



VISION IAS

www.visionias.in

GENERAL STUDIES (TEST CODE / 1515)

Name of Candidate	PREETAM KUMAR		
Medium Eng./Hindi	English	Registration Number	324683
Center	online	Date	20/12/21

INDEX TABLE			INSTRUCTIONS
Q. No.	Maximum Marks	Marks Obtained	- 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।
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:			

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. Explain the meaning of off-budget borrowings and its role in helping the government raise funds for various expenditures. Also, comment on its desirability. (150 words) 10

बजट-बाहरी उधार (ऑफ-बजट बॉरोइंग्स) का अर्थ स्पष्ट कीजिए और विभिन्न व्ययों के लिए धन जुटाने में सरकार की सहायता करने में इसकी भूमिका का उल्लेख कीजिए। साथ ही, इसकी वांछनीयता पर टिप्पणी कीजिए।

Off-budget borrowing refers to the raising of funds by government agencies from the market which are not reflected in the fiscal deficit or budget of the government
eg:- special purpose vehicle for smart cities

Role

- ① bypasses the fiscal deficit target constraints under FRBM thus more freedom
- ② FCTI has raised ₹3 tr to meet the food subsidies ~~in~~ under POS
- ③ special purpose vehicles for implementation of projects like Smart cities & raise their own funds

- ④ Capital expenditure is taken by many Funds like NIF by raising from market
- ⑤ Kerala's KIFB has led to social projects

Desirability

Yes	No
→ Helps <u>raise</u> more funds	→ <u>Accountability</u> is reduced
→ undertake <u>social & infrastructure development</u>	→ may lead to <u>boom</u> ing of <u>debt</u> making it unsustainable
→	→ CAG has warned against this practice
	→ Reduces credit ratings & trust of investors
	→ The burden is finally bore by citizens through more taxes

such practices must be undertaken in rare & emergent times only

2. It is argued that genetically modified food crops are required to ensure food security of India. Examine in view of concerns regarding introduction of GM crops. (150 words) 10

यह तर्क दिया जाता है कि भारत की खाद्य सुरक्षा सुनिश्चित करने के लिए आनुवंशिक रूप से संशोधित खाद्य फसलों की आवश्यकता है। जी.एम. फसलों की शुरूआत से संबंधित चिंताओं के आलोक में परीक्षण कीजिए।

GM-food crops refers to change in genetic material of crops to give them desirable prop-
erty for human benefit

Requirement of GM crops

- ① Nutritional security & Food securi-
ty as India has 37% stunted
& 58% anaemic women
- ② Climate resilient crops like drought
& temperature resilient
- ③ Pest resistance to reduce crop
failures eg:- BT cotton resistant to
pink Ball worm
- ④ Improve farmers income by
increased productivity (short
duration crops with high yield)

reduced cost of production like
fertilisers & pesticide use

Concerns

- ① Fear of health effect like
Supreme Court banned GM-mustard
due to neurotoxicity
- ② Contamination of native crops
- ③ Potential to turn into invasive
crop leading to reduced
biodiversity
- ④ increased pressure on pests to
compete may lead to evolution
of super bugs
- ⑤ may impact our genetic structure
& have untold future consequences

Need is to have a precau-
tionary approach & move forward
with caution

3. India's price intervention policies to support its agricultural sector not only create a broken system but also complicate matters related to international trade rules. Critically discuss. (150 words) 10

अपने कृषि क्षेत्र का समर्थन करने के लिए भारत की मूल्य हस्तक्षेप नीतियां न केवल एक अप्रभावी व्यवस्था का निर्माण करती हैं बल्कि अंतर्राष्ट्रीय व्यापार नियमों से संबंधित मामलों को भी जटिल बनाती हैं। समालोचनात्मक विवेचना कीजिए।

India has the MSP regime for 23 crops to ensure a minimum floor price to safe guard farmers

Created a broken system

- ① monocropping of wheat & rice in non-traditional cultivating areas of Haryana & Punjab
- ② only 6% farmers who are well off benefit while ~~many~~ marginal farmers do not (Shanta Kumar Committee)
- ③ Falling productivity of land in Punjab & reducing farmer's income
- ④ Falling water table leading to toxicity

Violates trade rules of WTO

- ① MSP is categorised under amber box which is to be restricted to de-minimis level of 10%.
- ② India has been challenged due to it & has secured Peace Clause at Bali (2013) but still disputes remain

However it has benefitted also

- ① Leads to public stockholding thus food to poor in PDS
- ② Increased foodgrain production from 52 mmt in (1951) to 292 in 2021
- ③ A security to farmer thus not leading to distress sale
- ④ Leads to inclusive growth with helping poor farmers

going forward a robust mechanism needs to be developed to double farmer income

4. India has an opportunity to become a leading global food supplier provided it has an efficient supply chain and the right marketing strategies. (150 words) 10
Elucidate.

