



VISION IAS

www.visionias.in

email id: thegunjansingh@gmail.com

GENERAL STUDIES (TEST CODE : 1244)

Name of Candidate	GUNJAN SINGH		
Medium Eng./Hindi	ENGLISH	Registration Number	125597
Center	DELHI	Date	27/08/2019

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।

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

Plot No. 857, 1st Floor, Banda Bahadur Marg (Opp Punjab & Sindh Bank), Dr. Mukherjee Nagar
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।

Recently, N.K. Singh headed 15th finance commission, recommended about constituting an Independent Fiscal Council in India, looking at the success of such councils in USA and UK.

IFC role in bringing transparency:

→ IFC will provide a sustainable definition of 'public debt', thus making the budgetary process and extra-budgetary borrowings clear.

→ Provide technical support and analysis in budgeting and accounting.

→ Chart out a medium term and multiple year fiscal policy for the centre.

IFC role in bringing accountability:

→ Unlike Public Accounts committee, and CAG's audit reports, it will keep 'real time' tab on government

expenses, thus ensuring accountability.

→ Analyse the fiscal consolidation and expenditure, thus keeping a check on populist measures.

→ By making budgeting an open, inclusive, participatory process, it leads to wide public discourse also.

✶ An independent fiscal council with sectoral experts will ensure the working according to Fiscal Responsibility & Budget Management Act, bring in clear actions and goals towards inclusive development and economic growth.

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।

Exports are one of the most potent mediums for economic growth and wide scale employment generation. India's share in world exports is meagre 1.6% as compared to China's share of 13.6%.

Potential of Exports in generating employment

↳ India being agrarian economy, can lead to remunerative jobs in rural areas by focusing on export of high value agricultural items.

↳ Using the economies of scale and aggregation of industries, exports help in increasing productivity and further labour intensive employment.

↳ India can capture dwindling export market from China & Japan, in sectors of apparel, silk, footwear, electronics

and lead to more labour intensive employment.

↳ Exports help in developing forward, backward linkages, thus acting as propulsive industries, with more multiplier effect & employment.

Assent problems in India's exports:

- competitiveness is an issue → Vietnam, Bangladesh with cheap labour and production from Tier II, Tier III cities.
- Phytosanitary standards in various agro products.
- Export is dependent on crucial imports like crude oil, gems, thus becomes expensive.

Steps to be taken:

- ↳ SEZ, NIMZ, Coastal Economic Zones should be promoted as employment and economic enclaves.
- ↳ Provide incentives to start ups, patenting facilities.
- ↳ Sagarmala, Bharatmala, VDA and Inland Waterways should lead to more inter-modal connectivity.

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।

National Mineral Policy, 2019 aims to boost mining activities, making it sustainable and profitable.

District Mineral fund to be adequately utilised

Features

opening Mineral corridors for more private investment

mining declared as industry, to allow purchasing & mining in foreign lands.

long term import-export policy for stability

How will it help in sustainable and responsible mining:

↳ By talking of 'intergenerational equity' it focuses on sustainable mining processes.

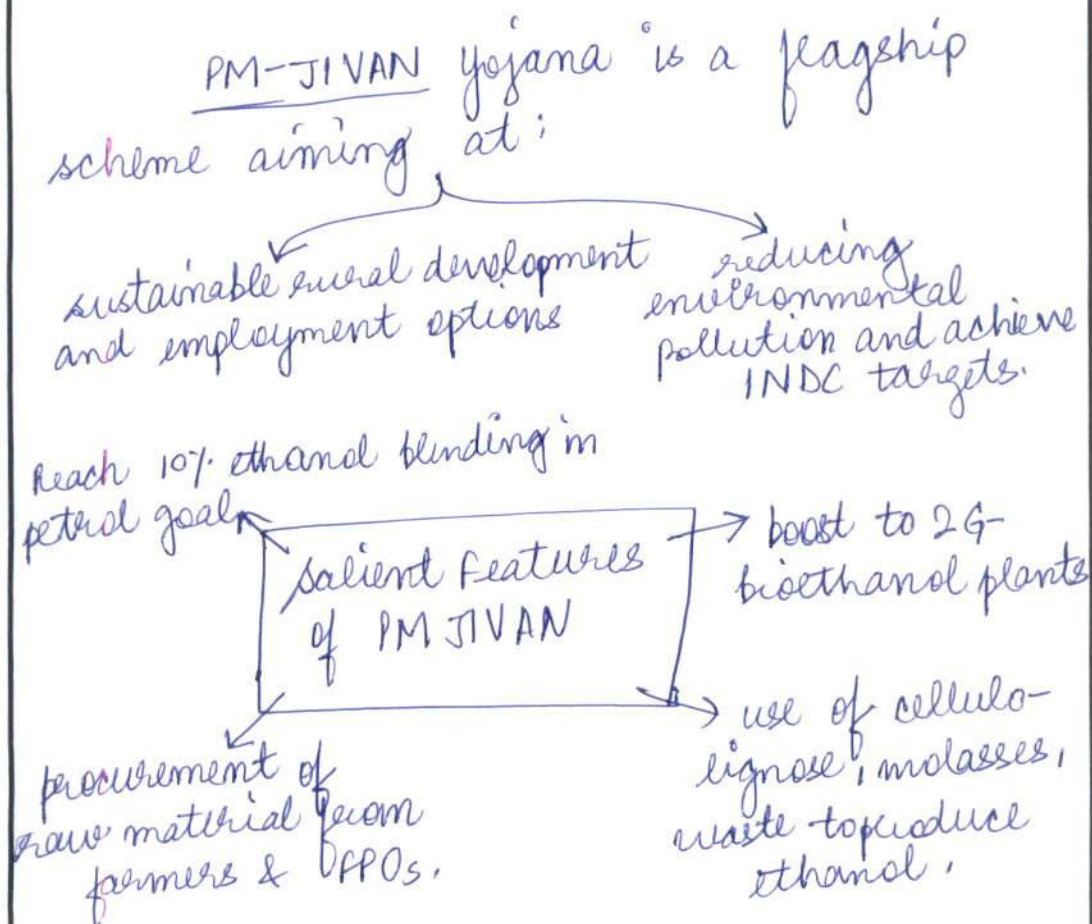
↳ Mining export zones will lead to dedicated blocks which will lead to rational utilisation of mines.

