



Second Mock APSC Mains'2024

GS Paper III

Duration: 3 Hours

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(Please fill your details correctly)

Medium:

English ☒

Assamese ☐

INDEX NUMBER			INSTRUCTIONS
Q.NO.	Maximum Marks	Marks Obtained.	
1	10		Please read each of the following instruction carefully before attempting the questions: - There are TWENTY questions printed in ENGLISH. - All questions are compulsory. - The number of marks carried by a question/part is indicated against it. - The answers must not exceed 250 words for 15 marks and 150 words for 10 marks. - Answers must be written in the medium authorised 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 authorised one. - Checking to be done with main aim of evaluating a candidate's ability of express ideas in lucid manner. - Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off Remarks: Signature of the Student: NOTE: EVALUATION PERIOD FOR THE MOCK MAINS IS <u>10 DAYS</u>.
2	10		
3	10		
4	10		
5	10		
6	10		
7	10		
8	10		
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14	15		
15	15		
16	15		
17	15		
18	15		
19	15		
20	15		
TOTAL:	250		



SPM IAS ACADEMY
SHAPING BRILLIANCE

Brief report of Performance Evaluation of student in the paper

	Poor	Average	Good	Very good	Excellent
Understanding the context and demand of the questions					
Relevancy of the content					
Structure and flow of the answer					
(a) Introduction					
(b) Body					
(c) Conclusion					
Subject knowledge					
Language of the answer					
Presentation					
(a) Underline to the keywords					
(b) Use of flowcharts or diagrams					
(c) Paragraph limits and overall					
Understanding of directives					
Factual correctness					
Overall performance					

Detail Feedback

Q1. Rural infrastructure has the potential to improve the ease of living and double farmers' income. Discuss. (10 Marks/150 words)

Ans:- To achieve the goal of Vikshit Bharat role of rural infrastructure is vital in improving the living standards of rural population.

Potential of rural infrastructure

- 1) To improve living standards
- ↳ Infrastructure like housing, sanitation, public transportation enhance the quality of life
 eg. PMAY, Swachh Bharat Abhiyan, JRM etc
- 2) Human development
 to improve the access to education, health, childcare,
 eg. PM Shri, Primary Health Centres, educational opportunity

2) To double farmers income

↳ Creation of Agricultural Infra-
structure for 100k crore

for agricultural productivity.

↳ Rural resources

efficient utilization for enhanced
rural livelihood

eg. Digi Agri Mission

↳ To build Supply Chain transition

eg. Cold storage facilities
under PM Sampada scheme

eg. In NE MOVED

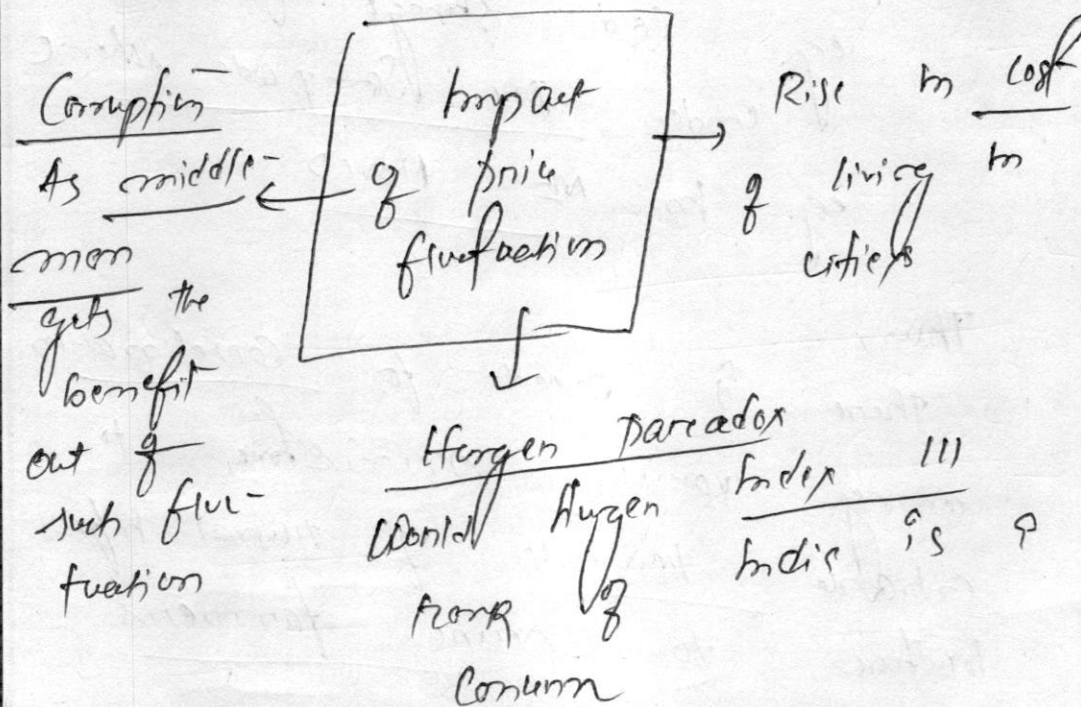
Thus,

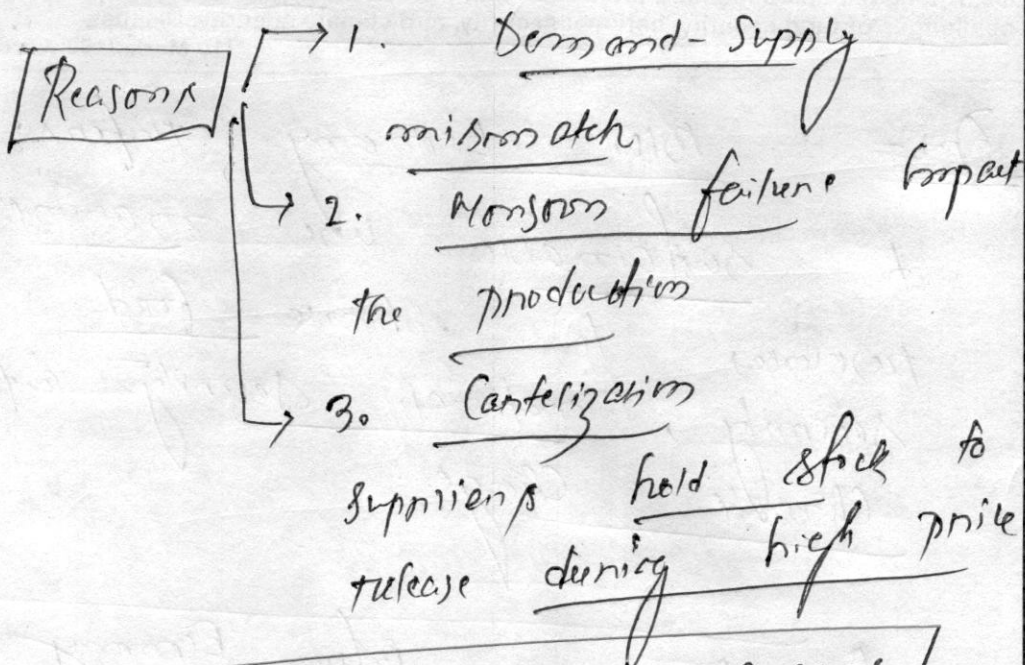
there is need for Coordination
among various ministries to
enhance resilience of rural infra-
structure to secure farmers
income.

Q2. Fluctuations in the price of TOP (tomato, onion, potato) crops impact all strata of societies. Highlighting the reasons and implications of such fluctuations, evaluate the effectiveness of Operations Greens in stabilizing the otherwise restive horticulture sector. (10 Marks/150 words)

Ans:- Due to govt intervention
and market model of Indian
economy fluctuations in prices
of agri - commodities find
space in market now and
then.

Affordability ^{issue}
Particularly BAL families





Effectiveness of operation greens

- 1) To sustain production of horticulture sector
- 2) So that price fluctuations kept under regulatory control.
- 3) Addressed issue of hidden hunger
- 4) More emphasis on domestic production and increased productivity.

Thus, to build resilience of horticulture sector continuous effort is required to put in place.

Q3. A focused and sustained promotion and pursuit of blue economy help meet the challenges of food security, national security, and climate security. Discuss
(10 Marks/150 words)

Goal:- Blue Economy refers
 to sustainable use of marine
 resources to enhance food
 security, national security and
climate change.

Significance of B/E Economy

1) Food security

⇒ e.g. Indian Ocean provides large EEZ to explore for fishing.

→ If can enhance efforts to
supplement Peshan 2.0 and direct

4) supplement independence of fisheries 2nd trough 3rd in fish production to move to current production

2) National Security

↳ Indian ocean region is part of strategic significance

↳ Indian Navy = Blue water Navy

↳ Countering Chinese aggression in Bay of Bengal region

3) Climate Security

↳ Deep ocean mission

to study Impact of Climate Change on marine resources

↳ Renewable energy through use of tidal energy

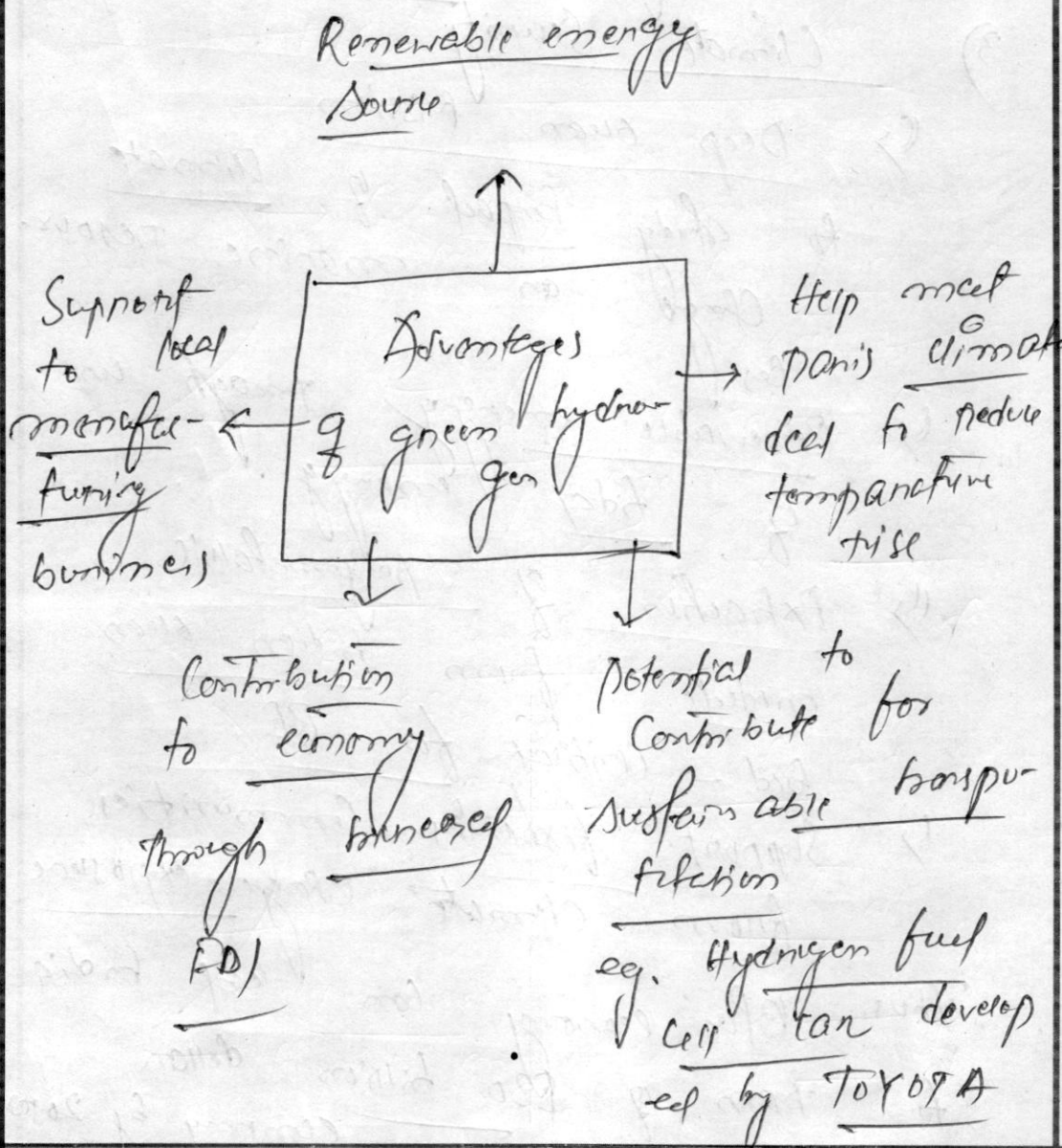
↳ Extraction of polymetallic nodules from Indian ocean bed - critical for RE

