Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

NEXT IAS (Head Office) : 27-B, Pusa Road, Metro Pillar no. 118, Near Karol Bagh Metro, New Delhi-110060
Bhopal Centre: Plot No. 46, ZONE-2, M.P. Nagar, Bhopal-462011
Ph: 8081300200, 8827664612 | E-mail : mts@nextias.com | **Web:** www.nextias.com

(To be filled by candidate)

Name of Candidate : Ishu Agrawal

Roll No. : 4909922

Registration Number : PTTP220372 **Date of Examination :** 23/08/2023

Exam Centre : Old Rajinder Nagar ☐ Bhopal ☐ Online ☒

Test - 3 **Code : TC073**

MTS IGP Batch 2023

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. : . . . . . .

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

(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

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

MACRO COMMENTS

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Q.1

Windfall tax refers to ~~tax~~ direct tax imposed on ~~current~~ one off, high amount gains ~~accu~~ accruing to a person outside of his regular business or profession,

(eg. lottery gain/ prize etc.

can effectively redistribute & create equality as:-

1. → Generate fiscal headroom to govt. for welfare policies.

2. → Prevent concentration of wealth DPSP - Article 39(b) + (c).

3. → Invested in infrastructure

capex → ST → ↑ employment → economic growth
LT → ↑ productivity → economic growth

bungree

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

4. Reduction in taxes on corporates/individuals
↳ create demand → ∴ Economic growth

Concerns

1. Laffer curve - too high tax rate - lead to reduction in collection

2. Taxation leads to underground of sources (eg) Tax on Capital Gains
↳ people resorting to cash settlement.

3. Not an alternative to regular taxation

Measures needed Abhilash Ranjan :-

1. Increasing effectiveness of tax collection
2. Bring people into tax net (5% file)
3. Digitization of economy.
4. Reduction in evasion

Economic survey said tax is the glue that binds people & govt. together, thus efficient tax administration must be promoted.

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

इस हाशिए में केवल प्रश्न संख्या लिखें।
Only write question number in this margin

Specimen Booklet

UPSC

For Practice Purpose Only

Candidate must adhere to the word limit specified in the question.
Any page or portion of the page left blank must be clearly struck off.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए।
Candidates must not write on this margin.

Q.2

Post the MPC agreement between (2015-16) RBI and govt. of India, Inflation targeting in band of 4 ± 2%. is the statutory responsibility of RBI.

Perceived success

1. Brings greater certainty and uniformity in monetary policy
↳ essential for economic growth.

2. Helped balance need for ~~econ~~ economic growth & price levels.
(Robust growth rate 6.8% in 2023-2024)

3. Clear policy signals to FII → creates trust in economy.

4. Regular MPC meets to assess Repo Rates → Agile approach (ES-2020)

5. Important role played in post pandemic revival.

bungee

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Challenges:

1. Conflict of interest : RBI dual role
   - bargain for govt. (want low interest)
   - Inflation manager (↑ rates)
2. Constant breach of limits → 7% inflation in 2022-23 (presently >5%)
3. Unable to control supply side/ cost push inflation
4. Lack of consensus in RBI/MPC
   (eg) Recent MPC - some member wanted to reduce rate.

Measures needed

1. Ashok Gulati suggested - reduction in weight of food items in CPI
2. Greater Flexibility to MPC - for inflation targetting.
3. Further delegating Debt management to body like PDMA, can be mulled over too.

Q.3

Recently the Hon'ble Finance Minister called Millets 'Wonderfood', highlighting its role in food security + sustainable agriculture.

Millets = coarse grains eg. Bajra, Ragi

Potential in sustainable agriculture :

1. Less water guzzling ($\frac{1}{10}^{th}$) and require less inputs
2. Add to soil organic carbon :. prevent desertification.
3. Maintains soil fertility.
4. Can be used as fodder - prevent overgrazing → soil erosion prevented.

Potential in improving food security

1. Affordability - cheaper alternative to cereals like rice, wheat.

bungee

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

UPSC

Candidate must adhere to the word limit specified in the question.
Any page or portion of the page left blank must be clearly struck off.