भारत के पास एक अग्रणी वैश्विक खाद्य आपूर्तिकर्ता बनने का अवसर है बशर्ते उसके पास एक कुशल आपूर्ति शृंखला और सही विपणन रणनीति हो। विशदीकरण कीजिए।

India has covered the
tumultuous journey from a food deficit
country in 1950s to food surplus
today

~~more than 300 mnt horticulture~~
~~status~~

Opportunity to become global food
Supplier

① Excess production:-

- 300 mnt (horticulture), 292 mnt
(food grains), 182 mnt (milk)
- top 3 in meat production

② Have productive land & agro-
climatic favourable environment

③ Countries in a region like south
Asia & Africa are potential market

④ Climate change is reducing threateni-
ng food productivity

Issues① Inefficient supply chain:-

- lack of cold chain, only 10% of items need it, have it.
- mostly in informal sector
- ₹90000 cr post harvest losses

② Poor marketing strategy

- lack of a 'Brand India'
- Rejection due to sanitary & phytosanitary measures
- lack of certification labs, agencies like FSSAI & APEDA

Solution

- a National cold chain grid must be developed like Kisan rails
- Boost to ~~po~~ food processing Industry by mega food parks
- Formalisation of food processing & building a brand India

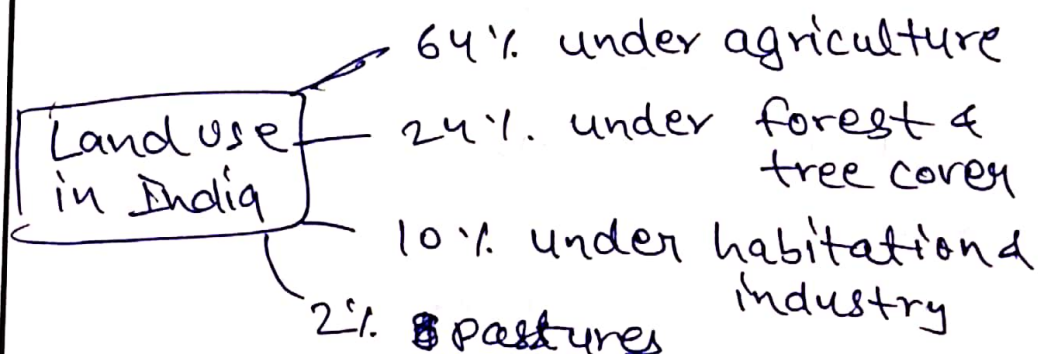
This is important to double farmer's income

5. Land banks are increasingly gaining prominence in India to encourage land-use efficiency and enable economic growth. In this context, discuss the benefits of a land bank and state the concerns associated with it.

(150 words) 10

भूमि उपयोग दक्षता को प्रोत्साहित करने और आर्थिक वृद्धि को सक्षम बनाने के लिए भूमि बैंक भारत में तेजी से प्रमुखता प्राप्त कर रही हैं। इस संदर्भ में, भूमि बैंक के लाभों तथा इससे संबंधित चिंताओं का उल्लेख कीजिए।

India has 17% of world's population & 2.4% of world's geographical area thus it's always a challenge to sustain population



Land banks are area of land occupied by government for purpose of economic development like dams, highways etc

Benefits

→ use of unproductive land for infrastructure projects

- ~~best~~ better remuneration to farmers
- Ease of doing business for businesses (eg:- POSCO steel case)
- faster ~~for~~ execution of projects
- Increased Investment in India

Challenges

- ① Lack of policy by government with future vision
- ② LARR Act requires 80% consensus of locals
- ③ Financial Constraints of government
- ④ slow judicial process & long court cases
- ⑤ Presumptive land titles leading to disputes
- ⑥ Protests by locals eg:- Narmada Bachao

we need to ensure the rights & welfare of residents on the land & economic development

6. Desertification has been described as one of the greatest environmental challenges of our time and climate change is making it worse. Discuss.

(150 words) 10

मरुस्थलीकरण को वर्तमान समय की सबसे बड़ी पर्यावरणीय चुनौतियों में से एक के रूप में वर्णित किया गया है तथा जलवायु परिवर्तन इसे और बदतर बना रहा है। चर्चा कीजिए।

Desertification refers to the conversion of a productive & fertile land to completely unproductive land

(India's status)

30% land has already degraded

30% is currently under going degradation

Greatest challenge

- ① Food insecurity as land is reduced to produce food
- ② Distress migration of people from such areas causing conflicts & poor urbanisation
- ③ Loss of livelihood of people, acc. to UNCCD, 1.5 bn people

Feel the brunt of it

- ④ Ecosystem instability & biodiversity loss
- ⑤ water insecurity

Impact of Climate change

- ① Erratic rainfall patterns leading to prolonged droughts, causing desertification
- ② Heat wave, frequently & more intense leads to soil erosion & dryness
- ③ Climate change cause forest degradation & forest fires due to heat waves & thunderstorming leading to land degradation
- ④ Frequent flooding leads to erosion

India must collaborate internationally to ~~meet~~ meet its goal of restoring 26 mnha ^{land} by 2030

7. In the context of intellectual property rights, discuss the advantages and disadvantages of releasing projects under an 'Open Source' license.

