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NEXT IAS

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(To be filled by candidate)

Name of Candidate : NISHCHAL JAIN

NEXT IAS Roll No.: MT23SLTON009 **Date of Examination :** 04.09.2023

Exam Centre : Old Rajinder Nagar ☑ Bhopal ☐ Online ☐

Test Code : TC057

Time Taken : 03:20

Program : FLT ☐ FLT+ ☐ SLT ☑ SLT+ ☐

MAIN TEST SERIES 2023
(TEST-11)

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.....

SUBJECT/PAPER
GENERAL STUDIES

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Student's Queries for the Evaluator (if any write them below)

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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. उपभोक्ता मूल्य सूचकांक (CPI) एवं थोक मूल्य सूचकांक (WPI) के बीच अंतर स्पष्ट कीजिए। क्या आपको लगता है कि WPI की तुलना में CPI मुद्रास्फीति का बेहतर माप है? सिद्ध कीजिए। (150 शब्दों में उत्तर दीजिए) 10 अंक

Differentiate between Consumer Price Index (CPI) and Wholesale Price Index (WPI). Do you think that CPI is a better measure of inflation as compared to WPI? Substantiate.

(Answer in 150 words) 10 Marks.

Consumer Price Index (CPI) and Wholesale Price Index (WPI) are the measures of inflation used in India for policy design and implementation

Difference

CPI	WPI
• Basket consists mainly of consumer goods.	• Basket consists of wide range of goods.
• Consists of goods and services both	• Only goods and no service
• Reflects indirect taxes	• Does not includes impact of taxes

Better measure of inflation

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(I) CPI

- Consists of goods and services directly impacting common Consumer in country.
- High share of food in CPI basket
- Indirect taxes: shows effective burden on pocket
- Consists of housing, electricity etc.

(II). WPI

- Shows market sentiment of inflation.
- closer to producer side hence reflect more efficiency side of economy.

However keeping all factors in mind RBI considers CPI(C) as better measure for inflation.

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2. रोजगारविहीन संवृद्धि भारत के विकास पथ का एक अंतर्निहित लक्षण है। भारत में उच्च बेरोजगारी दर के पीछे प्रमुख कारण क्या हैं? भारत में समग्र रोजगार वृद्धि दर में सुधार हेतु उपचारात्मक उपाय सुझाइए।

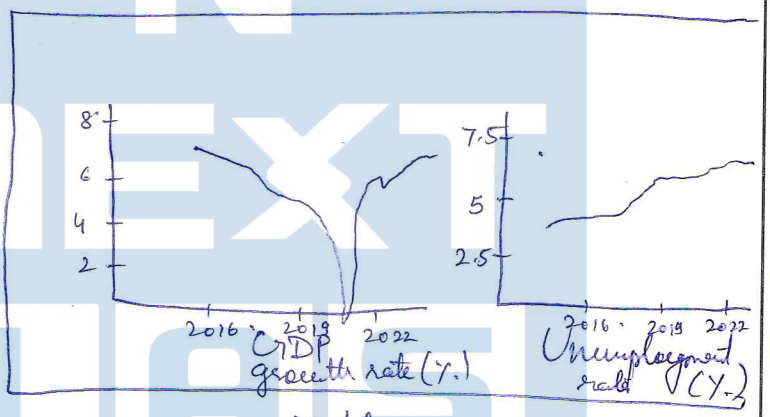
(150 शब्दों में उत्तर दीजिए) 10 अंक

Jobless growth is an inherent feature of India's growth trajectory. What are the major reasons behind the high unemployment rate in India? Suggest remedial measures to improve the overall employment growth rate in India.

(Answer in 150 words) 10 Marks

India's GDP has been growing at good pace in last decade but unemployment remained also at higher side which is known as jobless growth.

Reasons



Jobless growth.

Reasons for high unemployment:

1) Low skilled workforce: only 45% of labour force is employment

2). Lack of robust manufacturing sector: contributes only 17% of GDP.

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3) Switching from agricultural sector to services sector in 1991 bypassing secondary sector.

4) Lack of conducive environment for industries.

5) Gig economy induced unemployment.

Remedial measures.

1). Ease of doing business should be focus area : Trade corridoors, SEZs.

2). Institutional skilling, upskilling and reskilling — Skill India Mission.

3) Promoting culture of entrepreneurship
↳ Startup India mission.

4). Overall human capital development.
↳ health, education etc.

5) Achieve target of Manufacturing sector
↳ 25% of GDP.

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3. यूरिया को NBS योजना के तहत लाया जाना भारत में उर्वरक सब्सिडी से संबंधित सभी मुद्दों के साथ–साथ कृषि की पर्यावरणीय समस्याओं के लिए रामबाण के रूप में देखा जा रहा है। यूरिया प्रबंधन से संबंधित मुद्दों पर प्रकाश डालते हुए भारत में टिकाऊ रूप से यूरिया के उपयोग में आवश्यक सुधारों हेतु सुझाव दीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

Bringing urea under the NBS Scheme is seen as the panacea for all the issues related to fertiliser subsidies in India as well as for the environmental problems of agriculture. Highlighting the issues related to urea management, suggest reforms are required to improve the usage of urea in a sustainable manner in India.

(Answer in 150 words) 10 Marks.

NBS scheme is Nutrient Based Subsidy scheme introduced by union govt. to tackle many economic and environmental challenges posed by unsustainable use of fertilizers.