2. Accessibility & availability → easy cultivation in rain deficient region [Rajasthan, MH (west) ↳ largest producers]

3. Income security - Huge international market exists

4. Utilization & stability - low Glycogen index - easy absorption by body.

5. Hidden Hunger - addressed by rich micro nutrient content

However, issues faced	Solutions
1. lack of awareness	1. Steps like - International year of millets - Parampargat krishi Yojana
2. Inertia to switch from rice-wheat system	2. Roping in SHGs (eg Millet sisters network Telangana
3. low productivity	
4. Ineffective MSP regime (only 3 covered)	

Millets, if these could be a important cog in the wheel of 3rd Agricultural revolution

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Q.4

Recently Jal Jeevan Mission was extended to Urban Areas vide Budget 2022-23.

present situation
- → water stress - 1486 ~~AB~~ availability
- → poor quality of water
- → pollution arsenic, nitrate ~~dis~~ contamination

Potential of JJM :- significance

1. Equitable access of water to all regions (eg) Has Uttar Nal → bring potable water.

2. Bridge rural-urban divide in water availability (eg) Rural universal tap water provision.

3. Reduce dependence on ground water
   ↳ intergenerational equity.

4. Water deficient regions eg. Rajasthan

bungfree

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

also benefitted.

5. Sustainable water management practices
(eg) Revival of traditional harvesting method.

Underlying impediments:

1. Limited fiscal capacity of state to expand the scheme (Fiscal deficit 6.4% 2022)

2. Taking districts/village as planning units not aquifer.

3. Instances of corruption (eg) Recent CAG report.

4. Top down implementation - limited role of panchayat.

Measures needed
- → Constitution of panipanchayats
- → Watershed management
- → aquifer recharging
- → Behavioural change.

Water is the new oil - hence it must be conserved & wisely used.

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Q.5

Battery Energy storage system (BESS) refers to the infrastructure for storage of energy for future use.

eg Pump storage of water
↓
Potential energy preserved for future.

Application :-

→ Preservation of intermittent Renewable energy → for later uninterrupted supply

→ Mobilization of electricity
eg lithium batteries.

→ Use in e-Vehicles.

→ Use in energy generation.

bungree

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

It can revolutionize energy program as:-

1. Better use efficiency
2. Supporting Energy transition
3. facilitating green mobility
4. Reduce dependency on Fossil fuels.

Thus ~~Batt~~ ~~Bt~~ BESS must be explored with greater scientific research.

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Q.6

Gaganyaan mission is a future manned space mission of India, whereby 3 astronauts will be sent into space using ISRO developed space craft.

Developments :- (Recently)

1. Astronauts undergoing training in Russia (with ROSCOSMOS)
2. Delay in mission due to COVID.
3. Successful testing of reentry module.

Challenges :-

1. Ensuring safety of Astronauts ↳ while launching & reentry.
2. lack of prior experience
3. Cost overrun due to delay
4. American/western sanctions on

bungfree

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Russia, hampering cooperation.

5. lack of ~~Reusable~~ Reusable launch vehicle.
↳ increases cost.

Possible benefits

1. Boost further research into space and cosmos.
2. Astronauts - conduct microgravity experiments - useful in fundamental research.
3. Enhance Global stature as an emerging space power
4. Expand avenues for future space tourism
5. Will pave ~~way~~ way future manned landing on moon and other ~~pla~~ celestial bodies.

As India stands at the cusp of space revolution, Gaganyaan can be a watershed mission for Indian space programme

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Q.7

Recently India launched Green Hydrogen mission with an outlay of >19000 crore to promote Green hydrogen generation.

Can be silver bullet as:-

1. Reduce dependence on fossil fuel (presently > ~~85%~~ 60% energy)
2. Reduce fossil fuel imports (>85%)
3. Employment generation (> 8 lakh)
4. Green energy transition (5 MMT production per annum)
5. Climate friendly mobility - no tail pipe emission
6. Alternate to lithium Batteries (↳ scarce & polluting in production)
7. Better fuel efficiency & energy density (2X than petrol)

bungee

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

UPSC

Candidate must adhere to the word limit specified in the question.
Any page or portion of the page left blank must be clearly struck off.

