

TEST CODE 7 1 3 3 0 1

MGP 2024

Time Allowed : Three Hours
समय : तीन घंटे

ForumIAS

Maximum Marks : 250
अधिकतम अंक : 250

GENERAL STUDIES / सामान्य अध्ययन

Name Of Candidate परीक्षार्थी का नाम	Aditi Arora		
Roll No./अनुक्रमांक	191031695	Medium/माध्यम	English <input checked="" type="checkbox"/> हिंदी <input type="checkbox"/>
Center Code/परीक्षा केंद्र		Date/दिनांक	11/2/24

*Center Code : For Online - 1900 / Delhi : Karol bagh - 1901, ORN - 1902, Mukharji Nagar - 1903 / Patna : Boring Rd. - 2001 / Hyderabad : Jawahar Nagar - 2101

INDEX TABLE / अनुक्रमणिका			INSTRUCTION / अनुदेश		
Q. No. प्र.सं.	Max. Marks अधिकतम अंक	Marks Obtained प्राप्तांक	1. Please do furnish Name, Email, Roll No and Mobile in the answer sheet. कृपया उत्तर-पुस्तिका में नाम, ईमेल, रोल नंबर और मोबाइल नंबर भरें।		
1			2. There are TWENTY questions printed in ENGLISH & HINDI, all questions are compulsory. उत्तर पुस्तिका में अंग्रेजी/हिंदी में बीस प्रश्न दिए गए हैं, सभी प्रश्न अनिवार्य हैं।		
2			3. The number of marks carried by a question/part is indicated against it. प्रत्येक प्रश्न/भाग के लिए निर्धारित अंक उसके सामने अंकित किए गए हैं।		
3			4. Answers must be written in the medium authorized in the admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided. उत्तर प्रवेश पत्र में अधिकृत माध्यम में लिखे जाने चाहिए, जो कि दिए गए स्थान में इस प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के कवर पर स्पष्ट रूप से लिखा जाना चाहिए।		
4			5. Word limit in questions, if specified, should be adhered to. Any page or portion of the page left blank in the Question-Cum Answer Booklet must be clearly Struck off. प्रश्नों में शब्द सीमा, यदि निर्दिष्ट हो, का पालन किया जाए। प्रश्न-सह-उत्तर पुस्तिका में खाली छोड़े गये किसी भी पृष्ठ या पृष्ठ के भाग को स्पष्ट रूप से काट दें।		
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Total/कुल अंक	250		For Student Only / केवल परीक्षार्थी प्रयोग हेतु		
Examiner's Discretion/मूल्यांकन कर्ता का विवेक :			Start Time/प्रारंभ करने का समय :	End Time/समाप्त करने का समय :	
			12:30 p.m	3:30 p.m .	
Total Marks/कुल अंक :			Mode Of Examination/ परीक्षा की विधि :	Online/ऑनलाइन <input checked="" type="checkbox"/> Offline/ऑफलाइन <input type="checkbox"/>	
			Online		
*Examiner's Discretion is the marks awarded at the discretion of the examiner based on your overall impression, on the basis of (but not limited to) your handwriting, presentation, use of diagrams, flowcharts, facts and figures or absolutely anything that he/she liked in your copy. मूल्यांकन कर्ता का विवेक अंक, आपकी लिखावट, प्रस्तुति, आरेखों के उपयोग, फ्लोचार्ट, तथ्यों और आंकड़ों या समग्र रूप किसी अन्य विषय वस्तु, जो मूल्यांकन कर्ता को आपकी कॉपी में पसंद आयी के आधार पर (लेकिन इन्हीं तक सीमित नहीं) पर दिए गए अंक हैं।			For Office Use Only / केवल कार्यालय प्रयोग हेतु		
			ECN CODE/ ईसीएन कोड :	EG/ईजी :	Evaluation Date/ मूल्यांकन तिथि :
				① ② ③ ④ ⑤	

Note: Students are expected to incorporate suggestions from the feedback provided in the answers. Discuss the tests are also available online in your portal to aid in your preparation. Further, students are requested to copies of the tests and learn from them. You can also discuss your copy with a Mentor and discover ways improve your answers, or if you have any issues with this test / copy. Ask specific questions, to get specific ans

EXAMINER'S REMARKS

CRITERIA FOR THE FEEDBACK SECTION AT THE END OF EACH QUESTION

1. **AWIS = Answered What is Asked.** This means whether you have addressed the core demand of the question or not. Addressing the core demand of the question gets you an objectively fair score. It is examiner's perception if you have understood the question and if you know the answer in the same space limit have you (a) written what is asked (b) gone beyond what is asked (c) enriched answers through combination of (but not all!) suggest quotes, flowcharts, diagrams, facts and figures, data etc. This affects objective components of assessment.
2. **CD & VA = Content Density & Value Addition.** Examiner will evaluate the quality and quantity of your content in the answer. In the same space limit have you (a) written what is asked (b) gone beyond what is asked (c) enriched answers through combination of (but not all!) suggest quotes, flowcharts, diagrams, facts and figures, data etc. This affects objective components of assessment.
3. **S & F = Structure & Flow =** Whether you have structured your answer properly or not. Whether the answer has been broken into parts and each part has been addressed appropriately or not. Whether the flow of the answer is maintained. Affects both subjective and objective components of assessment.
4. **P & R =** How your answer performs on the criteria of presentation, ease of read, clarity and apparent effort in writing the answer. This affects subjective components of assessment.