↳ Providing fair level field to the private players with adequate safeguards and incentives.

Use of technology, robust mining methods will help India make net exporter of minerals, leading to reduced current account deficit and a further boost to Make in India.

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 is much in tandem with National Biofuel Policy, 2018:

⇒ Biofuel Policy focuses on development of advanced biofuels (second generation and onwards) → which is supported by JIVAN yojana.

- Policy allows the usage of non food materials, wasted food crops, cellulo-lignose, algae etc, which is also a feature of JIVAN yojana.
- Both the initiatives aim to decrease the GHG ~~to~~ emission reduction, and quick achievement of INDCs.
- Biofuel policy provides 6 years of viability gap funding to 2G ethanol plants, which will help the establishment of plants in JIVAN yojana.

Thus both these policies help move towards a reduced import bill, more energy security and efficiency.

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।

Zero budget natural farming is a way of farming utilising all the natural inputs and focusing towards a sustainable agricultural model.



fig: The map portrays crops grown with excess of inputs leading to disparities and pollution

How is 0 Budget Natural Farming an Alternative:

- Use of manure, compost, vermiculture for as substitute for fertilisers.
- focus on zero tilling, mulching to reduce weeds, irrelevant mechanised soil operations leading to soil erosion.
- Integrated Pest Management, natural predators to remove pests and invasive species.

land fragmentation
issue

Challenges

need to scale it up to meet rising food demands

awareness among farmers.

Thus agroclimatic planning based on budget natural farming would solve the agricultural distress due to credit & productivity issues.

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।

The Great Pacific Garbage Patch in northern Pacific Ocean has raised the concern of increasing plastic pollution in oceans.

Implications of Plastic Pollution on marine ecosystem:

→ Several keystone ecosystems like coral reefs, kelp forests are losing their biodiversity due to 'intense plastic pollution'.

→ Plastics and microbeads are leading to bioaccumulation and biomagnification ultimately affecting humans too.

→ Causing severe decline of endangered benthic and nektonic fauna.
eg Dugong in Gulf of Mannar,

How to address the problem?

- Initiatives like 'Beat Plastic Pollution', 'End Plastic Pollution' have to be adopted globally.
- Global participation in clearing and cleaning seas and oceans.
- Ban on plastics below certain size, eg 50 microns in India, and microbeads use in cosmetics should be regulated.
- International organisations like UNCLOS, International Seabed Authority need to come up with comprehensive framework.

Global collaboration is the only key to protect & preserve the global commons.

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 norms in India are a step towards making India green and a sustainable economy.

Evolution of Bharat stage Norms

- Evolved in 1991, in line with Euro Norms of controlling vehicular emission
- Since then, it adopted successive series of Bharat stages, and currently we are in BS IV.
- BS V was to start from 2020, but it was overstepped with BS VI norms
- BS VI started in NCR from April 2018, and in rest of India from 2020.

make the producers liable to insure to reveal all details to consumers

decrease PM_{2.5} and PM₁₀ by 25%.

Significance of BS VI norms

→ reduce NO_x emissions by about 25-70%.

