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NEXT IAS

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Name of Candidate : C. Sivasakthivel

NEXT IAS Roll No.: NIAS2300019501 **Date of Examination :** 03.09.2023

Exam Centre : Old Rajinder Nagar ☐ Bhopal ☐ Online ☑

Test Code : _____ **Program :** FLT ☐ FLT+ ☐

MAIN TEST SERIES 2023
(FULL LENGTH TEST-7)

GENERAL INSTRUCTIONS

This Question-cum Answer (QCA) Booklet contains 56 pages. Immediately on receipt of the booklet, please check that this QCA booklet does not have any misprint or torn or missing pages or items, etc. If so, get it replaced by a fresh QCA booklet.

Candidates must read the instructions on this page and the following pages carefully before attempting the paper.

Candidates should attempt the questions strictly in accordance with the instructions specified in the question paper and in the space prescribed under each question in the booklet. Any answer written outside the space allotted may not be given credit.

Question paper will be provided separately and can be taken by the candidates after conclusion of the exam.

.....

SUBJECT/PAPER
GENERAL STUDIES **Invigilator's Sign. :** .....

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(For filling by Examiners only)

Evaluator Code :

Q.No	Pg No.	Maximum Marks	Marks	Total
1	1			
2	3			
3	5			
4	7			
5	9			
6	11			
7	13			
8	15			
9	17			
10	19			
11	21			
12	24			
13	27			
14	30			
15	33			
16	36			
17	39			
18	42			
19	45			
20	48			
Grand Total				

Signature

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MACRO COMMENTS

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1. भुगतान संतुलन (बीओपी) के घटकों के रूप में पूँजी खाते और चालू खाते के बीच अंतर का सविस्तार वर्णन कीजिए। भारत के बीओपी घाटे को संतुलित करने के लिए कुछ उपाय सुझाएँ। (150 शब्दों में उत्तर दीजिए) 10 अंक

Elaborate on the difference between Capital Account and Current Account as components of Balance of Payment (BOP). Suggest a few measures to balance the BOP deficit of India.

(Answer in 150 words) 10 Marks

Balance of payment is the difference between the current and capital account of the external sector of any country

current	capital
1. components like: Balance of trade, services and factor payments. [income, dividends, profits].	FDI, FPI and other investments; govt borrowings and external commercial borrowings.
2. They don't reduce or create liability	They create/ reduce liability
3. current surplus is a good sign.	This is an ominous sign for the currency and economy

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Measures to balance BOP deficit:

India's current account is in deficit ~~*~~ — filled by capital flows.

① Increasing exports: → earns forex
→ produce more income

[New exp. Export policy 2023].

② Reducing imports: of oil, critical/consumeables

(1) : PLI of electronics, diversifying to
- Renewable energy, (2) energy efficiency
- (3) Neem coated urea

③ more remittances.

- by encouraging disguised Indians (unemployed) to employ abroad

[FTA — human resource movement].

$ For internationalisation of rupee and stable markets, bridging BOP deficit is vital.

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2. लॉजिस्टिक्स (रसद) क्षेत्र, विनिर्माण उद्योग के विकास के महत्त्वपूर्ण घटकों में से एक है। चर्चा कीजिए। साथ ही, हाल ही में घोषित राष्ट्रीय लॉजिस्टिक्स नीति, 2022 के विभिन्न घटकों का भी उल्लेख कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

The logistics sector is one of the important components of the growth of the manufacturing industry. Discuss. Also, mention various components of the recently announced National Logistics Policy 2022.

(Answer in 150 words) 10 Marks

Logistics involves packaging, moving and storing products from site of production to consumption.

India's logistics:

- 15% package
- 60% → transport
- 15% storage
- others,

13% of GDP — way higher than 9% of WEST

Lynchpin of manufacturing:

- → helps moving and maintaining inventories.
- → proper planning of production.
- → cheap logistics → cheap products.
- → higher demand and greater exports.
- → green production, — thus reducing 24% of manufacturing contribution to GHG

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b) National logistics policy, 2022

① Synergism: by ensuring multimodality in logistics. (ex. GATI Sakthi)

② innorative funding: by PPP, NMP and other sovereign funds.

③ creation of multimodal logistics hub.

④ Infrastructure status to the industry → better funding

⑤ Implementing green objectives towards Panchamrit NDC pledge

The logistics are the lifelines of manufacturing, needs more funding and dedicated ministry.

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3. अन्तर्राष्ट्रीय के तहत मत्स्य पालन सब्सिडी पर नए समझौते पर भारत का क्या रुख है? भारत के लिए मत्स्यपालन क्षेत्र किस प्रकार महत्त्वपूर्ण है? इस क्षेत्र के विकास के लिए सरकार द्वारा उठाए गए कदमों का उल्लेख कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

What is India's stand on the New Agreement on Fisheries Subsidies under WTO? How is the Fisheries sector significant for India? Enumerate the steps taken by the Government to develop this sector.

(Answer in 150 words) 10 Marks

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The New Agreement on fisheries subsidies at the WTO - is the first multilateral agreement in the recent past.

India's stand:

→ accepts the need for banning IUU, [Illegal unregulated fishing] → blue economy

→ supports the role of fisheries in sustainable/ green development.