Q.1) The multiheaded hydra of inequity is reinforced by the skewed concentration of wealth. How far can Universal Basic Income (UBI) check the growth of economic inequity? Substantiate your answer. (10 marks, 150 words)

असमानता के बहुमुखी हाइड्रा को धन की विषम एकाग्रता से बल मिलता है। यूनिवर्सल बेसिक इनकम (UBI) किस हद तक आर्थिक असमानता की वृद्धि को रोक सकती है? अपने उत्तर को प्रमाणित कीजिए। (10 अंक, 150 शब्द)

Universal Basic Income means granting the basic minimum income to all sections of the society.

Advantages of UBI

- ① Empower the individual to enjoy social benefits like education, health services.
- ② Will help in reduction of equality between male and female - (gender equality).
- ③ Boost in demand in the economy.
↓
Therefore economic growth.
- ④ will supplement the efforts of government like education scheme,
- ⑤ Push to cleaner and greener economy can be done

Disadvantages

- ① Against the ~~free~~ market economic model.
- ② Reinforces sin as mentioned by Gandhi: (wealth without work).
- ③ Huge financial burden on government → (rise in fiscal deficit).
- ④ Make ~~the~~ ^{the} people dependant on government.
- ⑤ can bring in inactivity and passiveness.
- ⑥ decrease in labour productivity.

UBI is also being provided by certain states like Punjab Government can opt for partial basic income to those in need and should focus on providing the basic necessities which empowers them to actively participate in economic growth.

Feedback

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AWIS			
CD & VA			
S & F			
P & R			
Please put tick marks in the above table. Here G is Good, A is Average and P is Poor.			
TOTAL MARKS			

Q.2) Trace the evolution of Industrial policy in India post-independence. Assess the success of these policies in fulfilling their desired objectives. (10 marks, 150 words)

स्वतंत्रता के बाद भारत में औद्योगिक नीति के विकास का रूपरेखा प्रस्तुत कीजिए। अपने वांछित उद्देश्यों को पूरा करने में इन नीतियों की सफलता का आकलन कीजिए। (10 अंक, 150 शब्द)

Industrial ^{sector} contributes to around 30% to Indian GDP. This ~~was~~ is due to the various policy interventions by the government.

Evolution of Industrial Policy

- ① Industrial Policy - 1950's
↓
- ② Industrial Policy ~ 1968
↓
- ③ Industrial Policy - 1991 (liberalisation, privatisation, globalisation)

Success of the policies

- ① To increase the industrial sector growth in GDP.
- ② Increased the manufacturing

(Don't
in this
or any

contribution to economy.

③ change from LPO → LPA regime.

④ A keeps on increasing the foreign investments in form of FDI and FPI.

⑤ Keypsin has been successful in fuller current account convertibility and partial capital account convertibility.

More needs to be done such as boosting domestic demand, domestic infrastructural, R&D etc.

Feedback

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#	G	A	P
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Please put tick marks in the above table.
Here G is Good, A is Average and P is Poor.

TOTAL MARKS	
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Q.3) World Trade Organisation (WTO) was formed with the objective of imparting a long term and equitable solution to the dichotomy between free trade and food security; however, the objective has been marred by several factors. Comment.
(10 marks, 150 words)

विश्व व्यापार संगठन (WTO) का गठन मुक्त व्यापार और खाद्य सुरक्षा के बीच द्वंद का दीर्घकालिक और न्यायसंगत समाधान प्रदान करने के उद्देश्य से किया गया था; हालाँकि, उद्देश्य कई कारकों के कारण पूर्ण नहीं हो पाया है। टिप्पणी कीजिए।
(10 अंक, 150 शब्द)

WTO was the result of ~~the~~ MTN rounds. It was formed to boost trade and ensure trust between the countries.

Positives of WTO

- ① Increase in International trade.
- ② Provided a platform to discuss various issues.
- ③ Has helped in resolution of disputes between various countries.
- ④ Has helped formed various supply chain for particular items.

Challenges

- ① Agreement on Agriculture calls for reduction commitments on various subsidies → a cause for rift

between developed and developing countries

- ② various export restrictions by the countries ~~have~~ for domestic security hampers free trade e.g. in India export restriction on wheat.
- ③ vacancy in WTO → ineffective grievance redressal.
- ④ IPR related issues e.g. recently in vaccine development.
- ⑤ International obligation vs domestic mercantilist approach.

India has pushed for moving agricultural subsidies in green box, as farmers are dependant on government for MSP, seeds availability etc.

Need is for global cooperation, vacancy filling and coordination between developed and developing countries to fulfil SDG 1 and 4D2.

Feedback

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Please put tick marks in the above table.			
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TOTAL MARKS			

Q.4) The utility of APMCs is not lost despite a plethora of limitations. Discuss and recommend corrective measures for overhauling the APMCs. (10 marks, 150 words)

अत्यधिक सीमाओं के बावजूद APMCs की उपयोगिता खत्म नहीं हुई है। चर्चा कीजिए और APMCs की जीर्णोद्धार के लिए सुधारात्मक उपायों की सिफारिश कीजिए। (10 अंक, 150 शब्द)

APMCs are the marketing mandis developed by state governments. They are the first point of contact between farmers and wholesalers.

Limitations of APMCs

- ① Lack of cold storage facilities (only 10% of APMC has it).
- ② Presence of middlemen and other retailers of produce to farmers for their produce is 30% of consumer price.
- ③ Despite FCI being the procurement agency in APMC only 6% of farmers sold their produce to any procurement agency - Shanta Kumar Comm.
- ④ Fees and other levies → makes the products expensive.