However, it is not a panacea as:-

1. High cost of production - >300₹/kg
   ↳ deter scalability.
2. Inflammable - prone to accidents
3. lack of supply chain infrastructure
   (eg) storage, transportation.
4. Huge energy requirement for condensing & freezing it.
5. can further water scarcity

Measures needed

1. Greater R&D to reduce cost of ~~gas~~ generation, chances of leakages etc.
2. facilitating private investment with easier procedures, SWC etc.

Energy transition is essential for a sustainable future. Green Hydrogen can be a harbinger in this.

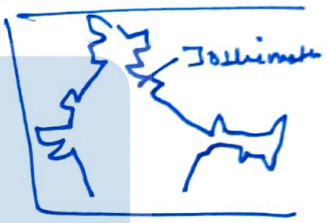
Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

इस हाशिए में केवल प्रश्न संख्या लिखें।
Only write question number in this margin

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए।
Candidates must not write on this margin

Q.8

Recently the tourist town of Joshimath witnessed unprecedented land subsidence.



Causes of disaster

1. Natural
   - → location in unstable Himalayan
   - → Situated on ancient landslide site
   - → loose unconsolidated deposit.

2. Anthropogenic
   - → Rampant heavy construction (eg) Chardham Road
   - → Blasting to clear rocks for Tehri Dam - punctured an aquifer
   - → Burden of unplanned urban expansion.

Impact → loss of life and livelihood
→ Infrastructural damage.

bungee

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

UPSC

Candidate must adhere to the word limit specified in the question.
Any page or portion of the page left blank must be clearly struck off.

Key lessons learnt

1. Refraining from heavy construction without geological studies.
2. Abstaining from Blasting, bore-drilling etc.
3. Promoting Afforestation and Green cover.
4. Curb Rampant Urban expansion
5. Proper underground drainage system - prevent water-logging of soil.
6. Tourism - regulated as per carrying capacity of Himalaya.

further, ~~ancient~~ traditional knowledge like **Vetivar plantation** must be promoted to reduce harm to himalayas.

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Q.9

Radicalism refers to the extreme advocacy of the superiority of one's cause which often involves use of undemocratic means to further the ends.

Recent developments in Punjab

1. → Amrit Pal Singh episode - Renewed trend of Radicalism
2. → Sikh diaspora's sporadic demand of Khalistan.

Causes of these trends

1. Unemployment and disenchantment of youth
2. Agrarian distress - reducing farm income (Punjab - 30% of GDP from agriculture)
3. Active support of Pakistan - I2 diplomacy (raising insurgency)

bungee

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

4. Drug abuse and Mental Health issue

5. Rise of charismatic leaders - capitalizing on fault lines (eg Amrit Pal singh)

6. Perceived feeling of injustice
   - ↳ Historical action - 1984 riots
   - ↳ Recent farm law protests.

Impact
- → Frequent run in with law
- → Demand for secession by few pockets
- → Negative Narrative against the state

Measures to ~~at~~ handle : Multipronged strategy

1. Developmental dividend - facilitate industrial growth and employment.
2. Border management and modernization
   - ↳ stop flow of drugs and funds
3. Roping in charismatic figures - counter narrative of insurgency
4. ~~Conn~~ Allay fears of diaspora.

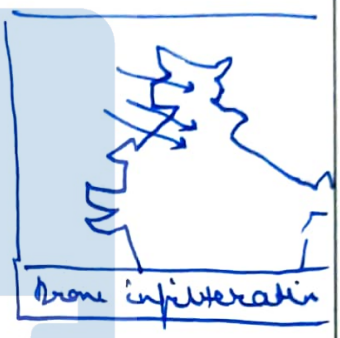
This combined with strict legal action against radicals would ensure peace in Punjab.

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Q.10

Drone are unmanned aerial vehicle which can be controlled remotely.

