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GENERAL STUDIES (TEST CODE : 2365)

Name of Candidate	Mansi Singh		
Medium Eng./Hindi	English	Registration Number	709839
Center	Online	Date	08.Sept.2024

INDEX TABLE			INSTRUCTIONS			
Q. No.	Maximum Marks	Marks Obtained	<p>1. 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)।</p> <p>2. There are TWENTY questions printed in HINDI & ENGLISH. इसमें बीस प्रश्न हैं हिन्दी और अंग्रेजी में छपे हैं।</p> <p>3. All questions are compulsory. सभी प्रश्न अनिवार्य हैं।</p> <p>4. The number of marks carried by a question/part is indicated against it. प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।</p> <p>5. 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।</p> <p>6. Word limit in questions, if specified, should be adhered to. प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।</p> <p>7. 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।</p> <p>Is student recommended for One-to-One mentoring?</p> <table border="1"><tr><td>Recommended</td><td>Strongly Recommended</td></tr></table>		Recommended	Strongly Recommended
Recommended	Strongly Recommended					
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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 & Sind 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.

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5.

6.

All the Best

(Please do not write anything except the question number in this space) कृपया इस स्थान में प्रश्न संख्या के अतिरिक्त कुछ न लिखें।

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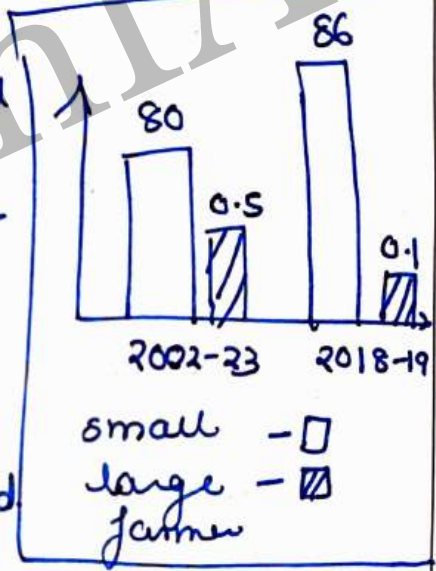
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①

As per agriculture census, average land holding is 1.06 hectares among farmers. This highlights issue of land-reforms in India.

Lack of land-reforms : Root for poverty

① Due to small-land holdings, economy of scale cannot be realised. As, small farmers have increased



② Investment in agriculture is not utilized properly due to lack of land reforms.

③ Court case: 66% of civil cases in courts are related to land



dispute, hampers its economic utilisation.

④ Credit Availability can't be realised fully due to land issue.

⑤ Caste-based poverty: As 149% of SCs in rural areas are still agriculture labourers due to lack of land reform,

⑥ Gender-exclusion: 73% of rural female labour force is of women but land ownership is for 13%.

Way ahead

① Model Land Ceiling Act to be established (T. A. Haque Committee)

② Land Bank System (Andhra) can be guiding factor

③ Digitisation of land records.

This would prevent concentration of wealth (Article 39c)

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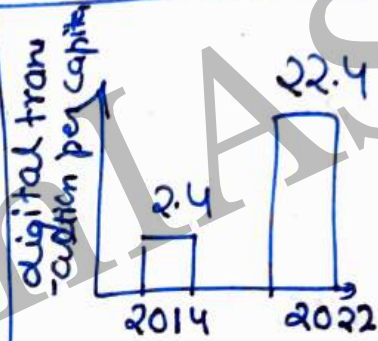
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②

Unified Payment Interface is
landmark inter-operability financial
tool that has changed shape of
digital finance in India.

Role of UPI in financial Inclusion

① Improved digital
transaction in
country due to
UPI.



② Inculcation with PM Jan Dhan
Yojana and UPI has led to
goal of 'Near payment digital'

③ promotes provision of direct
Benefit Transfer to all thus
reduces inclusion and exclusion
error.

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④ Due to interoperability, various payment banks can be used as single platform → hassle free transaction.

⑤ Safe transaction due to four layered authentication at UPI

⑥ Included women, rural areas, all in one segment.

ISSUES

① Digital exclusion
Male: 52%
Female: 27%

② Privacy and security issue.

③ lack of Digital illiteracy.