~~Panacea for issues~~ Issues related to fertilizer usage

(I) SUBSIDIES

1. Quantity linked subsidy : encouraged to use more fertilisers
2. Fiscal burden : 2-2.5% of GDP on subsidies

(II). ENVIRONMENTAL

1. Soil degradation : 4:2:1 required by 8:2:1 used for N:P:K.
2. Water pollution
   ↳ Punjab cancer capital
3. Weeds growth.

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Panacea for issues — Urea under NBS.

YES

1. Chemical composition of soil maintained
2. Sustainable consumption of fertilizers

NO

1. Subsidy not directly to farmers but to companies.
2. Irreversible damage done already in neheat based states

Reforms required

1. DBT – direct benefit transfer of subsidies
2. Soil testing and recommendation for urea usage. tab by Kisan Service Centre
3. Area linked urea usage.
4. Use of Phosphorous and Potassium also required to maintain 4:2:1 NPK ratio.

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4. भारत की खाद्य सुरक्षा को न केवल घरेलू कारकों बल्कि वैश्विक कारकों से भी चुनौतियों का सामना करना पड़ता है। टिप्पणी कीजिए। भारत की खाद्य सुरक्षा को सुदृढ़ बनाने वाले कुछ उपायों की चर्चा कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

India's food security faces challenges from not just domestic factors but also global factors. Comment. Discuss some ways to strengthen India's food security. (Answer in 150 words) 10 Marks.

Access to safe and nutritious food for all at all ages and all times is called food security (FAO).

Food security challenges.
- → malnutrition (hidden hunger)
- → unhygienic food.
- → hunger
  - wasting
  - stunting
  - underweight

Factors responsible

(I) DOMESTIC.

- Ineffective functioning of Public Distribution system (PDS) → redistribution
- soil losing fertility → agricultural productivity stagnant
- Lack of nutritious food awareness. eg Millets Pulses.
- ~~golden~~ damage in FCI godowns.

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(II) GLOBAL

- Disrupted supply chain of wheat due to Ukraine crisis -
- Climate change induced food security challenges (eg) drought -
- Rising food inflation due to rising food prices

Ways to strengthen food security

1. Streamline food supply throughout country through PDS.
2. Promote nutritious food
   ↳ Golden rice for Vitamin A.
3. Effective implementation of schemes like AAY, PMGKAY etc.
4. Innovation in agriculture to ~~promote~~ increase productivity (eg) GM crops.

NFSA, 2013 could be realised through above measure and SDG-2 (Zero hunger) could be achieved.

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5. हाल ही में भारत नासा के नेतृत्व वाले आर्टेमिस समझौते पर हस्ताक्षर करने वाला 27वाँ देश बन गया है। भारत में अंतरिक्ष अन्वेषण कार्यक्रमों के संदर्भ में इस समझौते के निहितार्थों का आलोचनात्मक विश्लेषण कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

Recently, India became the 27th signatory to the Artemis Accord led by NASA. Critically analyse its implications for the space exploration programmes in India. (Answer in 150 words) 10 Marks.

Artemis accord of NASA and other western space powers is an important agreement for space governance and utilisation

Implications for space exploration programmes in India

POSITIVES

1) Provide essential ~~technological~~ assistance for new programmes.

2) assisting in Gaganyaan Mission
↳ Human spaceflight by ISRO.

3) Information sharing for critical issues.

4) Space station programmes.

5) Greater say of India in space

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5). governance.

6). Enhancing technological credibility and goodwill.

7) Collaboration for issues like space debris.

NEGATIVES

1) May tantamount to losing space sovereignty.

2) Interference in our space programmes.

3). May exploit our achievements for parochial self interest
↳ soft landing on south pole of moon.

However Chandrayaan-3 and Aditya L1 mission shows increasing capabilities of ISRO which could be further enhanced by this accord.

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6. मिट्टी में कार्बनिक पदार्थ का अपघटन कार्बन चक्र में किस प्रकार योगदान देता है, और इस प्रक्रिया को प्रभावित करने वाले प्रमुख कारक क्या हैं?
(150 शब्दों में उत्तर दीजिए) 10 अंक

How does the decomposition of organic matter in the soil contribute to the carbon cycle, and what are the key factors that influence this process?
(Answer in 150 words) 10 Marks.

Carbon cycle is cycle of moving Carbon components from soil to air and water and vice versa.



Carbon cycle.

Decomposition of organic matter contribute Carbon cycle

1). Release methane and Carbon-di-oxide into atmosphere and soil.

2) That turn into carbon gas and add to air and water.

3) Water (generally net absorber) absorbs

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carbon from atmosphere and make ocean acidic

Factors influence this process

1) Heat → more decomposition
→ more carbon emitted

2) Precipitation → tend to slow down the process

3) Soil quality → decomposition quicker in loamy soil and slower in sandy soil.

4) Moisture → suitable for process.

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7. जलवायु परिवर्तन पर शमन और अनुकूलन रणनीति न केवल भविष्य के उत्सर्जन को कम करने से संबंधित है, बल्कि इसमें वायुमंडल में पहले से उत्सर्जित कार्बन को सक्रिय रूप से हटाना भी शामिल है। इस संदर्भ में आप कार्बन संकलन, उपयोग और भण्डारण (CCUS) की अवधारणा से क्या समझते हैं? इससे संबंधित अंतर्राष्ट्रीय समुदाय की प्रगति पर चर्चा कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

Climate change mitigation and adaptation strategy is not only about reducing future emissions but also involves active removal of already released carbon into the atmosphere. In this context what do you understand by the concept of Carbon Capture, Utilisation and Storage (CCUS) and discuss the progress of the international community in this regard.