- ⑤ Lack of storage at mandis —
'Plinth and cover' is used.
- ⑥ Monopolistic tendencies of big farmers.

Measures

- ① Use of technology to reduce fees.
- ② Integrated APMC market all over
the India (intra state and inter
state)
- ③ Use of e-NAM for better price
discovery.
- ④ Bring in private players -
- ⑤ Proper infrastructural capacities
to boost cold cold storage.
- ⑥ Turning traditional suwal haat
to Grams.

APMC must be reformed to
overhaul the agricultural sector.

Feedback

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TOTAL MARKS			

Q.5) Discuss the natural and anthropogenic factors behind incidents of land subsidence. Suggest counter-measures to contain such incidents. (10 marks, 150 words)

भूमि धंसाव की घटनाओं के पीछे प्राकृतिक और मानवजनित कारकों पर चर्चा कीजिए। ऐसी घटनाओं को रोकने के लिए जवाबी उपाय सुझाएं। (10 अंक, 150 शब्द)

land subsidence ^{is a} ~~slowly~~ ~~weak~~ ~~slow~~ process, which renders the inability of soil to further take the load above its surface.

Natural Factors

- ① Recess water between the pores → make the soil weak.
- ② landslide materials accumulating over the time. (as in Joshimath)
- ③ Due to natural events like earthquake, which shake the soil materials
- ④ ~~presence~~ ^{depends} of ~~on coarse~~ soil type.

Anthropogenic factors

- ① Unsustainable construction (eg in recent land subsidence in Uttarakhand).

(Don't write in this Area पर कुछ न लिखें)

② Boost to tourist activities which increased the demand for structures.

③ Construction activities such as cutting of land slopes → weaken the material.

④ Reduction in ground water availability.

measures such as proper assessment of the land area, boost sustainable construction practices, ~~natural~~ allowing natural flow of rivers etc.

Feedback

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Please put tick marks in the above table. Here G is Good, A is Average and P is Poor.			
TOTAL MARKS			

Q.6) Explain Glacial Lake Outburst Flood (GLOF). Also, discuss GLOF mitigation strategy with special reference to National Disaster Management Authority (NDMA) guidelines. (10 marks, 150 words)

ग्लेशियल लेक आउटबर्स्ट फ्लड (GLOF) की व्याख्या कीजिए। इसके अतिरिक्त, राष्ट्रीय आपदा प्रबंधन प्राधिकरण (NDMA) दिशानिर्देशों के विशेष संदर्भ में GLOF शमन रणनीति पर चर्चा कीजिए। (10 अंक, 150 शब्द)

Glacial lake outburst flood (GLOF) means the overflow of the lake which is formed by glacial action. This can be due to excessive rainfall or saturation of the ground of lake.

Reasons for GLOF

- ① Saturation of surface of lake → reduces water holding capacity of the lake.
- ② Extreme weather events such as excess rainfall over a short period of time.
- ③ Cloudburst can also trigger floods.
- ④ Encroachments of the boundary of the lakes.

Mitigation strategy

- ① Prevents erosion by rivers.
- ② Remove the settlements near lakes.
- ③ Houses and other structures to build on an upraised platform.
- ④ Increase the capacity of lakes to hold more water, like removing siltation from time to time.
- ⑤ Reduce human activities

Extreme weather events like GLOF would continue. We should likely to form a proper mitigation & adaptation strategy to reduce its effect.

Feedback

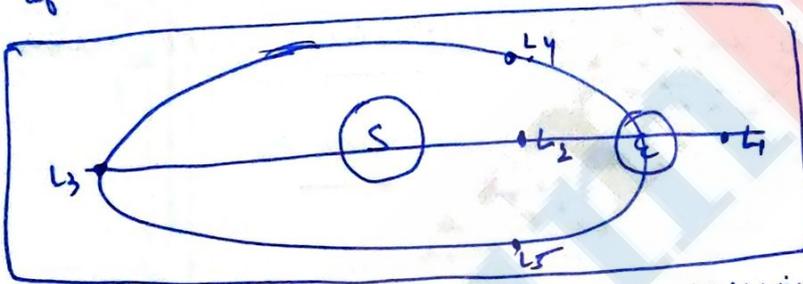
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TOTAL MARKS			

Q.7) Aditya L1 mission is an important milestone as India's first space based solar observatory. Enlist the major scientific objectives and the challenges of the mission. (10 marks, 150 words)

भारत की पहली अंतरिक्ष आधारित सौर वेधशाला के रूप में आदित्य एल1 मिशन एक महत्वपूर्ण मील का पत्थर है। मिशन के प्रमुख वैज्ञानिक उद्देश्यों और चुनौतियों को सूचीबद्ध कीजिए। (10 अंक, 150 शब्द)

Aditya L1 mission is the 1st solar observatory of India. It is ~~center~~ placed at lagrange point 1, to ensure 24x7 view of the sun.



Sun-Earth system and various lagrange points

Scientific objectives

- ① To study the ~~at~~ sun's outer atmosphere, corona, chromosphere, etc.
- ② To understand the sun-earth system.
- ③ How do solar flares affect the earth.
- ④ understand and the cyclic change in

magnetic properties of the sun and its effect on earth.

Challenges

- ① will increase the space junk, once completed.
- ② Huge fuel cost such as for fuel.
- ③ No proper data retrieval mechanism
- ④ Coincides with global mission.