→ But feels: → discriminates against poor/ LDC/ developing countries.

unfairly treats the West

jeopardises poverty and nutrition measures in the fishermen population

Significance:

① 1% to GDP - thus economic development of 7500 km marine & hinterland

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② Sh. to Agri: → supplements farm income
the single largest cgn
Report Commodity (Prawns)

③ Rs. Forex earning — BOP benefits

④ balanced regional development → inland fisheries are performing well

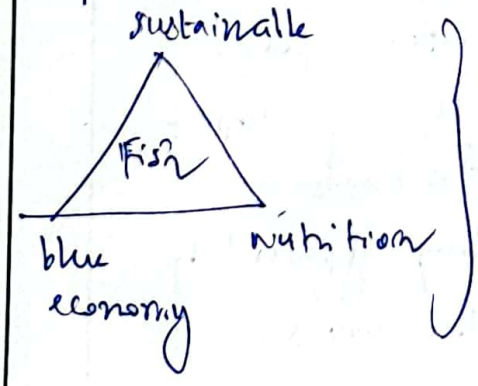
Steps by govt:

Finance → Kisan credit for fishermen
→ FIDF: fisheries infra development fund

Infrastructure → building ⑤ landing ports for marine
→ AIS transponders, cooling tech

R&D and tech → Neel kranti mission
→ Matsya Kumari Cmte: ⑥ feed and disease prevention

Others:
- Mega sea weed park (TN)
- FPI promotion



They reaffirm our commitment to SDG 14 (life under water)

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4. उन प्रणालीगत और संस्थागत बाधाओं का विश्लेषण कीजिए जो भारत में भूमि सुधार प्रयासों में बाधा बनी हुई हैं और भूमि के न्यायसंगत वितरण को सुनिश्चित करने के लिए व्यावहारिक समाधान प्रस्तावित कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

Analyze the systemic and institutional constraints that continue to hinder land reform efforts in India and propose pragmatic solutions to ensure equitable distribution of land.

(Answer in 150 words) 10 Marks

Land reforms involve the elimination of inequality in the access to land ownership.

Except [Zamindari abolition], all other reforms. [land ceiling, Tenancy reforms] failed to take off.

(A) [Systemic constraints]

i) lack of political will → due to the [dominance of [land owning caste] politics.

ii) poor approach of top down → often resisted, without understanding ground realities. [land ceiling – [poor farmers] w/o any support sold the lands.

iii) Loopholes in laws → Land ceiling bypassed by creative ways.

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(3) Institutional constraints:

poor institutional capacity
- weak land records.
- lot of disputes.

→ leading to failure / litigation

Indifferent bureaucracy that is less motivated

The overburdened judiciary → delays - defeating purpose

Pragmatic solutions.

- → by improving land records governance (digitisation - (eg: Swamitva)
- → wealth inheritance tax — a real equaliser by redistributing lands.
- → political will: by grass root political ICE.
- → Stronger laws: that makes violation impossible

land reforms lie at the heart of rural prosperity and social empowerment.

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5. ब्रह्मोस सुपरसोनिक क्रूज मिसाइल की अद्वितीय विशेषताएँ और क्षमताएँ क्या हैं,और इसने भारत की रक्षा क्षमताओं और सामरिक स्थिति के क्षेत्र में किस प्रकार योगदान दिया है? (150 शब्दों में उत्तर दीजिए) 10 अंक

What are the unique features and capabilities of the BrahMos supersonic cruise missile, and how has it contributed to India's defence capabilities and strategic position in the region?

(Answer in 150 words) 10 Marks

Brahmos in joint coproduction of the Indian DRDO and Russia

Brahmos = Brahmaputra (+) Moskva

Unique features:

- Supersonic cruise missile [> mach 2]
- Increased stealth tech and maneuverability
- variations: ship launched - Anti ship missile
  - other being developed: hypersonic [B-II - (> 5 mach)]
- launched from many platforms => air, => submarine, => land — enabling nuclear triad
- more lethal

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(a) (c) Boosting defence capabilities:

1. more lethal, manuverable with element of surprise
2. help in forming nuclear triad
3. being cruise: tought to trace and interject.
4. Defence diplomacy

(b) Regionally:

1. our role as regional net security provider (sagar)
2. A strategic alternative to chinese capabilities
3. Rising military stature: → more bilateral exercises.

L

Philippines - buying Brahmos.

Thus, Brahmos is the formidable missile in the Indian arsenal!

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6. समुद्र की गहराई का पता लगाने और उसमें मौजूद संसाधनों का दोहन करने के देश के प्रयासों के अनुरूप, भारत सरकार ने गहरे समुद्र में अन्वेषण मिशन 'समुद्रयान' का प्रस्ताव रखा है। यह मिशन देश में समुद्र विज्ञान और प्रौद्योगिकी की प्रगति में किस प्रकार योगदान दे सकता है? (150 शब्दों में उत्तर दीजिए) 10 अंक

In line with the country's efforts to explore the depths of the ocean and harness the resources it holds, the Indian government has proposed a deep-sea exploration mission Samudrayaan. How can this mission contribute to the advancement of ocean science and technology in the country?

(Answer in 150 words) 10 Marks

Deep ocean is the new frontier for race among nations for the vast resources it holds.

Samudrayaan is one deep mission of India aiming to explore

- 4000 m deep 10 R
- The central Indian ocean basin
- prove our scientific mettle

Resources,

- Living
  - aquatic animals.
  - Algae
  - corals.
- Non living
  - PMN and other metals
  - OTEC - (Thermal energy)

Chart: Samudrayaan

Advancing ocean science and Tech

1) Demonstrating: deep sea capabilities of India

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= the Sagar Nidhi mishap shows the challenge.