(Answer in 150 words) 10 Marks.

Current carbon emission of global community can lead to more than 2°C rise by 2100 compared ~~to~~ pre-industrial level.

Climate Change

- Mitigation / adaptation
  - ~~use~~ renewables
  - Albedo
- Active removal
  - green cover
  - decreasing fossil fuels

Carbon Capture, Utilisation and Storage

It is a technique whereby existing emitted carbon could be captured and used to reduce the impact of climate change.

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- Increasing green cover and afforestation which may act as Carbon Sink
- Oceanic carbon capture through mangroves etc.

Progress of international community

1) Kyoto protocol having mechanisms like CDM, IEM etc.
2) Paris protocol setting Nationally Determined Contributions (NDCs) for all countries.
3) success of Montreal protocol.
4) Increasing albedo through sulphur
5) Carbon trading market.
6) REDD+ helping to reduce further emissions

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8. इमारतों की घटिया डिजाइन, भवन संहिताओं और अग्नि सुरक्षा मानदंडों का घोर उल्लंघनय तथा बढ़ती भीड़भाड़ शहरी क्षेत्रों में आग के उभरते खतरे के लिए जिम्मेदार है। विवेचना कीजिए। (150 शब्दों में उत्तर दीजिए) 10 अंक

Poor building design, flagrant violations of building codes and fire safety norms and overcrowding of spaces are responsible for the rising risk of fires in urban areas. Discuss.

(Answer in 150 words) 10 Marks.

Urban fires have ~~taken~~ led to loss of 520 lives in 2022 which shows ineffective administrative compliance with guidelines.

Reasons

(I) Poor building designs
- → lack of open spaces.
- → Congested atmosphere

(II) Violation of building code
- → increasing heights of buildings
  - ↳ more risk for fires
- → encroachment.

(III) Fire safety norms.
- → open and hanging wires.
- → poor electrical appliances.

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- Risk of short-circuit
- Lack of fire extinguishers.

(IV) Overcrowding of space.

- Lack of emergency exit
- one fire leading to another
- lack of space for fire brigade vehicle to come.

Measures needed

- Compliance with municipal laws.
- Compliance audit by authorities
- Adequate space from fire brigade vehicles.
- Coated wires and safe electrical appliances
- Mock drills.

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9. भारत–म्यांमार तथा भारत–बांग्लादेश सीमाओं पर होने वाले नृजातीय संघर्ष और सीमा–पार प्रवासन भारत की आंतरिक सुरक्षा को प्रभावित करते हैं। टिप्पणी कीजिए। (150 शब्दों में उत्तर दीजिए) 10 अंक

Ethnic conflicts and cross-border migration along India-Myanmar and India-Bangladesh borders impact India's internal security. Comment. (Answer in 150 words) 10 Marks.

Recently, Manipur clashes posed threat for our security which were attributed to cross-border migration by/from Myanmar.

Threat to Internal security

(I) Ethnic conflicts.

1) Feeling of separation: Nagalim movement

2) Attacks on armed forces.

3). Close proximity to hostile neighbours like China could exploit faultlines.

4). Trust deficit within society.

5) Gender based violence.

6). Disruption in emotional integration of communities with India

7) Internally displaced: 3.7 lakh people in North East.

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(II) Cross Border Migration

1) Human trafficking.

2) Militants inflex through porous borders

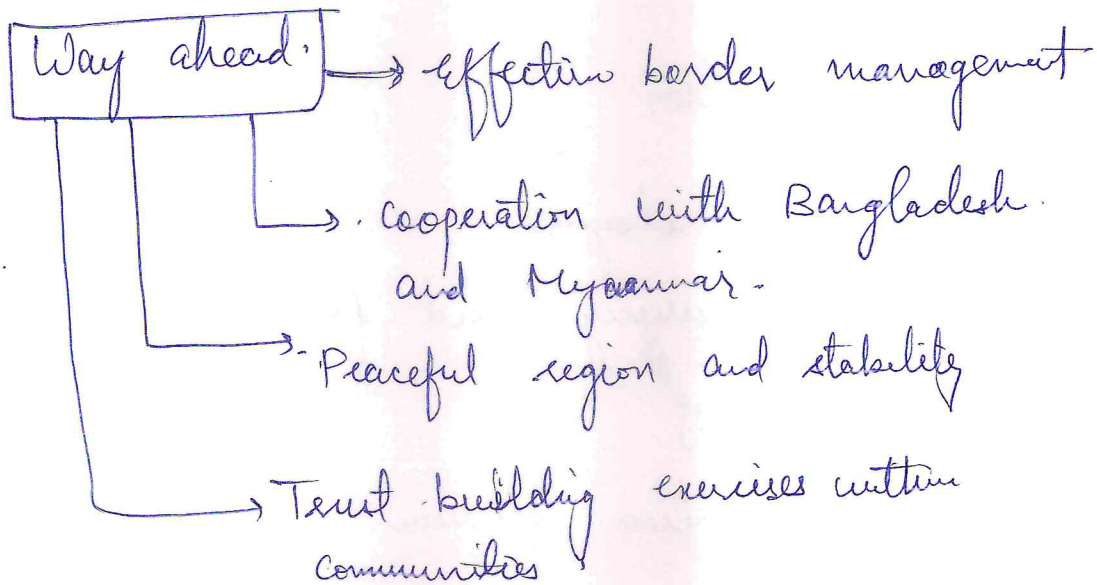
3) Arms and narcotics supply
   ↳ proximity of golden triangle.