④ lack of internet availability

(bottom 20% → 8% of have internet)

Through DISHA, Bharat Net,
Cyber hygiene, Payment Vision 2025,
goals of UPI can be utilised efficiently.

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3

Atanu Chakraborty Committee

has recommended for Development
Finance Institutions in India.

Role in Economic growth and
infrastructure development

① Long-term Investment: by
mobilizing finances to the
infrastructure development.

② Capital Investment: in long-term
projects like road development

eg. INVIDS

③ Unleash potential of market by
bringing savings for development.

eg. IL & FS



- ④ Infrastructures-led growth have multiplier effect on economic growth as it provide jobs in market.
- ⑤ Tool for Development: by providing loans for infra-development.
- ⑥ Reduces burden of government: thus it can focus more on human capital for economic development.

Issues

- ① Regulatory bottleneck delay projects and thus impact health of OFI
→ factors of ~~OFI~~ IL&FS
- ② Trust of investors: not robust thus issue of 'bank-run'.

By providing credit guarantee and addressing regulatory challenge along with ease of business, role of OFI can be included in better manner.

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4

India is net exporter of food-crops but only 10% of agriproducts are processed. This highlights need of boosting food-processing industry.

India's Comparative advantage in food processing

- ① Food production
155 million hectare of land produces 368 million tonne of food.

- ② Cheap labour

- ③ Large market due to its population.

- ④ global demand due to supply chain disruption due to wars, protectionism.

- ⑤ Suitable climate for crop diversity.

- ⑥ Large livestock population
(536 million)



ways to transform into global power

- ① follow Codex Alimentarius guidelines to enhance food safety and reduce sanitary and phytosanitary tariffs.
- ② Export-diversification by Value Chain Clusters and State Export plan (High level expert Committee)
- ③ Formalisation of food processing sector [86% - Informalised]
- ④ Improve forward and backward linkages [PM Kisan Sampada Yojana]
- ⑤ R&D by National Institute of Food Tech Enterprise and Management.
- ⑥ Modernisation of industries (TRIFood)

By this goal of National Export Policy can be achieved along with Viksit Bharat @ 2047

5) As per WHO, plastic pollution is becoming one of the rising cause of concern.

Plastic and Climate Change

- A) Non-biodegradable nature thus accumulates on surface and reduces albedo. This increases climate temperature.
- B) Burning of plastic contributes to green house gases.
- C) Reduces biodiversity like tree and ocean biota which consumes CO_2 . Thus, increases CO_2 in air.
- D) Increases burden on existing tipping points

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- Measures to Control it In India
- ① Plastic Waste Management Rule.
 - ② Extended Producer Responsibility
 - ③ Ban on Single Use Plastic (120 mm thick).

Yet, not successful because-

- ① Awareness among people is not there and also lack of civic duty.
- ② Penalty is not acting as deterrence due to low in amount and delay in court procedure.
- ③ Municipalities and Gram panchayats are not active for waste-collection.
- ④ Open-dumping or open-incineration due to lack of incinerators.

Waste-to-energy should be guiding light for environment protection (Article 48 A).

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6 The recent Hathras incident has highlighted the nuance of stampede in India.

Causes of frequent Stampede

- ① Infrastructural Collapse: leads to uncontrol crowd behaviour
eg Morbi bridge collapse in India.
- ② Due to sudden hazard: crowd gets haphazard.
eg Fire in Uphaar Cinema.
- ③ Police Mismanagement: in crowd management and thus causes Stampede.
- ④ Fake-news dissemination creates caos in crowd.
eg Bomb news during Kumbh Mela.

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⑤ Agency failure in managing crowd
eg Seoul Stampede.

Ways to prevent incidents

- A) Permission for crowd-gathering should be given after every checks possible.
- B) Understand "crowd-demography" like age and gender for safe evacuation.
- C) Permission should be given when proper exit and entry measures are taken.
- D) Fire Service and Crowd Management Force should always be active.

Through following NOMA guidelines such incidents can be prevented in future.

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7) Recently, South Korea has used humanoid robots for pollution detection in country.

