

IAS Mentorship

Reyasat Ali sir & Experienced team in CSE prep

CSE Main 2023: Mini Mock Test 3

Syllabus:

-
- GS Geography
-
-

Name of Candidate

ABDULLAH ZAHID

Email Id

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Date

Medium: Hindi / English

Time: 1 Hour

Start Time:

~~2:15 PM~~ 2:15 PM

End Time: 3:30 PM

Q. No.	Max. Marks	Marks obtained
1	10	
2	10	
3	10	
4	15	
5	15	
6	15	
7	15	
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
Total	90	
Invigilator	Signature	

WhatsApp/Telegram/Text/Call: 8090528260

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	Excellent	Good	Average	Unsatisfied
Introduction				
Conceptual Understanding				
Contextual Clarity				
Content Enrichment				
Presentation				
Alignment				
Contextual Justification				

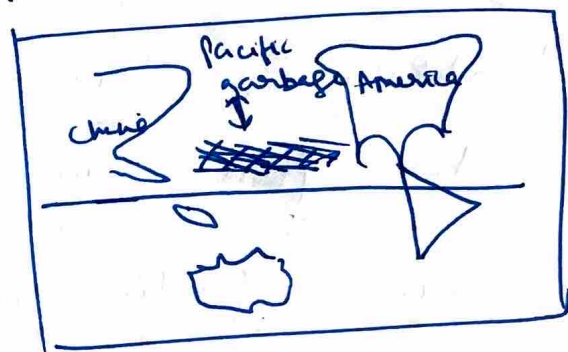
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Q1. What do you know about Great Pacific Garbage Patch? Discuss causes and its impacts on marine and territorial ecosystem. 150 words

Great Pacific Garbage Patch is the
gyre of marine debris in the northern
central Pacific ocean.

① California to
Hawaii



Causes

- ① Anthropogenic pollution ① plastic
- ② Discarded fishing gears
- ③ Merchant ship expelling sewage
and used medical equipment
- ④ Microplastics from used cosmetics

Impact on marine and terrestrial

- ① Not biodegradable → causes pollution for long time
- ② Being microscopic → can lead to problem of bioaccumulation and enter food chain
- ③ Animals feeding on plastic waste vulnerable to death risk due to choking
- ④ Plastic leaching harmful chemical destroying coral reefs
- ⑤ Proliferation of Invasive species

Thus, marine plastic pollution need to be tackled via Paris style global treaty to achieve SDG 14.

Q2. As Lithium falls in the critical resource category for which India fully depend on import. Examine the multiple benefits of Lithium reserve finding in India recently. 150 words

Recently, Lithium reserves have been found in Lehbari district of Jammu & Kashmir district.

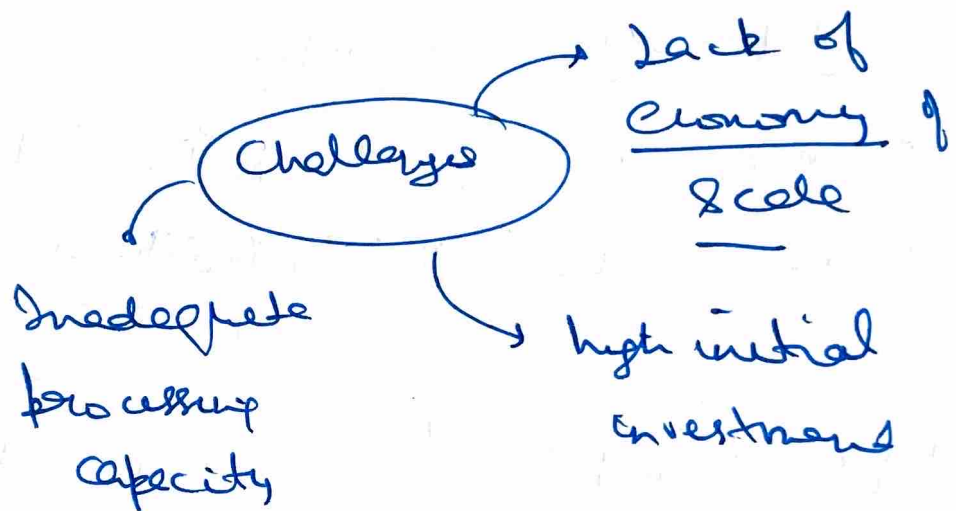
India dependency on import

India majorly import Lithium from countries like China | Australia.