4) Change in demography
   ↳ Bangladeshis immigrant in Assam and Tripura.

5) Law and order problems -

6) Competing for resources and jobs.

7) Nightmare for intelligence



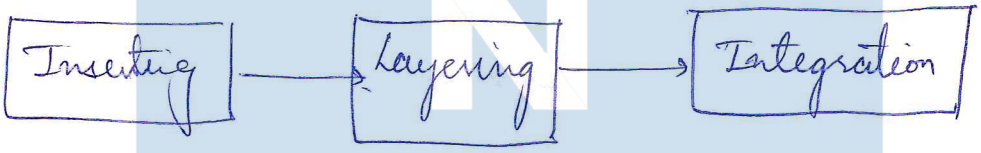
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10. धन–शोधन के मामलों की जाँच करने और अभियोग चलाने में कानून प्रवर्तन एजेंसियों के सामने कौन–कौन सी प्रमुख चुनौतियाँ आती हैं तथा उन चुनौतियों को कैसे दूर किया जा सकता है? (150 शब्दों में उत्तर दीजिए) 10 अंक

What are the main challenges faced by law enforcement agencies in investigating and prosecuting cases of money laundering, and how can they be overcome? (Answer in 150 words) 10 Marks.

Money laundering is process of cleansing money in the economy to show it as white money to avoid taxation and investigation authorities



Process of money laundering.

Challenges faced by agencies eg ED.

1. Long and complex money trails
   ↳ difficult to trace
2. Foreign jurisdiction.
3. Disruptive technologies
   ↳ eg Cryptocurrency used for money laundering.
4. Lack of coordination between agencies in case of organised crime.

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eg terrorist using money laundering for their funding.

5. Lack of special courts under PMLA, 2002 to prosecute criminals.

6. Fugitive economic offenders in countries like Dominica etc

7. DTAA.

Measures required

1. Treaties with tax havens to try our fugitives eg treaty with Singapore

2. Inter-agency coordination eg NIA and ED,

3. Expanding mandate of Enforcement Directorate and CBI to deal with foreign jurisdiction on lines of NIA.

4. Resource appropriation to agencies.

5. Strengthening PMLA, 2002 and Fugitive Economic offenders act, 2018.

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11. निम्न कर उत्प्लावकता प्रायः उच्च घाटे और ऋण में तब्दील हो जाती है। क्या उच्च प्रत्यक्ष कर दर लागू करके भारत में समग्र कर–जीडीपी अनुपात में सुधार किया जा सकता है? भारत की समग्र कर संरचना में सुधार के लिए अन्य कौन–कौन से कदम उठाए जा सकते हैं?

(250 शब्दों में उत्तर दीजिए) 15 अंक

Low tax buoyancy often translates into higher deficits and debt. Can a higher direct tax rate improve the overall tax-to-GDP ratio in India? What other steps can be undertaken to revamp the overall tax structure in India?

(Answer in 250 words) 15 Marks.

Tax buoyancy refers to tax to GDP ratio of a country. Only 6% population of India pay direct taxes in India which leads to lesser income.

Low tax buoyancy → higher deficits and debts

---

1) Less income of government.

2) Vast number of welfare schemes in India which includes direct cash transfers also eg PM-KISAN.

3) Lesser fiscal space for capital expenditure.

4) Lesser share to states for their

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revenue and capital expenditure.

5) Loans from multilateral banks and institutions (eg) World Bank, IMF, NDB.
↳ higher debt.

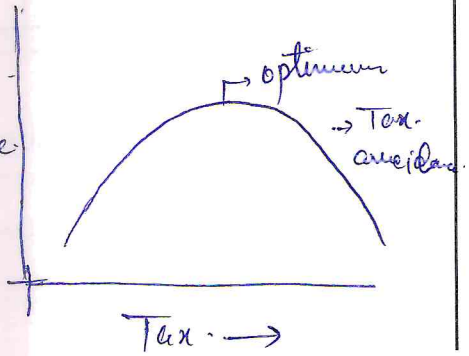
Higher direct tax rate to improve tax to GDP ratio

YES.

1. Better income and surplus for govt.
2. Corporate sector could contribute more to govt finances.
3. More revenue can cover revenue expenditure

NO

1. Higher tax may lead to tax avoidance
↳ loopholes into system.
2. It doesn't guarantee ↑ better tax compliance.



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~~Thus tax also rate~~

3. Killing corporate animal instinct to earn. (Hindu growth rate - 97%. tax). in 1971.

Thus tax should be at optimum level to ensure tax compliance as well as revenue.

Other steps required

1. Broadening base of tax payers and reducing tax rates
2. Formalisation of economy
3. Schemes like 'Viwaad se Vishwas' to prevent victimisation of taxpayers.
4. Rationalise indirect taxes under GST and make it progressive.
5. Faceless inquiry under Income tax

Direct tax code is need of the hour after GST implementation to revamp tax structure.