Latest advancements in field of humanoid robots

- A) In Space Arena: robots are developed for space activities.
eg Vyomitra for Gaganyaan Mission.
- B) In AI field: used to further enhance the technology.
eg Robot Manas in India
- C) Medical Field: for accurate surgery with precision.
- D) Manual Scavenging eg Banai coat robot for handling scavenging issue.



E) Inclusion in Chatbot to enhance customer services.

Issues surrounding robots on society

- a) Responsibility: If anything is done by robot, who will be legally responsible? Scientist, manufacturer, purchaser
- b) Unknown harms: may be caused in society as they lack human values.
- c) Loss of jobs: to the robots due to automation. This will further aggravate unemployment.
- d) Exclusivity: will create have and have not in society.

Thus, humanoid robots should be introduced after consensus of all the stakeholders.

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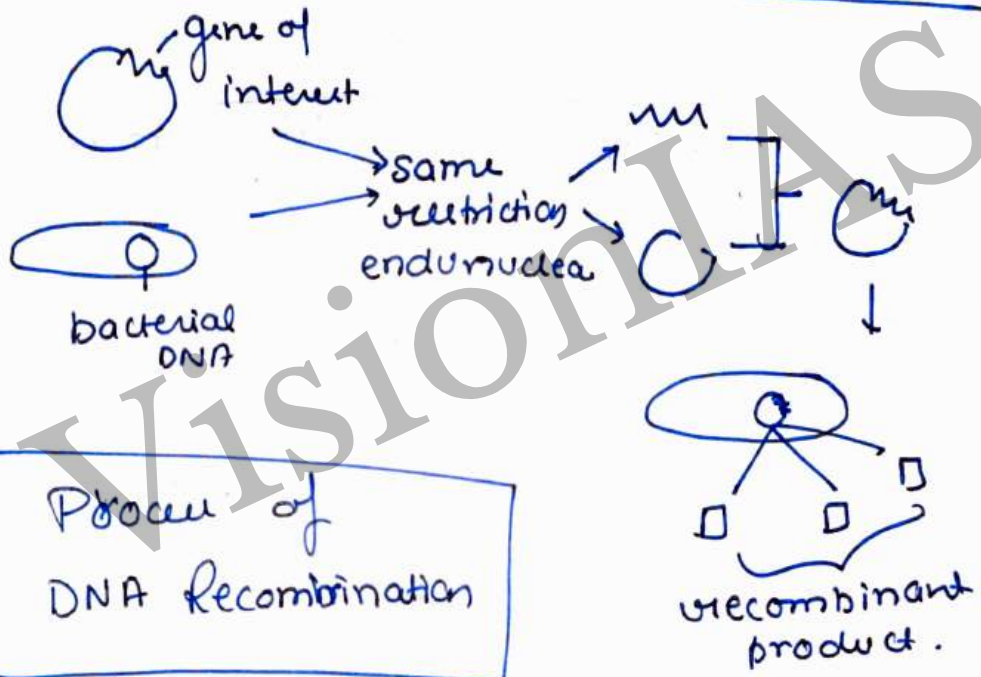
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8

DNA recombination technology is the backbone in field of genetic engineering. It includes introduction of foreign DNA in vector.



Process of DNA Recombination

Role in Revolutionising genetic engineering.

① Production of Genetically modified organisms for human needs.

eg → Bt cotton with gene of Bacillus thuringiensis.



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② Production of Insulin and growth hormones to reduce disease burden.

③ Vaccine Development: for preventive medicine \Rightarrow COVISHIELD for COVID-19.

④ Biofuels: eg. IVth generation biofuels through genetic modifications.

⑤ Industrial productions like alcohol, bread can be enriched via genetic engineering.

⑥ Clone animals \Rightarrow Dolly sheep

Though issues like tet-tube baby, environmental concerns are there, but with proper checks and balances, genetic engineering can give fruitful results like CAR T cell therapy etc.

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9

The recent incidents in Reasi and Rajouri have highlighted new and evolving tactics employed by non-state actors.

New and evolved tactics.

- ① use of highly advanced SNIPERS, this has increased the casualty in area.
- ② increased over-the-ground worker's role has evolved after 370 abrogation.
- ③ focus changed from Kashmir to Jammu area as Kashmir has high forces deployed.
- ④ use of forests for hideouts.
- ⑤ use of drones to check movement of forces.