(150 words) 10

बौद्धिक संपदा अधिकारों के संदर्भ में, 'ओपन सोर्स' लाइसेंस के तहत परियोजनाओं को जारी करने के लाभ और हानियों पर चर्चा कीजिए।

open source license
refers to, when the creator of
a program, software or application
makes public his source code
for use & editing by people
eg:- mozilla Firefox

~~Int~~ IPR are legal protection
-n given to original works in ~~for~~
fields of science, art, literature etc

Advantages

- ① It creates an ecosystem of sharing
- ② Better code making due to continu-
ous improvement by different
people
- ③ leads to more affordable website
use for users with no charges

- ④ Ignites the innovative capabilities of coders to work on improvement of the already available code

Disadvantages

- ① ~~the~~ IPR principle are violated
- ② may lead to others asking for same treatment by others who have hidden source code
- ③ threat to the profit making giants like google etc
- ④ chances of misuse by someone
- ⑤ ~~the~~ ~~the~~ the code could be used to spy & steal information

A robust framework of IPR is needed to tackle these challenges of IPR 4.0

8. "Indian space sector has been dominated by a single umbrella of government and government institutions." In light of the statement, discuss the significance of Indian Space Association in providing an impetus to space technology in India. (150 words) 10

"भारतीय अंतरिक्ष क्षेत्र पर सरकार की एकमात्र संस्था का प्रभुत्व रहा है।" इस कथन के आलोक में, भारत में अंतरिक्ष प्रौद्योगिकी को प्रोत्साहन प्रदान करने में भारतीय अंतरिक्ष मंच के महत्व की विवेचना कीजिए।

Indian space sector
is predominantly the domain of
ISRO, taking all the important
roles of satellite making & launching
& R&D

small role of private players
in ancillary roles have been there.
Indian space sector only has
2% share of global \$430 bn space
market, thus govt launched Indian
Space Association (OneWeb, Airtel,
Bhruv space etc)

Significance :-

- ① Increased R&D in space sector
by ISRO (in small satellite launch
vehicle) & private sector in
reusable launch vehicles can be

ensured

- ② More financial resources thus bypasses the fiscal constraints of ISRO
- ③ ISRO will be more free to undertake core research, leaving manufacturing of mastered tech to private players
- ④ Competition will ensure reduced cost as seen by SpaceX & Blue origin
- ⑤ more launch per year to meet the rising demand of digital world
- ⑥ Increase share of India from 2% to 10% by 2030 in global space market
- ⑦ Better & innovative products & missions with facilitation by In-space & NSIL

India needs to draft a Law which clearly delineates the liabilities & role of all players

9. Man and machine both have an important role in national security and making urban areas secure. In this context, discuss how technology is a major stakeholder in addressing the internal security challenges of India.

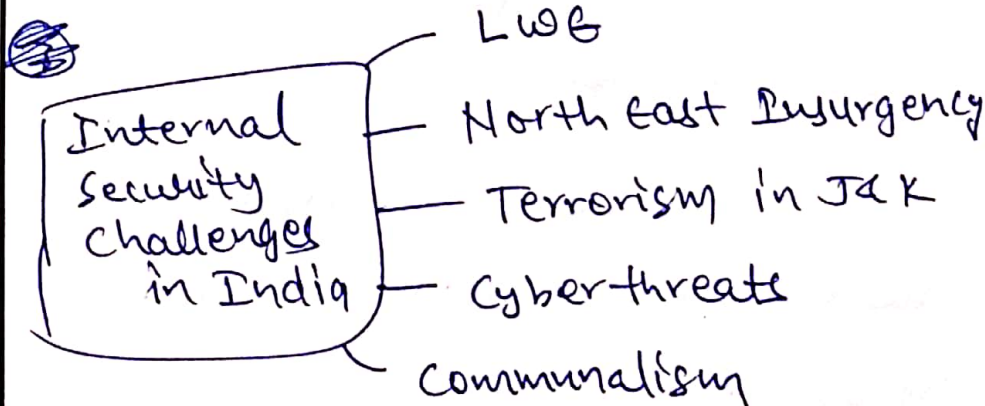
(150 words) 10

राष्ट्रीय सुरक्षा और शहरी क्षेत्रों को सुरक्षित बनाने में मानव और मशीन दोनों की महत्वपूर्ण भूमिका है। इस संदर्भ में, चर्चा कीजिए कि प्रौद्योगिकी किस प्रकार भारत की आंतरिक सुरक्षा चुनौतियों से निपटने में एक प्रमुख हितधारक है।

Man (Army, ~~or~~ security forces
police) & machines (weapons, cyber
physical networks) are important
in ensuring national security

Threats in Urban areas

- ① Riots eg:- North east delhi riots
- ② Cyber attacks eg:- power outage
in mumbai



[Role of Technology]

- ① Better border management :-
by CEBMs & BOLD-QIT for
effective detection of intrusion
& illegal trade
- ② surveillance :- by intelligence
agencies with help of NATGRID
to detect patterns
- ③ Coordination :- like CCTNS for
national database and proactive
action
- ④ Cybersecurity can be ensured
with better computing power
& professionals

India need to create
a multipronge National Security
Strategy under guidance of
Defense Planning Committee