→ reduce sulphur emission to upto 10 ppm, as opposed to 50 ppm in BS IV

challenges posed by quick introduction:

- ↳ skipping BSII will not provide adequate time to manufacturers to cut down on cost, and develop new features.
- ↳ Rising cost due to new design will hurt consumers.
- ↳ significant changes in fuel required by oil marketing companies
- ↳ The old inventory of already manufactured will lead to additional losses.

BS norms are one of the successful approaches of government and involves participation of all stakeholders. Proper incentives to companies would ease easy transition.

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?

Black holes are celestial phenomena which are formed by decline/death of stars. They are characterised by ultra high gravity and not even light can escape it.

challenges in imaging black hole:

⇒ since light and even most of the wavelengths of the waves in the visible, UV, infrared range cannot escape, it makes practically difficult to map and image them with conventional telescopes.

⇒ Moreover, even the gravitational waves created by black holes are difficult to identify and understand.

Event Horizon Telescope Project:

The project is a collaboration of several countries with an aim to image black holes. The different technique used is:

very long baseline interferometry.
operationalisation of Technique:

- It is composed of many radio telescopes facilities around the world.
- They work towards to produce highly sensitive telescope.
- signal from a source is collected at multiple stations, and distance between telescopes is calculated using the time difference.

Thus, such best know technique in distant source mapping will help with in imaging black hole.

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 Trade Treaty deals with conventional weapons and reduce illicit weapon trading.

Objectives :

sale of weapon linked to human rights violations records of buyers, thus establishing responsible use.

seeks to control the conventional weapons falling to terrorists, criminal groups,

evaluate arms dealers with their credibility.

challenges:

- Not ratified by many countries.
- Does not regulate domestic sale in a country.
- Illegal arms trade linked with Hawala is prevalent.
- US backing off from the treaty.

A global consensus needs to be build for a sustainable, responsible world structure. Arms trade treaty should not be seen in isolation, comprehensive solutions like alienating terror-supporting countries, listing international terrorists at UN, will ensure a peaceful world order,

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।

with growing fourth industrial revolution and technological breakthrough, new theatres of internal security threats have opened up.

Threat to Internal security is double edged

communication networks as new areas of threat

- ⇒ Recent New Zealand church attack was liverstreamed, showing the spread of targets.
- ⇒ social media, digital platforms provide
 - anonymity
 - accessibility
 - undiscovered source of action
 - action from distance
- ⇒ eg cyber terrorism in Jammu & Kashmir, increasing lone wolf attacks.

How networks are threatened

- ⇒ Telecom networks form the basis of critical infrastructure eg tapping of BSNL network by Pakistan
- ⇒ Hacking, phishing, cyber warfare, eg Petya, Saposhi malwares attacked cyber systems
- ⇒ Stuxnet example shows vulnerability of networks

With ~~every~~ 1 attack on cyber space in every 10 minutes, shows the vulnerability of cyber security in India.

Steps taken by government:

- ⇒ National cyber critical ^{Information} Infrastructure Protection Council to protect space, telecom and nuclear structures.
- ⇒ Cyber warfare police force and Indian cyber crime coordination centre to look into rising cyber issues.
- ⇒ Maharashtra has developed a dedicated cyber police cell.
- ⇒ National cyber coordination centre to check the incoming cyber information in country.

With discussions towards joining Budapest convention and hosting, 5th Global Cyber Space conference, India is actively moving towards protecting networks.