② **Bio marine** : Research and studies of the biotech and marine tech.

③ **climate** : The impact of climate on Indian weather/ climate and monsoon,

④ **ocean tech:** like

(a) ocean based energies like OTEC, wave energy

(b) The importance of ocean biome in ocean health,

⑤ **Mining tech:** by exploring new modules, etc- deploying ocean based **sustainable mining**

Thus, Samudrayaan is the window to our quest of **blue-green economy**, putting India as **deep ocean power**.

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7. वैश्विक मीथेन प्रतिज्ञा क्या है? क्या आपको लगता है कि वैश्विक मीथेन प्रतिज्ञा मीथेन उत्सर्जन को कम करने की दिशा में एक सकारात्मक कदम है? इस मुद्दे पर भारत का रुख स्पष्ट कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

What is Global Methane Pledge? Do you think the Global Methane Pledge is a positive step toward mitigating methane emissions? Explain India's stance on this issue. (Answer in 150 words) 10 Marks

The methane gas is a ~~GHG~~ GHG, that contributes 25 times warming than CO_2, & and has ↑ 250% in atmosphere

Thus global methane pledge (GMP) was formulated in COP 26, to reduce methane emissions by 30% by 2030

Role in mitigation

- A very potential GHG — more warming
- Mostly natural sources by but speeded up by Anthropological accelerations

↓

- ↓ Livestock (> 40%) by Animal husbandary
- ↓ poor solid waste management
- ↓ Paddy and its flooding method

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Yet, GMP is not the right target.
- This targets poor farmers. [#2 rice producer, 83% marginal]
- Not feasible as Animal husbandry is critical for rural economic resilience and nutritional security

Thus, India didn't pledge (to be part of GMP.

1. To safeguard farmers - Who use flooding for paddy
2. To protect (big critical Animal husbandry) Rural prosperity

Still, India need to focus on the municipal solid waste management, source segregation (LiFE), as the impacts of warming are disastrous for farmers (Indians).

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8. कोविड–19 महामारी ने सार्वजनिक स्वास्थ्य में आपदा प्रबंधन के महत्त्व पर प्रकाश डाला है। महामारी और अन्य संक्रामक रोग के प्रकोप के प्रबंधन के लिए प्रमुख रणनीतियों और चुनौतियों पर चर्चा कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

The COVID-19 pandemic has highlighted the importance of disaster management in public health. Discuss the key strategies and challenges for managing pandemics and other infectious disease outbreaks.

(Answer in 150 words) 10 Marks

The covid-19 pandemic demonstrated that public health is inseparable from the economic development, national security and well being

Pandemics in Dm
- → ~~Overall~~ Needs external help.
- → Coordinated response by the humanity
- → rep. remove the legal, admin lacunae
- → fix responsibility for good accountability

challenges in managing pandemics:

1) Fund → perennially underfunded in developing countries. (ex: Ind — < 1.2% GDP)
2) Infra → weak network of hospitals, labs, and referral
3) Capacity → poor public health dept, weak capacity in detection (ex: Bihar and AES).

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4) Lack of human resources — high vacancy in doctor [1: 1600 Allopathy]. Nurses. and others.

key strategies.

1. Fixing responsibility: in fulfilling Intl health regulations.
2. Drafting a new Pandemic treaty: clear roles and responsibilities.
3. coordinator role of WHO: with deeper structural reforms.
4. Assisting members: build capacities.
5. clear IPR: during PHEI — so that weapons are democratised

Planet Environment



→ one health approach holds the key to collective health

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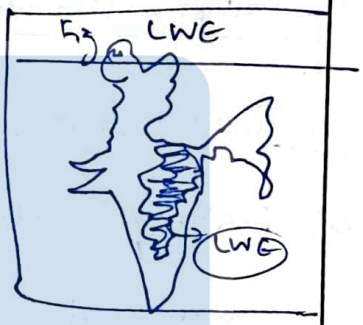
9. "पूर्वी और मध्य भारत का संसाधन अभिशाप वामपंथी उग्रवाद का एक महत्वपूर्ण चालक रहा है"। इन क्षेत्रों के सतत और समावेशी विकास के लिए उपायों को विस्तार से बताइए और सुझाव दीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

"The resource curse of Eastern and Central India has been a crucial driver of LWE". Elaborate and suggest measures for sustainable and inclusive development of the region.

(Answer in 150 words) 10 Marks

LWE - left wing extremism thrives in the Red corridor of East/central India



This area has majority:

- 90% of coal
- Iron and metallic minerals.
- rich biodiversity

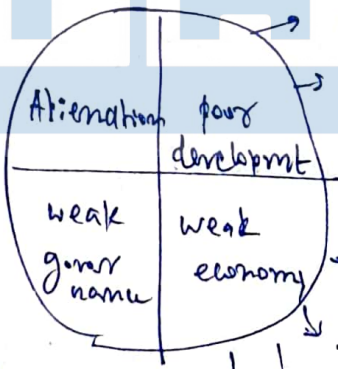
Exploitation of these resources.

↓

Invited corporate giants and govt.

↓

- Jal Jangal Jameen
- displacement
- Apathetic bureaucracy



→ weak infra
→ poor education/nutrition
→ loss jobs.
→ exploitation
→ corruption
→ mafia

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Measures for sustainable and inclusive development.