↳ Support fisheries communities from climate change exposure

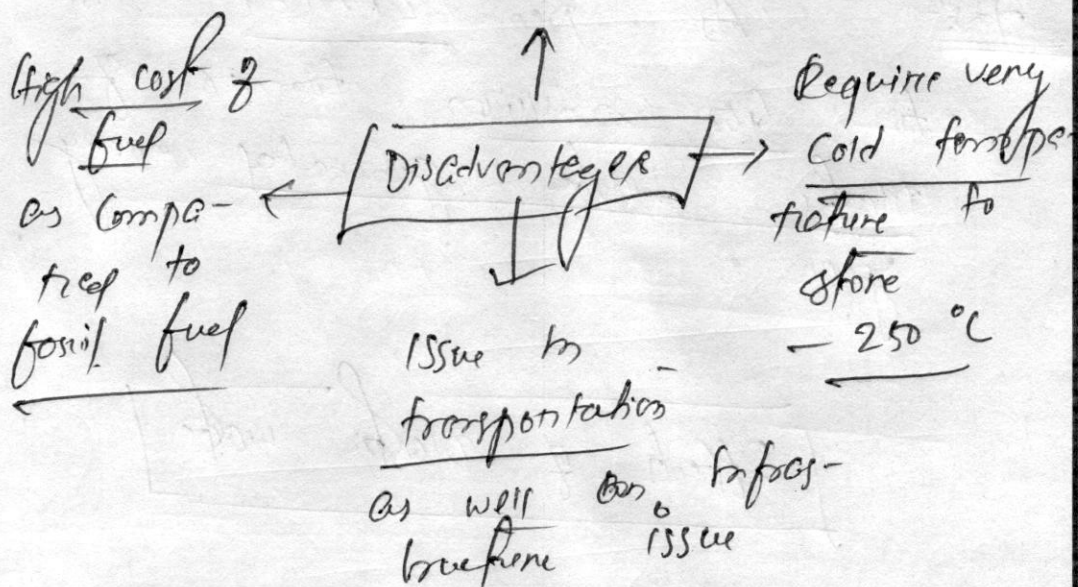
Thus, Blue economy can keep India from \$30 trillion dollar economy by 2050

Q4. What advantages does Green Hydrogen and a hydrogen economy offer in addressing national and global concerns? Discuss the impediments in its adoption. (10 Marks/150 words)

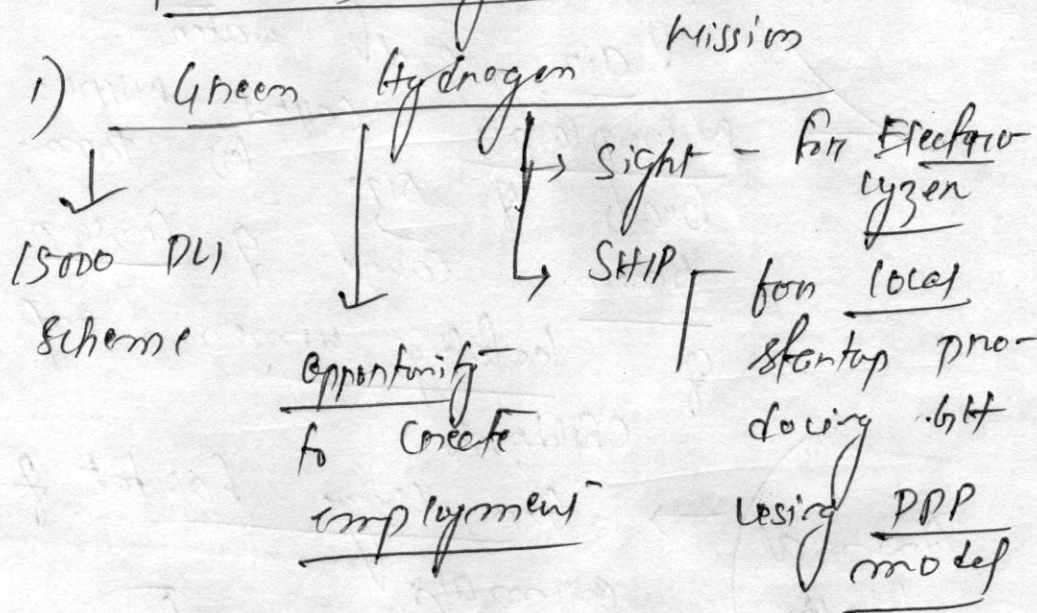
Ans:- Green Hydrogen is a form of renewable energy which can support India's Net Zero targets by 2030.



High initial cost of installation



Initiatives by GOI



Thus, concentrated & sustained effort required to achieve SDG 7 Clean energy.

Q5. In what ways do plastics harm human, animal, and ocean health? Bring out the various domestic and international efforts that have been put in this regard in recent times. (10 Marks/150 words)

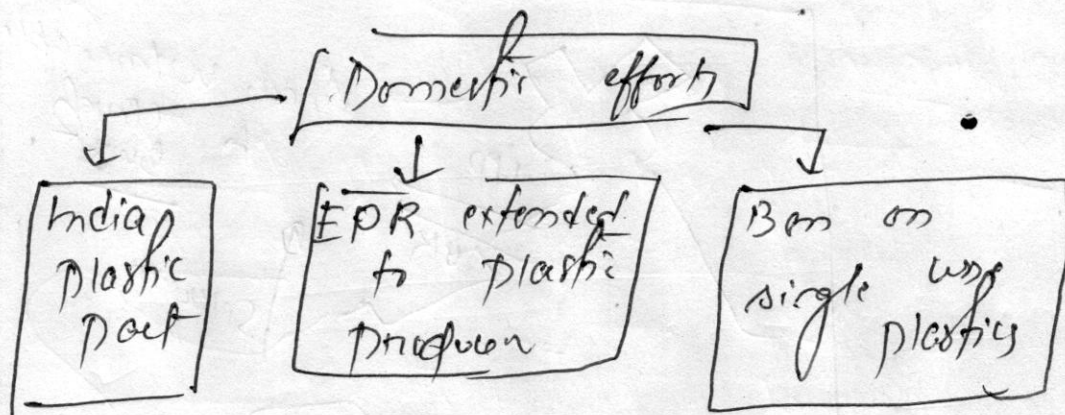
Ans:- As per LANCET close to 400 million tonnes of plastic waste generated every year.

[Effects of plastic waste]

Human → Can enter into our system through food, air and water
 → Microplastics called micro-beads of size less than 5mm cause of concern of lactating women and children

Animal health → Can change habitat of animals
 → Can change natural processes
 → Impact on global biodiversity

hotspot
 → Issue of bio accumulation & magnification
 → Impact marine biology
 → plastic waste eaten by shark, whales causing death
 → Good health



[International efforts]

⇒ Global plastic pact
Coordination & cooperation among countries

To achieve a sustainable environment for human, animal & marine
gradual phasing out of plastic is need of the hour.

Q6. Though spatially distributed across the length and breath of the country, incidents of cloud burst disproportionately impact the mountainous regions.
 Comment. (10 Marks/150 words)

Ans:- Cloudburst are sudden and
 intense incessant down pour of
 rain spanning short period
 of time. specially in hilly
 regions