Aditya L is a prowess step for scientific exploration and for India's global space hub. Innovation ~~resources~~ needs to be ~~taken to~~ done to reduce the future ~~cost~~ mission cost: Humanity to be used in space too.

Feedback
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Please put tick marks in the above table. Here G is Good, A is Average and P is Poor.			
TOTAL MARKS			

Q.8) Describe briefly what gene therapy is and what advantages it has over other treatments? (10 marks, 150 words)

संक्षेप में बताएं कि जीन थेरेपी क्या है और अन्य उपचारों की तुलना में इसके क्या फायदे हैं? (10 अंक, 150 शब्द)

Gene therapy is the changes made in genes for a particular disease ~~to~~ to ~~for~~ ensure long term sustainability and resistance from that disease.

Advantages

- ① ~~can~~ ~~ensure~~ ^{immunise} future ~~of~~ offspring from that disease if done on fertility cells.
- ② ~~as~~ No requirement of recurrent treatments to be given.
- ③ ~~ensure~~ life long prevention from the disease.
- ④ Can ensure total eradication of that disease.

However there are certain challenges

- ① Huge cost
- ② Against the natural process.
- ③ is done in laboratory → can be misused by designer babies.
- ④ lack of scientific research.
- ⑤ can trigger other side effects eg cytotoxic release syndrome

gene therapy is a progressive step, but for its full fledged use scientific research needs to be done.

Feedback

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Please put tick marks in the above table. Here G is Good, A is Average and P is Poor.			
TOTAL MARKS			

Q.9) National security challenges require sufficiently addressing the concerns of human security.
 Explain and suggest reforms for the same. (10 marks, 150 words)

राष्ट्रीय सुरक्षा चुनौतियों के लिए मानव सुरक्षा की चिंताओं को पर्याप्त रूप से संबोधित करने की आवश्यकता है। इस हेतु सुधारों का सुझाव दीजिए एवं व्याख्या कीजिए। (10 अंक, 150 शब्द)

National security challenges have increased and taken new forms in the last decades. due to technological advancements.

National security vis-a-vis human security

- ① Presence of developmental deficit → hostile conditions for human to act against the government of parallel movement
- ② lack of basic necessities to the people of education → Easy targets of radicalisation.
- ③ Threat of violence used by extremist forces → is generates fear among other section of the society.

④ Mostly citizens are targeted by terrorist group to instill fear among the citizens.

⑤ ~~Let~~ Retrain the free expression of citizens.

Reforms

① Integrated developmental and law & order approach.

② ~~We~~ Provide basic education to the masses.

③ Employment opportunities to the youth

④ Increase surveillance and security measures to alleviate the fears of masses.

National security and human security are linked and mutually addressing these concerns will prove beneficial in longer run.

Feedback

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TOTAL MARKS			

Q.10) Do you think the Armed Forces Special Powers Act (AFSPA) is necessary for bringing peace in disturbed areas? Critically Analyse. (10 marks, 150 words)

क्या आपको लगता है कि अशांत क्षेत्रों में शांति लाने के लिए सशस्त्र बल विशेष अधिकार अधिनियम (AFSPA) आवश्यक है? आलोचनात्मक विश्लेषण कीजिए। (10 अंक, 150 शब्द)

Armed forces special powers act (AFSPA)

gives unprecedented powers in the hands of armed personnel ~~and~~ to

control the extremism and militancy.

It even has the clause of

"shooting-at-site" order

Necessary: why?

- ① To control the extremist forces.
- ② To prevent civilian harm.
- ③ To prevent the external state and non-state actors to undermine the peace.
- ④ Necessary for national security and sovereignty.
- ⑤ Promotes collective good.

Why it should be removed.

- ① ~~to~~ instill fear among civilians we have seen instances of civilian death.
- ② unprecedented power to the armed personnel → who is responsible?
- ③ Government Responsibility cannot be claimed.

④ ~~to~~

AFSPA is a necessary evil. Proper training to armed personnel to prevent civilian casualties is needed and phased removal ~~is~~ done for Arunchal Pradesh is needed.

Feedback

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#	G	A	P
AWIS			
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Please put tick marks in the above table. Here G is Good, A is Average and P is Poor.			
TOTAL MARKS			

Q.11) To what extent does the Female Labor Force Participation paint a true picture of the participation of women in the Indian economy? Justify with suitable examples.

(15 marks, 250 words)

महिला श्रम बल भागीदारी किस हद तक भारतीय अर्थव्यवस्था में महिलाओं की भागीदारी के बारे में सही तस्वीर पेश करती है? उपयुक्त उदाहरणों द्वारा पुष्टि कीजिए।

(15 अंक, 250 शब्द)

Female labour force participation means the number of working women in the total labour force of the country.

The data is presented in annual survey of PLFS.

Female participation according to data

① Increase in participation of women workforce of PLFS data (2021-22)
Female LFPR = 32% (↑)

② Increase of female in STEM courses
43% (highest in the world).

③ Increase in pay for women
of PLFS data Pay gap between men and woman decreased by 7%.

④ Increase in women at top leadership

Notes of Satyamunshi

- ⑤ Women played a significant role in scientific mission of Chandrayan 3 (almost 100 women participated).
- ⑥ Increase in diverse economic opportunities for women of Lakshpati Didi scheme for women SHG's (Budget 2023-24)
- ⑦ Increase in registration of women enterprises on Vahan portal (~20%)

However the other side of the picture

- ① Increase in sexual harassment of women at workplaces → demotivates them to dropout.
- ② Increase in dropouts of females from schools
- ③ Lack of formal access to credit (therefore 90% of women are in unorganised sector).