1) sustainability:
   - involving and strengthening locals. [FRA, 2006]
   - Adhering to ecological principles of forest Conservation Act.
   - sustainable mining - new techniques.
     [coal deregulation]

2) Inclusive:
   - proper rehabilitation policy implementation
   - Royalty to states: monitor and mandate spending in affected areas.
   - Operationalising ki Kunj shetra scheme.

Development can ward off any kind of extremism — PM Modi

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10. उत्तर पूर्व और जम्मू-कश्मीर क्षेत्र में हिंसा की घटती प्रवृत्ति के आलोक में क्या आपको लगता है कि एएफएसपीए (अफ्स्पा) अपनी उपयोगिता बरकरार रख पाया है? टिप्पणी कीजिए (150 शब्दों में उत्तर दीजिए) 10 अंक
In light of the declining trend of violence in the North East and J&K region do you think that AFSPA has lived its utility? Comment. (Answer in 150 words) 10 Marks

AFSPA - Armed forces special power Act, that empower armed forces to bring order to the disturbed regions,

- Search and seizure
- killing threats
- legal immunity

The recent Kuki-Meitei ethnic violence is happening despite AFSPA.



whereas elsewhere, there is reduction,

Yes, lived its utility:

1. Reduction in areas: removing Meghalaya, Tripura
2. Severe violation: Alow killings of Nagaland
3. other acts: like UAPA and to improve punitive measures,

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4. Commissions: like 2nd ARC, Jeevan Reddy called for repeal.

No, its needed.

1) The manipur violence: Ethnic faultlines threat is active

2) J&K: The shifting geopolitics, Talibans arrival instability in Pak

3) safeguard: morality of the army.

There is a need to balance the national integrity with AFSPA. It has two continue.

- with restricted immunity
- Following Commandments of COAS
- With internal Complaints committee

National security is paramount.

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11. अंतर्राष्ट्रीय व्यापार प्रमुख मुद्रा प्रतिमान (डीसीएम) पर केंद्रित है। अंतर्राष्ट्रीय व्यापार में हार्ड करेंसी (दुर्लभ मुद्रा) के महत्त्व का आलोचनात्मक विश्लेषण कीजिए और डॉलर साम्राज्यवाद के विकल्प के रूप में वैश्विक व्यापार में रुपये की स्वीकार्यता की संभावना पर चर्चा कीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

International trade is centred on the dominant currency paradigm (DCM). Critically Analyze the importance of Hard currency in International trade and Discuss the potential of rupee acceptance in global trade as an alternative to dollar imperialism. (Answer in 250 words) 15 Marks

With the Setting up of Bretton Wood institutions and the rise of U.S.A dominated unipolar world, there Grose dollarisation of the global trade.

Hard dominant currency →
- promotes stability in the exchange currency
- Rapid integration of global chains. (post 1995 - GATT)
- stability to the global movement of capital that promotes trade

USD has been this dominant currency

Unquestioned stability — No rivalry — Stronger credentials of democracy

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Without a hard currency
- fluctuations in the market
- poor integration of trade
- lack of global growth
- lack of capital movement and prosperity

Yet, there are pit falls of one currency domination

① Fed role: It manipulated the I. Rates depending upon needs; thus affecting developing country markets.

② Sanctions diplomacy: by using dominant dollar for achieving diplomatic wins.

③ inability of central banks - to make independent decisions.

(Ex): RBI changes policy to suit the US fed's IR.

④ Using economic sovereignty.

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Potential of rupee.

Issues:
- the global trade of India is < 2%.
- volatility of rupee in Intl markets.
- the threat of currency flight.
- Added burden of shielding from global ↓ shocks.
- economic wavering: like demonetization

prospects:
- Third largest economy GDP (PPP)
- The only next democracy in this rank,
- widening trade by FTAs (UAE, etc)
- rising dedollarisation imperatives, (SCO, ~~etc~~ BRICS)

Rightly, the GoI has agreed rupee-rial (UAE); Rupee Ruble (Russia) to boost the internationalisation of Rupee.

- need of more FTAs.
- reduce volatility
- more manufacturing ability:

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12. जनसांख्यिकीय लाभांश संवृद्धि सुनिश्चित नहीं करता है; यह केवल सामर्थ्य उत्पन्न करता है। जनसांख्यिकीय परिवर्तन से उत्पन्न अवसरों का लाभ उठाने के लिए सरकार द्वारा उठाए गए कदमों पर चर्चा कीजिए।

(250 शब्दों में उत्तर दीजिए) 15 अंक

A demographic Dividend does not ensure growth; it only generates potential. Discuss the steps made by the government to take advantage of the opportunities presented by the demographic transition.

(Answer in 250 words) 15 Marks

India entered into a 37 year long demographic dividend (DD) from 2018 till 2055.

Demographic dividend is the potential of economic benefits accrued by the growth of working age population (15 - 60) and reduction in the dependent population (0-15, 60+)

There is no automatic benefit because:

- Countries like China / Taiwan created economic opportunities.
- they built HR capacity [Taiwan and semiconductors].
- if no steps are taken, only reduces the political stability and harmony.