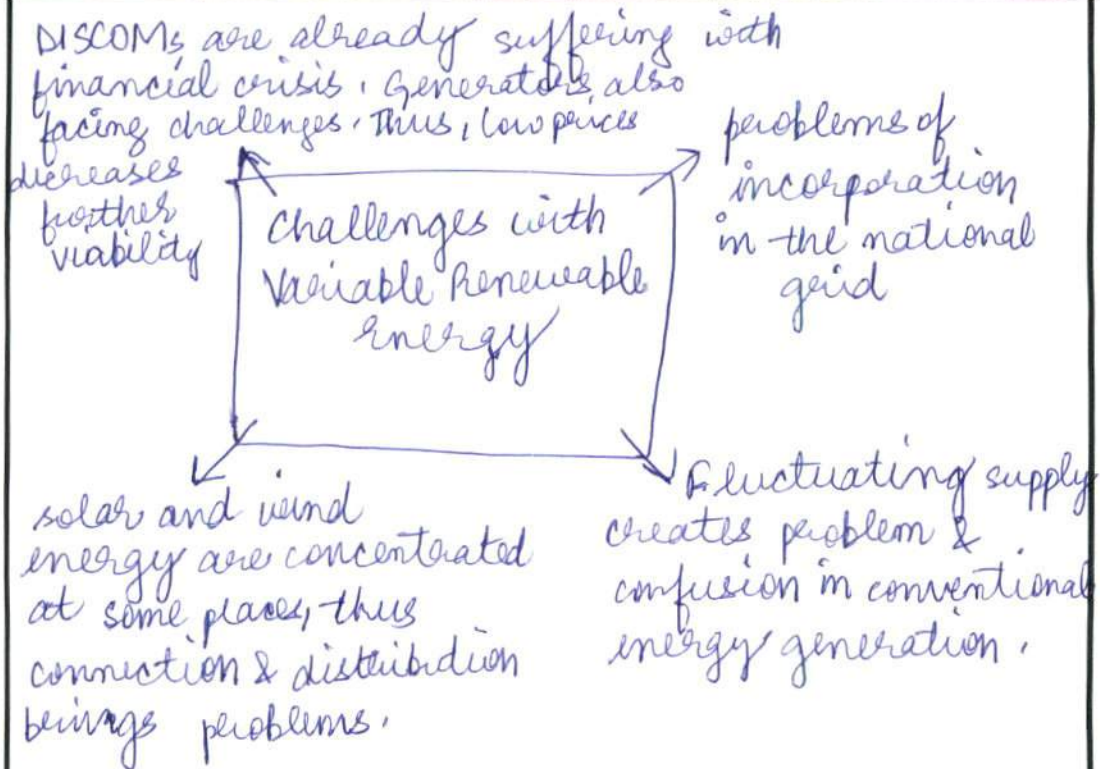
11. Highlight the importance and challenges related to integration of Variable Renewable Energy (VRE) in India. Mention some steps that can be taken for its smooth integration with the synchronized Indian grid. **(250 words) 15**

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 includes those energy resources which are renewable but their supply is variable and intermittent.

Importance of Variable Renewable Energy:

- ↳ India being tropical country, abounds in solar energy,
- ↳ National Institute of Wind Energy has estimated wind energy potential of 302GW by increasing wind mill heights to 100m.
- ↳ Help in achieving in INDC of 175GW by 2022.
- ↳ Reduce the import dependence of coals and plug the demand-supply mismatch.
- ↳ Integration in the national grid will improve energy security & bring in competitive pricing structures.



Steps to be taken to simplify & streamline the integration of Renewable Energy to National Grid:

- ↳ Smart meters with real time 2 way communication will help in assessing the demand and supply.
- ↳ Renewable purchase obligations, bid-in-tariff, must run status will ensure that renewable energy is procured continuously.

↳ smart grid, green energy corridors should go through the surplus states, with facility of energy saving certificates to the deficient states to maintain parity.

↳ rooftop solar, offshore wind installations should be further boosted.

Renewable energy is the future of India's energy ~~see~~ scenario. Gradual, seamless integration will ensure a greener, developed India.

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?

Economic Survey 2017-18, has warned India of falling 'in middle income trap'.

Middle Income Trap

↓
A situation in which an economy is

not able to compete with cheap manufactured products from low income countries

unable to scale up innovative, skilled productivity like the developed countries

Why is India vulnerable to falling in trap?

↳ India's 'average age' by 2022 would be 28, the youngest nation of world, still only 2% workforce is skilled & 5% population has got technical education, thus unable to tap demographic dividend.

↳ Agriculture still employing about 49% of population and manufacturing not able to take off. Still the goal of 25% manufacturing GDP by 2025 seems difficult.

↳ In wake of global slowdown, poor productivity and lack of economies of scale, has slowed down the export potential.

↳ underemployment, poverty, income inequality all force towards making India fall in trap.

↳ Lack of industry-academia linkage, poor job quality.

How to avoid it?

→ Innovation conducive policies : Digital India, Make in India, Atal Innovation Mission, Start Up India,

→ Boost manufacturing by → labour intensive industries (apparel, footwear etc)
↓
formalise the MSME sector.