④ Lack of registered sources of income
of 73.2% of rural women are
engaged in farming activities, but
only 12.8% of women own lands.

⑤ Burden of care and households
with no change of attitude by
male gender (eg women on average
spend 200 hours on care economy,
while men spend only 83 hours).

Though women participation
has increased in labour force
but more needs to be done for
inclusive growth such as providing
regulatory environment for women,
safe and affordable workplaces, behavioural
change in men.

Feedback

(For OFFICE use only)

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Please put tick marks in the above table. Here G is Good, A is Average and P is Poor.			
TOTAL MARKS			

Q.12) Enumerate the limitations associated with the operation of Special Economic Zones (SEZs). Assess the potential of the Domestic Enterprise and Services Hub (DESH) bill, 2022 in enhancing the effectiveness of the SEZs. (15 marks, 250 words)

विशेष आर्थिक क्षेत्रों (SEZs) के संचालन से जुड़ी सीमाओं की गणना कीजिए। SEZs की प्रभावशीलता बढ़ाने में घरेलू उद्यम और सेवा हब (DESH) विधेयक, 2022 की क्षमता का आकलन कीजिए। (15 अंक, 250 शब्द)

Special economic zones (SEZ) are specially demarcated economic area in the country which is treated as a foreign land to increase manufacturing and export from that area. Facilities like infrastructure, electricity are provided by government.

Limitations with SEZ

- ① Increase in compliance with various rules and regulations.
- ② Bureaucratic and administrative tinkering.
- ③ Lack of required infrastructure in that area.
- ④ Regional disparity mostly

Concentrated in few states such as Maharashtra, Gujarat, Karnataka.

⑤ lack of market for products (domestic as well as international).

⑥ Increase logistics cost which reduces ~~reduces~~ the cost competition of product with external market

(Logistics cost of India ~14% of GDP)

Logistics cost of world ~8-9% of GDP)

⑦ Tax imposition in domestic tariff area which creates confusion.

⑧ According to CAH report out of ~300 sanctioned SEZ only 97 are operational.

Recently parliament presented a (DESH) bill for enhancing SEZ's capacity.

- ① Integrated approach to increase efficiency (both manufacturing and services are included)
- ② Boost to domestic demand and market as well (hedge against external shock of market).
- ③ Local sourcing of products.
- ④ Employment to domestic people.
- ⑤ will increase the Foreign Investments.

SEZs are the progressive step to increase economic growth and accelerating export led growth. Steps like prudent import policy, infrastructural capacity, R&D needs to be done.

Feedback

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Please put tick marks in the above table. Here G is Good, A is Average and P is Poor.				
TOTAL MARKS				

Q.13) How will you explain the potential of Agristack in providing a lasting remedy to various ills afflicting the farm sector? (15 marks, 250 words)

आप कृषि क्षेत्र को प्रभावित करने वाली विभिन्न समस्याओं का स्थायी समाधान प्रदान करने में एग्रीस्टैक की क्षमता की व्याख्या किस प्रकार करेंगे? (15 अंक, 250 शब्द)

Digital Public Infrastructure (DPI) goods are the ~~new~~ public goods which increase the penetration of digital economic growth and boost the ~~do~~ demand and rectify supply constraints. One such is Agristack.

Issues in farm sector

- ① low return on investments
- ② Lack of extension services to the farmers
- ③ Deteriorating soil health due to excessive use of pesticides and fertilisers.
- ④ Proliferance of practice of mono culture (eg water intensive crops are grown in water stressed regions eg rice in Punjab)

- ⑤ Lack of unified and integrated data availability to farmers.
- ⑥ Lack of formal access to loans
(e.g. RBI study 2019 ~ 60% of small farmers do not have access to bank loans)
- ⑦ Poor connectivity & lack of linkage of bank accounts with Aadhar card, → inefficient working of subsidies of DBT to Kisan through PM KISAN Yojana.

② Potential of AgriStack

- ① Integrated data management.
- ② Increase in connectivity with farmers and administrative agencies.
(efficient working of subsidies)
- ③ Data and information dissemination to farmers & about

the soil health.

① Integration with other technologies like AI, Big data analytics.

② Increase in formal access to farmers (at present ca 52% of agricultural households are under debt).

Use of technology in Farming sector enhances the overall health of the economy. Other issues such as privacy, digital divide, inequality, digital illiteracy needs to be rectified.

Feedback

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TOTAL MARKS			

Q.14) What do you understand by Farmers Producer Organisations (FPO's)? Throwing light upon the various challenges faced by the FPOs, suggest measures to ameliorate the same.

(15 marks, 250 words)

किसान उत्पादक संगठनों (FPO's) से आप क्या समझते हैं? FPO's के सामने आने वाली विभिन्न चुनौतियों पर प्रकाश डालते हुए उन्हें सुधारने के उपाय सुझाएं।
(15 अंक, 250 शब्द)

Farmers Producer Organisations (FPO's) are the combination of cooperatives and commercial body. Farmers in FPO's have shared interest and works for mutual benefit, whereas its working and market linkages are handled like a commercial body managed by CEO's.

Positives of FPO's

- ① Increase market penetration of farming activities.
- ② Increase linkages between agriculture and industrial sectors.
- ③ Better returns to farmers.
- ④ collective bargaining strength of farmers.
- ⑤ Help in rapid building of

forward and backward linkages.