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Key Areas.	Steps taken	Benefits
1. Economy Potential	Make for smaller production linked incentive National Infra. pipeline Logistics. Policy, GATI	-> increase exports, internal jobs. -> boost consumption — Income This saved by Investment (Gaurav Harnold)
2. Human resource	Skill India mission - Digital India - New education policy	A hub of skilled workers, and digital ecosystem (FDI will increase) knowledge economy
3. Human well being	- Swachh Bharat - Poshan, Nutrition	-> Thus improving health and productivity, human capital
4. Sustainability	- Mission Indradhanush - Women centric - KILKARI, DBTHA - POSHA Act. (Women LEAD)	-> Double x economy — 1.4% GDP cr per Hackathon report.

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(5) financial: → FDI liberalisation
→ NABFID - for infra
→ Jan vishwas bill Act - for more ease of doing business

(6) Increasing investments for future:

insurance FDI (74%)
(old age dependency)

Sovereign wealth fund
Sovereign green fund
(green future)

still, this has scope to improve, by proper implementation, tweaks based on ground demand.

SDG achieved

India 2047

towards Neutrality by 2070

Developed economy by harnessing (DD).

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13. 'जीनोम एडिटिंग (जीनोम संपादन) में फसल सुधार की अपार संभावनाएँ हैं, लेकिन यह नैतिक और सुरक्षा संबंधी चिंताओं को भी जन्म देती है।' भारत में जीनोम–संपादित पादपों के सुरक्षा मूल्यांकन के लिए नए दिशानिर्देश आनुवंशिक रूप से संशोधित फसलों की सुरक्षा को कितना सुनिश्चित करते हैं? (250 शब्दों में उत्तर दीजिए) 15 अंक

'Genome editing holds immense potential for crop improvement, but it also raises ethical and safety concerns'. How far do the new guidelines for the safety assessment of genome-edited plants in India, ensure the safety of genetically modified crops? (Answer in 250 words) 15 Marks

Genome editing has the potential to catalyze a new green revolution 2.0. It involves editing genes of plants to obtain favourable characters.

Eg: Bt Brinjal, HT Cotton.

The potential:

- higher productivity → HT cotton
- greater resilience to climate change → GM mustard
- withstand assault of insects → Bt Brinjal
- tweak as per the need (flavour, colour, etc)
- Cost-effective
- make agri- climate resilient and sustainable

↳ [green agri for green world]

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Safety concerns:

1) The environmental pollution → contamination by genes.
   ↳ higher pesticide residue (Ht cotton)

2) The human health → new allergy
   → & impacts autoimmune diseases.

3) economic: by means of terminator seeds by corporations.

4) food security: monovariety may endanger to superbugs.

Ethical concerns.

- Tinkering natural process → evolution and natural selection
- violating autonomy / ~~not~~ non-malfeasance of stakeholder
- Playing God

(P.T.O)

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New guidelines:

1) based on ethics: thus subscribes to universal values.

2) Rigorous checks and balances: thus prioritising safety.

3) Clear: removing any ambiguity

4) hierarchical: for inbuilt Transparency and accountability

Though the guidelines are appropriate, implementation is key

SDG: 4 – good food security
3 – health
15 – life on earth
must guide

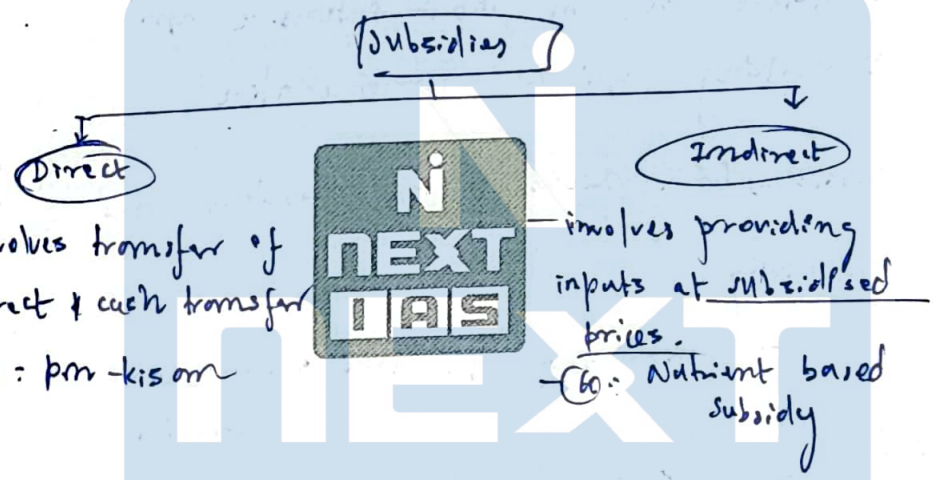
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14. भारत में कृषि क्षेत्र पर प्रत्यक्ष और अप्रत्यक्ष कृषि सब्सिडी के प्रभाव की चर्चा कीजिए। न्यूनतम समर्थन मूल्य (एमएसपी) ने कृषि अर्थव्यवस्था को किस प्रकार प्रभावित किया है? (250 शब्दों में उत्तर दीजिए) 15 अंक

Discuss the impact of direct and indirect farm subsidies on the agriculture sector in India. How have Minimum Support Prices (MSP) affected the agricultural economy? (Answer in 250 words) 15 Marks

Agricultural subsidies are the lifelines of Indian agriculture. It costs around 2-2.5% of GDP, but contribute 1/5th to the income for farmers.



The impact on agri sector :-

(A) Negative:

① Economical :- As it costs heavily to the fiscal head of govt. (2.5% GDP)

- hence reduced R&D expenditure at ~~the~~ of 1% of Agri GDP.
- distorts free market of fertilizer
- losses for Discoms.