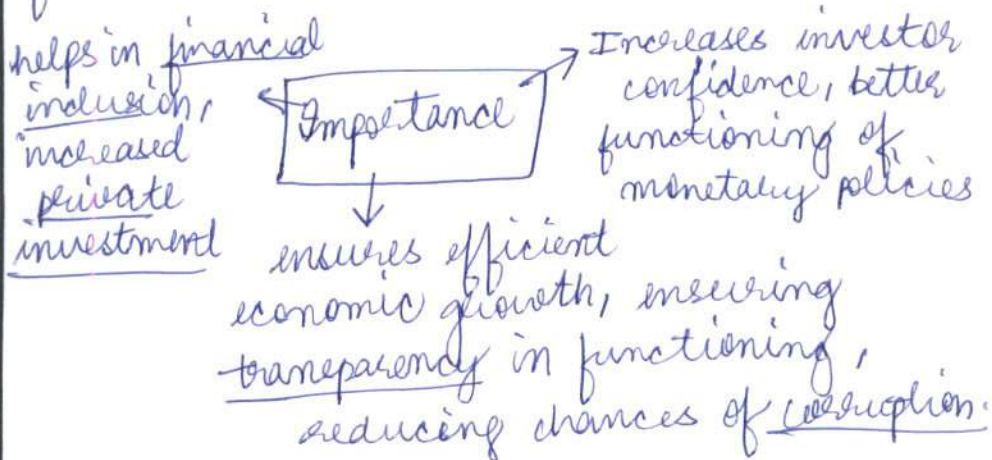
- Move towards knowledge economy and focus on specialisation, like South Korea's electronics.
- Increase investment in social infrastructure - health, education. ~~Make~~ start vocational education from school level, and impart skill training.
- Provide the incentives to Coastal Economic Zone, SEZ, National Infrastructure & Manufacturing Zone for faster operation.
- Solve Twin balance sheet issue of financial sector.

All these steps will help India move towards a better, faster inclusive growth driven economy.

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।

Effective Monetary Policy Transmission is a procedure through which any rate cuts, interest rate changes initiated by RBI are followed by all the banks of country.



Issues with effective transmission

- ↳ Banks do not allow quick rate cuts, but quickly implement rate hikes because:
- Double financial repression of CRR & SLR
 - Priority sector lending bounds their choice in lending
 - Increasing NPAs and liquidity crunch.

- Operational inefficiency and scope for corrupt practices increases.
- Provisioning for credit risk, high capital adequacy ratio also inhibits their liquidity status.

Steps taken by RBI:

- Change from Base Rate to Marginal cost of funds based lending rate, which has included repo rate has brought great deal of transmission.
- Liquidity swapping of \$5 bn for 3 years has increased liquidity of banks.
- Removal of all loan structuring features like - SFR, SRA etc with the Insolvency & Bankruptcy code brought by Parliament.
- But MCLR has been known to certain inefficiencies as pointed by Sanak Raj committee, thus need to shift to an external benchmark rate.

Monetary Policy Transmission, if
effective will lead to multiplier
effect in economy with increased
savings and investments.

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।

About 52% of gross cropped area in India is rainfed, rainfed agriculture pertains to type of agriculture which has no means of formal irrigation system and depends on rainfall.

constraints faced by Rainfed Agriculture

↳ with 70% pulses, oilseeds
90% millets
100% tobacco

grown in this agriculture, it is the least developed.

↳ rainfed agriculture is marred by institutional problems like :

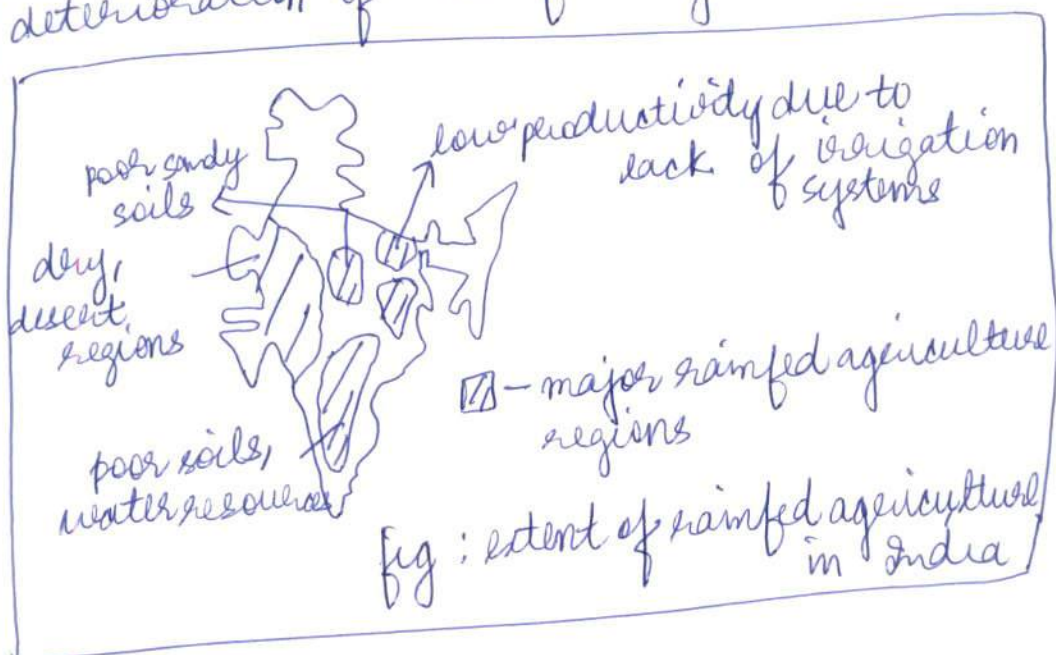
↳ majority of 86% of small and marginal farmers belong here

↳ inadequate inputs
↳ seeds, fertilisers, irrigation system

↳ land fragmentation

↳ pricing is a big issue, with lack of monetary support & procurement, rained agriculture is now facing desertification, chronic fallowing.