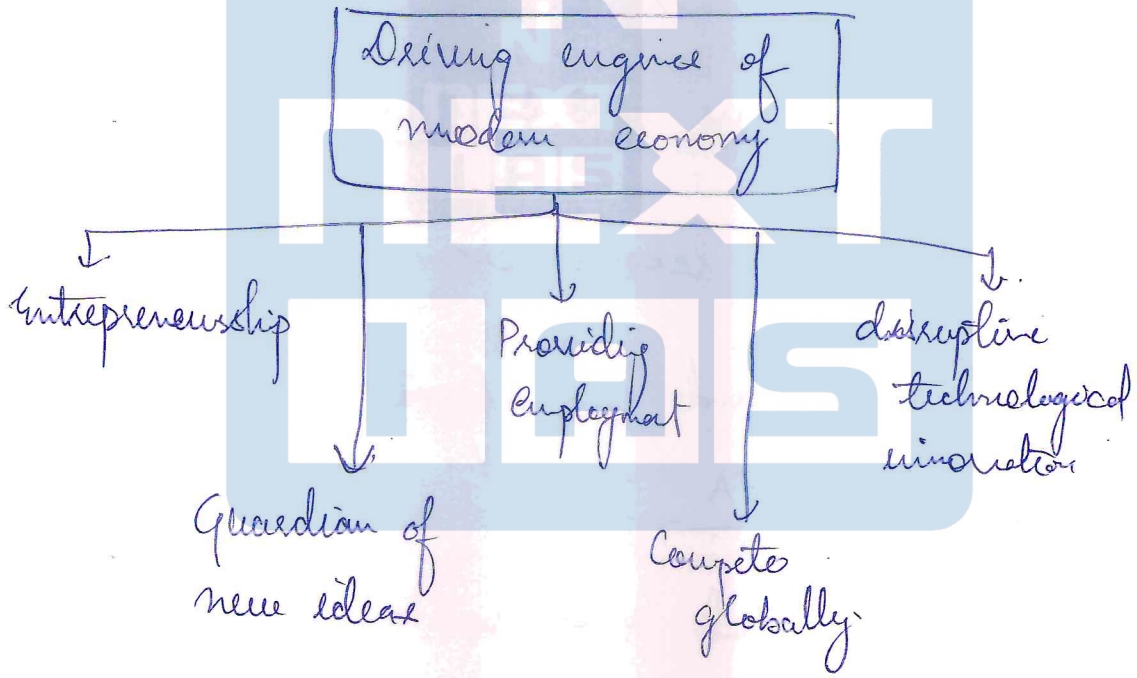
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12. स्टार्टअप तेजी से बदलती आधुनिक अर्थव्यवस्था के प्रेरक इंजन हैं। भारतीय स्टार्टअप अपनी क्षमता का उपयोग करने में क्यों विफल रहे हैं? भारत में स्टार्टअप्स की लाभप्रदता और प्रदर्शन में सुधार हेतु कौन–कौन से कदम उठाए जा सकते हैं?
(250 शब्दों में उत्तर दीजिए) 15 अंक

Startups are the driving engines of the fast-changing modern economy. Why have Indian startups failed to realise their potential? What steps can be undertaken to improve the profitability and performance of startups in India?
(Answer in 250 words) 15 Marks.

Startups are newly formed companies with immense growth potential but require seed funding and institutional support initially.



Indian startups failed to realise potential because-

1) Lack of constant investor funding.
↳ angel investor backing out in

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few years.

2) Ineffective of govt. programmes.
   ↳ startup India programmed gave lesser results due to lack of conducive environment.

3) Inability of Indian psyche to embrace failure

4) Lack of culture of creative destruction

5) Low skilled labour force.

6) Couldn't stand in front of Global Giants eg GAFA

7) Takeovers and mergers.
   eg. Walmart - Flipkart merger.

Steps to improve performance

1) Building startup ecosystem in country.

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2) Encourage corporate sector to invest more in startups

3) Encourage shows like 'Shark Tank' India

4) Prevent victimisation of failed startups

5) Dignified exit policy for startups.

6) Integration of cutting edge technology with startups.

7) Incubation centres in colleges.

8) Integration of startups with GeM portal and govt procurement.

9) Tax rebates and subsidies for initial phases.

India which produced more than 100 Unicorns can has potential to make it 1000 very soon.

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13. भारत के आयात बिल में खाद्य तेलों का आयात एक बड़ा हिस्सा है। इस संदर्भ में हाल ही में शुरू किए गए खाद्य तेल एवं तेल पाम पर राष्ट्रीय मिशन (NMEO-OP) के महत्त्व का मूल्यांकन कीजिए। भारत में बढ़ते पाम तेल उत्पादन से संबंधित पर्यावरणीय चिंताएँ क्या हैं?

(250 शब्दों में उत्तर दीजिए) 15 अंक

Import of edible oils forms a major part of India's import bill. In this context, evaluate the importance of the recently launched National Mission on Edible Oils and Oil Palm (NMEO-OP). What are the environmental concerns related to increasing palm oil production in India?

(Answer in 250 words) 15 Marks.

India imports 85% of edible oils from countries like Indonesia, Malaysia etc which puts burden on exchequer.

Reasons for import →
- Lack of production
- Inertia among farmers
- less govt incentives to produce.

NMEO-OP → importance

1). Production of palm oil domestically at various places.

2) Development of regions like North-Eastern India and Andaman-Nicobar

3) Generating employment in those regions.

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4) Increasing profitability in agricultural sector.

5). Inclusive development of hitherto untouched regions of country.

6). Saving of valuable foreign exchange reserves.

7) Reducing dependence on hostile countries like Malaysia.

8). Bridging trade deficit with ASEAN countries.

9) Diversification in agriculture.

Concerns related

(I) Environmental concerns.