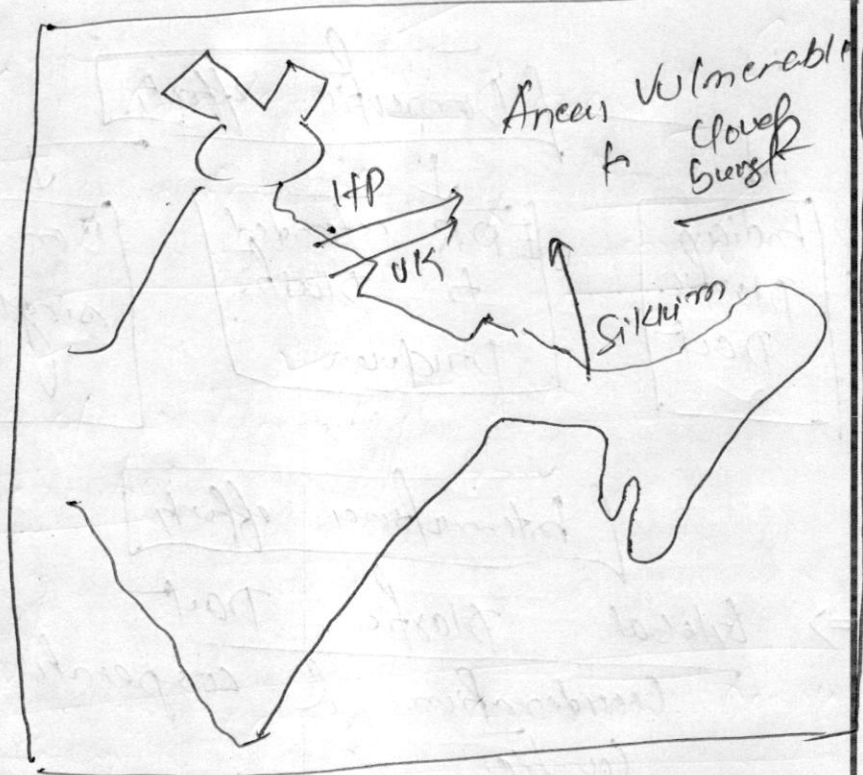
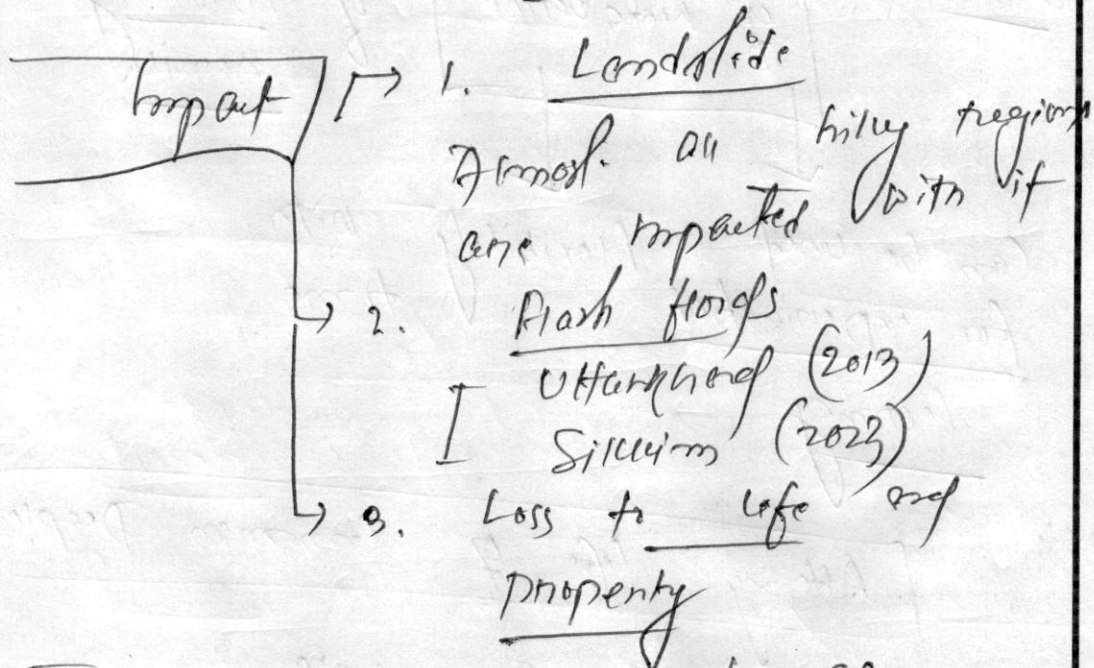
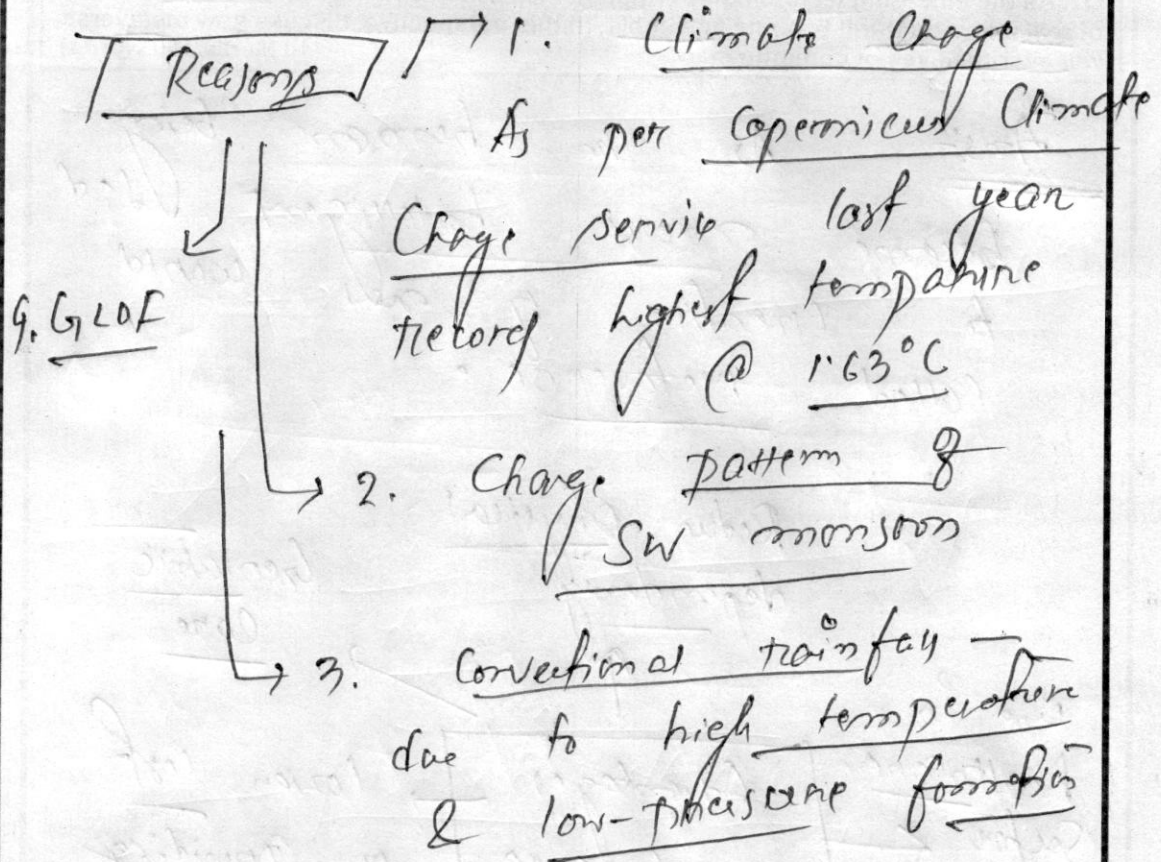


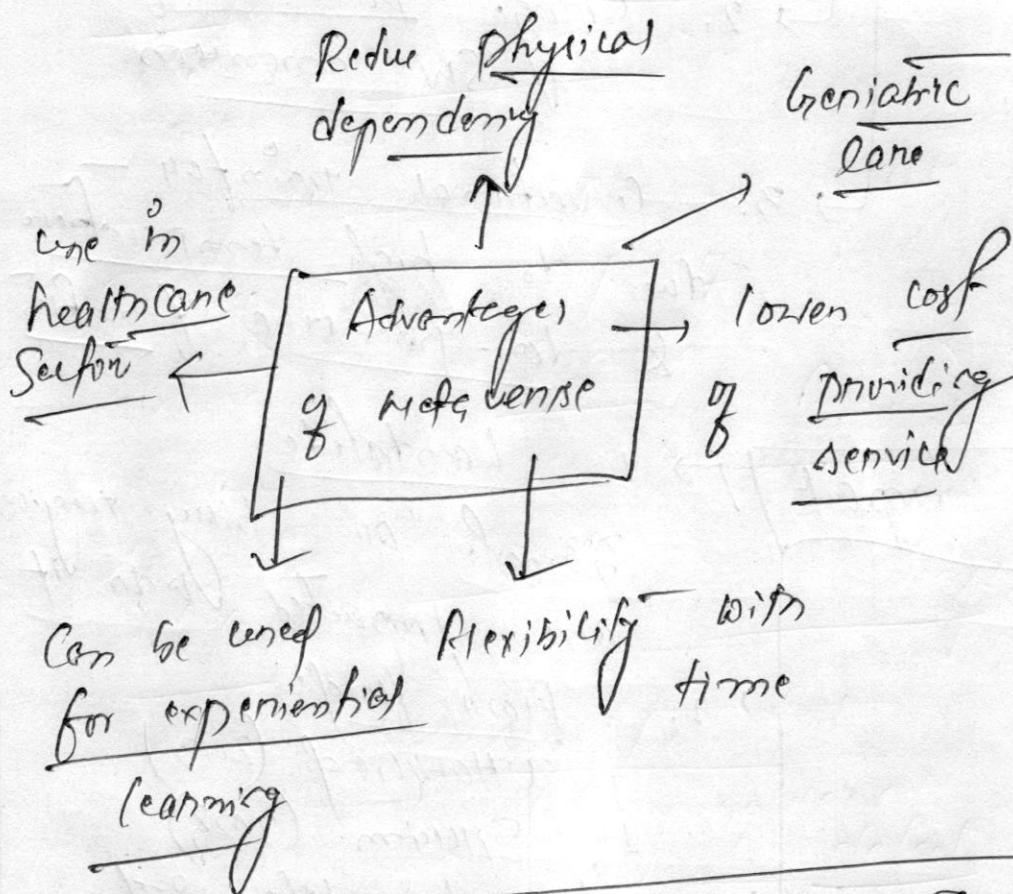
fig: vulnerable areas
 of cloud burst



Thus, NIDMA 2005 provides clear
 guidelines & it should be followed
 to minimize exposure.

Q7. As the emerging technologies enhance their reach and extent, the amalgamation of real and virtual will become inevitable. In this perspective, discuss how metaverse will alter the lives of common man. (10 Marks/150 words)

Ans:- As the human being become more intelligent led to creation of new world called metaverse.



Altering life of common people

- 1) Improved governance
As civil services are just

- one Click away .
- 2) use of e-governance to
promote accountability and
transparency
 - 3) Can be used for Internal
Security
 - 4) Help to use in disaster
management / Mock drills
Training
 - 5) Education at
grassroot level specially to
marginalized & SC/ST
 - 6) Prediction Track of global and
current events .

However, there are critical
^b issues like online rape, child
abuse which pose challenge
before McLawsense being a quest.

Q8. What makes dark matter difficult to detect? Also, analyse how the search for the elusive dark matter has influenced the trailing of modern pursuits in science.
(10 Marks/150 words)

Ans:- The universe as per scientific development comprises of Dark matter, Dark Energy and matter (physical) like seen system.

However, physical matter comprise only 5% of what we observe in cosmos. Dark matter comprises almost 55% of the universe but its detection pose major challenge.

No scientific tool effectively developed to detect phenomenon developed in west ← Reasons → The size of universe itself challenge
 ↓
fundamental issue No global sustained effort

What if scientific success?
to detect

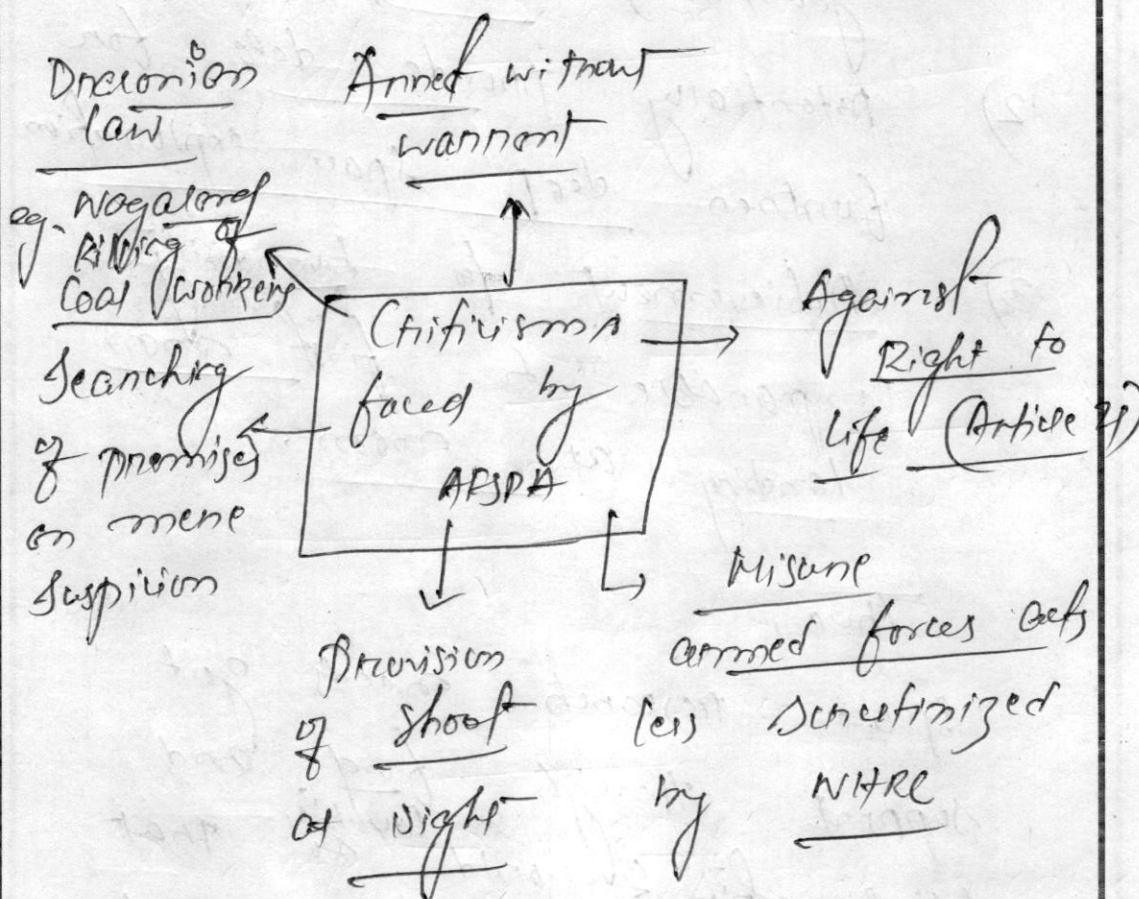
- 1) Help on understanding universe
better specially gravity and
gravitational waves
- 2) Potentially provide data for
further deep space exploration
- 3) Achievement for humanity
comparable to first moon
landing at moon.