Multiple benefits of indigenous Li reserve

- ① Reduce the foreign bill via reducing import
- ② Boost manufacturing of rechargeable batteries
- ③ Can become part of global supply chain

- ④ Push to green energy target as
Lithium is crucial for storage system
- ⑤ ~~Boost~~ the employment opportunities
in sector



Lithium need to be extracted
using sustainable method to
meet domestic demand and achieve
environmental goals like SDG 13

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Q3. According to world bank, India is largest ground water user and its fastest growing economy along with high population are putting extra anthropogenic pressure on the country's groundwater resources, hence immediate actions are required. Comment 250 words

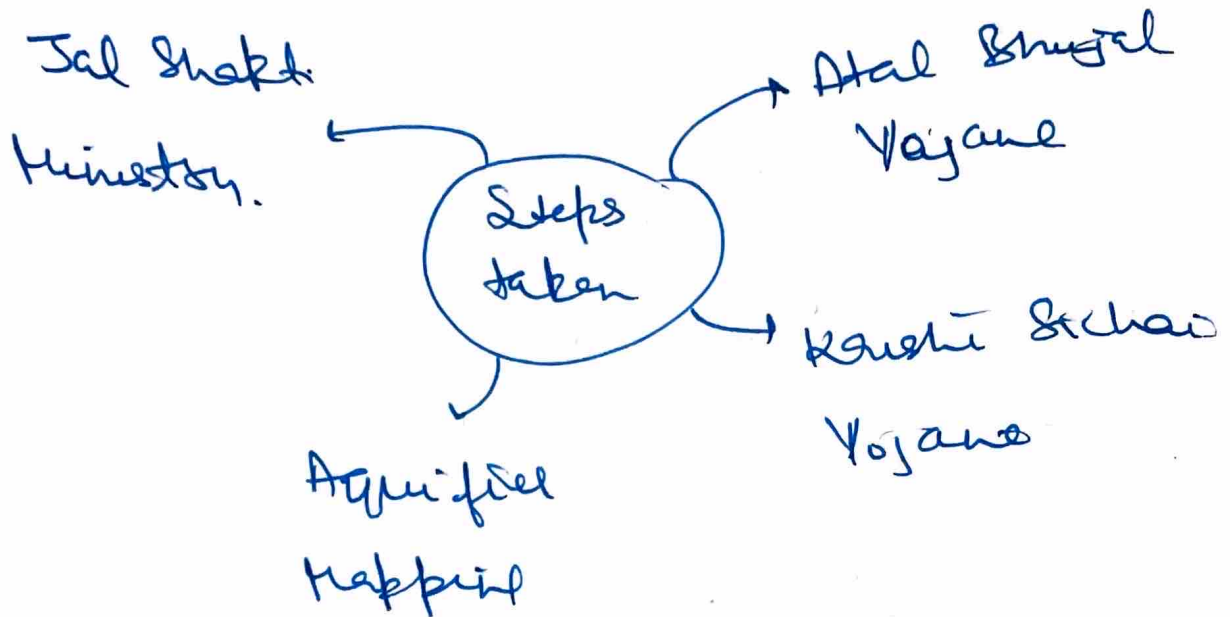
India, having 18+ of world population, occupies 2.4% geographical area and consumes 4% of total water resources

India is largest groundwater user (25+ of global groundwater withdrawal) to cater to domestic needs / agri-use and industry demands.

Main Manifestations of Anthropogenic pressure

- ① 17% of groundwater blocks are overexploited (CGWB)
- ② Polluted groundwater in many areas (⊕) Uranium in Punjab

③ Unregulated extraction:



Way forward

- ① Reduce use of groundwater via ISC campaign.
- ② Regionwise no aquifer management plans
- ③ Promote water harvesting using community goodwill
- ④ Regulation of groundwater withdrawal

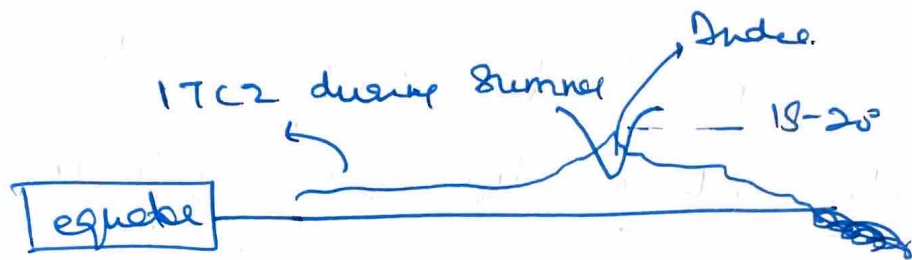
Groundwater - Making the invisible visible is the way forward to achieve SDG 6 (Water & Sanitation)

