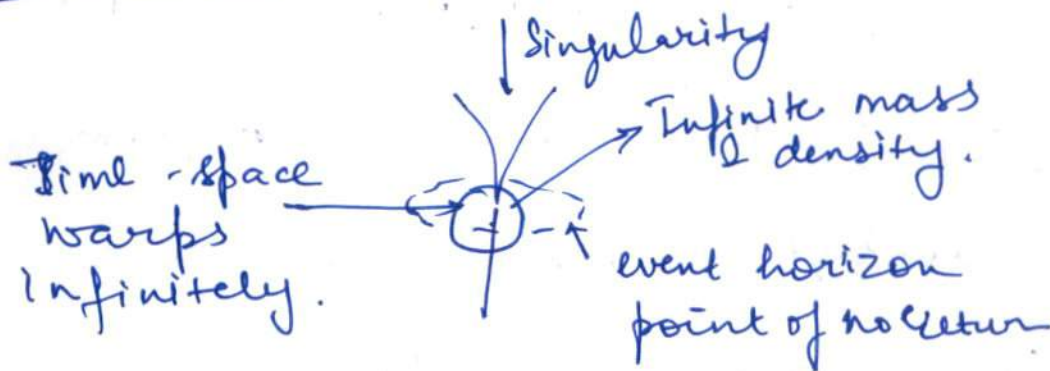
Government needs to consult OEMs and regulators like SICRI to shake out a potential solution.

8. What are black holes? Highlight the challenges in imaging a black hole? How were these challenges overcome by the Event Horizon Telescope project? (150 words) 10

ब्लैक होल क्या हैं? ब्लैक होल के चित्रण (इमेजिंग) में आने वाली चुनौतियों पर प्रकाश डालिए।
इवेंट होराइज़न टेलीस्कोप प्रोजेक्ट द्वारा इन चुनौतियों को कैसे दूर किया गया?

Recently a team of scientists released first ever picture of photon ring of a blackhole 55 Mn light year away in Messier galaxy.

Black holes - concept



Challenges in Imaging blackhole

- ① Due to its infinite mass nothing not even light can't escape its gravitation pull.
- ② Regular telescopes don't have sufficient resolution power to capture faint radiation of

last photon ring evolving around

How challenges overcome

③ Creation of a pseudo earth size telescope by using 7-8 telescopes spread across continents using technique of parallax

④ Using computational intensity imaging to process data from multiple telescope into one single image of holmieres

Black holes were first propounded by Einstein 100 years before their actual discovery. It shows the greatness of the brilliant mind that once walked the surface of earth.