Thus,

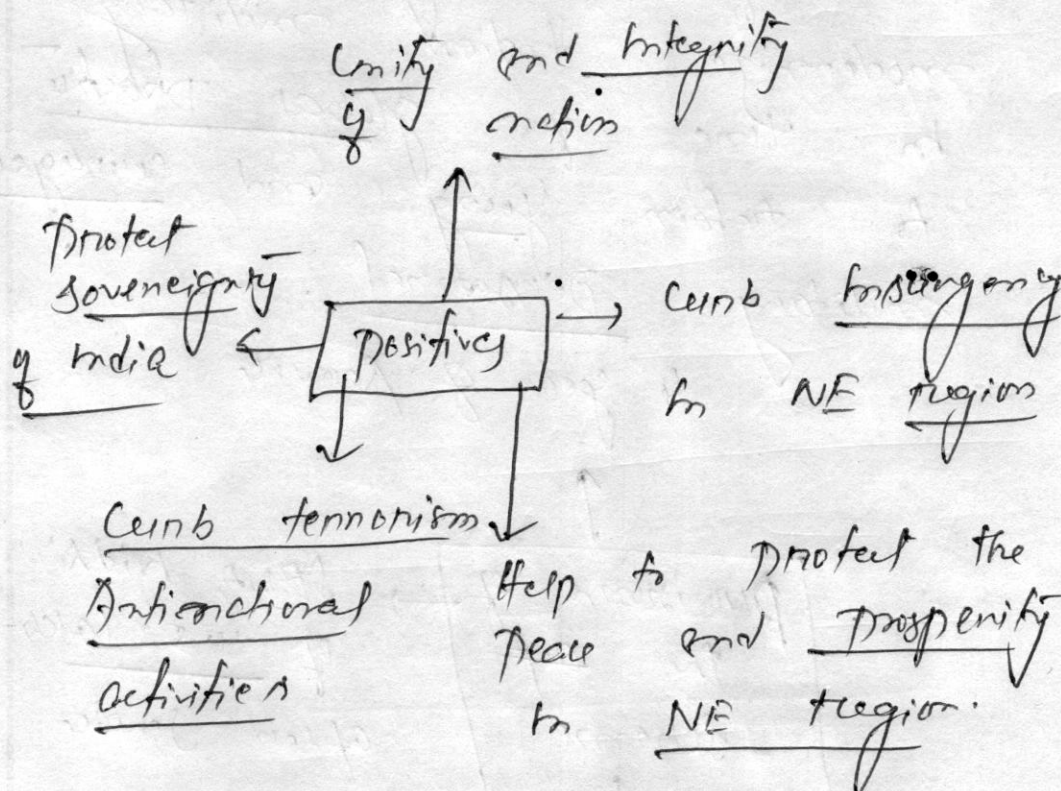
space research needs govt
support through fund and
collaboration of world countries so that
we achieve success in it.

Q9. While AFSPA has been criticised for promoting excesses by the security forces, its profound utility to upkeep the security situation cannot be overstated. Comment.
(10 Marks/150 words)

Ans:- Armed Forces Special
Provisions Act (AFSPA) was
brought in to curb anti-
national activities in 1958.



However, its importance cannot be rejected for following reasons :-

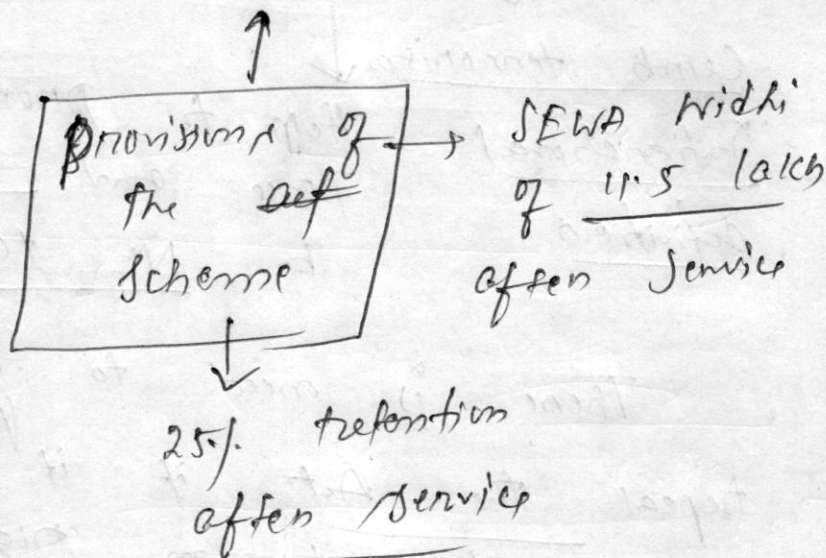


There is need to gradually repeal the Act if it is criticized by human right organ-
ization violation and crimes
like rape, fortune ch.

This got is also planning to phase out in recent times.

Q10. Its not only the heft but also the agility, efficiency, and swiftness which will define the warfare in not only the heft but also the agility, efficiency, and swiftness which will define the warfare in the contemporary times. In this context, discuss the relevance of the Agnipath scheme. (10 Marks/150 words)

Ans:- Agnipath Scheme was in one of primary scheme to modernize Indian military in line of global practice to retain young and courageous military personnel. 4 years of service



Advantages of the scheme → 1. Agility to harness demographic dividend and youngest force in army

↳ 2) Efficiency
 young blood has courage
 to do something good for
 country

3) Swiftner
 Ability to learn quickly can
 build human treasure in
 army

Specifically states from Bihar,
 up condensing it discrimina-
tion

Alleged for
politicization
 of scheme

Criticisms of
 the scheme

↳ 4 years of
 service. what
 will they do

Lack of flexi-
vity

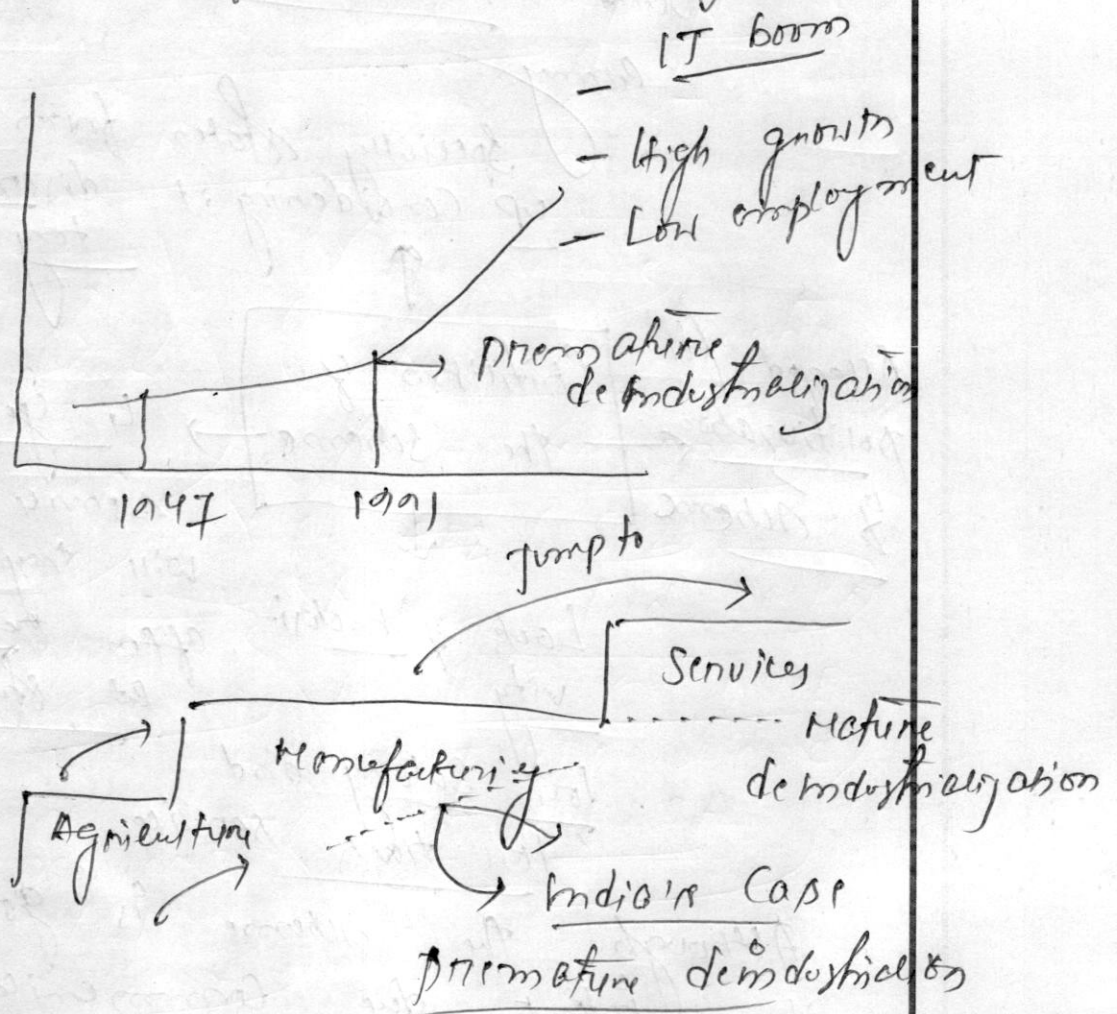
often retirement
 at short period?

low salary and
 low rank service

Although the scheme is good in
 its intent due common imitation
 and feedback should be used for
effective implementation of
 the scheme

Q11. The path towards an Atmanirbhar Bharat traverses through an overhaul of industrial policies. Comment, with special reference to the Production Linked Incentive (PLI) scheme. (15 Marks/250 words)

Ans:- India ~~ph~~ faced the issue of premature de industrialization in 1991 due to economic reforms which hindered the growth of manufacturing sector.



Then, after Economic Survey
 report for 2015 government
 focusing to reform industry
 with liberal industrial policies
 including DLI (Production Linked
 Incentive) to boost contribution
 to manufacturing sector to
 GDP from 20% to 25% by
 2025.