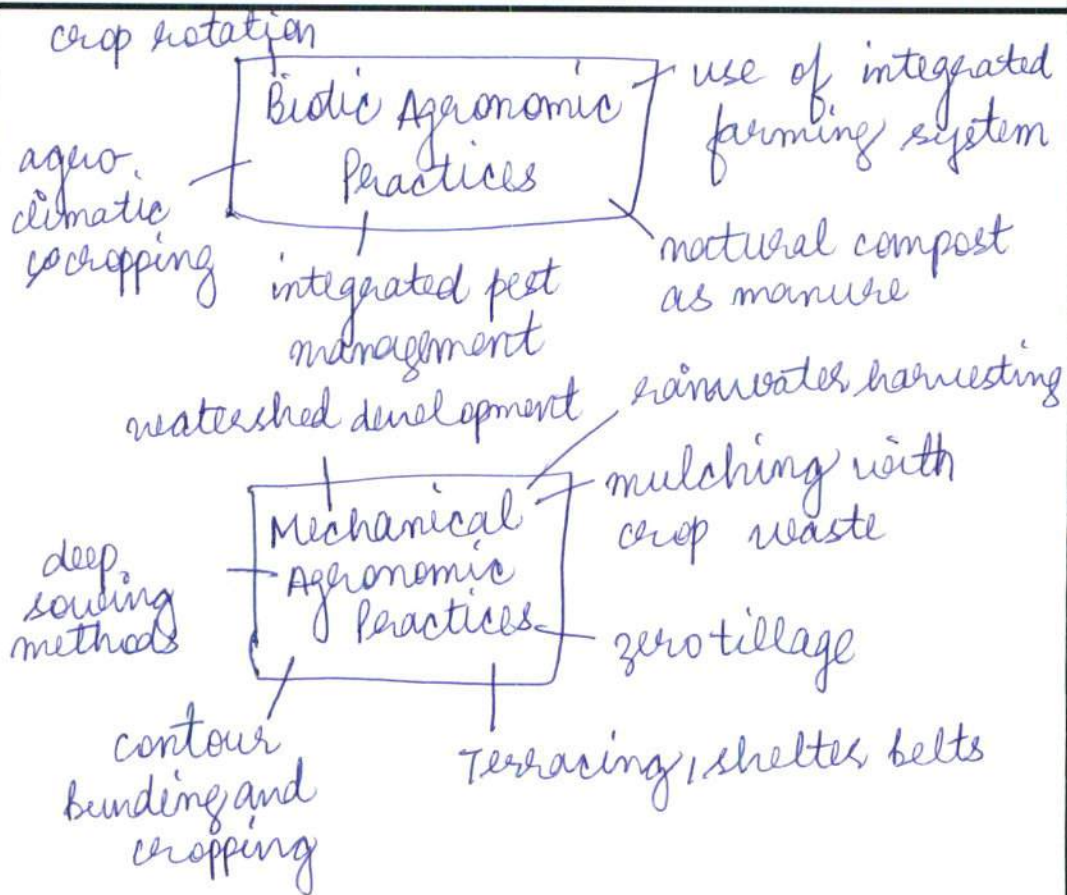
↳ lack of forward & backward linkages, like no roads, warehouses, cold chains, APMCs far away, poor research in HYVs of rained crops, all has led to deterioration of rained agriculture.



Agronomic practices can be

biotic

mechanical



Besides such methods, focus be made on income augmentation through allied activities, like;

[agroforestry in Bundelkhand
mud crab farming in Odisha & Tamil Nadu.

With PM Kishu sinchayel yojana,
PM Fasal Beema Yojana, rainfed agriculture
can grow remuneratively.

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?

In an agrarian country like India, urea sector holds utmost importance, several steps taken by the government:

- ↳ 100% neem coated urea to check smuggling to Nepal and Bangladesh
 - ↳ Soil Health Card scheme to aware farmers about rational use of urea and other fertilisers.
 - ↳ Cannalisation of urea ~~disrupts~~ to check ~~on~~ black marketing
 - ↳ Government's aim to reduce consumption of urea by half by 2022. This has already been achieved by several villages of Himachal Pradesh,
 - ↳ Renewal of 3 fertiliser plants ^{Barauni, Bihar} ^{Gorakhpur, UP} ^{Sindri}
- Still various problems plague urea sector.
- ↳ unawareness among farmers regarding judicious use, instead of 4:2:1, 6:4:4:2:1 is the N:P:K ratio.