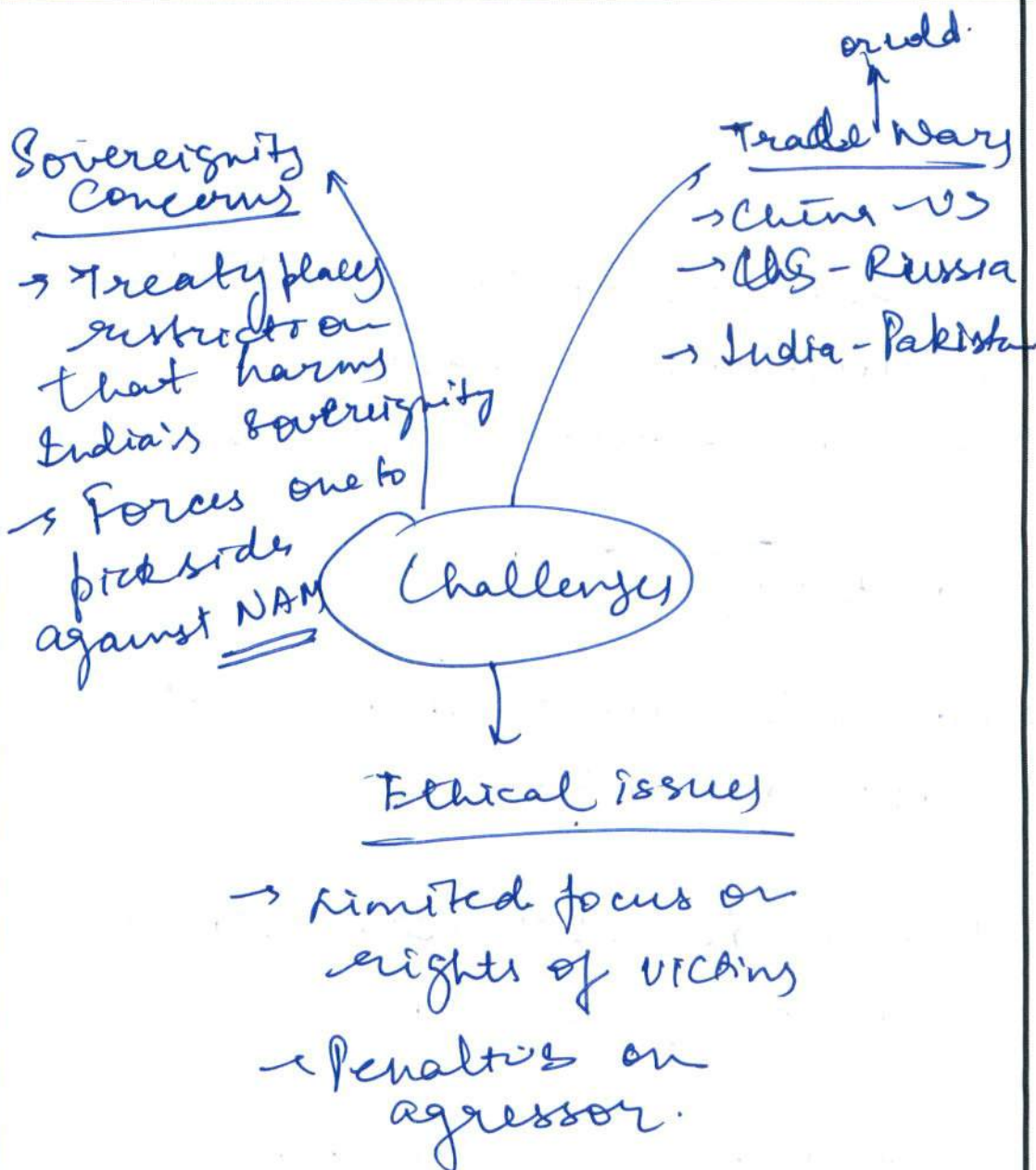
9. While mentioning the objectives of the Arms Trade Treaty (ATT), discuss the challenges which are hindering the utilization of the ATT to its full potential. (150 words) 10

शस्त्र व्यापार संधि (ATT) के उद्देश्यों का उल्लेख करते हुए, उन चुनौतियों की चर्चा कीजिए जो ATT को इसकी पूर्ण क्षमता से उपयोगित किये जाने में बाधक हैं।

Arms trades treaty is a multilateral inter-government treaty to streamline global arms trade

Objectives

- ① Reduced sale of weapons of mass destruction.
- ② Reduced costs for nations who can't afford.
- ③ Lowering the weapon / war threshold
- ④ Sharing of technology to promote inclusivity.
- ⑤ Rule based trade



As Martin Luther has said "Our ~~scientific~~ ^{spiritual} power has overpowered our spiritual power, we have guided missiles and misguided men" stands true in the above context.

10. Threats to internal security of India may be posed both through the communication networks and also to the networks. Discuss. Also, highlight the steps taken by the government in making the networks more secure.

(150 words) 10

भारत की आंतरिक सुरक्षा को खतरा संचार नेटवर्कों के माध्यम से एवं स्वयं संचार नेटवर्कों को खतरा होने, दोनों ही प्रकार से हो सकता है। चर्चा कीजिए। साथ ही, नेटवर्कों को अधिक सुरक्षित बनाने हेतु सरकार द्वारा उठाए गए कदमों पर प्रकाश डालिए।

Communication networks remain lifeline of any country in the era of IT revolution. CERT in highlight India faces 1 cyber attack every 10 mins.

Threat through network

- ① Using internet for terror propaganda, hate crime (eg) ISIS, Christchurch attack video.
- ② Release of viruses / malfunctions that can stop the entire communication network
- ③ spread on apps like Blue whale that harm children and have potential to disrupt local life.
- ④ Research ~~on~~ shows potential tepping of key confidential calls that harm internal security.

Threat to network

- ⑤ Attack on BSE systems showed the vulnerability that brought financial market to stand still.
- ⑥ Attacks like US-Iran cyber feud shows the vulnerability of networks like telecom, power, and anything that can be tapped by external powers

Steps taken by government

- National Cyber Crime Coordination Centre to spear head the effort in case of attack
- Bharat Cyber Suraksha Abhiyan
- Special cell in MHA.

Communication networks remain key in the era of IR-4.0 thus, government must ensure that security efforts are expedited.