10. National Security Guard (NSG) has emerged as a formidable force equipped to handle various manifestations of terrorism. Discuss the mandate and achievements of this force. (150 words) 10

राष्ट्रीय सुरक्षा गार्ड (NSG) एक पराक्रमी बल के रूप में उभरा है जो आतंकवाद के विभिन्न रूपों से निपटने के लिए सुसज्जित है। इस बल के अधिदेश और उपलब्धियों की विवेचना कीजिए।

National Security Guard
was created in 1984 in the backdrop
of Khalistan movement to ensure
Security of India

Mandate :-

- ① Counter-~~terror~~ terrorism operation
- ② Anti-hijacking operation
- ③ Training of other forces to
fight terrorism like J&K police
- ④ collaboration & coordination with
other agencies to keep vigil
on any ~~anti~~ subversive activities
- ⑤ To achieve excellence & profession-
alism in its operations

Achievements

- ① During 26/11 :- It was helicopter dropped to secure the Taj hotel which was achieved with great efficiency & low casualties
- ② It has ensured that hijacking minimise in India, not seen in last 20 years & its effective role in hijackings in 1980s & 1990s
- ③ It has emerged as elite command force with high skills & professionalism making it one of the best in the world
- ④ It has been able to provide effective linkage between different agencies like NIA, state police etc
continuous development in the skills & modern weapon is required.

11. What do you understand by asset monetisation? Why is it needed in India? In this context, discuss the issues that need to be addressed for the National Monetisation Pipeline to succeed. (250 words) 15

परिसंपत्ति मुद्रीकरण से आप क्या समझते हैं? भारत में इसकी आवश्यकता क्यों है? इस संदर्भ में, उन मुद्दों पर चर्चा कीजिए जिन्हें राष्ट्रीय मुद्रीकरण पाइपलाइन के सफल होने के लिए समाधान करने की आवश्यकता है।

Asset monetisation
refers to either selling or leasing
of capital assets to generate funds
and unlock their capital potential
eg:- Giving Highways to private
players under TOT model for 30 years

Need

- ① Efficient use of ~~idle~~ idle assets
with government
- ② Better services to the public
eg:- good transportation
- ③ Finances with govt to undertake
more infrastructure projects
- ④ Effective use of financial
resources of private players

- ⑤ Budget constraints of government to finance infrastructure
- ⑥ Reducing logistics cost, removing infrastructure bottlenecks, improved economic growth & employment generation

National Monetisation
Pipeline was announced by GoI
to generate ₹6 lakh crore over
next 4 years by leasing ~~the~~
idle assets

Issues

- ① Lack of appetite among private players in midst of Covid, & lofty privatisation target (₹1.75 tr)
- ② Proper valuation of assets is a challenge

- ③ Monopolisation of critical infras
tructure by few corporates
- ④ Rise of service fee from citizens
like in tolls at roads leading
to exclusions
- ⑤ During the end of contract period
the private player may not invest
to take care of the asset

Remedies

- ① Drawing neat contracts highlighting
the roles, responsibilities, liabilities
& grievance redressal mechanisms
- ② Regulation on price hike for
services by private players
- ③ Ensuring that both desirable &
less desirable assets are leased

PPP is must to
achieve the ₹5 trillion target
by 2024-25 & also National Infra
Structure pipeline complementarity

12. What is social stock exchange (SSE)? Discuss the need for setting up of SSEs and key challenges in their effective implementation. (250 words) 15

सोशल स्टॉक एक्सचेंज (SSE) क्या है? SSEs की स्थापना की आवश्यकता और उनके प्रभावी कार्यान्वयन में विद्यमान प्रमुख चुनौतियों पर चर्चा कीजिए।

Social stock Exchanges

will be trading platforms to help raise capitals for social enterprises, voluntary organisations & trusts

[Need]

- ① Better financial stability for public spirited ~~and~~ enterprises
- ② Inclusive development of public leading to sabka sath, sabka vikas
- ③ opportunities for investors to invest in these specific organisa tions, thus satisfaction to them

- ④ Creation of an ecosystem where premium is put on such enterp-
-rises than those working against
social interest eg:- cigarette firms
- ⑤ Cheap & affordable channel &
increased visibility to the func-
-tioning

Challenges

- ① Lack of publicity & awareness
among public
- ② Shallow bond market in India
which is already occupied by
govt. securities
- ③ Competition with the more nuanced,
market oriented & profit making
giants
- ④ Inadequate & policy support from
the government

- ⑤ People may be less inclined to these low profit making organisations.
- ⑥ Transparency & accountability of use of funds by these organisations & concerns over regulation

Way Forward

- ① The budget has supported this idea thus more policy & institutional support must be ~~needed~~ given
- ② Easy compliance procedure, both for investors & these organisations
- ③ Incentives by govt. for investors in initial stage
- ④ wide publicity of these platforms

measures ~~are~~ like this are necessary to ensure a compassionate Capitalism & social Responsibility of Corporate

13. In the context of India, highlight the importance of agriculture extension. What are the challenges faced in provisioning of agriculture extension services? How does the National Mission on Agricultural Extension & Technology (NMAET) address these issues? (250 words) 15

भारत के संदर्भ में, कृषि विस्तार के महत्व पर प्रकाश डालिए। कृषि विस्तार सेवाओं के प्रावधान में सामना की जाने वाली चुनौतियां कौन-सी हैं? कृषि विस्तार और प्रौद्योगिकी पर राष्ट्रीय मिशन (NMAET) इन मुद्दों का कैसे समाधान करता है?