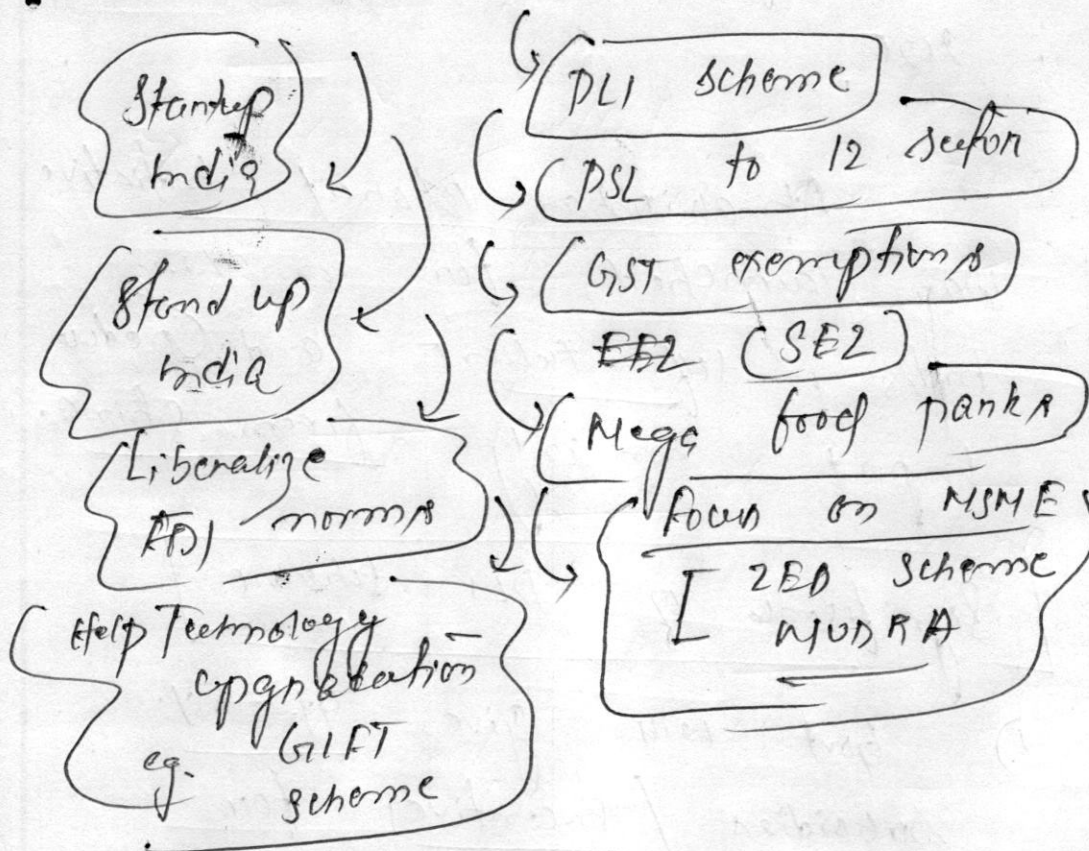
Atmanirbhar Bharat Initiative
 was launched for making
 India self-reliant and reduce
 import mainly from China.

Significance of DLI Scheme

- 1) Govt will give 4% - 6%
 Subsidies / Incentives for
 incremental sales of companies.

- 2) Boost local manufacturing part of China + 1 strategy.
- 3) Creating employment opportunities
- 4) Extended now to 14 sector
- 5) Focus on export as well.

Steps in this regard for
Atmanirbhar Bharat :-



Thus, India needs to boost
manufacturing sector to reach
\$30 trillion dollar economy
by 2047.

Q12. Infrastructure investments are crucial for socio-economic development, as they have a multiplier effect on economy, however, concerns for safety must not be ignored. Discuss in the light of recent events. (15 Marks/250 words)

Ans:- As per World Bank
every 1% increase in invest-
ment could lead to 1%
rise in GDP.

Multiplier role of Infrastructure
can be understood by
following :-

- ↳ Cascading effect due to demand at one place will run the cycle of economy
- ↳ Boosting demand and will lead to increased availability of resources for improvement in lifestyle.

⇒ Social development

eg housing infrastructure
 increased ease of doing
 business
 improve public accessibility

⇒ Economic development

Contribution to GDP
 increased private invest-
 ment
 improve logistics performance
 ↓ ↓
 increased lower cost shorten turn-
 around time
 capacity building for future

However, safety is one of
 the concerns in infrastructure
 projects :-

1) Human safety

eg. tribal people do not have
access to put forward their
grievances.

2) Animal safety

eg. The railway electrification
project of Jorhat exacerbate
vulnerability of Hollock Gibbon
at Hollogyan gibbon sanctuary.

3) Accidents

eg. recent railway accident
at Odisha took life of
many

4) Mining

The ban on quarrying by NGT
in Meghalaya due to forced
labour issue.

Thus, to carry out sustai-
nable infrastructure development

proper EIA should be carried
 out to minimise impact
 on human, animals and
overall ecology.

Q13. Climate Smart Agriculture is the need of the hour to build a vibrant and resilient rural economy. Discuss (15 Marks/250 words)

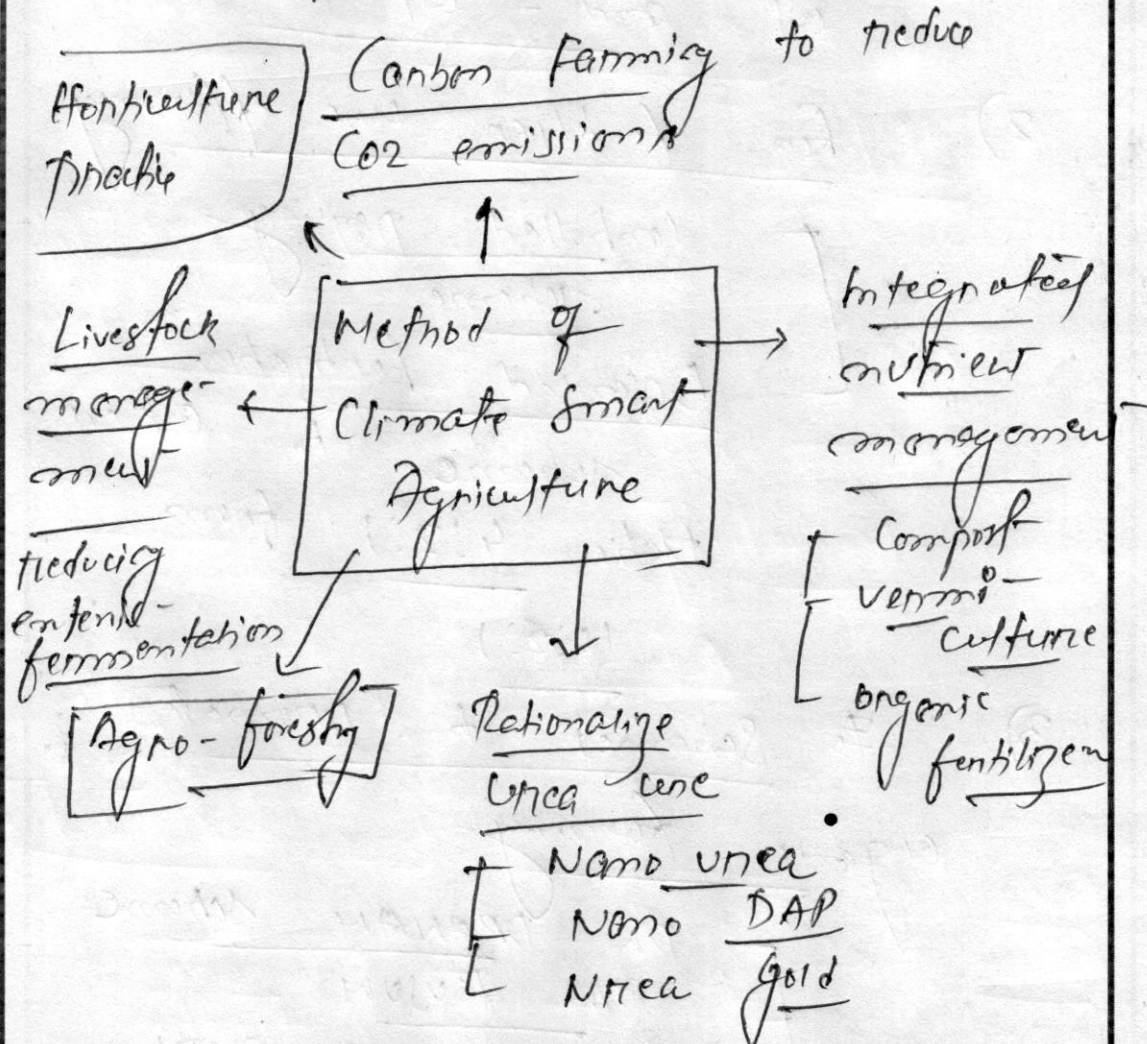
Ans:- Climate smart Agriculture is the practice of farming which is as per the need of the region to minimize impact on climate.

Climate smart agriculture for a vibrant and resilient rural economy :-

1) Resilience to climate related hazards.
India is the most vulnerable country to experience extreme weather event as per German Watch Report.

2) Vibrant economy
↳ Diversifying vulnerability of farmers due to crop failure

- ↳ Increase farmers income
- ↳ Contribution of farmers to fight climate change.



Govt steps in this regard

1) Technology Mission

- A) On Cotton
- B) On Coconut

- 1) National Mission for Sustainable Agriculture.
- 2) National Mission on edible oil and oil palm
- 2) For fertilizer use efficiency
- [Controlled pricing scheme
- Balanced fertilization scheme to achieve ratio 4:2:1 from 10:2:1
- 3) To Schemes to promote organic farming
- [PM PRANAM scheme
- PM KUSUM
- introduced E-RUPI voucher
- PM KISAN to enhance investment capability.

~~Thus~~

4) PMKSY - for better irrigation.
 [Pen drip more crop
 Han Khet ko pari

Thus,

Climate Change is a reality
 and got through foregated
 approach can include farmers
 to achieve objective of
Nonchamrit.

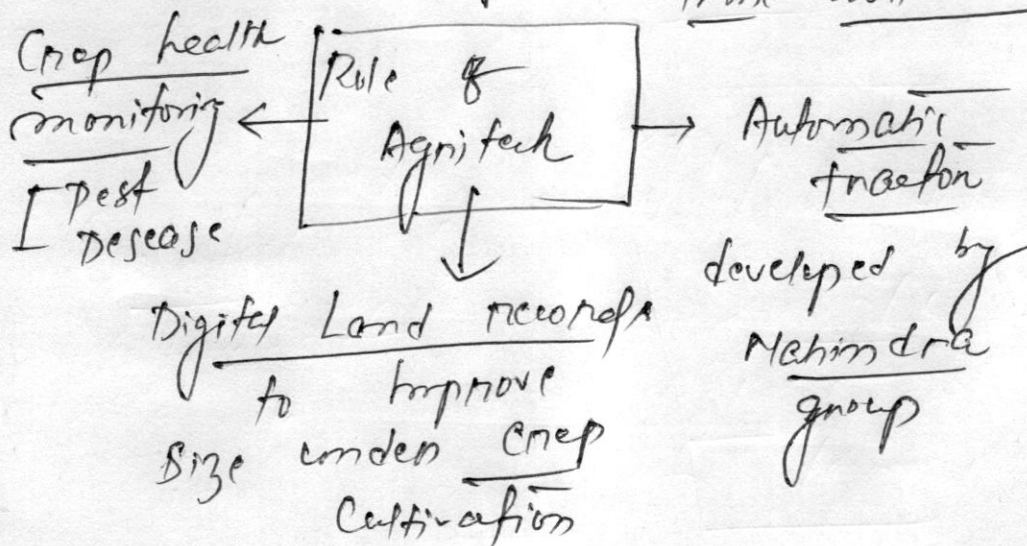
Q14. Analyze the role Agri-tech can play in penetration of technology in agriculture.
 In what ways can AgriStack help address the crisis in the farm sector.