11. Highlight the importance and challenges related to integration of Variable Renewable Energy (VRE) in India. Mention some steps that can be taken for its smooth integration with the synchronized Indian grid. (250 words) 15

भारत में परिवर्तनीय नवीकरणीय ऊर्जा (VRE) के एकीकरण के महत्व और इससे संबंधित चुनौतियों पर प्रकाश डालिए। ऐसे कुछ कदमों का उल्लेख कीजिए जो समक्रमिक (सिंक्रनाइज्ड) भारतीय ग्रिड के साथ इसके सहज एकीकरण के लिए उठाए जा सकते हैं।

Variable renewable Energy (VRE) refers to those sources of energy whose source ^{supply} is not in human control. This includes key new age energies such as solar, wind.

Importance of VRE & integration.

- ① Solar and wind are key alternative to global warming causing fossil emissions.
- ② ~~back~~ Integration makes possible to adopt VRE on large scale
- ③ India has many areas like Thar, Kutchh, Marathwada where VRE stand as key and at times only source of energy. India still has 20% living in electricity poverty

- ④ Achieving goal of 100GW and solar and 60GW wind will be get significant impetus by Integration
- ⑤ Grid capacity will enhance

Challenges in integration	Steps that can be taken
① Old technology of thermal plants under them ineffective as for flexible <u>ramp up</u> / <u>ramp down</u> .	a) <u>Phasing out</u> old plants or retrofitting - <u>Chinese example</u> can be a good case study
② <u>VRE availability</u> away from habitat thus grid availability itself is challenge.	b) long length, low heat losing materials like - <u>Cu-Al alloy</u> for better integration
③ Lack of institutional framework	c) Making <u>VRE integration</u> part of <u>electricity amendment bill</u> .

hampers the industry
action

making it compulsory
for thermal
to provide for
back of VRE

④ Low investments
by private sector
due to lack of
policy clarity and
govt. initiatives/
incentives.

d) NITI Aayog
came spearhead
the discussion
to arrive at
right Incentiviza-
tion
tool.

⑤ Demand side
gaps due to
higher costs of
VRE.

⑥ Viability
fund gaps to
push the demand

VRE integration is a key link
in achieving the 40% INC.C commit-
ment of renewable energy. Hence
necessary steps as discussed
must be taken on priority.

12. There have been arguments that India could fall into a 'middle income trap'. Explaining the phenomenon, highlight the reasons behind such arguments. How can India avoid it? (250 words) 15

ऐसे तर्क दिए गए हैं कि भारत 'मध्यम आय पाश' में फंस सकता है। इस परिघटना की व्याख्या करते हुए, ऐसे तर्कों के लिए उत्तरदायी कारणों पर प्रकाश डालिए। भारत इससे किस प्रकार बच सकता है?

Middle Income trap^(MIT) refers to phenomenon of a country's income per capita stuck between \$1000 - 12000 and further growth is impeded due to losing of export competitiveness etc.

Arguments for India falling

- ① MIT happens due to failure of shift from resource driven to innovation driven economy.

Reason behind such arguments

① WIPO index shows India @ 52 rank

② India has only 2.3% technically trained labor force (NSSO '12)

③ RnD expenditure of 0.7% v/s global benchmark of 2.3%.

② High inequalities drive down consumption demand

②.1 As per Oxfam 14 Indians have 73% of wealth.

②.2 Pickety theory suggest bridge gap increase unless rate of return on capital ($\sim 15\%$) is lower than GDP growth rate (8%).

③ Exports decline
→ Competitiveness loss

③.1 Decline in Exports & GDP (Eco survey 2019)

③.2

US-China war and destabilized global trade

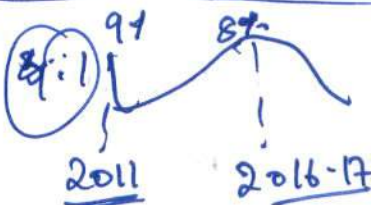
→ Hyperglobalization & Deglobalization

③.3

US - GSP revocation.

③.4 Trade globally slowing down

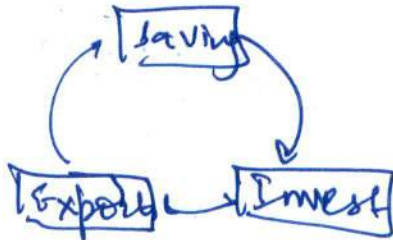
④ Cycles of boom and bust.
but it needs 50 yrs of continuous growth.



Steps for India to avoid it

① Innovation led. growth. → RnD expenditure
3% of GDP
(EC survey 2017-18)

② Virtuous cycle of growth. → To sustain long
duration
growth without
booms & busts.