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① The vicious cycle of dependence:

- widespread protests for policy reforms.
- stagnation of deep reforms.
- ↓ crop productivity [except wheat].

③ Ecological impacts:

- loss of soil productivity
- vicious rise in input intensive agri
- making agri non-remunerative

Thus, subsidies led to vicious rise in dependence and lower productivity

positive impact →
- sustaining agri among monsoon vagaries.
- instates for farmers from price fluctuation [msp].
- supports their income [pm-kisan].

Impact of MSP on agri economy:

- Though have worked as.

- price determinant
- ensuring assured price
- making agri remunerative
- protecting farmers.

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MSPs have affected

- distorted the free market. (eg FRP of sugarcane)
- reduced crop diversity → ↓ insurance to crop failure
- reduction in high value, more cereal centrism.
- ↓ exports at 2% of world agri trade:
  - As our exports are uncompetitive
- less investment by private: in cold, market infra owing to Apmc monopoly

Way forward →
- weaning away from MSPs.
- diversifying crop using msp.
- bringing back farm laws with wide consensus.

Ashok dalwai and Swaminathan

contributing 14% to GHG and 18% to GDP, Agri reforms are vital for 5T$ economy and Panchamrit goals.

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15. रोगाणुरोधी प्रतिरोध (एएमआर) एक तेजी से बढ़ता संकट है जो दुनिया भर में सार्वजनिक स्वास्थ्य के लिए एक गंभीर खतरा है। रोगाणुरोधी प्रतिरोध की बढ़ती समस्या में योगदान देने वाले प्रमुख कारक क्या हैं, और इस वैश्विक स्वास्थ्य खतरे से निपटने के लिए कौन से कदम उठाए जा सकते हैं? (250 शब्दों में उत्तर दीजिए) 15 अंक

Antimicrobial resistance (AMR) is a rapidly escalating crisis that poses a grave threat to public health worldwide. What are the major contributing factors to the growing problem of antimicrobial resistance, and what steps can be taken to address this global health threat? (Answer in 250 words) 15 Marks

Antimicrobial resistance is a condition wherein the microorganisms develop resistance to the pharmacological drugs that are administered, thereby increasing fatality, reducing cure.

- The covid pandemic only saw the escalating crisis of AMR. [Azithromycin, Amphotericin, Remdesivir misuse]

The causes for this.

① Rise in irrational prescription among doctors for faster cure

② misuse by the pharmacists by selling without prescription,

③ Improper adherence of treatment

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regimen by the patients.

(e) Poultry: indiscriminate use for growth promotion; violating guidelines.

(f) Pharma Companies: Improper sewage (STP) treatment plants → thus the effluents cause AMR.

(g) mass gatherings: like Kumbh mela, pilgrimages, without proper sanitation

Steps taken →

1. AMR – Red label campaign for pharmacy and lec.
2. UMC, IMA – circulars for doctors for rational prescription.
3. Drug panels: with common STPs

Measures needed:

1. Ethical code for doctors: with duty ethics guided prescription

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2. Strict penalty for pharmacy - selling / sidestepping Schedule H, H1 ✗.

3. promoting good practices in poultry (science based).

4. Common STPs, new tech to reduce effluent discharge by pharma companies.

5. IEC: public to adhere to doctors' prescriptions
   ↳ affordable drugs ✗ so ed compliance & possible

AMR is at the intersection of SDG 3, SDG 4; thus its vital for a Swasth India. leveraging demographic potential.

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16. विघटनकारी नवाचारों से आप क्या समझते हैं? हाल के दिनों में विघटनकारी नवाचार के कुछ उदाहरण बताइए और यह भी बताइए कि इन नवाचारों ने उद्योगों के संचालन के तरीके को किस प्रकार परिवर्तित किया है?

(250 शब्दों में उत्तर दीजिए) 15 अंक

What do you understand by Disruptive innovations? What are some examples of disruptive innovation in recent times, and how have they changed the way industries operate?

(Answer in 250 words) 15 Marks

Disruptive innovations are the leading noise in the domain of scientific studies.

Eg: The LK 99 (super ~~semi~~ conductor at room temp)

Disruptive innovations are those innovations that disrupt the

- functioning of the world as we know
- well being of the society in positive way
- the way society interacts (Internet)
- the way it adapts to threats. (ex: CCUS - carbon capture)

Recent examples:-

1) mRNA vaccines: Rapid scaling up of precise vaccines in <1 year
   - saving humanity from covid

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2. Generative AI: (chat GPT) that assists in human thinking/ creation,

3. Hypersonic missiles: that increases stealth, destruction and surprise

4. Big data: in computational aspects - good policies.

5. Safety innovations: like kavach, etc -

The operation of industries :-

1. Production: [3D printing], automation and others [Ex: India Post offices]

2. Increasing the scale and pace of production.

2. precision and quality: by ways of big data. IR detection, ultrasonic techniques.

3. AI :- in creating and formulating designs.

↳ Ex: AI - finding new drugs or repurposing old drugs.