Challenges faced by PPO's

- ① lack of infrastructure which can boost in productivity.
- ② Structural problems related to farming are not sorted out. e.g. use of pesticides.
- ③ Poor R&D in agriculture (NO. 48% of agricultural GDP).
- ④ Favours business interest at the cost of farmer's interest.
- ⑤ supply & demand discrepancy.
- ⑥ lack of storage and transportation facilities.
- ⑦ slow release of funds by governments
- ⑧ concentrated for specified crops.
i.e. lacks crops diversification →
reinforce cycle of monoculture.

Measures

- ① use of technology to manage funds.
- ② Integrated approach to manage farming issues and market linkages issue
- ③ Hand-held approach by government by providing the required expertise.
- ④ Training and awareness to farmers.
- ⑤ Give fast boost to other sectors such as contract farming

Farming issues are the main problems on which rests the entire base of economy. Increasing the agricultural growth rate by 1%, increases the industrial growth rate by 0.5% and 0.7% increase in national income

Feedback

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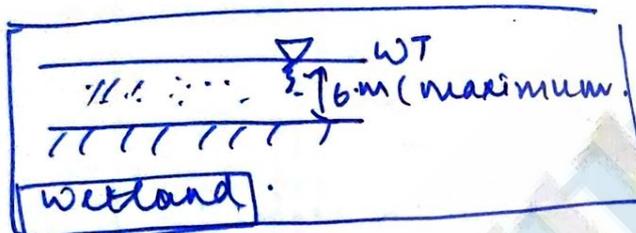
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Please put tick marks in the above table. Here G is Good, A is Average and P is Poor.			
TOTAL MARKS			

Q.15) What role does wetland play in expanding the framework of sustainable development? What are the challenges faced by wetland ecosystem? Discuss the corrective steps required for their effective conservation. (15 marks, 250 words)

सतत विकास के ढांचे के विस्तार में आर्द्रभूमि क्या भूमिका निभाती है? आर्द्रभूमि पारिस्थितिकी तंत्र के सामने क्या चुनौतियाँ हैं? उनके प्रभावी संरक्षण के लिए आवश्यक सुधारात्मक कदमों पर चर्चा कीजिए। (15 अंक, 250 शब्द)

Wetlands are the area of transition between terrestrial and aquatic ecosystem.

It is defined where the water table reaches the height of not more than 6m above the surface.



Role of wetlands

- ① Shock absorbers to the extreme weather events like cyclones, tsunamis eg during cyclone Ampha.
- ② Rich biodiversity area - harbours the most endangered species as well of beavers.
- ③ Alternative to farming on land

of sustainable agriculture . ricecum
fish culture in kuttanad

- ④ Keeps prevents erosion and activities along the coast.
- ⑤ Tourist destination of Sunderbans.
- ⑥ Sites for migratory birds.
- ⑦ Helps in integrated management of the ecosystem.
- ⑧ Provides various ecosystem services
- ⑨ source of carbon sequestration and other harmful gases.

Challenges faced by wetlands

- ① ^{Reduction} ~~Reduction~~ of water availability in and around wetland areas.
- ② Increase human interventions of unsustainable tourism
- ③ Increase in extreme weather events.
- ④ It cannot sequester harmful

contaminants like mercury.

- ⑤ Reduction in groundwater due to unsustainable agricultural activities.

Measures

- ① community participation of MPA Guyana where erosion around coast is reduced by local community.
- ② use of sustainable practices like aquaculture to help retain nutrients.
- ③ Proper waste disposal so that it does not enter the wetland ecosystem.
- ④ Use of traditional cultural activities e.g. by Bon Bibi is revered as forest goddess.
- ⑤ Government interventions like Amrit dhanwada scheme.

Wetlands are like lungs of a nations and they need to be preserved for overall health of environment and climate action (SDG13).

Feedback
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Please put tick marks in the above table. Here G is Good, A is Average and P is Poor.			
TOTAL MARKS			

Q.16) Describe the concept of loss and damage and evaluate its relevance in ensuring climate equity. (15 marks, 250 words)

क्षति और नुकसान की अवधारणा का वर्णन कीजिए और जलवायु समानता सुनिश्चित करने में इसकी प्रासंगिकता का मूल्यांकन कीजिए। (15 अंक, 250 शब्द)

loss and damage means the effects caused by climatic events.

loss means it cannot be recovered and damage can be brought to its initial stage by interventions.

Importance of loss and damage

- ① Assess the required interventions to rectify the problems of financing
- ② Helps in assessment of the impacts of climatic events
- ③ Helps in ensuring quick recovery.

Relevance in climate equity

- ① Undo the historical wrong done by developed countries.

- ② A space for small island developing countries and other vulnerable countries to voice their opinion.
- ③ Access: ensure proper channels of climate funding.
- ④ Holistic and comprehensive measure to tackle climate change addressing mitigation, adaptation and loss & damage.
- 
- ⑤ ensure equitable + inclusive transition towards sustainable development.
- ⑥ Push towards one earth, one family, one future.
- ⑦ Provide equitable developmental opportunities.

⑧ Push towards CBDR-RC - common but differentiated responsibility and respective capabilities.

⑨ Helps in realisation of the negative effects of unprecedented economic growth.

operationalisation of Resilience, Loss and Damage fund in COP-28 is a step in right direction. India ~~has~~ can become the global leader by ensuring voice of vulnerable countries are heard in climate negotiations.