Agriculture extension
refers to the availability of techno-
logies developed in labs to farmers
on field

Importance

- ① Increased productivity
- ② Reduced cost of production
- ③ Doubling of farmers income
- ④ sustainability & environment
friendly
- ⑤ maintaining health of soil & precision
agriculture

⑥

Challenges

- ① only < 1% farmers have been able to benefit from extension services of Krishi Vigyan Kendras
- ② Block level labs are aloof from the advancements taking place at ICAR labs etc
- ③ poor literacy & awareness among farmers to access
- ④ less than 0.5% of agricultural GDP is spent on R&D thus lack of timely advancements
- ⑤ Lack of proper linkages & platforms for farmers & scientists to meet

National mission ~~on~~ on Agricultural Extension & Technology is a scheme to bridge this gap in extension services by:-

- ① Field demonstrations by scientists will help farmers directly
- ② Increased funds for R & D
- ③ collaboration & incentivising of private sectors & encouraging startups under it
- ④ Dedicated websites & Apps are envisaged for farmers to access information
- ⑤ A bottoms-up approach is followed where region specific ~~the~~ research will be undertaken eg:- CAZRI in Rajasthan's arid areas

Thus this has the potential to double farmer's income by 2022 as envisaged by Dalwai Committee

14. Clearly delineate the 'employment problem' that India currently faces. Also, explain the fundamental reasons behind existence of this problem.
(250 words) 15

भारत वर्तमान समय में जिस 'रोजगार समस्या' का सामना कर रहा है, उसे स्पष्ट रूप से निरूपित कीजिए। साथ ही, इस समस्या के अस्तित्व के मूल कारणों की व्याख्या कीजिए।

India has a youth population with high demographic dividend, ~~65%~~ 65% population in 15-64 year age bracket

Employment Problem in India

- ① Decreasing share of women in labour force (23% as per PLFR 2018-19)
 - ② PLFR ~~2017-18~~ 2017-18 put unemploy-
ment rate at 6.5%, ~~4.5%~~
highest in 45 years
 - ③ skewed occupational structure
- | | Employment | GDP |
|----------|--------------------|-----|
| Agri | 44% 44% | 16% |
| Industry | 25% | 28% |
| Services | 31% | 56% |

- ④ Falling labour force : 39.5% in 2011 to 37.5% in 2018-19 (LFPR)
- ⑤ Graduates, who are highly educated face more unemployment (15%)
- ⑥ Jobless growth with jobs growth of less than 1%
- ⑦ WEF says that India adds 12 mn youth to job market every year but creates only 4mn jobs

Reasons

- ① Lack of industrialisation due to high logistics & other infra structural bottlenecks
- ② Restrictive labour laws like Industrial disputes act prevent expansion
- ③ Lack of education & skill in the youth (only 5% had any

formal training, NSSO)

- ④ Perverse incentives which kept MSMEs dwarfs (Economic survey)
- ⑤ Socio-cultural barriers preventing women from joining work
- ⑥ Capital intensive & automated service sector

[Solution]

- ① Increase manufacturing base (to 25% of GDP) by PLI & make in India
- ② Increase infrastructural investm -ent by National Infrastructure Pipeline
- ③ Increase expenditure by govt on health & skills & education
- ④ creation of quality jobs in non farm sector like food processing

Govt must act fast to prevent the turning demographic dividend into a demographic disaster

15. Although steps have been taken for integrating the dispersed logistics activities of maritime trade, much more needs to be done to make India a maritime powerhouse. Discuss. (250 words) 15

हालांकि समुद्री व्यापार की विखंडित लॉजिस्टिक गतिविधियों को एकीकृत करने के लिए विभिन्न कदम उठाए गए हैं, फिर भी भारत को एक समुद्री पावरहाउस बनाने के लिए और भी बहुत कुछ किए जाने की आवश्यकता है। चर्चा कीजिए।

India's global trade
has 90% share of ports (maritime
trade) by volume & 70% by value

Status of maritime trade

- ① Turnaround time of 2.5 days
(Singapore 10 hours)
- ② Low draft of the ports
- ③ Lack of shipping containers
- ④ Poor technology for mechanised
loading & unloading
- ⑤ skewed pattern where 12 major
ports handle 60% of ~~the~~ cargo
- ⑥ Undercapacity of ports to meet
present & future demands of
Cargo & freight