③ Focus on middle income group to drive consumption → Skilling
→ Employment
→ Digital to enhance trade etc.

④ Reducing inequalities by progressive taxation.

India on its growth dream of
\$5 Trillion economy definitely
needs to overcome MIT challenge

13. Highlighting its importance, discuss the major issues that plague effective monetary policy transmission in India. Also, mention the steps taken by RBI to improve it. (250 words) 15

भारत में मौद्रिक नीति संचरण के महत्व पर प्रकाश डालते हुए, उन प्रमुख मुद्दों पर चर्चा कीजिए जो इसकी प्रभाविता को बाधित करते हैं। साथ ही, इसमें सुधार के लिए RBI द्वारा उठाए गए कदमों का उल्लेख कीजिए।

Monetary policy¹ is a macro-economic policy tool used generally by central bank of a country to manage liquidity in fi market. Recently, RBI governor highlighted for every 1% decrease in policy (repo) rate, transmission is mere 0.29% thus highlighting its non-transmission

Importance

① Tool for controlling the inflation, hence monetary policy transmission (MPT) key for consumer interest.

② MPT effectiveness key for effective economic operations under Control of RBI

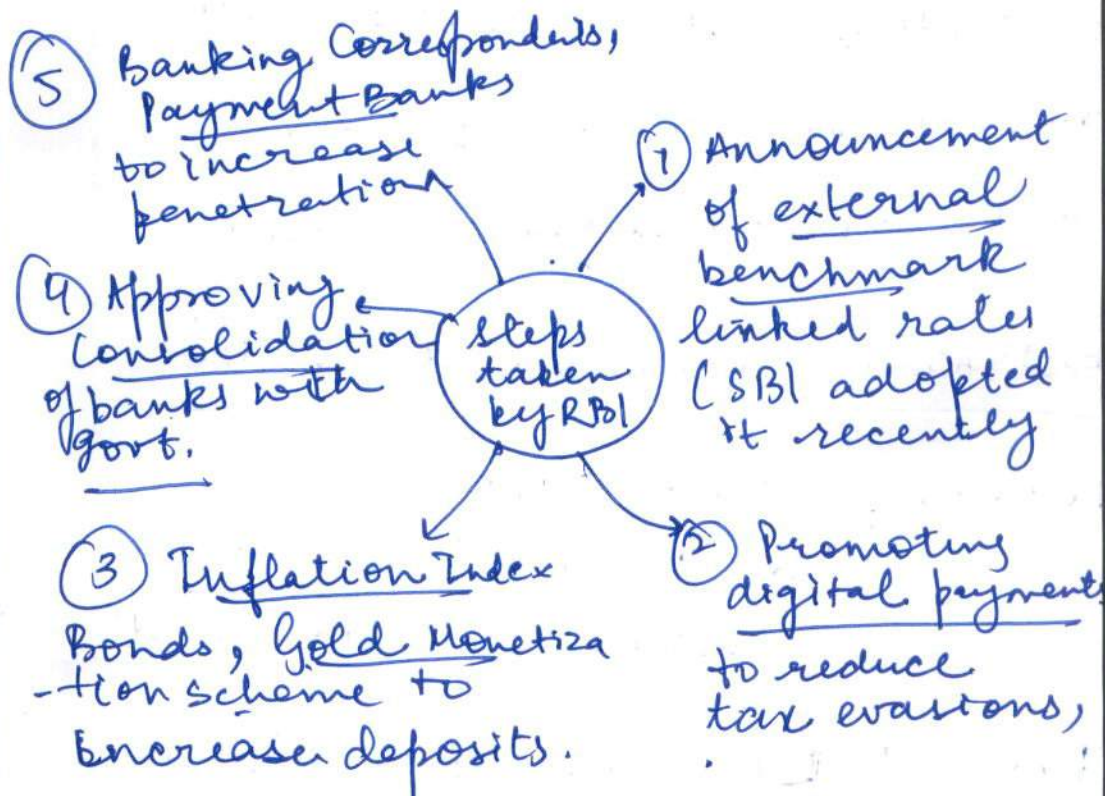
- ③ MPT ensures access to credit to market at reasonable rates key for growth goals.
- ④ It has bearing on financial and capital market stability as well

Issues plaguing MPT

- ① Tanak Rai Committee observes MCLR system ineffective to hold banks accountable.
- ② low deposit rate → high savings in goldlike gold
- ③ Canabalization of profits hence low scale and thus high servicing cost.
- ④ Parallel economy : As per parliamentary committee report on black money it varies from 17% to 120% of GDP

⑤ Unbanked population : As per World

Bank 14% population is unbanked in India and rely on unregulated sources.