1. Plantation agriculture

2. Deforestation
   - cutting forests in Andaman

3. Threat to local biodiversity

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4. Promoting Monoculture

5. Loss of habitat of existing plant species (flora).

6. Decreasing soil fertility

(II) Other concerns.

1. Huge capital investment needed.
2. Interfering into tribal areas could lead to backlash
3. Long gestation period (2-3 years period)

Way Forward-

- Proportional production of oil palm
- lesser deforestation
- insurance to farmers against gestation period
- Safeguarding tribal rights
- self-sufficiency

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14. एक सुदृढ़ पशुधन अर्थव्यवस्था कृषकों की आय के एक समानांतर स्रोत के रूप में कार्य कर सकती है। भारत के कृषि क्षेत्र में पशुधन अर्थव्यवस्था की भूमिका पर प्रकाश डालते हुए इसके समक्ष आने वाली चुनौतियों पर चर्चा कीजिए। ऐसे उपाय सुझाइए जो किसानों के समग्र कल्याण में योगदान देने के लिए पशुधन क्षेत्र को सशक्त कर सकें।

(250 शब्दों में उत्तर दीजिए) 15 अंक

A robust livestock economy can act as a parallel source of farmers' income. Highlighting the role of the livestock economy in the agriculture sector in India discuss the challenges faced by the livestock sector in India. Suggest interventions that can strengthen the livestock sector to contribute to the overall well-being of the farmers.

(Answer in 250 words) 15 Marks.

Recent reports suggested that livestock sector contributed 12% of agricultural GDP.

Role of livestock economy in agriculture sector of India

---

1) Additional source of income for farmers
   - ↳ Milk from cows, goat
   - ↳ Meat from goat
   - ↳ wool from sheep.
   - ↳ egg from chicken.

2) Contingency buffer against drought like conditions.
   - ↳ would help to sustain livelihood

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3) Assistance in agricultural activities
↳ Cows and bulls for ploughing.

4) Countering malnutrition and hunger,
↳ (milk and egg) adding nutrition to their food (Protein, calcium).

5). States symbol for farmers.

6) Decreasing landholdings and productivity
↳ enhancing role of livestock

7). Thriving dairy sector of India
↳ India largest producer of milk in world.

Challenges faced.

1) Lesser productivity of breeds of cows.

2) Epidemics like lumpi virus.

3) Lesser vaccination.

4) Rising cost of livestock maintenance

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5) High methane emissions by livestock sector

6) Lack of tapping the true potential

Interventions required

1) Cooperatives for livestock
   eg> AMUL dairy.

2). Making it export oriented.

3). Effective implementation of Rashtriya Gokul Mission.

4). National dairy mission should be implemented in all states equitably.

5) Emphasise on White Revolution 2.0.

6). Pink revolution.

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15. परमाणु संलयन को भविष्य का ऊर्जा स्रोत माना गया है, जिसमें स्वच्छ, सुरक्षित और वस्तुतः असीमित ऊर्जा प्रदान करने की क्षमता है। परमाणु संलयन के पीछे के वैज्ञानिक सिद्धांतों और व्यावहारिक अनुप्रयोगों के लिए इस तकनीक के उपयोग में आने वाली चुनौतियों और अवसरों पर चर्चा कीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

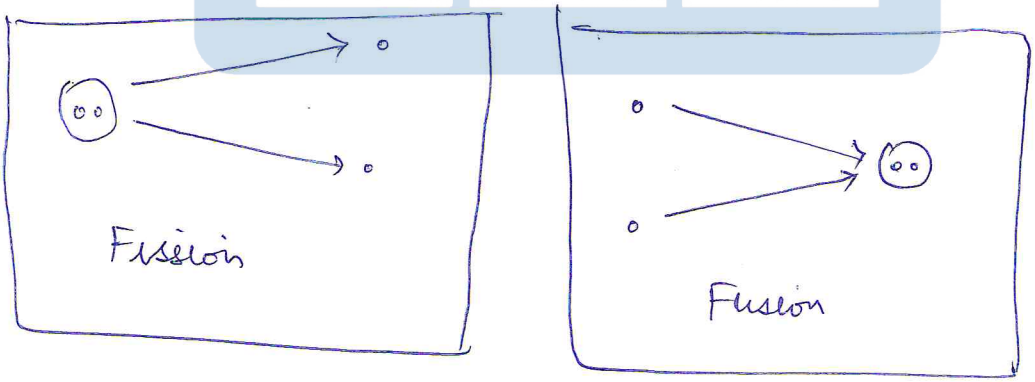
Nuclear fusion has been hailed as the energy source of the future, with the potential to provide clean, safe, and virtually limitless energy. Discuss the scientific principles behind nuclear fusion and the challenges and opportunities in harnessing this technology for practical applications.

(Answer in 250 words) 15 Marks.

Nuclear fusion reaction is considered as future of ~~as~~ energy generation but its experiments asse yet to achieve desired results.

TRIVIA: : First net energy gain through fusion recently achieved.

Scientific Principles



It requires fusing two neutrons to make one atom, which emit near infinite amount of energy.

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As per laws of thermodynamics and nuclear physics, ~~nuclear~~ melting of two subatomic particles release energy

Challenges -

1) Require high temperature which is difficult to achieve.

2) High pressure and high energy required initially.

3) Need excess amount of resources.

4) Concerns about scalability of nuclear fusion.

5) High-end technological labs and scientists required.

6) High capital investment - to achieve net energy gain.