Steps taken to integrate dispersed logistics

- ① Sagarmala Project :- ₹ 8.35-tr Project for development of ports, coastal economic zones & connectivity to hinterland by rail, road & expressways for integrated logistics
- ② creation of dry ports with better & multimodal connectivity to reduce charges & better efficiency
- ③ Logistics parks have been established along the ports for better coordination
- ④ Governance reforms by autonomy to the Port Authority & also to minor ports
- ⑤ 100% FDI & Private Participation allowed in port development eg:- Adding ports

more Needs to be done

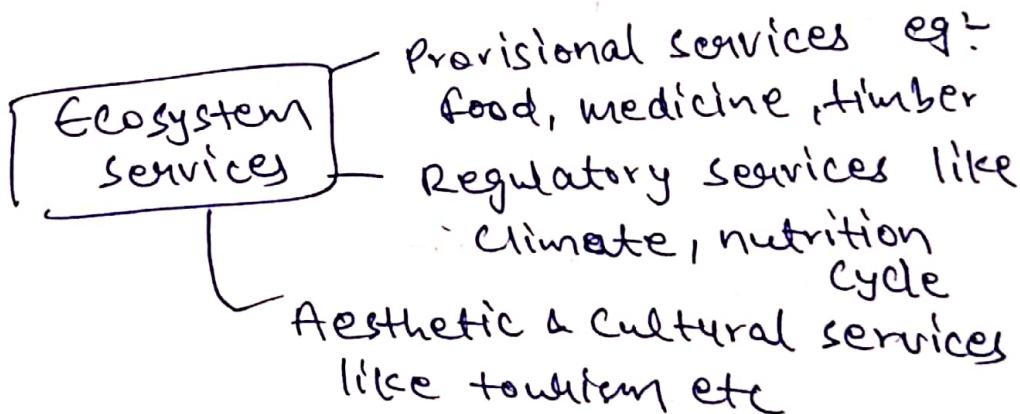
- ① speedy implementation of Sagar
-mala project to reduce logistics
cost from 14% to 8%.
- ② sync between inland waterways
& ports for increased coastal
shipping
- ③ better technology adoption &
Capital investment to reduce
turnaround time
- ④ Development of ~~world~~ world class
ports like Port Blair with high
draft to reduce transshipment
from srilanka & singapore
- ⑤ Trade facilitation with 24x7
Clearance & coordination between
state & central govt

maritime trade is
must for India to achieve exports
of \$2 trillion by 2030

16. Accounting for natural capital and ecosystem services is crucial to understand the link between the economy and environment. Discuss with specific references to India's initiatives in this regard. (250 words) 15

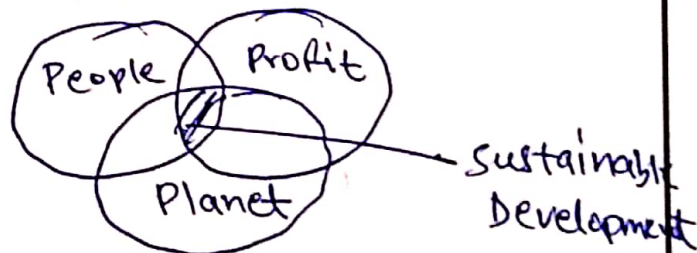
अर्थव्यवस्था और पर्यावरण के मध्य संबंध को समझने के लिए प्राकृतिक पूंजी और पारिस्थितिकी तंत्र सेवाओं के लिए लेखांकन महत्वपूर्ण है। इस संबंध में भारत द्वारा की गयी पहलों के विशिष्ट संदर्भ के साथ चर्चा कीजिए।

Natural Capital is the resources provided by nature like clean ~~area~~ air, drinkable water, forests, productive land & biodiversity etc



Accounting is crucial

- ① To usher into sustainable development



- ② long term growth can be ensured
eg:- impact of desertification is
hurting economy now
- ③ Inclusive growth will be secured
leading to demand creation &
evergreen growth
- ④ meets the SDG goals of climate
Action (#13), Life below water
& life above land
- ⑤ Reduced pollution levels will lead
to less premature death, currently
1 in 8 deaths due to Air pollution
- ⑥ Better health & agricultural produ-
-ctivity due to clean water thus
saving on health expenditure
- India's status — we have 24% forest
& tree cover
8% of global biodiversity
— 2.4% of global land

India's Initiative

- ① Environment Impact Assessment
is carried out to account for
loss of natural capital
- ② CAMPA for Compensatory affores-
tation to balance natural
Capital with economic growth
- ③ CRZ notification to prevent
ecosystem of corals & sea life
by regulating developmental
activities
- ④ Regular ~~for~~ Status of Forest
Survey, Tiger census & Elephant
census is undertaken
- ⑤ with help of BRSO we have
created Atlas of land use &
soil to keep account
we must ensure to balance
economic development with ~~econ~~
environment protection

17. Rapid and unplanned urbanisation accompanied by population growth have increased both the risk and impact of natural disasters. Discuss the statement along with adequate measures to address the relevant concerns in India. (250 words) 15

जनसंख्या वृद्धि के साथ-साथ तीव्र और अनियोजित शहरीकरण ने प्राकृतिक आपदाओं के जोखिम और प्रभाव दोनों को बढ़ा दिया है। भारत में विद्यमान प्रासंगिक चिंताओं के निवारण हेतु यथोचित उपायों के साथ इस कथन की व्याख्या कीजिए।