A lot of steps have been taken but there needs a close and expedient effort to tackle the issue of non-transmission of monetary policy.

14. Highlight the constraints faced by rainfed agriculture in India. Discuss some agronomic practices that can be adopted for stabilizing agricultural production in rainfed areas.
(250 words) 15

भारत में वर्षा सिंचित कृषि में आने वाली बाधाओं पर प्रकाश डालिए। वर्षा सिंचित क्षेत्रों में कृषि उत्पादन को स्थायित्व प्रदान करने हेतु अपनाई जा सकने वाली कुछ कृषि-वैज्ञानिक पद्धतियों की चर्चा कीजिए।

Recently Revitalizing Rainfed Network
(PRA)
released Rainfed Agriculture Atlas
highlighting that ~60% of India's
farmers are deriving water for
crops from monsoonal rains

Constraints faced by RA in India

① Lower productivity

↳ 1.1 tn/ha v/s 2.5 tn/ha
Rainfed Irrigated

② Lack of RA capacity to support
needs of farmers thus increasing
burden for side income.

③ only 20-30% income from crops

④ Lack of government investments
in rainfed areas further hamper

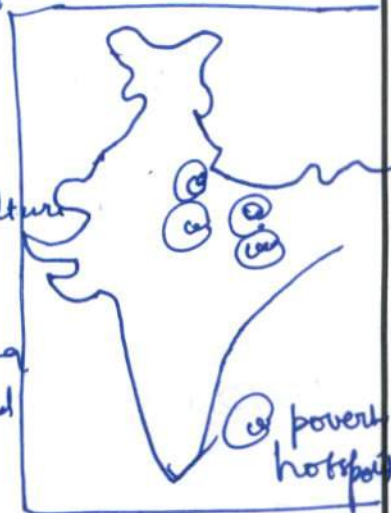
growth prospects
 vs slackha vs 25000ha
 (irrigated) (Rainfed)

④ High coincidence of poverty

makes agriculture unsustainable
 this people taking up - jobs as
 laborers

⑤ Government bias
 against rainfed agriculture

→ 90% procurement of wheat
 for PDS from Punjab, Haryana,
 West UP (Rain irrigated
 states).



Agronomic practices for stability

⑥ Crops as per the conditions
 of state / area

(eg) Maharashtra not being
 suitable for water
intensive sugarcane, thus
 adopting less intensive crops

② Using local knowledge for enhancing productivity and planning

(eg) Use of zero ~~budget~~ Natural farming.

③ Varying the practices as per topography

(eg) Terrace farming in hills.

④ Government economic policy focus on local needs avoiding one size fit all approach

⑤ Growing GM crops that need less input (eg) GM sugarcane in Indonesia

50% farmers of country are ⁱⁿ as much need ~~to~~ attention as others in spirit of Article 14 of Indian constitution. Thus efforts for equality are needed.

15. Despite the steps taken by the government in recent years, a number of problems continue to persist in the urea sector in India. Discuss. What reforms should be taken to address the persisting problems?

(250 words) 15

हाल के वर्षों में सरकार द्वारा उठाए गए कदमों के बावजूद, भारत में यूरिया क्षेत्र में कई समस्याएं निरंतर बनी हुई हैं। चर्चा कीजिए। मौजूदा समस्याओं के समाधान हेतु क्या सुधार किए जाने चाहिए?

Urea sector is a key chemical and fertilizer sector of India directly affecting ~50% population involved in agriculture.

Steps by government

- ① Guidelines on emission norms by factories
- ② Equitable distribution to markets. - Area wide norms
- ③ National Urea policy is providing framework for comprehensive development.
- ④ Neem coated urea for sustainable agriculture

Key problems

① Skewed NPK ratio from 4:2:1 to 8:3:1

② Fertiliser subsidy benefiting manufacturers (30% to manuf.)

③ Environmental pollution both in process of manufacturing and their application

(CSE survey found that ~ 75% disposed waste untreated in water bodies)

Reforms needed

a) Adopting Soil Health Card, zero budget Natural farming

b) DBT to farmers, this will also reduce its usage.

c) Strict compliance MoEFCC to make a task force for action.