Security Challenge

① fighting against developed equipments thus more trouble.

② Civillian attacks due to counter-terrorist attacks.

③ Rising violence in previous peaceful area of Jammu.

④ Rising radicalisation due to social media [Echo Chamber]

Way ahead

① Community Development Programme to reduce mistrust [Project Sabhava]

② Industrial development of area to reduce radicalisation.

③ Social-media Monitoring

By this, goal of Kashmiriyat, Inamtiyat and Jamohriyat can be achieved.

10

The recent Mumbai blackout and attack on Kundankulam Nuclear Power Plant highlights evolving cybersecurity challenge

Role of CERT-In in safeguarding cyberspace in India

- ① Give boost to National Cybersecurity Policy, 2013 in improving cyber space.
- ② provide innovations to preserve cyber-infrastructure.
- ③ Cyber-force to counter offensive cyber attacks.
- ④ foster free safe cyberspace.

⑤ Create awareness regarding cyber-security and mitigating threats from cyber-cubicles.

⑥ Constant monitoring on dark-web for cyber-related matters.

⑦ Developing indigenous antivirus software to protect cyberspace.

Way-ahead

① Increase spending on R&D to further improve security.

② Global collaborations like G7 Hiroshima Process for global measures.

③ Improve cyber-hygiene in country.

④ provide funds and personnel to CERT-In.

This will ensure "Cyber Safe" space in India.

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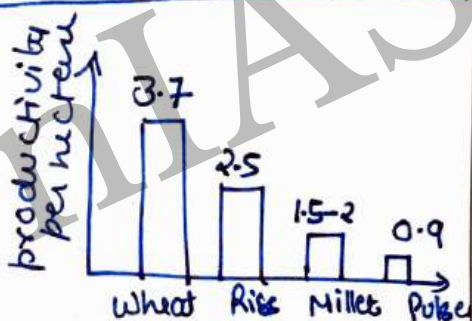
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11 India is one of the largest producers of wheat and rice along with sugarcane which highlights uneven tilt towards water-intensive crops.

Causes for this tiltation

A) Crop-productivity

is higher for water-intensive crops.



B) Impact of Green Revolution favoured growth of rice and wheat thus shifted focus towards them.

C) Lack of Awareness among farmers for other crops.

d) Market distortion as MSP is only for 23 crops and majority are

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Water-intensive.

f) Agro-climatic pattern is not followed due to low-price realisations for pulses, millets.

g) Global demand: is higher for water intensive crops (eg) Basmati rice.

↳ India is net water-exporter due to this.

g) Forward and backward linkages are robust for these crops compared to other.

Measures to ensure water-use cropping pattern in sustainable way

A) Vaidyanath Committee recommended

① shift from land based productivity to water based productivity.

② end subsidies that give boost

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to distortion instead focus on infrastructural subsidies.

③ follow agro-climatic pattern of crop.

B) give boost to millet (drought resilient) and pulses growth.

eg. 2023: International Year of Millet

C) provide soil health cards for exact knowledge of crops that can be easily grown.

d) Robust extension services to create awareness.

e) separate agriculture feeder line to prevent incessant use of water.

By these methods, sustainable agriculture can be utilised as envisioned by Swaminathan Committee

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12

The recent COP-28 has highlighted the need of climate finance into budgeting process.

Need for climate budgeting in India

A) To develop finances for climate resilient infrastructure.

⇒ Green Buildings need fund.

B) To boost sustainable energy transition ⇒ Tax benefits for Electric vehicles.

C) To create awareness among citizenry ⇒ Mission life

D) to promote climate resilient energy activities ⇒ National

Hydrogen Mission

e) foster sustainable development by including agricultural practice.

eg Budget 2023-24: Compressed Biogas Plants for agricultural waste.

f) To utilise finance in better way

eg Municipal green bond by Bhopal and Indore.

g) create pressure on state to spend money via sponsored scheme.

h) fill climate gaps in finance

eg India needs \$10 trillion to achieve goal of Net Zero.

i) foster trade in environment facilitates eg Carbon credits



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Yet, it faces few challenges.