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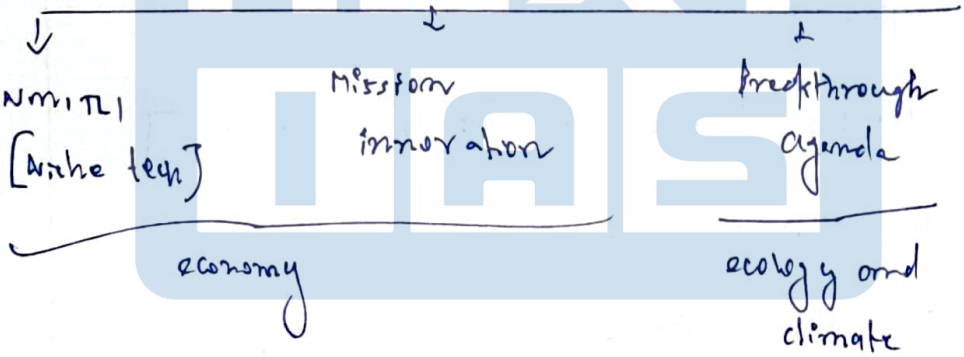
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4. Raising money: by Crypto investments and fintech sector, online CRA improves their reach.

5. Energy: clean and green like [Hydrogen]
[H - cng bus for Delhi]

Thus, innovations can augment the 4th IR

The GoI has rightly launched schemes to augment this.



thus realising sustainable development that is tech enabled

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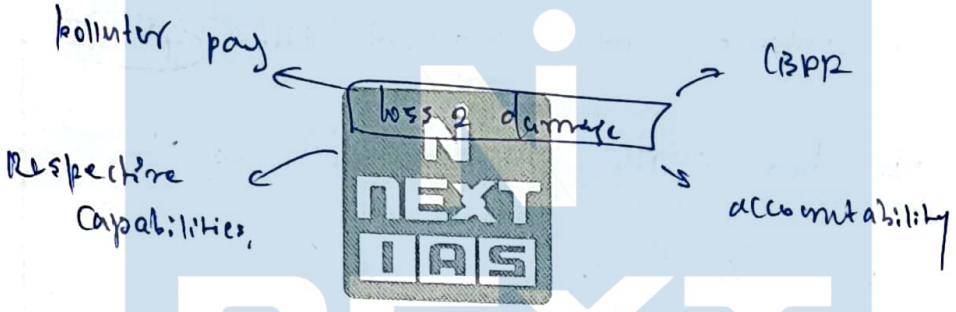
17. हानि और क्षति (L&D) कोष के क्रमिक विकास को चिह्नित कीजिए। COP27 में हानि और क्षति कोष से संबंधित कौन–से प्रमुख घटनाक्रम हुए हैं? इस सम्मेलन में भारत ने क्या प्रतिबद्धताएँ व्यक्त की हैं?

(250 शब्दों में उत्तर दीजिए) 15 अंक

Trace the evolution of the Loss and Damage fund. What are the major development related to loss and damage funds in COP 27?, What are the commitments made by India in this conference?

(Answer in 250 words) 15 Marks

The loss and damage funds deal with the loss and damage aspects of climate change induced disasters.



The origin:-

- started during the COP 1 of UNFCCC in COP 15 of paris.
- This was sustained by the warsaw mechanism
- Further boosted by the sharm El sheikh Commitments. during COP 27.
- Also includes the Santiago framework

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Issues
- The climate finance is trying to avoid this.
- disproportionate attention only to mitigation
- No mechanism to collect and allot.

COP 27 and loss & damage

① first historic: Allocation of around 250 M USD for this purpose

② Consensus: in building the momentum- led by Warsaw, Santiago and Sharm EL Sheikh

③ Double: Countries to double their loss and damage commitments in national budgets.

④ guided by principles of ~~res~~ respected capabilities, capacity building among others

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Commitments by India:

1. To double its national allocation to loss and damage.
2. build national capabilities for the same.
3. CDRI: Coalition for disaster resilient infra for reducing damages.
4. IRIS: Initiative for the resilient island states.

As many victims are [illegible] contributor to climate change, but are disproportionately affected

loss and damage

- central to climate justice
- reduce distress due to climate change
- lasting sdg realisation (SDGs 14, 15, 17).

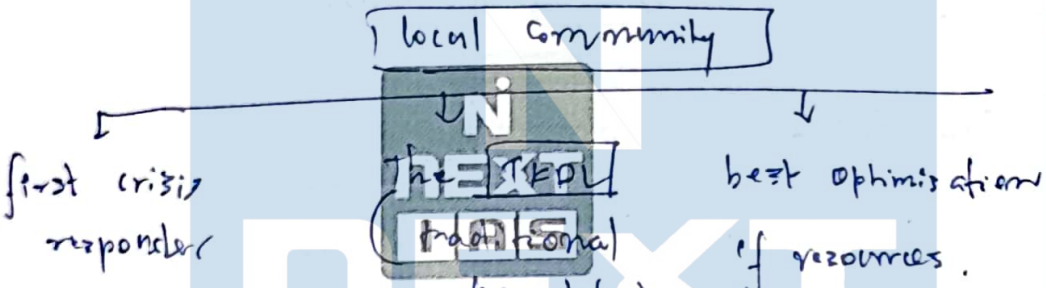
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18. आपदा प्रबंधन सिर्फ आपात स्थिति से निपटने के बारे में नहीं है, बल्कि लचीले समुदायों के निर्माण के बारे में भी है। उन प्रमुख रणनीतियों पर चर्चा कीजिए जिनका उपयोग सामुदायिक लचीलापन बनाने और आपदाओं के प्रभाव को कम करने के लिए किया जा सकता है। (250 शब्दों में उत्तर दीजिए) 15 अंक

Disaster management is not just about responding to emergencies but also about building resilient communities. Discuss the key strategies that can be used to build community resilience and reduce the impact of disasters. (Answer in 250 words) 15 Marks

The Sendai framework underscores the importance of community role in disaster management.