(4) Leakage of urea subsidies.
(~30-40% as per Shantakumar Committee)

(5) High cost of servicing

(6) Poor linkage with Naptha | Petro industry hampers growth

(7) Lack of strong exports channel to tap African, West Asian markets

d) DBT and social audits can help.

e) Efficient technologies
(IISC, IICAR) to support
(Vedanta, etc)

f) Industry-NTPI Aayog collaborate to come up with plan.

e) Using soft power channel like ITEC to promote Indian urea

Urea remains key link still to double farmer income hence needs for reforms are right -

16. What is Access and Benefit Sharing? Explain how it aids in sustainable use of biodiversity. Also, mention the different global and national level mechanisms for ensuring Access and Benefit Sharing. (250 words) 15

पहुंच और लाभ साझाकरण (एक्सेस एंड बेनिफिट शेयरिंग) क्या है? यह जैव विविधता के संधारणीय उपयोग में किस प्रकार सहायक है, स्पष्ट कीजिए। साथ ही, पहुंच और लाभ साझाकरण सुनिश्चित करने हेतु वैश्विक और राष्ट्रीय स्तर की विभिन्न प्रणालियों का उल्लेख कीजिए।

Access and Benefit sharing is a key principle under Nagoya protocol under CBD, UNEP.

Key features

Role in sustainability

- | | |
|--|---|
| <p>① Equal access of to resources in a nature conducive manner.</p> | <p>a) <u>Allow RnD and sustainable use of biodiversity without giving undue access to outsiders or locals</u></p> |
| <p>② <u>Rights of locals and knowledge</u> as local Intellectual property they needs <u>benefit sharing of any potential commercial benefit from</u></p> | <p>b) Ensure that locals get due recognition for their contribution</p> |

resource of region

- (3) Local record
keeping of biodiversity
by surveys and
help of locals.
(India - specific NBA
2002)

- (3) Helps in
estimating
extent of biodiver-
sity and hence
its preservation

- (4) Use/Access of
resource only for
productive purposes.

eg. medicines, research
and in amount without
harming biodiversity

- (4) In line with
Bundland report
of using resources
without harming
future generation
capacity to
use the same.

Mechanisms

Global → (1) Convention of Biodiversity

↓
Nagoya Protocol (CBD-10)

↓
Part of annual CBD
assessment.

- (2) NGO initiatives like
WWF - ~~fork~~ to sea to fork
etc.

National initiative

National Biodiversity Act 2002

Institutions → National Biodiversity
Authority

→ State Biodiversity Board

→ Local committee

Rules ① Access needs NBA permission

② Sharing to be decided
before export of resource
out of country

③ Local involvement

As, it is said: "We belong to the earth, the earth does not belong to us". In view of ongoing & mass extinctions highlighted in Global Biodiversity report of WWF, it becomes key to implement Access and Benefit sharing

17. Stating the significance, discuss the challenges in achieving disaster resilience of infrastructure. Suggest some ways for mainstreaming it in the development paradigm. (250 words) 15

अवसंरचनाओं का आपदाओं के प्रति सुनम्य (रेजिलिएंट) होने के महत्व को स्पष्ट करते हुए, इससे संबंधित चुनौतियों की चर्चा कीजिए। इसे विकास प्रतिमान की मुख्यधारा में लाने हेतु कुछ उपाय सुझाइये।

Disaster resilient infrastructure refers to ~~the~~ ensuring of key infrastructure (roads, ~~buildings~~, communication) are strong enough to manage/handle disaster.