- ↳ Urea not a part of 22 nutrients based scheme, it is still a part of retention based scheme,
- ↳ lack of industrialisation, outdated plants, cannalisation has disrupted competitiveness.
- ↳ lack of domestic capacity, huge cost of import bill

Reforms to be taken further:

- ↳ India should secure more LNG contracts on long term basis outside India, and establish industries there to ~~see~~ infuse economies of scale.
- ↳ Cannalisation of urea has outlived its purpose, thus move towards decannalisation.
- ↳ It should be brought under nutrient based scheme, any political inhibition should be removed.
- ↳ Information, Education, ~~commens~~ communication among farmers.
- ↳ Modernisation of all fertiliser plants

~~into~~ based on gas fuels to reduce
cost of production and guarantee
sustainability.

with 52-55% people still under
agriculture, urea holds utmost importance.
It is a low cost, high productivity
urea sector is a sure roadmap
towards doubling farmers income
by 2022.

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 global sustainable principle of using the biodiversity sustainably and also sharing the profits with all the stakeholders including the natives from where the biotic material was extracted.

Access and Benefit Sharing (ABS) is an important principle of conservation of Biological Diversity and its further mechanisms like - Nagoya Protocol, Aichi Biodiversity targets.

Several national level mechanisms have also been established like:

- Conservation of Biological Diversity Act, 2002
- Forest Rights Act, 2006 giving the

traditional forest dwellers rights over forest produce.

↳ patenting on agricultural produce to farmers.

↳ several mechanisms to check smuggling and ~~esp~~ patent fringing.

eg wildlife crime control Bureau's operation save Kurma.

GI tags to indigenous products.

How it aids in sustainable use of biodiversity?

→ current levels of technological advancement has led to exploitation of biodiversity and human rights by the developed countries and multinational companies.

eg an European company used medicinal plant from Africa for fat reduction and cosmetic use, but did not share it with the natives.

→ All the traditional, endemic gene pool centres are already exploited

as seen in case of increasing
biodiversity hotspots.

↳ By ensuring rights of all, indiscriminate
use will be discouraged.

↳ It will help in achieving various
global targets of increasing biodiversity

Thus, access and benefit sharing
ensures just, equitable and
sustainable development of economy
along with biodiversity. This is
in tandem with SDG 14 and 15.

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 means the capacity to absorb and withstand shocks and disasters without any tangible loss to economy, life and livelihood.

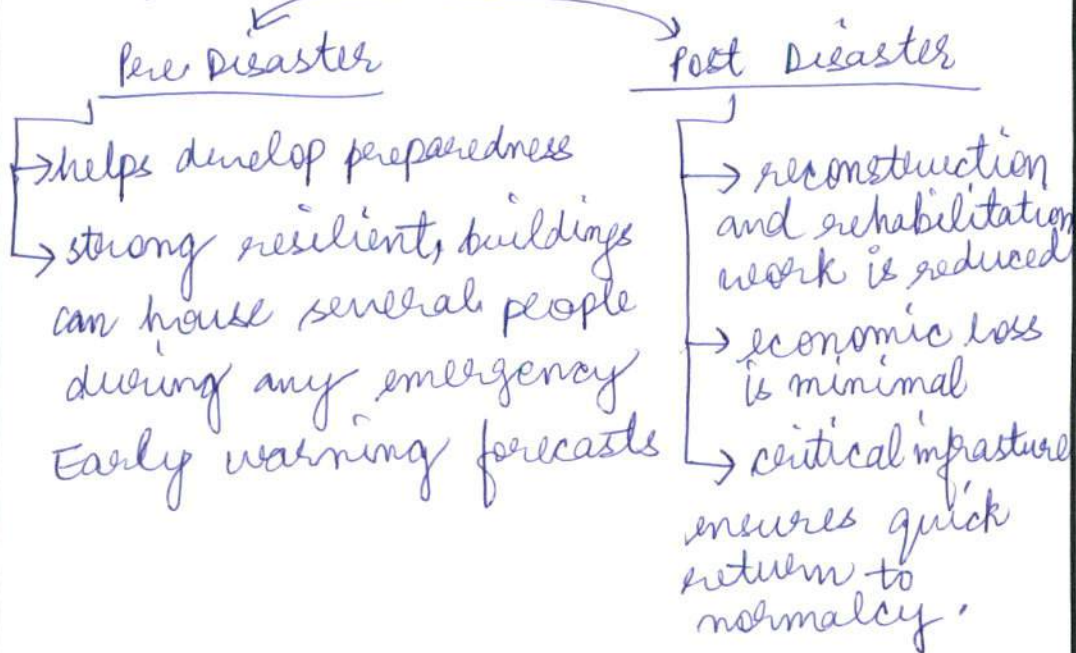
Significance of disaster resilient infrastructure

↳ around 82% of population living in urban areas ~~today~~ today is vulnerable to climate related disasters.