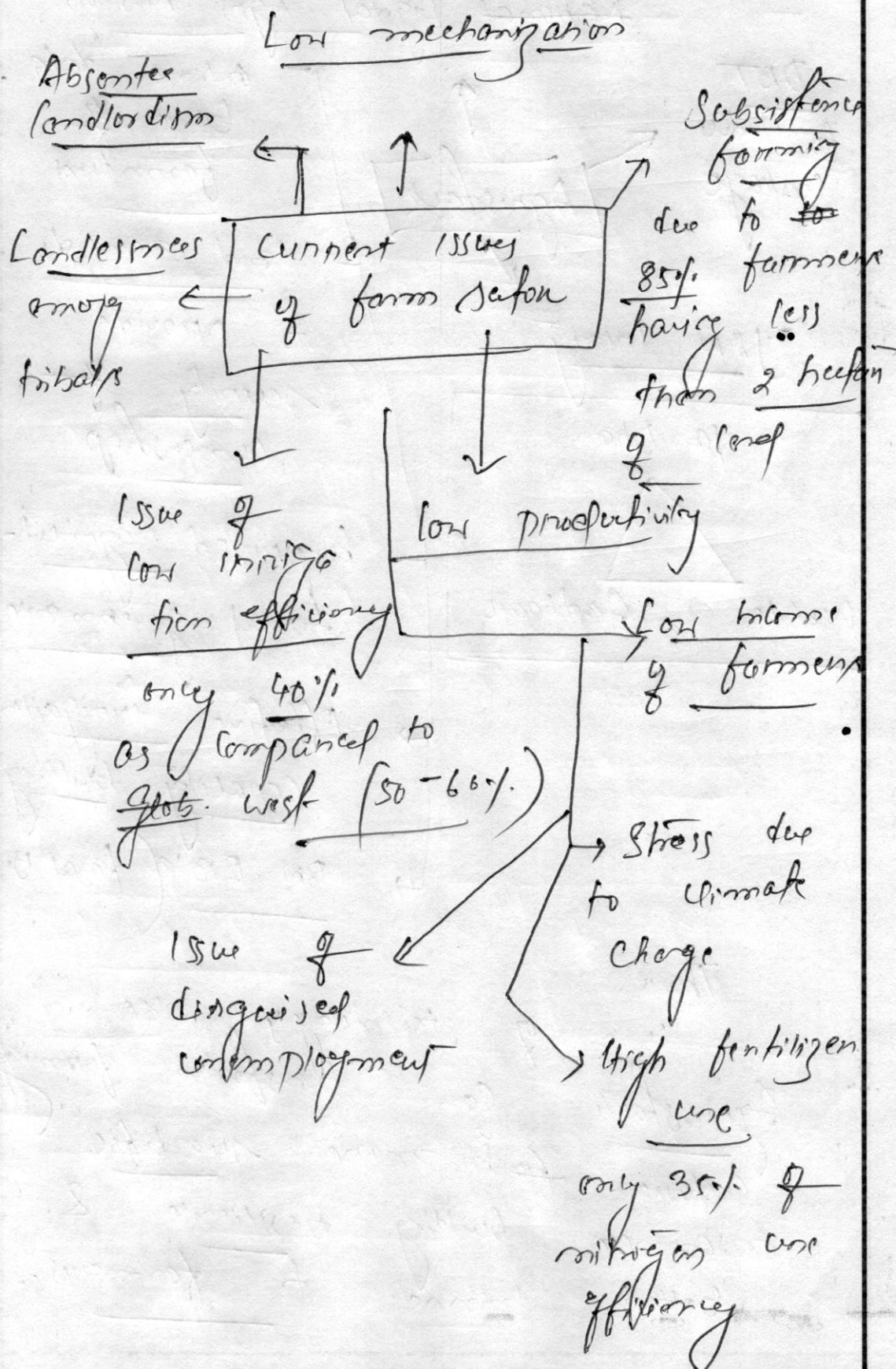
(15 Marks/250 words)

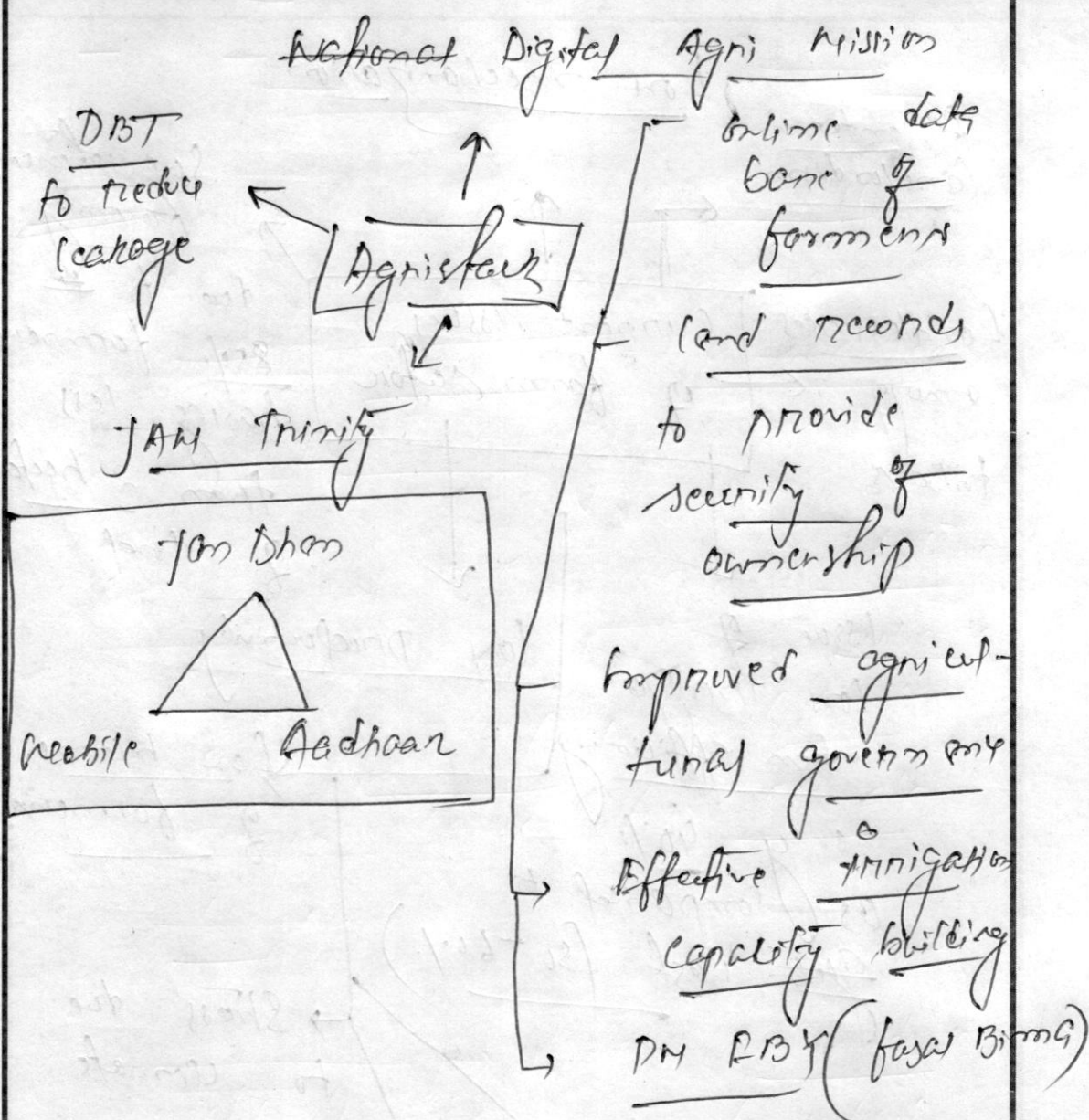
Ans:- Agriculture employs 44% of population but contribution to GDP remains low at 10%.

In this case of technology can improve farming practices to boost production and productivity.

Automate Irrigation eg. NETAFIRM drip irrigation based on real time soil moisture







Thus, use of technology like AgriStack can transform farming for more scientific manner building resilience & better income to farmers.

Q15. Renewable energy is seen as the energy of the future. Discuss the potential benefits and challenges in shifting to renewable sources of energy for India. Also, highlight various initiatives of the Government of India to promote the renewable energy sector (15 Marks/250 words)

Ans:- As per NITI Aayog
Energy Dashboard India has
 about 192 GW Renewable
Energy Capacity.

It is energy of future
 due to potential of reliance
 on fossil fuel which is
 major cause for climate
change.

Benefits of
 RE

1. Reduce dependence on fossil fuel.
 India imports 85% to meet demand.
2. Reduction in import
bill for India
3. Health major

Concern is PW 2.5 and PW 10
particulate matter from fossil fuel.

↳ 4. Environmental benefits

The recent dying of 2000
sealions and Dolphins is
 related to climate change.

↳ 5. Global benefit

↳ Can reduce conflict in
middle east to fight for
energy.

Low growth of home solar energy ← Challenges → Low plant load factor
 Load = 70%
 RE = just 20% average