Challenge to Border security of India



1. Bypass conventional Border security measure
   ↳ Eg drug infiltration Pakistan Border
2. low cost infiltration - high cost resistence
3. Plausible deniability - difficult to link with perpetrator.
4. Wide use - dropping FNCs, Ammunition etc.
5. Intelligence gathering and reconissance

Suggestions to tackle

1. Developing ~~and~~ soft kill and

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM For Practice Purpose Only

Hard kill methods
(soft kill = using targeted radiowaves
Hard kill = using nets)

2. Upgrading border security infra
eg using BOLD-QIT.

3. Technological collaboration with Israel for expertise in Drone.

4. Strengthening Drone operation units within country.

Drones as an emerging technology has its pros and cons. Proactive steps are needed to ensure pros outweigh cons.

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Q.11

In order to revive the DISCOMs Electricity Amendment Bill 2022 was brought.

Advantages

① Consumers

→ New citizen charter for electricity delivery - outline commitments

→ Ensures quality of service ie no power cuts etc.

→ Grievance Redressal mechanism

→ Authority to look into issue of excessive/over invoicing.

② DISCOMs

→ Provides flexibility for tariff setting - considering inflation

→ Restructuring of debt facilitated.

bungfree

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

→ Greater power to DISCOMs to ensure tariff collection and prevent theft of electricity.

③ Environment

→ Requirement of Renewable energy purchase obligation
↳ essential for energy transition.

Limitations

1. Issue of high AT&C loss not addressed
2. legacy dues from Government - major burden.
3. Subsidy regime for electricity
↳ still prevalent.
4. Mandatory revision of tariffs
↳ not provided for.

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Candidate must adhere to the word limit specified in the question.
Any page or portion of the page left blank must be clearly struck off.

इस हाशिए में केवल प्रश्न संख्या लिखें।
Only write question number in this margin

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए।
Candidates must not write on this margin

Measures required

1. Power to DISCOMS to revise tariff ~~for~~ for household use
   ↳ reduce cross subsidization
2. Installing smart-meters
3. Ending freebies culture of electricity subsidization
4. Setting up independent regulator for sector

Electricity is one of the core industries of an economy. ~~Its~~ Addressing its impediments is essential for overall economic growth.

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

40.25

Q.12

SEBI is the statutory regulator of capital markets, ~~et~~ Credit Rating agencies, depositories etc.

Important Role played :-

1. Regulating share markets
   - → Ensuring sound corporate governance (eg) LODR and clause 49.
   - → Disclosures and transparency in working of listed companies
   - → Keeping a check on malpractices (eg) Windowdressing.

2. Safeguarding interest of investors
   - → Preventing malpractices like insider trading
   - → Spreading awareness (eg) use of investors education Fund)

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

UPSC

Candidate must adhere to the word limit specified in the question.
Any page or portion of the page left blank must be clearly struck off.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए।
Candidates must not write on this margin.

इस हाशिए में केवल प्रश्न संख्या लिखें।
Only write question number in this margin

Challenges Faced

1. Shortage of staff - SEBI has ~300 staff for investigation, SEC of USA has >1500.

2. Delay in proceeding - High profile cases like Sun pharma, Reymands pending >15 years.

3. Ineffectiveness in regulation
   ↳ reflected in NSE colocation scam
   ↳ satyam scam.

4. Appointment by Government - creates conflict of interest (as large no of PSU listed)

5. Over reliance on external experts for technical work.

6. failure to act promptly in recent Adani - Hidenberg Fiasco
   ↳ SC had to intervene.

bungee

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Reforms needed (AK Dave committee)

1. Creation of self regulatory organizations - to look into routine compliances - deburden SEBI (eg UK Model)

2. Appointment of chief by an independent committee.

3. Time bound ~~co~~ investigation and orders.

4. Filling up of vacancies
↳ attracting best talents - with suitable remuneration.

5. Accountability to the parliament.

Sound regulation ~~of~~ is the back-bone of capital markets. SEBI must be reformed to transform & tap the potential of Indian stock bourses.

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Q-13

Around 15-18% of GDP of India comes from Agriculture sector, highlighting its important contribution to economy.

Constraints faced by Agriculture
- → low productivity
- → lack of access to credit
- → lack of market access
- → Subsistence farming
- → Disguised unemployment.