↳ ~~Infrastruc~~ Physical and social infrastructure resilience helps in adapting and mitigating any disaster risks.

↳ World Bank has estimated 770mn ppl will fall down in poverty by 2080 due to disasters, this can be prevented using resilient infrastructure.

→ Role of disaster resilient infrastructure is in both:



Challenges :

- ↳ already overburdened slums, sprawls, poor drainage systems make it difficult for renewal and renovation
- ↳ High upfront cost and capital investment deters creation of resilience
- ↳ corruption, weak governance.
- ↳ low awareness among people, lax attitudes, lack of planning.

How to mainstream in development paradigm

- ↳ All new construction should be based on proper ~~engr~~ engineered procedures and innovations.
- ↳ focus on urban renewal, reducing encroachments, make way for proper drainage solutions and wetlands.
eg. Gorakhpur storm drainage,
Surat's Ukai dam renewal.
- ↳ Proper solid waste management, treatment, flood & ~~eq~~ earthquake proof zoning.
- ↳ Early warning systems with accurate forecasts.

~~Infrastructure~~ Infrastructure resilience can come with political will, healthy functioning governance institutions and public participation.

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 localisation refers to limiting the export of national data to servers based outside India by various state and non state actors.

Significance of data localisation in India

↳ Data is the new factor of production. With growing 4th Industrial Revolution, it becomes important to own our data.

↳ Data from each sector if analysed will lead to evidence based policy making, thus helping in governance.

↳ strategic interests lies in maintaining sovereignty over data in national interest & security.

↳ Manipulation of citizens by misusing data.
eg Cambridge Analytica case in US elections.

↳ Data localisation will help us develop our indigenous research and development, move towards innovation and knowledge economy.

Challenges associated with data localisation :

↳ Lack of a central model legislation.
↳ Lack of 'infrastructure in terms of servers, big data processing capability, cloud computing in storing data.

↳ Skilled manpower is another issue.

↳ Talks over infringement of data privacy and surveillance.

In such a scenario, Justice
B.N. Srikrishna recommendations,
and test of proportionality as
recommended by Supreme Court
in Puttaswamy judgement will help
us move towards an economy with
robust data localisation policies.

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 is an illegal act of converting illicit, black money into legitimate forms by using steps like : Placement → Layering → Integration

Money laundering : socio economic menace for developing countries

↳ It leads to increased corruption, increases income inequality in society

↳ reduces the fair competition among businesses, thus dismantles economy by lowered private investment,

↳ Gives rise to organised crime & terrorism which further deter law & order and cause chaos & anarchy.

↳ with black money in economy,
and formation of shell companies,
round trippings, government revenue
decreases.

↳ leads to further tax evasion
and reduces capacity of state to
provide welfare measures,
increasing further disparity.



fig: Vicious circle created
by money laundering.

Measures taken :

↳ Domestic

- Prevention of Money Laundering Act
- Benami Properties Act, 1988

Foreign Exchange Management Act,
Institutional Methods:

- Enforcement Directorate
- Financial Intelligence Unit - India

International

- Fast Action Task Force for money laundering and ~~the~~ Terrorist financing
- Asia Pacific group: increasing commitment over stopping money laundering
- UN global initiative Against Money laundering
- ~~the~~ UN convention against Corruption
- UN convention Against Transnational organised crime,

Increasing use of cryptocurrency,
digital technology is proving it to be
more difficult to capture laundering,
Thus collaborative action is the key.

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।

Terrorism and organised crime
may seem different when looked at
superficially.

Differences in primary motives & actions

organised crimes
↳ Motive is to run a
parallel economy,
with aim of economic
gain

Terrorism
↳ Motive is political,
to create fear in
the victim government
& uproot it.

↳ works mainly through
underground activities

↳ works in visible
arena to create
fear & disturbance

But, despite differences in motives,
both work in synergy and have
developed a strong symbiotic
relationship.

⇒ Relationship has developed because of inherent requirements & dependency.



fig: synergy between the two.

⇒ With decreased state funding, terrorism has to depend on organised crime, and some terrorist organisations have developed 'in house' capabilities, eg Al Qaeda, Taliban,

⇒ Both aim to weaken the government, so that both can prosper & spread,

Thus, terrorism and organised crime go hand in hand spreading lawlessness, chaos and disorder, making them their fertile grounds of

action ,