India's 31.2% population lived in urban areas in 2011 which is expected to rise to 50% by 2047 (World Bank)

However this urbanisation has been mostly unplanned &

No master plan for cities
Urban sprawl phenomenon
Slums (1 in 6 lives in slums)

Increased Risk & Impact of Natural Disasters

[Risks]

- ① ~~Forest~~ encroachment of green spaces

- ② occupying floodplains, water bodies & wetlands ~~thus~~
- ③ compact & densely populated regions
- ④ unauthorised houses & lack of safety protocols like fire safety

Impacts

- ① Urban floods have been a regular phenomenon in last 50 years leading loss of life & property eg:- Chennai Floods (2015) → coastal floods due to cyclones
- ② earthquake in such regions leads to high casualties because of unscientific structures & lack of proper auditing
- ③ Lack of recharge of groundwater has led to frequent droughts

and water scarcity eg:- Chennai in
2019 & heat island effect causing
heat waves

Measures

- ① Master plans for urban areas like
the Delhi master plan (2041) with
anticipation of future ~~casualty~~
migration
- ② strict enforcement of environment
regulations to prevent green
areas, flood plains & waterbodies
- ③ Urban forestry using miyawaki
technique
- ④ monitoring & enforcement of
building codes & ensuring struc
tural integrity criteria are met

India must adopt
the zero casualty policy &
adhere to sendai framework

18. National Hydrogen Mission can be a game changer for India's rising energy demands. Comment. (250 words) 15

भारत की बढ़ती ऊर्जा मांगों के लिए राष्ट्रीय हाइड्रोजन मिशन एक गेम चेंजर हो सकता है। टिप्पणी कीजिए।

Govt has launched the National Hydrogen mission with focus on Green Hydrogen, Blue Hydrogen & H-CNG, in making India a Hydrogen economy

Game changer for India's energy needs

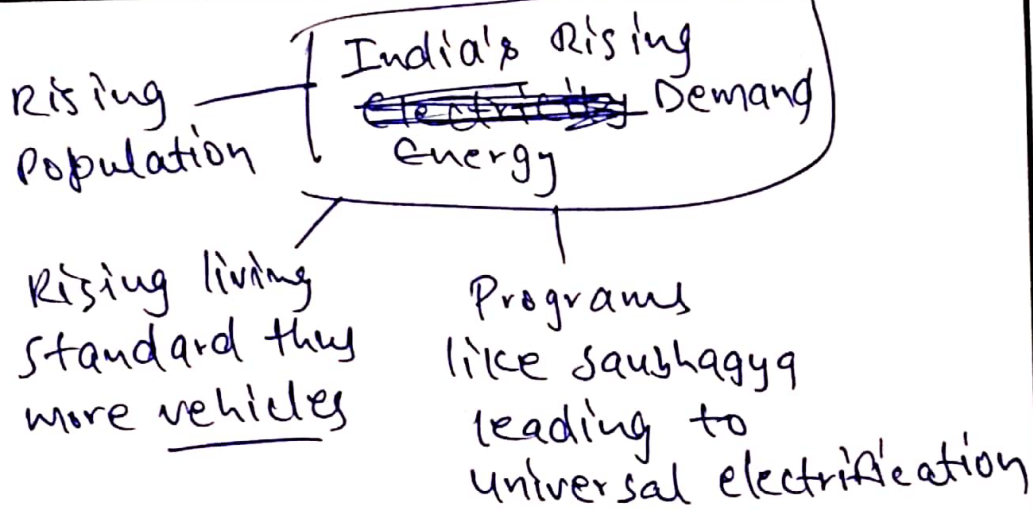
- ① Reduce our dependence on oil imports from Gulf countries (85%)
- ② Clean & safe source of fuel & Hydrogen is abundant in nature
- ③ Boost to renewable energy sector like solar & wind for electrolysis of Hydrogen

- ④ reduced dependence on dirty fossil fuels like coal in power generation (70% of output currently)
- ⑤ meet India's commitment of Paris Agreement & INDC
- ⑥ Fuel cell based transportation will revolutionise our mobility

However there are certain

Challenges :-

- ① capital intensive process to create Hydrogen by electrolysis
- ② Huge costs in storing Hydrogen before use (-253°C)
- ③ Lack of R&D in fuel cell technologies
- ④ Poor interest of private sector & lack of demand in market
- ⑤ safety concern as Hydrogen is highly explosive



Way Forward

- ① Invest in R&D of electrolysis & fuel cell to make them affordable
- ② Government incentive to private players & hand holding
- ③ Favourable policies & legislations by govt
- ④ Creation of demand

National Hydrogen mission
is must to prevent climate change
& for inclusive development

19. Despite geo-strategic instability of its region and a keen awareness of the cyber threat it faces, India has made only 'modest progress' in developing its policy and doctrine for cyberspace security. Critically examine.