Role of technology in addressing them

(A) **Inputs**

1. High efficiency inputs
   (eg) Nano Urea 95% absorption rate
2. High yielding varieties
   (eg) Recent DMH-11 Mustard (GM)
3. Cheaper credit / access to finance

bungfree

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

(eg) JAI KISAN - agri credit by assuring output.

4. Extension services - ensure better productivity

(eg) Soil Health card

5. Mechanization - reducing labour cost & increasing profits

(eg) Happy seeder & Harvester

(B) Output

1. Preservation - (eg) Irradiance technology - reduce wastage

2. Processing - (eg) milk processed into milk powder → greater value & self life.

3. Marketing (eg) e-com portals like "two Brothers"

4. market access (eg) e-NAM portal using internet

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Only write question number in this margin

Candidates must not write on this margin

Challenges

1. Technological fatigue in Agriculture tech → (Dr. Manmohan Singh)
2. Low public investment in R&D (0.75% of GDP)
3. Fragmented land holding - difficulty in tech adoption. (1.08 hect)
4. Poverty of farmers - make tech inaccessible (eg NSO - p.m income < 12000 ₹
5. Digital divide - NSO 75th Round 14.9% rural population has internet access
   ↳ hinder extension services.

Steps taken

1. Krishi Samruddhi Kendra (Budget 24)
2. Promotion to Agri tech under Startup India

Steps needed

1. FPO - synergy benefits
2. ~~For~~ technological collaboration with Israel etc

future belongs to nation with Grains
- Agri tech can ensure this.

bungee

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

UPSC

Candidate must adhere to the word limit specified in the question.
Any page or portion of the page left blank must be clearly struck off.

Q.14

Irrigation refers to making available water for farming during dry season. (eg) use of canals, tubewells etc.

Impact on environment & natural resources :-

Positive impact

1. Increase agricultural intensity
   ↳ ensure food security.
2. Help prevent desertification
   ↳ maintaining soil moisture.
3. Soil erosion thwarted during dry season.

Negative impact

1. Excessive irrigation - causing leaching of nutrients ∴ salinity
2. Tubewell irrigation → Reduction in ~~G~~ Ground water table.

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

(90% of Groundwater - used for agri. purposes)

3. Flood irrigation - for paddy fields
↳ methane generated → global warming

4. Inundation of land for canal construction → soil erosion.

5. Creation of reservoirs for irrigation
↳ obstruct natural flow & loss of bio diversity.

6. Low water use efficiency - cause evaporation → ~~wa~~ wastage of water.

7. Eutrophication - due to runoff.

Measures required

1. Micro ~~irr~~ irrigation practices
   - Drip irrigation → 90% water use efficiency.
   - Sprinkler irrigation - prevents soil erosion.

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

2. Mulching - reduce moisture loss
↳ reduce need of irrigation.

3. Watershed management - focus on rainwater conservation and sound use of water.

4. Participatory irrigation through pani panchayats - greater accountability for water use.

5. Soil and climate specific agriculture
↳ reduce need for irrigation
(eg) Not growing sugarcane in deficient areas (eg) Marathwada.

Water scarcity calls for overhaul of irrigation regime in agriculture. Sustainability and water productivity should be guiding principle.

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

UPSC

Candidate must adhere to the word limit specified in the question.
Any page or portion of the page left blank must be clearly struck off.

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए।
Candidates must not write on this margin.

इस हाशिए में केवल प्रश्न संख्या लिखें।
Only write question number in this margin

Q.15.

A recently released web series has brought into focus the great contributions of Dr. Bhabha and Dr. Sarabhai.

(A) Contributions of Dr. Bhabha :-

→ Instrumental in setting up of Atomic programme in India

→ Crafted the three stage model of nuclear energy in India

→ Represented India at IEA.

→ Contributed to growth of Nuclear research in India

(eg) Director at IISc Bangalore.

~~Benefit to~~ Strategic Benefit to India

→ India became a nuclear power state (1974 Pokharan).

bungfree

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

→ India emerged as a peaceful & responsible nuclear powered nation - acknowledged by west

→ 2% of energy basket - nuclear energy.

→ A culture of fundamental research instilled by Dr. Bhabha continues.