- a) Underutilisation of climate financial tools like Blue bond, Green bond.
- b) Lack of awareness among people towards these financial measures.
- c) Developmental needs of developing country like India \Rightarrow Coal plants for India.
- d) Less tax: GDP collection thus less revenue for climate spending.

Way-ahead

- a) Mobilise finances from Developed countries under CBDR provision.
- b) Robust financial budgeting to address climate gap.

By these steps, Panchamrit

Goal can be realised along with SDG-13.

13

Primary Agricultural Credit Societies are the lowest unit to provide credits to agriculture section under Cooperative structure.

Role of PACS in storage of produce

- ① Improves infrastructure via economy of scale \rightarrow Cold storage.
- ② provide mechanisation of storage facilities and bring new technologies.
- ③ Reduce food-wastages due to storage-mishandling (25-30% in India : NITI Aayog).
- ④ promote intermediary role between farmers and APMCs for storage.

Role of PACS in marketing

- ① Act as lobbying against cartelization in APMCs by providing voice to farmers
- ② Improve forward and backward linkage for better market-practice.
- ③ foster increase in price-realisation due to integration of technologies.

Significance of "world's largest Grain Storage Plan in Cooperative Sector"

- ① Food security: As it can store large amount of grain,
- ② Price Realisation to farmers due to alternative to MSP and APMC.



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③ Reduce Government Burden as food subsidy forms major chunk on exchequer burden.

④ Scientific Storage: thus reduces food-wastage

⑤ Seed Availability: by this plant to farmer.

Way forward

a) Introduce PACS for better integration of Rural Infrastructure using RIDF.

b) Computerisation of PACS for better disbursement of role.

c) PPP can be explored in PACS.

This would help in doubling farmers' income as envisioned by Ashok Dalwai Panel.



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14

Ministry of Civil Aviation is the nodal agency in India to review airport connectivity in India and proposal of new airports.

Need of Expansion of existing airports

① Provides connectivity in existing area with more flight connectivity.

eg Kanpur airport has only few airport facilities.

② Improve tourism-led growth

eg Rank : 39 in world Travel and Tourism index can be further improved by better airport infrastructure.

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③ Boost trade in area and reduces burden on other transportation

Need of development of new airport

① Connectivity to far-flung areas

↳ Project UDAN for North East India.

② To boost infrastructure led growth in country as it will have butterfly impact on other sector.

③ Improving border infrastructure as India is facing pincer strategy [China + Pakistan]

④ Trade in hilly and difficult terrain like Himalayan area

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ISSUES

- ① Capital Intensive : as airport development needs fund.
- ② Displacement in contracting green-field projects.
- ③ High cost of Aviation Turbine fuel makes fare less competitive.
- ④ Pollution due to ATF as it emits CO_2 more than rail and road transport.

Way Forward

- ① Bring private-sector into PPP for airport development (Vijay Kelkar Committee)
- ② Build world-class infrastructure to boost MKE and tourism.

This would help in realising goal of \$7 trillion by 2030.

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15

India's panchamait pledge calls for transition to renewable energy by 50% by 2030 and achieving goal of Net zero emission by 2070.

India's transformation in energy sector : Sustainable and inclusive

A) Reasons for sustainable transformation

① Focus on renewable source of energy through government policies

eg. National Solar Mission

eg. National Wind Solar hybrid Policy

② Through participation of various

stakeholders eg PM Surya Ghar

Mukh Bijli Yojana : with support of

local participants.

③ Introducing agriculture sector

↳ Budget 2023-24: CBG plant

↳ 20% ethanol blending by 2025

④ Bringing innovation and new technologies: ↳ electric vehicle.

⑤ India's Geography

Long coastline: Tidal and wave energy potential of 124W of Tidal energy



Tropical - Solar and wind energy

Tectonic Activity - Geothermal energy.

B) Reasons for Inclusive Transformation

① focus on all sections of society.

↳ Ujjwal Scheme to shift to LPG cylinders.

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② World collaboration: under 'One Sun, One world, One Grid' initiative

③ Brings all sectors of economy for transition for providing Inclusionivity.

PM KUSUM: for agriculture section.

PLI for lithium batteries: for manufacturing.

Way-ahead

① Ensure global collaboration for Just Energy transition using CBDR.