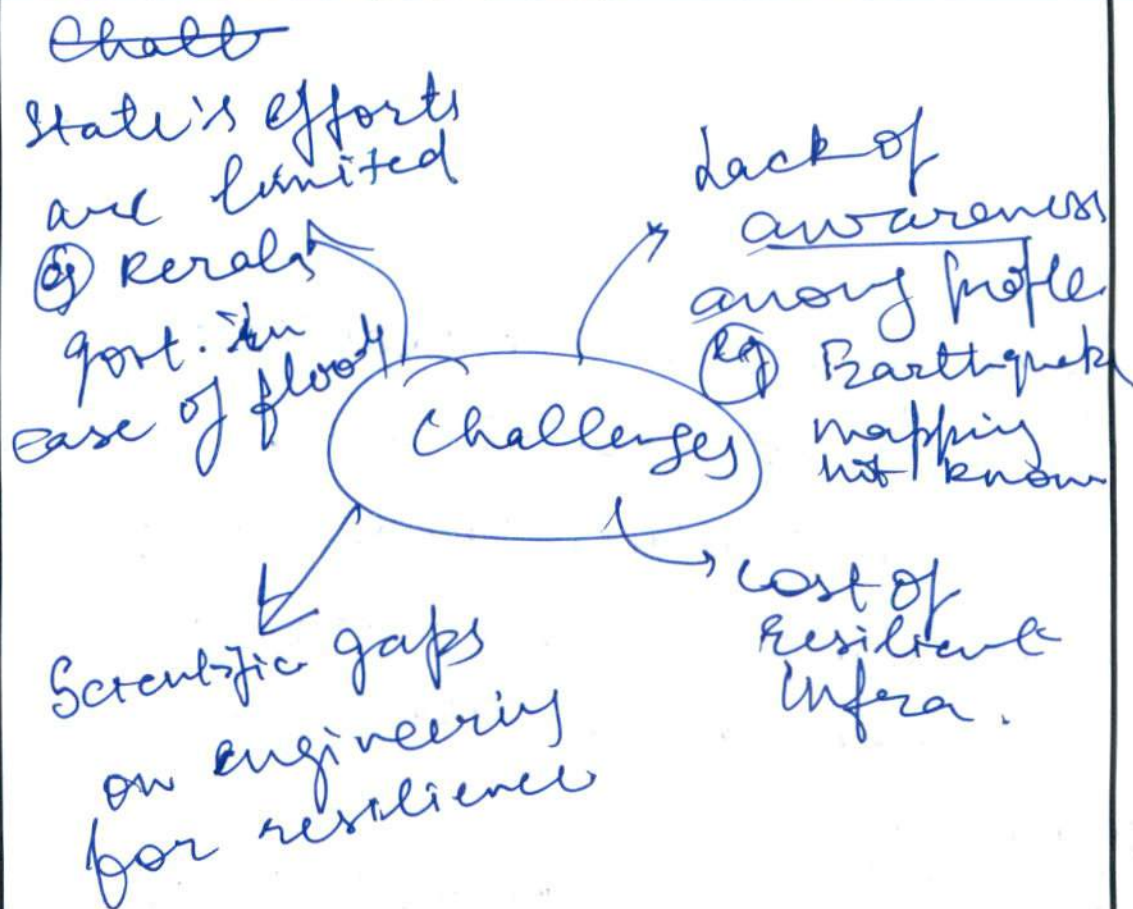
Communication infra key to implement responses/recovery

Infra key to reach people in disaster distress

Significance

Strong infra reduce building back cost.

Infra provides first line of defense.



Measures to mainstream

- ① Disaster education
- ② National funding
- ③ Global support - IMF, UN.
- ④ Using local leaders as guide.

Q5 CSR functioning to fund
disaster relief.

India must guide
disaster resilient infrastructure
efforts in spirit of WB's
"Build Back Better"

18. Highlighting the significance of data localization for India, discuss various challenges associated with data localization. (250 words) 15

भारत के लिए डेटा के स्थानीयकरण के महत्व पर प्रकाश डालते हुए, डेटा के स्थानीयकरण से जुड़ी विभिन्न चुनौतियों की चर्चा कीजिए।

Data localization refer to restricting motion of data ~~out of~~ countries citizens within its national boundaries.

Recent, directive by RBI to provide for data localization for all payment data in India brought the issue to forefront

Significance

Security concerns

- ① Cyber threat control becomes lax as data is outside boundaries.
- ② ~~also~~ subject to multiple unknown actors affect privacy as remarked by BN Srikrishna committee

Localization helps better control over the above concerns.

Governance

- ③ Due to lack of global data share agreement, it becomes easier to access citizen data within boundaries.
- ④ Tax evasions, profit shifting and other money laundering attempts can be better monitored with localization.

Economic

- ⑤ Data is new oil, projections show India can potentially become 5th largest data centre market by 2030.
- ⑥ Data provides great economic insights for future action.

Challenges associatedSecurity

- ① Questions on government handling and capacity
 - (eg) CERT IN shows 1 cyber attack every 10 minutes in India.
- ② Poor record on privacy in India.

Governance

- ③ WTO woes! US has raised it
as key deterrent for e-commerce,
④ Data monitoring, ^{that is} leaving borders
is additional challenge.

Economic

- ⑤ Startups that depend on free
services like AWS Amazon cloud
will lose economic competitiveness
⑥ Harming case of doing business
in India

Data in the era of Industrial
Revolution 4.0 is key Economic and
social asset. India must work towards
conclusion of multi-lateral initiative,
BPS under G-20 to establish
global framework.

19. Money Laundering as a socio economic offence is a menace especially for developing countries like India. Comment. What measures have been taken at the domestic and international levels to deal with this menace?