Feedback

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Please put tick marks in the above table. Here G is Good, A is Average and P is Poor.

TOTAL MARKS

Q.17) The 2023 Nobel Award in Chemistry was awarded for the discovery and synthesis of Quantum dots. How have the developments of quantum dots affected the various sectors over the years?
(15 marks, 250 words)

रसायन विज्ञान में 2023 का नोबेल पुरस्कार क्वांटम डॉट्स की खोज और संश्लेषण के लिए प्रदान किया गया। पिछले कुछ वर्षों में क्वांटम डॉट्स के विकास ने विभिन्न क्षेत्रों को कैसे प्रभावित किया है?
(15 अंक, 250 शब्द)

Quantum dots works on the principle of entanglement and superimposition.

A change in quantum state of one particle which is entangled with other, automatically changes the other particle state.

② Relevance of quantum dots

① Communication → can help in secure and quick delivery of messages over the technological platforms.

→ end to end encryption is possible

→ Best to satellite communication.

② Security - helps in enhancing security of information sharing.

→ can be used by governments to secure and safe information dispersal.

→ Has prevented the cyber attacks thus promoting cyber hygiene.

(III) Economy

- economic data can be effectively and efficiently shared among the agencies.

→ helps boost the knowledge economy.

→ fillip to data economic activities

(IV) social sectors

→ can be used in education and health sectors

→ can help boost inclusive development

→ last mile connectivity

Challenges

- ① Lack of infrastructural capacities.
- ② Privacy issues (e.g. leakage of information)
- ③ scientific interventions in this sector is lagging.
- ④ Required interventions by government is also lacking.

Need is for boosting R&D expenditure and the required governmental approach.

Feedback

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TOTAL MARKS			

Q.18) Discuss the socio-economic impact of new developments in science and technology in India since independence. (15 marks, 250 words)

स्वतंत्रता के बाद से भारत में विज्ञान और प्रौद्योगिकी में नए विकास के सामाजिक-आर्थिक प्रभाव पर चर्चा कीजिए। (15 अंक, 250 शब्द)

Science and technology have taken a new shape and has become the 'new normal' which now affects every sphere of our life. Developments

New developments and their impacts

Developments sector wise	socio-economic impact
<p>① <u>Agriculture sector</u></p> <p>① use of <u>biotechnology</u> to increase yield of <u>Sr. Brinjal</u> / <u>Cotton</u></p> <p>② High yielding variety seeds (HYV) - green revolution</p> <p>③ Increase in pest resistance among crops.</p> <p>④ Boost to climate resilient crops</p>	<p>① resort to <u>monoculture practices</u></p> <p>② Affects <u>soil health</u> in longer run.</p> <p>③ <u>Expensive seeds</u> therefore increases <u>inequality</u>.</p> <p>④ Regional disparity (e.g. Punjab, Haryana states → rich, Eastern → lack the practice.</p>

② Communication

- ① satellites eg
 GSAT-7A, remote sensing satellites
- ② optical fibres -
 increased internet penetration
- ③ wireless communication devices.

⇒ ① Bridge the gap between developed ones by increasing connectivity

② Boost to economic growth.

③ Safe and secure communication networks.

Negatives

① Digital divide

(eg 31% rural areas
 67% urban use internet)

② e-literacy is lacking

③ Political

- use of e-governance tools such as digistalk,
- efficient and effective grievance redressal mechanism

⇒ ① bridge the gap between government and citizens.

② Reduction in maladministrative practices like corruption

③ However focus has shifted to digital platforms.

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Health and Education sectors
 e-health, tele medicine, use of advanced equipments like MRI's, CAR T therapy, genetic engineering, vaccines (India ~ 60% global vaccine), Education → online education, use of smart boards.

- ① Bridge unequal-urban divide.
- ② Increase the penetration of services.
- ③ Help boost demand.
- ④ Increase in human capital.
- ⑤ Beneficial for demographic dividend.

Developments in science & technology is on rise and its efficient, equitable use is necessary to avoid chaos and conflicts in future. Use of ethical governance in ensuring its equitable sharing of benefits among citizens is the need.