② promote climate financing through green bonds, carbon tax etc.

③ Ensure strengthening and proper implementation of existing schemes.

India's INDC goal under Paris agreement can be then achieved.



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16

Carbon dioxide removal is a process of extracting CO_2 from atmosphere and storing it in unaccessible places.

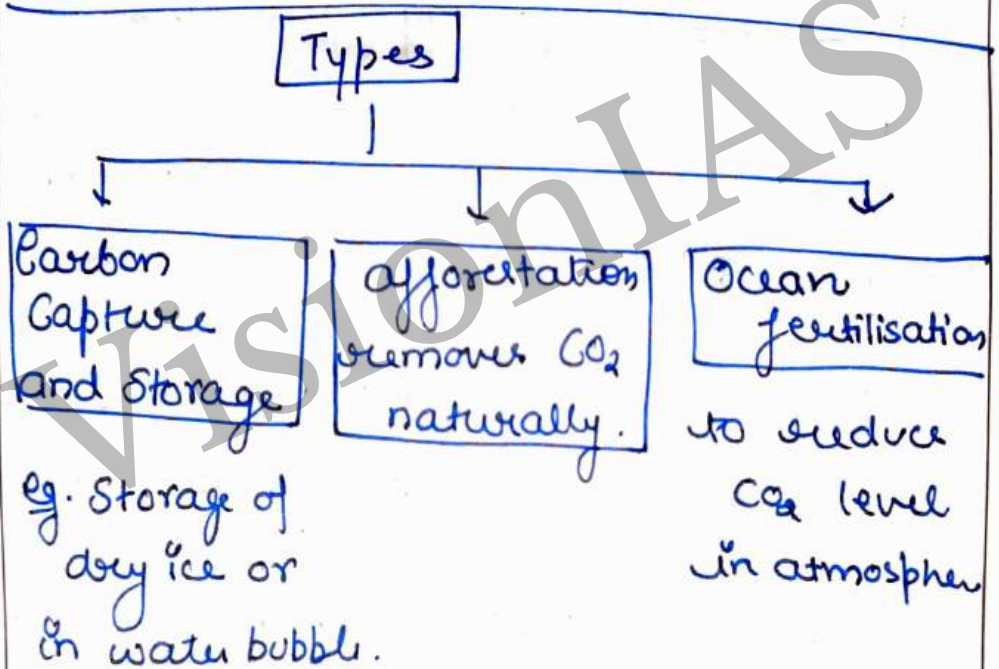


Fig: Types of CDR

Different Methods to attain CDR

- ① By Ocean-fertilisation: using iron-feeding to promote growth of organisms that

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Consume CO_2 .

② By afforestation as they are natural Carbon sink

③ Through geo-engineering processes like artificial trees or Miyawaki

method to propagate reduction of CO_2 from atmosphere.

Case Study
Mohammad Rafi in India grew forest using Miyawaki and named "Vidyavan"

④ Carbon Capture and Storage in dry ice form, hydrate form and store it in deep vents.

Challenge associated

A) These are curative measures and not fixed solutions -

B) Capital-intensive procedure.



- c) Lack of technological transfer by developed countries.
- d) Global body to ensure devolutions of Funds from developed countries is still lacking.
- e) No legal mandate for CDR.

Way forward

- ① Inclusion of Green-GDP in budgeting procedure.
- ② Nepal-growth model (negative CO₂ emission) can be replicated.
- ③ transfer of technologies and funds from historical polluting countries. (Polluter pay principle)
- ④ Robust Carbon-trading mechanism and Clean Development mechanism

[M.K. Ranjit Singh case] provides for Right against effect on climate change, CDR is a step to achieve it.

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17

As per IMO, 12% of India's geographical area is flood prone

Reasons for India's vulnerability to flood-related hazards

A) Geographical factor

① Himalayan region → seismically active



promotes GLOFs

② Landslide induced flood

eg → wayanad flood in Kerala.

B) River-based factor

eg. Brahmaputra's water keep changing and thus cause flood

③ Topography: leads to flood.

eg. Saucer basin of Brahmaputra increase flood in area.



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① Monsoon: As rainfall is limited to four-months and due to variation, floods occur.