(250 words) 15

एक सामाजिक आर्थिक अपराध के रूप में धन शोधन विशेषकर भारत जैसे विकासशील देशों के लिए एक खतरा है। टिप्पणी कीजिए। इस खतरे से निपटने हेतु घरेलू और अंतरराष्ट्रीय स्तर पर क्या उपाय किए गए हैं?

Money laundering^(ML) refers to conversion of money earned through illegal means to white money generally by using tax havens or legitimate businesses like C&R etc.

ML - socio economic offence - a menace

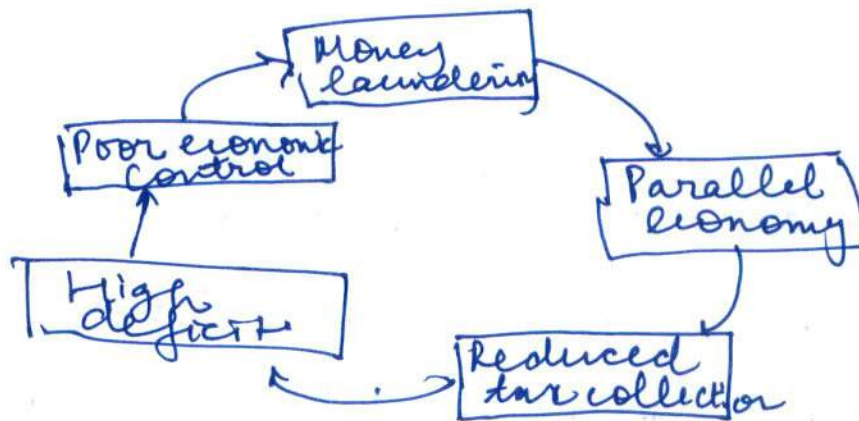
① Social challenges

↳ Promote organized crime such as human trafficking illegal V/A 23

↳ Drugs trade and terrorism disrupts social harmony and public order - illegal V/A 19(2)

② Economic offense / Menace

AMLA 2002 guides its prevention and makes it an offense in India

Menace for economy

It also leads to erosion of public trust in economy hence investments

FDI, etc. reduce

It specially affects developing countries as they have scum resources. ML exacerbates the existing social inequities thus creating a vicious cycle of exploitation.

Measures taken against ML

International

① Global legal identity for tracking evaders

- ② Extradition & Fugitive offender
treaties to cooperate.
- ③ base erosion & profit shifting under
G20 to prevent tax shifting by digital
companies.
- ④ GATP for global cooperation

• Domestic measures
- ④ Implementation of digital initiative
 - ↳ Project Insights: Big data analytics to track frauds
 - ↳ SWIFT: To secure transaction
- ⑤ Powers to ED (Revdept.) to enact
PMLA 2002 supplemented with
Fugitive offender Act.
- ⑥ Enacting GST
- ⑦ NGO funding / Darpan portal
to prevent evasions.
- ⑧ Global treaties (eg. recent Swiss
Bank data sharing)
Money laundering needs global
collaboration & domestic implementation
for effective implementation.

20. The primary motive of terrorism differs from that of organised crime but there exists a symbiotic relationship between the two. Discuss.

(250 words) 15

आतंकवाद का प्राथमिक उद्देश्य संगठित अपराध के उद्देश्य से भिन्न होता है, किन्तु दोनों के मध्य एक सहजीवी संबंध पाया जाता है। चर्चा कीजिए।

Interpol defines terrorism as a means to destabilize political Government and replacing it with one's ^{group's} own ideology (eg) Taliban in Afghanistan
while in

Organized crime key purpose is to make economic profits by illegal and easy means

Primary motive differs as for terrorism its political power and control but for organized crime it is economic benefits

Symbiotic relation

Key theatre

! Relation:

- ① North East India & proximity to Drug trade Golden Triangle
- 
- ! Drug traders get easy conducts in Insurgents who need money for operations & arms

- ② Kashmir and arms trade
- (Organised criminal Arms Traders in West Asia get easy targets in Kashmir supported by states actors like Pakistan.)

- ③ Midella East
- The insurgency and human trafficking and

Sexual exploitation
as shown by
efforts of this
years Nobel Peace
awardee Nadra
Murad

① Dawood &
Bombay Attacks
(1993)

Dawood's key
aim was smuggling
but his
contacts in Dubai
and his ~~knowledge~~
edge
of area led to
Black Friday
attacks.

There is an increasing blurring
of lines between terrorism
and organized crime. Thus,
global collaborations are key
for their tackling.