Cost of production

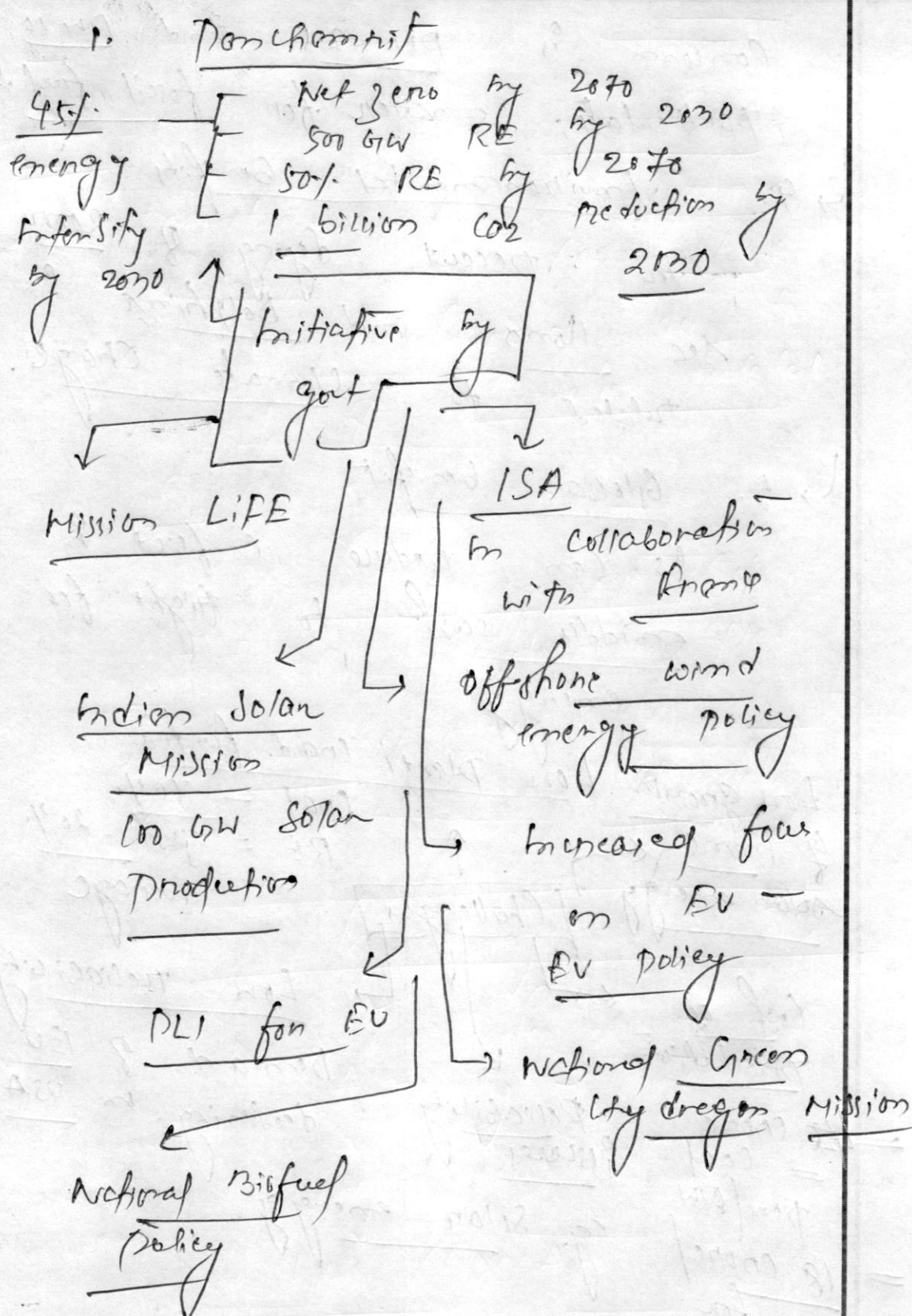
Low reliability

Demand of 120
USA
 declining

= 48 crore
 = coal
per MW
 = 18 crore
for solar

Reliability issues

eg. solar energy



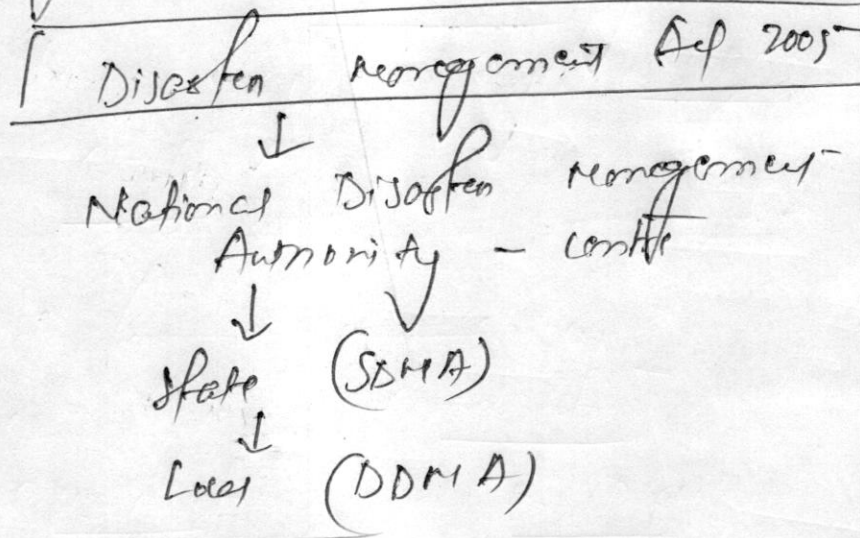
Thus,
RE provides us with opportunities
by to meet Paris Climate
goal by 2100.

Q16. Despite having a robust legal architecture in the form of Disaster Management Act, 2005, a coordinated on ground response to disaster remains in a state of want. Comment.

(15 Marks/250 words)

Ans:- As per World Bank report half of India's population will face stress on living standard due to impact of climate related disaster.

Disaster Management Act, 2005 was brought in after Tsunami of 2004 for holistic way deal with disasters.



Reasons behind poor on ground response to disaster

- ↳ 1. Lack of instruction from state govt. on how to prepare plan for disaster management
- ↳ 2. Overlapping of functions
eg. vulnerability analysis
- ↳ 3. Poor devolution of funds from centre and at local level from state govt.
- ↳ Lack of coordinated efforts during disaster for
 - Relief
 - Rehabilitation
 - Relocation of victims

[way forward]

- 1) formulated disaster governance
as highlighted by SENDAI
frameworks.
- 2) proper implementation of
NDMA guidelines
- 3) Developing 3F [find
functioning
functions]
- 4) proper management of
plans and demarcation
of responsibility
- 5) Enhance Accountability &
transparency through Citizen
Charter

Thus, disaster poses serious
Challenges unless Coordination
and collaboration are in place.

Q17. With suitable examples, throw light upon the use of disruptive technologies like Big Data and Artificial Intelligence (AI) in enhancing the service delivery component of good governance. (15 Marks/250 words)

Ans:- Government is the process of and institutions through which authority is exercised in decision making - WB.

Development of technology such as Artificial Intelligence and big data provides both opportunities and challenges to government.

AI and big data to enhance service delivery component

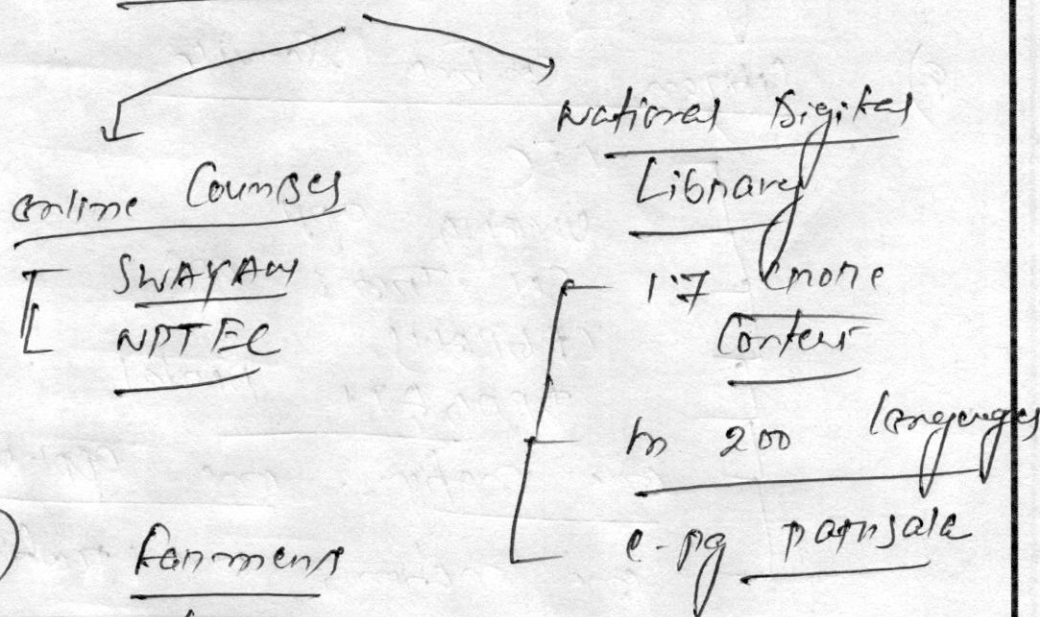
1) Digital government
 eg. In Agriculture
 + Digital Agri Mission

↳ Help in modernizing agri
productivity through technological
interventions.

2) Health

eg. genome India project to
critical diseases
only defect
like content

3) Education



4) Farmers
welfare

↳ JAM Trinity
↳ DBT
↳ RBN Suidha App
↳ market & price prediction

5) Judiciary
 - National e-court mission.

6) Democratization system

eg. election Commission

- C-vigil app
- Sevidha app
- UPAT & EUN

7) School education

eg. Shiksha setu APP

8) Citizen Centre Service

- CEE
- UMANG app
- CM Trans app
- CPGRAMS
- PRAGATI Portal
- one nation, one application
- one nation, one nation

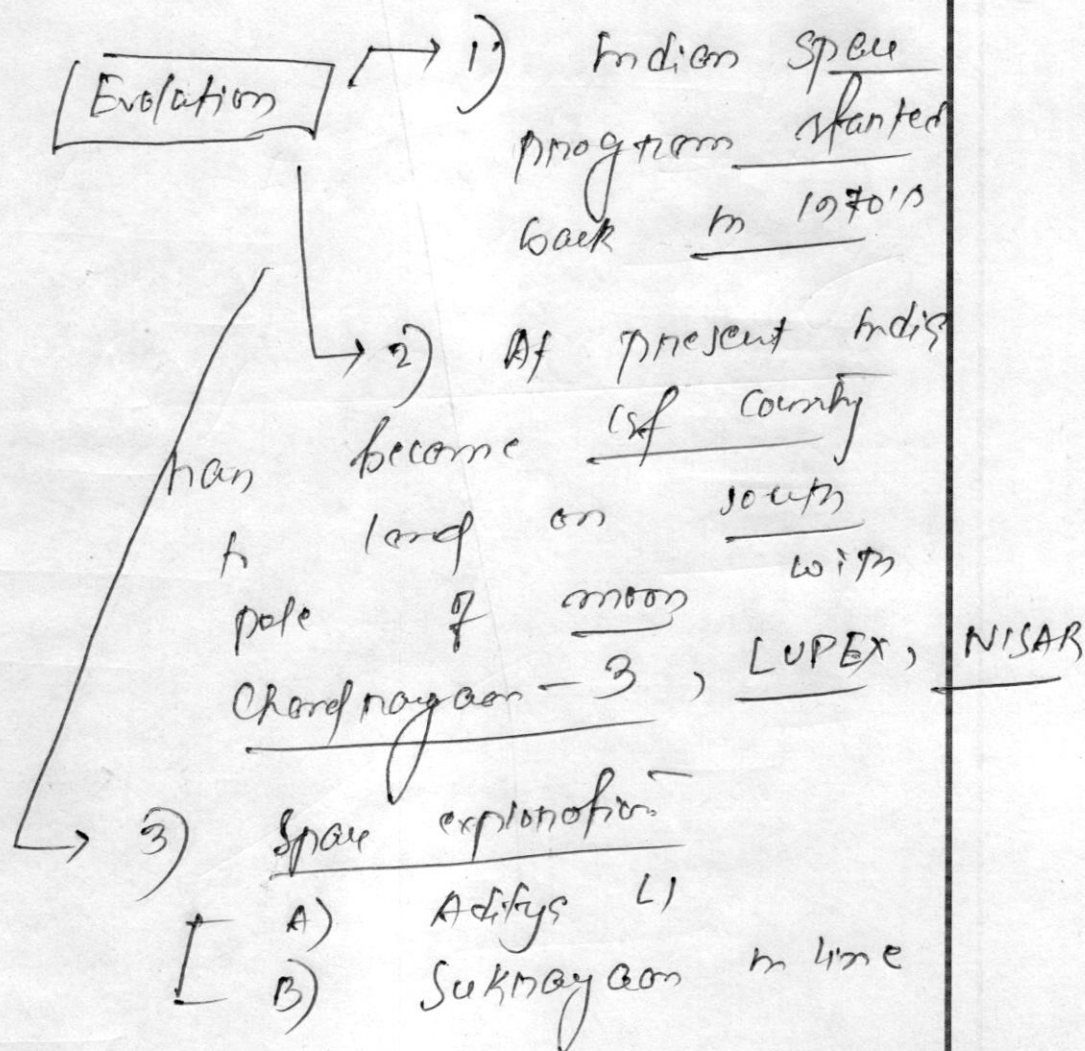
Thus, AI along with its benefits
 poses challenges as well and
 there is need to address

both at the same time.