② Large Coastline (7516 Km) thus prone to cyclone and storm surges which cause floods at coastal area.

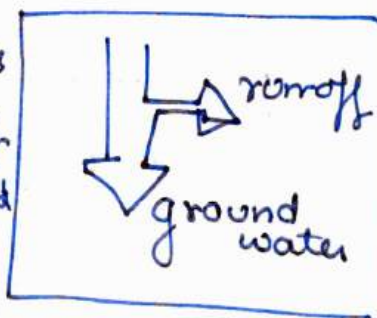
Causes for flood-related disasters

① Encroachment of water bodies

eg Pallakosmai wetland shown

from 15,000 hectare (1954) to 1,500 hectare (2019) thus reduce water holding capacity.

② Concretisation leads to increase in run-off water thus increases flood.



eg Bengaluru built up area has increase from 8% to 93% in last 50 years.

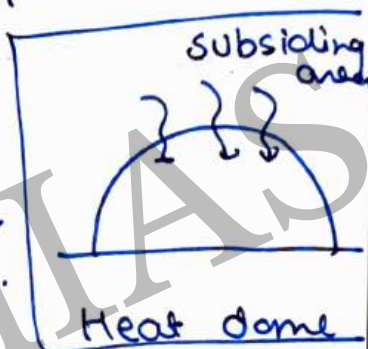
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③ Rising population: Encroaching river-bed areas: more prone to flood.

④ Climate-change: which is inducing glacier melting, thus increases volume of water in river.

⑤ Heat-dome: that acts as water attracting instant rain sometime.



Way-ahead

① Robust flood-zone mapping to reduce vulnerabilities.

② Flood warning system eg. IFlow

③ Structural measures like retention wall, river dredging can be checked.

④ follow NOMA guidelines to reduce hazard-potential.

⑤ interaction among stakeholders for rapid action.

'Sendai Framework' should act as guiding tool

16

Since ages, scientific teams are curious to understand solar winds, solar radiation and structure of ~~Sun~~^{Sun}. For this, Aditya L1 and Parker solar probe were launched.

Differences between two

A) Agency to launch:

Aditya L1 by ISRO

Parker Solar Probe by NASA

B) Launching year: Aditya L1 : 2024
Nasa Probe : 2018

C) Distance from sun : Aditya L1 : 1.5 million Km
Parker Probe : 3.2 million miles.

(closest to sun)

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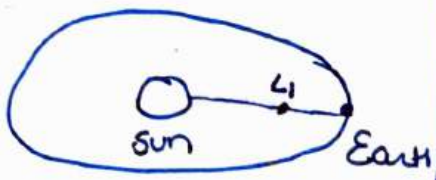
d) launching place

L₁

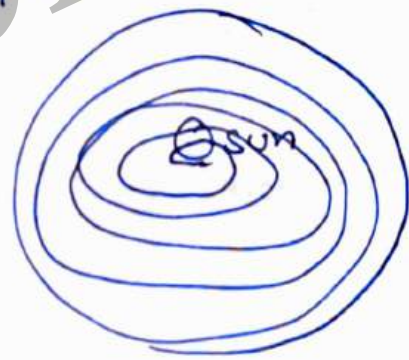
Parker Probe

- at Lagrangian L₁

- will revolve around sun in elliptical manner and reach near to sun (3.2 million miles) in 7 years



- as at this place, less fuel is required



Spiralling around sun

carries 07 probes to study.
eg. PAPA, SUIT

carries only 4 probes to study.
eg. ISIS



Please do not write anything except the question number in this space
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-continuous observation

-will reach closest to sun and project would end

Need less amount of fuels

Need more amount of fuels

aim is to study solar atmosphere, solar winds and solar cycle.

aim is to study corona and visualise interior of sun

Though differs in aim and procedural techniques, the ultimate goal is to develop clear understanding of sun and its atmosphere