(B) Dr. Sarabhai : Contribution

→ Instrumental in setting up of Indian space programme

→ Played key role in setting up of IIM - Ahmedabad

→ Mentored doyens like Dr. Kalam

→ Contributed to nuclear research.

Benefits accruing to India

→ ISRO - amongst most successful

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

space organisations in the world.
↳ successful missions like
• Chandrayan • Mangalyan etc.
showed prowess of India.

→ IIM-A - ivy league institution - ~~alum~~ almamater to top executives world wide.

→ Instrumental role in furthering scientific temper & culture of research in India.

The contribution of Dr. Bhabha & Dr. Sarabhai is unparalleled in creation of the foundations of "Atmanirbhar Bharat"

bungree

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Q.16

Generative AI refers to those AI technologies which can generate Human like responses to queries, based on a vast text dataset.

(eg) ChatGPT, Bard etc.

Potential to push boundaries of innovation

1. Automating repetitive tasks
   ↳ reduce human dependency
   (eg) ChatGPT writing codes.

2. Reduce cost of research

3. Iterative simulations - automated
   ↳ fast growth of technology.

4. Emerging uses
   a. Use as chatbot
   b. Use as ~~to~~ Real time translator

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

c. use as script writer etc.

Societal impact - challenges

1. potential to replace workforce
   ↳ concerns of unemployment

2. Racist and Misogynist responses
   ↳ amplifying present faultlines.

3. Affect low paying - lower order jobs the most (eg) Receptionists, BPO caller etc.
   ↳ Disproportionate impact on women

4. Creating intergenerational inequality
   ↳ western countries ~~prepared~~ benefitting better than Global south

5. Crimes like morphing, identity theft etc. → reduce interpersonal

bungee

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

trust in society.

6. Fear of misuse by terrorists
↳ spreading propaganda
↳ affect communal harmony.

Steps needed

1. International collaboration – to come up with regulation.

2. Responsibility on corporates / inventor → preventing misuse
↳ installing safeguard.

3. Skilling of population (eg) PMKVY 4.0

4. Exploring option of Universal Basic Income.

"The present decade is technade for humanity" – Hon'ble PM. Appropriate steps are required to ensure its productive use.

bungfree

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Q.17:

In order to promote conservation of Mangroves - COP 27 came up with "Mangrove Alliance for climate" (MAC)

Purpose of MAC

1. Reversal of loss of Mangrove cover around the world

Mangroves: Vegetation found in estuaries, coastal fans etc
↙ ↓
~~Soil~~ salt tolerant
Ecotone effect

2. Promoting use of Mangroves as a nature based solution to climate disasters

3. Conserve the existing mangroves

4. Recognizing the important role they play for local ecosystems and global climate.

bungtree

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

UPSC

Candidate must adhere to the word limit specified in the question.
Any page or portion of the page left blank must be clearly struck off.

Importance of Mangroves

1. Prevent coastal erosion by tidal action → holding on to the soil.

2. Act as natural filters - prevent soil degradation

3. Habitat to wide variety of Flora & Fauna
   - Rhizophora tree etc.
   - salt water crocodile

4. Protection against natural disasters (eg) Tsunami, cyclone etc.

5. Important carbon sink
   ↳ greater potential than even Rainforests.

6. Protection from salt water intrusion - productivity of land.

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

UPSC

Candidate must adhere to the word limit specified in the question.
Any page or portion of the page left blank must be clearly struck off.

इस हाशिए में केवल प्रश्न संख्या लिखें।
Only write question number in this margin

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए।
Candidates must not write on this margin.

Challenges faced → Aquaculture and farming induced degradation

~~Cto~~ Pollution and eutrophication

Sea level rise - causing submergence (eg) Bhashan Char Island.

cutting of trees for timber.

Steps needed → Reducing dependence on fossil fuels

Afforestation on degraded coastal land

protection as community reserves

Mobilizing finance to prevent destruction.

Steps like MISHTI taken by India are the ones in right direction.

bungfree

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Q. 18

CDRI is an initiative launched by India with the aim of prevention, mitigation and adaptation for climate induced disasters.