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Opportunities

1) Virtually no by-products as compared to fission.
   ↳ Safe and clean energy.
2) Million-fold more energy than fission
3) Once achieved at high scale, can make energy cheaper.
4) Can be potential tool against climate change as could be used as substitute of fossil fuels.

India can play a leading role in achieving this by capacity building to solve potential energy crisis in future.

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16. भारत में आईपीआर के प्रशासन में कौन–कौन सी कठिनाइयाँ रही हैं? भारत में नवाचार आधारित अर्थव्यवस्था को प्रोत्साहित करने के लिए आईपीआर के प्रशासन में सुधारात्मक उपाय सुझाइए। (250 शब्दों में उत्तर दीजिए) 15 अंक

What have been the difficulties in the administration of IPRs in India? Suggest measures to improve the administration of IPRs in order to encourage an innovation-led economy in India.

(Answer in 250 words) 15 Marks.

Intellectual Property Rights (IPR) are rights to protect own creation, innovation, idea, thought & etc. from duplication and unauthorized access by any person / country / agency

Administration of IPRs in India
- → India Copyrights Act
- → India Patents Act
- → India Trademarks Act

Difficulty in IPR administration of in India

---

1) Multiplicity of jurisdiction
   - ↳ Tribunals as well as Courts -

2) Evergreening of patents
   - ↳ Controversial provisions under Patents Act

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3) Lack of awareness regarding IPR rights

4). New technology making difficult to trace origin of IPR. violation

eg Telegram — hub of Piracy.

5). Compulsory licensing

↳ disincentivise innovation in economy

6). India need to look at own welfare interests of poors

7). Traditional Knowledge. conservation

↳ US appliging for Turmeric patent

8). Duplication of trade marks with minute changes.

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Measures required

- Compulsory licensing only in extreme cases
- Protect rights of copyright holders - by promotion
- Hefty penalties for copyright violations
- Protection of seed varieties for farmers
- easier access to new technology for further innovation

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17. वन्यजीव संरक्षण अधिनियम में हालिया संशोधन जंगली जानवरों और पौधों के अवैध व्यापार को रोकने के लिए एक रूपरेखा प्रदान करते हैं ताकि यह सुनिश्चित किया जा सके कि उनके अस्तित्व को खतरा न हो। इस संबंध में भारत में अवैध वन्यजीव व्यापार के निहितार्थों का उल्लेख कीजिए तथा इस मुद्दे को हल करने के लिए हाल के संशोधनों की प्रभावशीलता का विश्लेषण कीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

The recent amendments in the Wildlife Protection Act provide a framework to prevent illegal trade in wild animals and plants to ensure that their survival is not threatened. In this regard, mention the implications of illegal wildlife trade in India and analyse the effectiveness of the recent amendments to address the issue. (Answer in 250 words) 15 Marks.

Wildlife Protection Act, 1972 was enacted to protect the wildlife species (flora and fauna) from various threats including poaching, killing etc.

Threat to survival of wildlife
- → Hunting for profit
- → Status symbol
- → Man-animal conflict
- → Climate change

Implications of illegal wildlife trade in India

1. Widespread network of smuggling and trafficking of wildlife.

2. Threat to dependent species.

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3. Such organised crime proceeds could fund terrorist activities.

4. Export of gulf countries.

5. threat to biodiversity of an area
   eg Cheetah extinction in 1987.

Recent amendments

- 4 schedules instead of 6 schedules
  - schedule I : Protection to species
  - schedule II : lesser protection
  - schedule III : flora species.
  - schedule IV : CITES species.
- Removed schedule of vermin
- Adequate protection to species listed by CITES.

effectiveness of recent amendment

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YES

- Realigning our priorities with global interests
- More power to state govt. – decentralised wildlife governance.
- Chief wildlife warden as guardian

NO

- Ambiguity regarding Vermin species
- Lack of resource allocation for wildlife conservation.
- Lack of comprehensive policy and modus operandi for checking illegal trade.

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18. उन कारकों का विश्लेषण कीजिए जो शहरी क्षेत्रों में बाढ़ की घटनाओं एवं विनाशकारिता को बढ़ाने में योगदान देते हैं तथा उन उपायों का भी विश्लेषण कीजिए जो जोखिम को कम करने और आबादी की सहनशीलता बढ़ाने के लिए अपनाए जा सकते हैं। (250 शब्दों में उत्तर दीजिए) 15 अंक

Analyse the factors that contribute to the increased incidence and severity of floods in urban areas and the measures that can be taken to reduce the risk and enhance the resilience of the population. (Answer in 250 words) 15 Marks.

Recently, Rajkot city saw flooding for 5 days which caused a loss of ₹300 crore to the city.

Factors contributing to urban flooding

(I) Environmental factors:

1). Events having extreme rainfall.
eg cloudbursts in Uttarakhand

2). Changing river courses.

3). Diminishing urban wetlands.

4). Lack of shock absorbing capacity of city ponds.

5) Rivers sediments depositing on rivers beds. → flooding.

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(II) Anthropogenic factors

1) Poor drainage system in cities

2) Encroachment on wetlands
   ↳ Noida Supertech towers

3) Urban concrete jungle.

4) Low rainwater harvesting
   ↳ Having wells for roads.

5) Lesser groundwater recharge wells.

6) Clogging of drains due to plastics and wastages.

Measures to be taken

Reduce the risk

1. Proper drainage system with regular cleaning.
2. Prevent encroachment over wetlands
3. Building codes having rainwater harvesting facilities.