Feedback
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TOTAL MARKS			

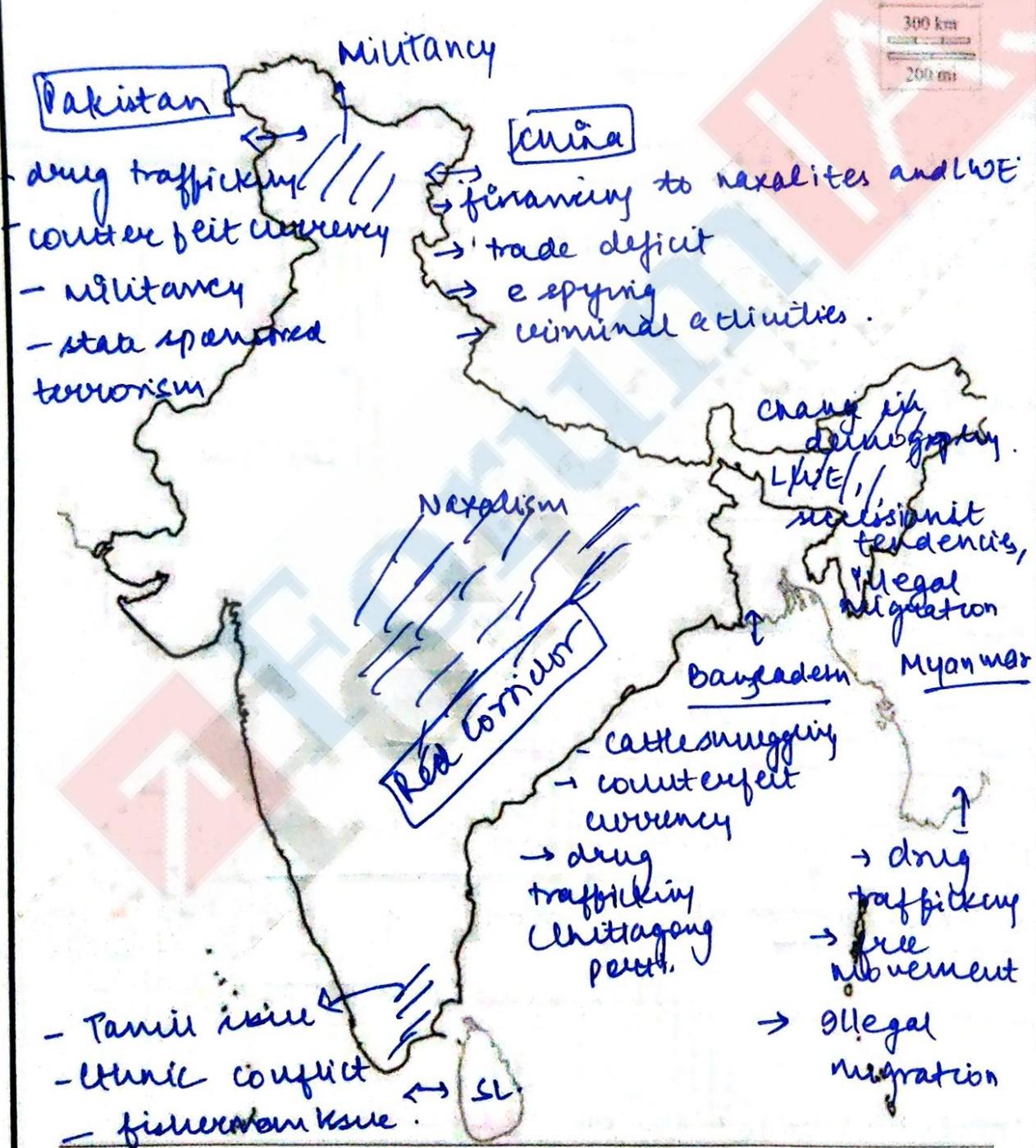
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Q.19) With the help of the map given below, describe the major internal security threats faced by the country. Suggest a comprehensive security framework to minimize these threats.

(15 marks, 250 words)

नीचे दिए गए मानचित्र की सहायता से देश के सामने आने वाले प्रमुख आंतरिक सुरक्षा खतरों का वर्णन कीजिए। इन खतरों को कम करने के लिए एक व्यापक सुरक्षा ढाँचे का सुझाव दीजिए।

(15 अंक, 250 शब्द)



- ③ Cooperative federalism (eg recent expansion of area of BSF from 15 → 170km has raised the national security vs cooperative federalism issue).
- ④ Integrated developmental and law and order issues of development by basic facilities, education and employment to youth, and law and order like security related expenditures).
- ⑤ Integration of north eastern states with mainland Indian population.
- ⑥ Use of CAPF to encounter the hostile elements (eg 40% of CAPF employees from the neutral affected area to deter youth in joining).
- ⑦ Infrastructure to be provided
- ⑧ local community participation as they serve as eyes and ears of armed personnel of vibrant village programme.

① Not working in silos but an effective communication channel be established by between district administration & police agencies.

Security is the national issue which renders the other aspect such as economy, polity of country at stake. Hence multiplicity of agencies and work at an effective security policy.

Feedback

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TOTAL MARKS			

Q.20) What do you understand by theaterisation of commands? Enumerating the impediments in theaterisation for India's armed forces, discuss the role of Chief of Defence Staff in enhancing the effectiveness of India's external security response. (15 marks, 250 words)

कमांड के थियेटराइजेशन से आप क्या समझते हैं? भारत के सशस्त्र बलों के लिए थियेटराइजेशन में बाधाओं को गिनाते हुए, भारत की बाहरी सुरक्षा प्रतिक्रिया की प्रभावशीलता को बढ़ाने में चीफ ऑफ डिफेंस स्टाफ की भूमिका पर चर्चा कीजिए। (15 अंक, 250 शब्द)

Theaterisation of commands means integrated deployment functioning of the these armed personnel for a particular geographic area. It is headed by a single commander who does not report to either the commands and work for efficient management of that area.

Positives of theaterisation

- ① Combat efficiency
- ② Reduction in wastage of resources.
- ③ Quick deployment of armed personnel during times of emergency
- ④ China keeps a theaterised command at beak loc.
- ④ Efficient use of resources.

Issues

- ① Lack of military infrastructure.
- ② India does not have global roles like USA which make it necessary to keep theaterised commands.
- ③ Not a large geographic area of the country.
- ④ Fears among the other armed personnel that it will lower their sanctity.
- ⑤ Lack of coordination due to multiplicity of agencies.

Role of chief of defence staff

- ① Effective and ground advice to minister of defence → efficiency of response.
- ② Global representation and point of contact.

③ During emergency a single chain of communication will be easy to establish.

④ lowers the chaos and confusion among different agencies.

Theaterisation and formation of post of CDS is a step in right direction. More needs to be done to increase its efficiency. Proper assessment of data and ground realities be done.

Feedback

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