(250 words) 15

अपने क्षेत्र की भू-रणनीतिक अस्थिरता और इसके समक्ष विद्यमान साइबर खतरों के संबंध में व्यापक जागरूकता के बावजूद, भारत ने साइबरस्पेस सुरक्षा के लिए अपनी नीति और सिद्धांत विकसित करने में केवल 'साधारण प्रगति' की है। समालोचनात्मक परीक्षण कीजिए।

Cybersecurity is the
center of policy in the era of
IR 4.0 and e-governance in a
globalised world

Geostrategic instability and
Cyber threats

- ① Hostile neighbours in the region
like Pakistan (& ISI) & China
- ② Symantec group ranks India
3rd most vulnerable in world
- ③ ISIS ~~etc~~ & other terrorist
groups using Cyber networks
for radicalisation, propaganda
& recruitment

~~④ 20 crimes are rep~~

④ 1 Cyber crime reported every 20 minute (NCRB, 2017)

⑤ Recent Power cut out in Mumbai

India's modest progress

① we have created a ministry of M/o Electronics & IT for coordination & regulation

② The Cybersecurity policy (2013) have setup a framework for action & established Cert-IN for timely action

③ creation of Defence Cyber Agency for all the 3 armed forces combined

④ Institutional measures like National Cyber Coordination center, ~~NCIIP~~ NCIIP & National Cyber Crime coordination Center

⑤ Separate Budget allocation €

Cyber auditing of govt. websites

④ Gaps remaining

- ① According to IBM, India lack 3 mn
professionals
- ② No central umbrella agency to
control & coordinate national
efforts
- ③ outdated policy and no update
yet
- ④ low financial allocation on
cybersecurity measures
- ⑤ Lack of awareness among people
- ⑥ Industry not cooperating with
govt & no separate measures by
Industry
- ⑦ Dependence on electronics on
China making us susceptible

A robust, comprehensive
National Cybersecurity Strategy is
need of the hour

20. Developmental interventions alone cannot play a defining role in the resolution of existing and protracted internal conflicts in various parts of India within a reasonable time frame. Discuss. (250 words) 15

भारत के विभिन्न हिस्सों में व्याप्त और दीर्घकाल से जारी आंतरिक संघर्षों को उचित समय सीमा के भीतर हल करने में केवल विकासात्मक हस्तक्षेप एक निर्णायक भूमिका नहीं निभा सकते हैं। चर्चा कीजिए।

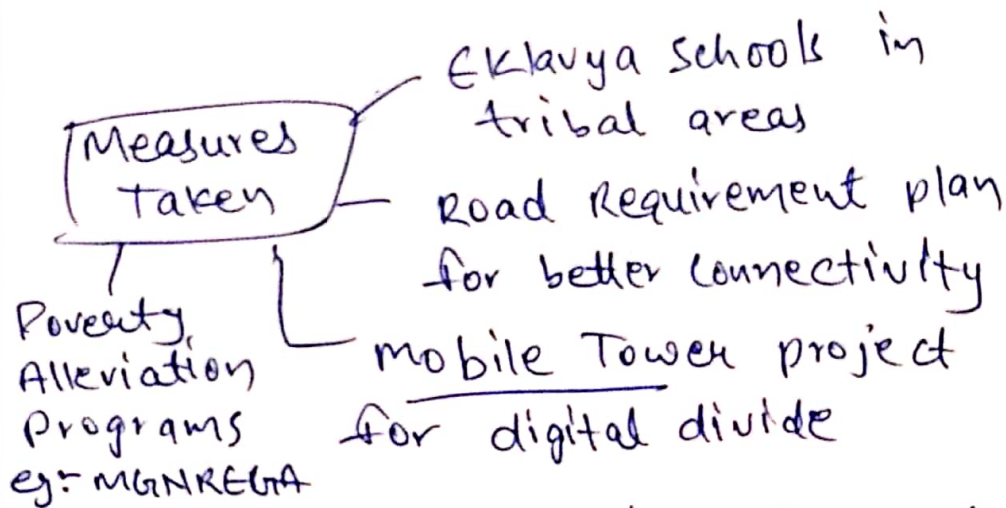
India has been besieged
with various internal security
challenges like

- ① Left wing Extremism
- ② Insurgency in North East
- ③ Cross-border & home-grown
Terrorism in J&K
- ④ Communal Riots eg: Godhra Riots
- ⑤ Regionalism & secessionist tendency

Role of Developmental Interventions

- ① Leads to equitable & inclusive
development
- ② sense of deprivation, injustice
& alienation is ~~not~~ shunned

- ③ Lack of discrimination leads to better fraternity
- ④ Awareness & rises among people to abjure violence



However this is not enough & other measures needs to be taken like:-

- ① Political autonomy:- especially in north east under schedule 5 & 6 of constitution
- ② security measures:- Strengthening capability of security

forces, intelligence gathering &
community policing

- ③ Entitlement of Rights & good governance :- in LWE areas by implementing provisions of PESA & FRA(2006) (43% claims rejected currently)
- ④ Robust deradicalisation & rehabilitation policy so that the deser-ters do not ~~not~~ rejoin these ranks
- ⑤ Perception management & counter propaganda by media management (Singapore plan on deradicalisation can be followed)
- ⑥ Skill development & job opportunities for minorities eg:- USTTAD scheme

Hence multipronged approach is needed for having a conflict free India