Q18. Trace the evolution of Indian Space Research Organization (ISRO) from its humble beginnings as the space agency of the government to becoming a technology behemoth, spearheading innovations with respect to satellites, launch vehicles, and planetary explorations.
 (15 Marks/250 words)

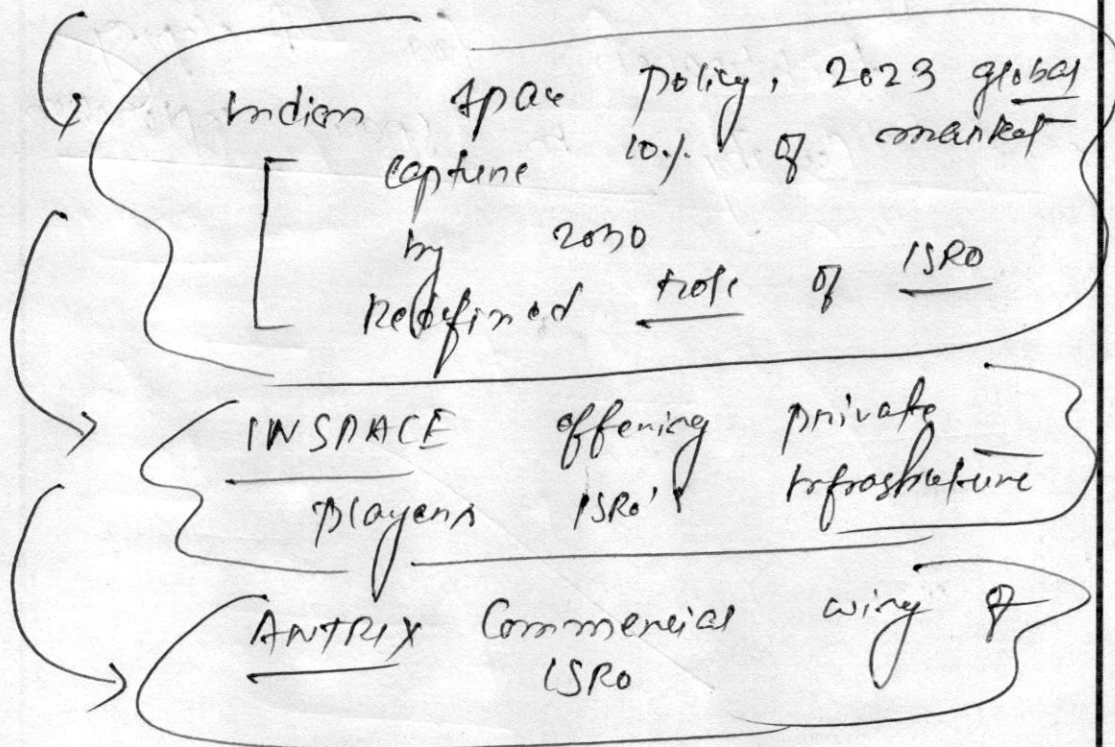
Ans:-

Indian space program
 led a humble beginning
 by Vikram Sarabhai and
 subsequently Contribution by
 Atal Bihari Vajpayee & Manmohan Singh.



- 4) Human spaceflight
eg. Gaganyaan in line to
launch by December 2024
- 5) Reusable launch vehicle for
sustainable space tourism
- 6) Commercialization opportunity
due to high success rate

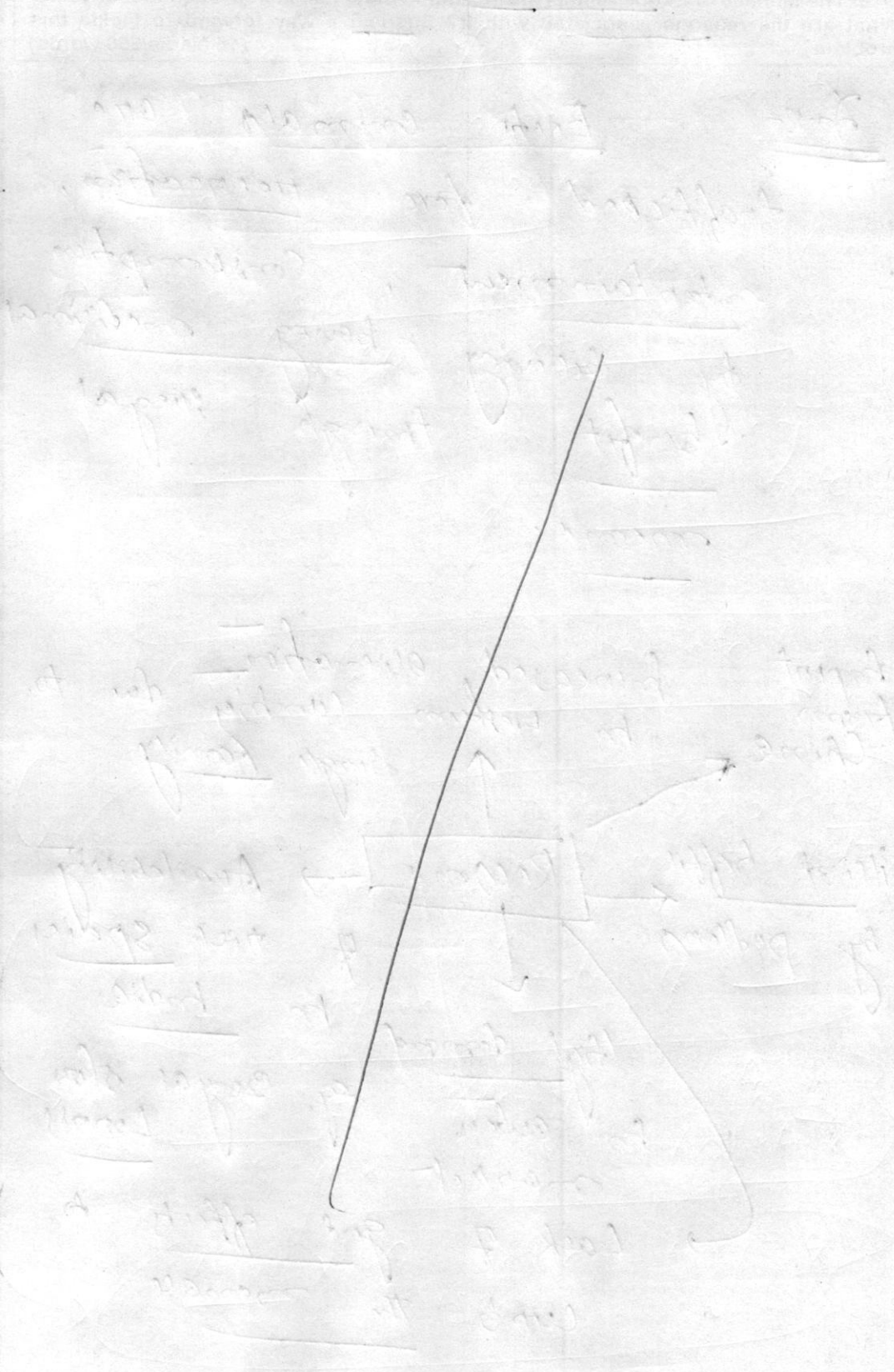
[Govt steps to promote]



Launch of 2nd launch
 Centre at Tamil Nadu
 [meet demand
Reduce cost due to
manoeuvre over Sri-
Lanka

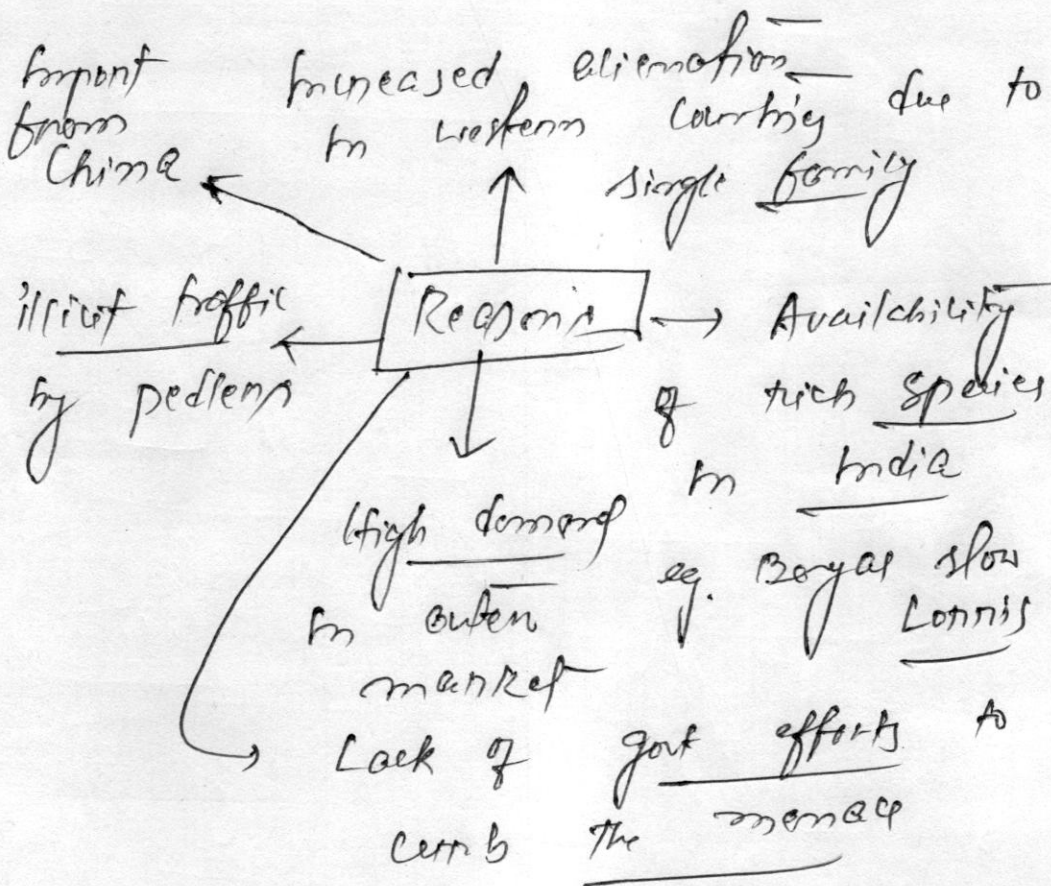
Thus,

ISRO is setting example
 for reforms and ~~its~~ is
 forerunner for developing
 Country in space exploration



Q19. The Menace of Exotic Animal Trafficking in India has increased in recent years. What are the reasons associated with it? Suggest a way forward to tackle this problem (15 Marks/250 words)

Ans:- Exotic animals are trafficked for recreation, entertainment, consumption by believing having medicinal benefit through illegal means.



1) Northern

TRAFFIC
BNHS

Carry out
activities in
this field

2) Legal measures

Wildlife protection Act, 1972
Schedule IV
dedicated to
CITES

Ways to deal
with it

Declaration
of crime

National parks
Wildlife
sanctuary

Regulations of
Acts

Biodiversity Act,
2002

Environmental
Protection Act,
2006 1986

Enhanced wild life governance

Increased vigilance at airport
through CISF
International cooperation through

WWF etc

Global and regional
efforts are pre-requisite
along with sensitising through
creating awareness to comb
such traffics.

Q20. Why does the North East remain a hotbed of insurgency? With special emphasis on government measures, discuss the steps to ameliorate the situation.
 (15 Marks/250 words)

Ans:- Insurgency in NE is an age old ~~problem~~ ^{issue} which poses threat to sovereignty of India.

Reasons

- 1) Ethnic identity based demand
eg. more than 50 tribal groups
- 2) Closeness to Golden Triangle
 Gullied by foreign powers

Myanmar
 Laos
 Vietnam
 Golden Triangle
- 3) Political lack of willingness to curb insurgency
- 4) Economic low development as compared

to North :

- 5) High unemployment
eg. Pen CRUIE 7-D.Y.
- 6) External support
by China provides
[Arms
Ammunition]
- 7) Closeness of porous border
eg. Myanmar, Nepal.
- 8) Internal conflict

Govt measures

- 1) Developments
 - ↳ UNNATI Scheme, 2024
 - ↳ Aspirational District Program
 - ↳ Schedule V and Schedule VI
 - ↳ Infrastructure development
- IMT highway

- Kaladan Project
- (Look East Policy
to connect to Asean
for better economic
development
- (GATI Shakti Initiative
- (NE Hydro Carbon Vision

2) Security measures

- A) ARSA Act
- B) military operations
- [Rim
[Baynag
[Sunrise
[operation All clear

3) welfare measures

- A) Education — NEP 2020
- B) Health — ICDS & POSHAN 20.
- C) Schemes — PM JANMAN,

Scheme for Densified Tribe

- B) Van Dhan Yojana
- C) Saakshya scheme
- A) Ujjwala Yojana

Thus,

Comprehensive approach
 i) required to bring
 Plan in main eastern
 region.

Rough Page