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4. Checking soil erosion by afforestation drives.

Enhance resilience of population

1. Rehabilitation plans for people residing near sites.
2. Mock drills by administration
3. Early warning system for low lying areas.

Case study: Agartala Model.

- Proper sewerage and drainage.
- Amrit Sarovars in cities
- Rainwater harvesting

'Blue-Green Infrastructure for city' is need of the hour where Blue refers to water bodies and green refers to green cover.

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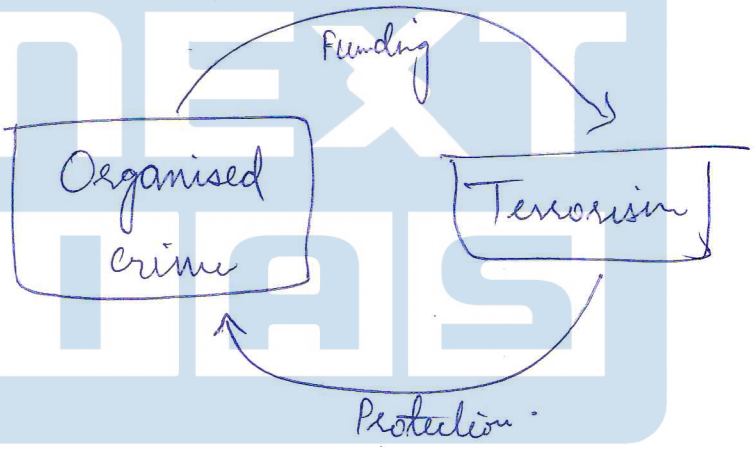
19. क्या आपको लगता है कि भारत में आसूचना विभाग तथा विधि प्रवर्तन एजेंसियों के पास संगठित अपराध और आतंकवाद के गठजोड़ से प्रभावी ढंग से निपटने के लिए आवश्यक संसाधन और क्षमताएँ हैं?

(250 शब्दों में उत्तर दीजिए) 15 अंक

Do you think that intelligence and law enforcement agencies in India have the necessary resources and capabilities to effectively tackle the link between organised crime and terrorism?

(Answer in 250 words) 15 Marks.

When group of two or more ~~people~~ collaborate for criminal purpose to achieve economic objective of profit-making and bypass law enforcement agencies - it is known as organised crime.



Law enforcement agencies in India to tackle both the issues

- Intelligence Bureau
- CBI
- State Police
- NIA
- Enforcement directorate
- RAW
- Armed forces.

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Agencies have necessary resources ?

YES

1) Legislations like NIA act, 2009, PMLA act, 2002, UAPA, 1967.

2) Staff drawn from IPS, IAS etc.

3) Money disbursement for their projects

4) Jurisdiction of NIA extended to foreign territories

5). New age technological resources

NO

1) Poor prosecution powers.

2) Delayed court proceedings

3) Ill-trained staff due to lack of simulation training

4) Lack of inter-agency coordination

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5) Lack of power to try fugitives

6) Lack of training of armed forces to counter terrorism

7). Lone wolf attacks → need high-end intelligence to prevent it.

Way Forward

1) Centralised chain of command under ministry of Home affairs

2) Cutting funding and supply lines.

3). Agencies should start sharing info through NATGRID to anticipate activities.

4) Avoid ambiguity and multiplicity of jurisdiction

5) Call tapping in essential cases.

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20. भारत को उभरती आंतरिक एवं बाह्य संचार से संबंधित सुरक्षा चुनौतियों से निपटने और साइबर पारिस्थितिकी तंत्र को अधिक सुरक्षित और संरक्षित बनाने के लिए सूचना प्रौद्योगिकी अधिनियम, 2000 को अद्यतन करने की आवश्यकता है। विवेचना कीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

India needs to update its Information Technology Act, of 2000 to deal with emerging internal and external communication security and to make the cyber ecosystem more safe and secure. Discuss.
(Answer in 250 words) 15 Marks.

Information Technology Act, 2000 was enacted by Parliament to oversee and guide the digital governance of India.

Emerging Communication security challenges.

Internal

1. ~~Cybercrimes~~ Hacking of computers
2. Stealing data of people
3. Call tracing by unauthorised people
4. Cyberbullying on social media
5. Financial frauds online
   eg Jantaaa and Nubi are fakes.
6. Malwares → Trojan horse
   → Virus
   → ransomware
7. Hate speeches.

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External

1. Cyber intrusion by hostile country hackers eg AIIMS server locked.
2. Rising data security challenges.
3. Encryption / decryption policies of social media companies eg whatsapp privacy policy.
4. Cyberwarfare threat rising.

Current IT act limitations

---

1. Framed 23 years ago when not many technology were known.
2. Social Media rise.
3. doesn't cover issues holistically
4. More of an stop gap arrangement
5. doesn't cover issues like privacy and right to be forgotten.
6. doesn't cover fake news, going viral.

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Updation requried

1. Need centralised digital agency under Minister of IT.
2. Dynamically tracking cybersecurity threats
3. Adding modern notional rights like Right to be forgotten.
4. Protect freedom of speech (doing away with CCA – Shreya Singhal case).
5. Lesser discretionary power to local police
6. Strong network of cyber police station
7. Digital sovereignty should be upholded.
8. Ensuring law compliance by SSMI.
9. Hate speech and fake news curb.

Proposed Digital India act could be enacted by incorporating above reforms.

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Space for Rough Work