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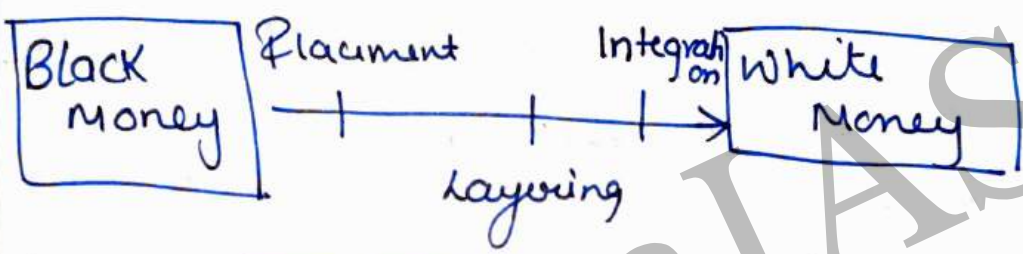
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10

Money laundering is a process of converting illicit attained money into white money.



Process of Money Laundering

Detrimental Impact of it

- ① Reduce government power on economy as parallel economy works.
- ② reduce public trust and thus fails to attract the investment.
- ③ Increase inflation in market.
- ④ foster inequality in society.



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⑤ Reduces FDI due to lack of trust on economic stability.

Impact on National Security

- ① Prompts illegal activities like drug smuggling, trafficking
- ② Inequality breeds crimes in society.
- ③ Unholy nexus of terrorism and organised crimes thus dual threat.
- ④ Leads to "Criminalisation of Politics" thus further rise to crimes in society.
- ⑤ Border Management hampered due to porous nature and trafficking.

Challenges faced in Countering it

A) Evolving nature due to integration of techniques \rightarrow Dark web.

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- B) Unholy nexus of Politicians-Bureaucrats
- criminals leads to further accretion of money-laundering.
- C) Slow implementation of legal steps like KYC norm, benami-properties.
- d) Safe havens provided by foreign countries like Mauritius.
- e) Loopholes under Double Taxation Avoidance Agreement: exploited for laundering.

Way forward

- ① Robust Cyber-security to prevent cyber-enabled laundering.
- ② Border Management to curb trafficking (CIBM, vibrant village Programme)
- ③ Provide more teeth to CBI, ED, DRI to curb the menace.

This, will help in curbing money laundering in comprehensive manner.

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Due to technological upgradation, India is projecting herself as defence exporter in global arena.

Defence Export as strategic need to enhance stature

- a) boost image of "Net Security Provider" in region \rightarrow Operation Cactus in Maldives.
- b) Project image as defence strengthened country \rightarrow Brahmos to Phillipines.
- c) Improve Current Account deficit as India is net importer.

Measures adopted by India to improve defence Export

- 1) Make in India: to give boost to

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1) Indigenous development of defence technologies \Rightarrow Prachand Helicopter

2) Streamlining of "Defence Acquisition Procedure" to acquire new technologies

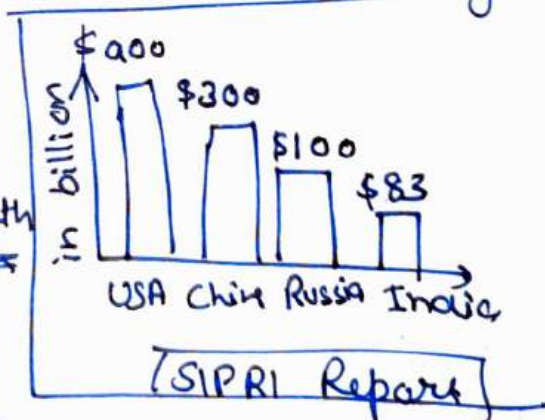
\Rightarrow Barack-8 from Israel.

3) Innovation by DRDO to enhance capacities for export.

\Rightarrow Drone-Capacity enhancement for security.

4) Trilateral Commands and theatrisation to boost innovation and wastage of resource.

5) Defence Spending
India is the ^{fourth} ~~fifth~~ largest defence spender in world.



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Net Importer ① - one of the largest importers

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② dependent on other for technologies.

eg → S-400 from Russia.

fund ④ less for R&D purposes.

③ Slow Innovation due to less spend on innovation, R&D

Way Ahead

① Brings new technologies like AI in defence. eg → Defence AI Programme.

② Use nano-technology for advancement in area. eg → Armour made up of nano-particle.

③ Bilateral relations need to be strengthened for defence export.

This will help to realise goal of "Atmanirbhar Bharat" in defence sector.