Brings more robustness to Disaster management as:-

1. International cooperation - in ~~tacking~~ tackling climate disaster

2. Sharing of best practices across countries.

3. Mobilization of finance for building back better

4. Human Aid & Disaster Response

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

in case of catastrophe.

Need for new strategy :-

1. Shortcoming of present strategy

- minimal role of communities envisaged
- Disproportional responsibility on state
- Private sector virtually left out
- Top down approach
- Underutilization of NDMF

2. Evolving nature of disaster
(eg) Marine heat waves, frequent GLOFs

3. focusing on adaptation required

bungree

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

UPSC

Candidate must adhere to the word limit specified in the question.
Any page or portion of the page left blank must be clearly struck off.

Thus evolving a new strategy as per need of 21st century is essential to achieve SDG #11.

NEXT IAS

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

UPSC

Candidate must adhere to the word limit specified in the question.
Any page or portion of the page left blank must be clearly struck off.

Q. 16.

Ransomware are malicious software which restrict the owner's access to the system by encrypting the data and demand of a ransom is sought by the perpetrator.

Recent instances
- → Wannacry Ransomware attack on corporate
- → Petya Ransomware
- → AIIMS attack.

Factors contributing to the trend

1. Poor IT infrastructure - with corporates/govt → prone to attacks
(eg - Absence of Firewalls)

2. lack of digital hygiene - amongst users → susceptible to attacks

3. ~~Dual use~~ Import dependence for devices - chinese import dual use

bungfree

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

technology (eg) 60% of telecom equipment by operators imported.

4. ~~Case~~ lack of capacity with enforcement agencies — to tackle cyber crimes

5. Absence of international framework to collaborate

6. Active support of states
(eg) Red echo group of China - attacked Mumbai power crisis

7. fast evolving technology → creating pacing dilemma

Impact

1. Corporates - Hindering of operations
- loss of critical business info
- affecting investors confidence.

2. Governments - Hamper e-service delivery
- loss of sensitive information

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

- Bringing state to halt (eg) Estonia 2007

3. Individuals
- financial loss due to cyber frauds
- loss of private information.

Urgent need

1. Capacity building of law enforcement agencies.
2. strong laws to create deterrence.
3. Digital literacy to people.
4. Global collaboration to develop international ~~se~~ cyber security architecture (eg) Budapest convention
5. Securing ~~cr~~ critical infrastructure (eg) Air gap arrangement.

In a world which is increasingly becoming cyber, cyber security is a sine-qua-non.

bungree

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

UPSC

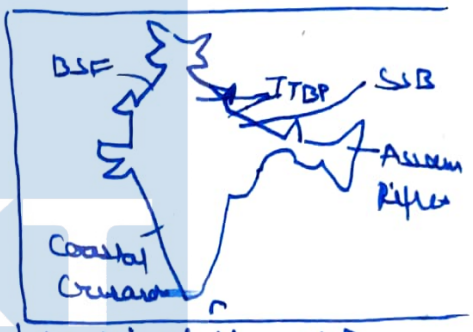
Candidate must adhere to the word limit specified in the question.
Any page or portion of the page left blank must be clearly struck off.

Q.20

India has territorial boundary of >15000 km and marine boundary of >7500 km, making border security essential.

Need for coordination

1. Multiplicity of forces manning the borders. (Fig)



Multiplicity of Forces.

2. federal polity - states having own police force (eg. Marine police force MH)

3. multiplicity of threats
   - Infiltration - Pakistan
   - Illegal Migration - Bangladesh ~~Myanmar~~
   - Organized crime - Myanmar

4. Security of command (eg) Vikas

Next IAS ID: PTTP220372, TC073, 23-08-2023 10:45 AM

Battalion under cabinet secretariat } China Border.
ITBP under MOHA

5. Improving coordination

1. One force one border principle be followed → ensuring unity of command.

2. DGP level coordination committee for CAPFs.

3. Creation of a nodal agency at MOHA to unified control on Border guarding armed force.

4. Better intelligence and information sharing with state police forces.

5. Coordination with Army and navy

6. Better intelligence collation from RAW and IB → through NSA.

bungfree