Importance of resilient communities.

→ without them, the other aspects lose meaning

→ more costly resources needed if community is unprepared

→ unprepared community magnifies the vulnerability

Thus, vital it to include them in disaster management.

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The Key strategies,

① Documenting knowledge and dissemination:

↳ Fuse traditional knowledge improves the connection

↳ disseminating them — for greater IEC, awareness.

(Eg): Odisha and cyclone preparedness.

② Identifying and fixing roles:

↳ of action for preparedness,

↳ during disasters.

↳ for relief and rehabilitation.

This makes it community owned and with fixed accountability

(Eg: Palli village of Jk: Dm plan.

③ Better resource allocation:

↳ by involving communities.

↳ Thus optimising and overcoming the fund crunch.

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④ Involving community in deciding:

- Resilient shelters.
- Rehabilitation models.

⑤ Post disaster: - using them in deciding

- the immediate victims. (triaging)
- the mode of rehabilitation [social, economic]

Thus, this improves the resilience of community, making [pm a grassroot process.]

The [pm to point agenda] rightly stresses this and India is realising this goal in letter & spirit, as witnessed by UN appreciation for [Odisha's cyclone management]

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19. मेटावर्स और वर्चुअल एसेट्स जैसी नई और उभरती प्रौद्योगिकियों के उपयोग के माध्यम से आतंकवाद का परिवर्तन चिंता का विषय है। हम आतंकवादी उद्देश्यों के लिए नई और उभरती प्रौद्योगिकियों के उपयोग का मुकाबला किस प्रकार कर सकते हैं? इस संबंध में "दिल्ली घोषणा पत्र" के महत्व को स्पष्ट कीजिए।

(250 शब्दों में उत्तर दीजिए) 15 अंक

The transformation of terrorism through the use of new and emerging technologies like metaverse and virtual assets is a matter of concern. How can we counter the Use of New and Emerging Technologies for Terrorist Purposes and Elucidate the importance of the "Delhi declaration" in this regard?

(Answer in 250 words) 15 Marks

Like the world undergoing dynamic alteration by technology, terrorists are using sophisticated tech for launching attacks.

Eg: Jammu drone attack on Indian Army.

A matter of concern.

- Remotely operated
- Anonymity – Thus criminal justice is tough
- escapes regulatory and preventive radar [eg: crypto and money laundering]
- Collateral damage is less
- No restriction in proliferation of such tech,
- easy and cheap.

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Thus, there is a rising threat of terrorism as world borders are blurred.

Countering these tech:

① Responsible use of any tech. is vital for positive impacts on humanity

② global convention: like NPT, MTCR, regulating the proliferation of such tech.

③ corporate role: by doing ethical business, avoiding deal with armed gangs.

④ cross border cooperation: with neighbouring and tech enabling countries like Israel.

⑤ International dynamism:

(i) like FATF - reigning in crypto assets.

(ii) The world regulatory/ supervisory bodies need to adapt.

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Delhi Declaration :

As adopted as part of the counter terror task force of UNSC.

- urges countries to deny such tech to terror.
- use the same tech [Blockchain] in denying space to them.
- International cooperation
- capacity building

Thus, [NewDelhi declaration] has pivoted this evolving area into intl arena. The world must unite in sharing best practices in eliminating the scourge of terrorism.

[One Earth One family One Future]

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20. "अग्निपथ योजना हमारे सशस्त्र बलों के लचीलेपन और प्रभावकारिता के लिए आवश्यक एक कड़वी गोली है।" प्रासंगिक तर्कों के साथ कथन का आलोचनात्मक विश्लेषण कीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

"The Agnipath scheme is a bitter pill needed for the resilience and efficacy of our armed forces." Critically Analyze the statement with relevant arguments. (Answer in 250 words) 15 Marks

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Agnipath scheme is a human resource reform in the Indian army that plans to induct agniveers. (17-5 - 24) ~~in a bid~~ as a separate rank.

The need :

- huge expenditure in maintaining human resources.
- Crippling the modernisation of army.
- slightly older profile of the army.
- lesser skills like using digital equipments.

The benefits of this reform.

1. (1) security :- more youthful age profile
   - more agile tech savy forces.

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3. will free up the revenue head of defence budget.

4. more focus on ~~real~~ defence modernisation

two front threat → expanding theatres, → hybrid warfares

To the Youth:-

- Service to the motherland
- A degree ~~14 INFO~~ preference in jobs.
- disciplined Youth

This is a bitter pill:-

1) As Youth are against this — trains burnt.
2) ~~Army~~ ~~Govt~~ Even army veterans doubted the stated aims.

The Negative aspects:-

1. Establishing camaraderie at short Spam is tough
2. upsetting the regimental ethos of the army

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3. may weaken army:

↳ As best talent may go to CAPF/ police

↳ dangerous gamble of cost cutting at the cost of national security

Way forward :-

Such path breaking reforms have negative effects.

Thus needs careful controlled execution

- Good training module
- personality based selection
- dynamic impact assessment. of this move
- Can commitment rise for save money into defence modernisation

Theater command, integrated battle group and

The reforms are needed for an agile, razor sharp army amidst the ~~deep~~ deepening security threats.