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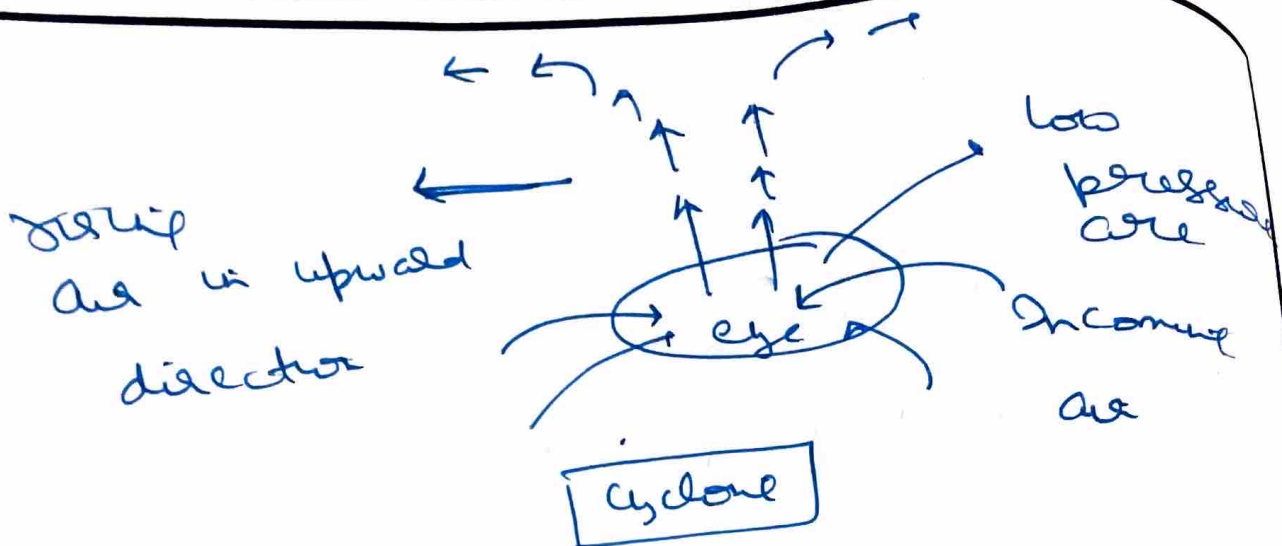
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Q4. What do you understand by monsoon trough and cyclogenesis. Discuss the impact of global warming on the Indian monsoon. 250 words

Monsoon trough is a low pressure belt and part of Inter tropical convergence zone where northern and southern hemisphere winds meet.



Cyclogenesis is a process which leads to the formation and strengthening of cyclones. Tropical cyclones occur near equator over warm ocean water when warm moist air at ocean's surface rise upward resulting in low pressure zone.



Global warming is defined as the rise in temperature of ~~atmosphere~~ atmosphere due to anthropogenic action

Impact of global warming on Indian Monsoon

- ① Delayed monsoon → leading to drought like condition
- ② Change in phenomenon like ENSO, Indian ocean dipole and Madden Julian oscillation which is impacting monsoon directly.

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- ③ Severe Rain fall leading to fresh floods (e.g.) Hyderabad floods
- ④ Delayed monsoon withdrawal due to intense warming of Indian peninsula in withdrawal months.
- ⑤ IMD - Summer monsoon precipitation has declined by almost 6%.

Monsoon play crucial role in India. We need to become monsoon resilient via focusing of climate small smart agriculture and climate resilient infrastructure.

Q.5 What do you understand by heat wave? Analyse the causes of its increasing instances across country. What are the worries about the record shattering heat wave? 250 words

Heatwave refers to period of abnormally high temperature. As per IMD, heatwave is considered if maximum temperature of station reaches at least 40°C or more for plains, 37°C or more for coastal and 30°C or more for hilly region

Causes for increasing instances

- ① Reduced tree cover especially in urban areas.
- ② Concretization of surface leading to urban heat island effect.

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- ③ Change in landuse reducing natural cooling mechanism.
- ④ Climate change ^{to} induced delay in monsoon leading to dry spells.
- ⑤ Fossil fuel based economy leading to global warming and higher temperature.

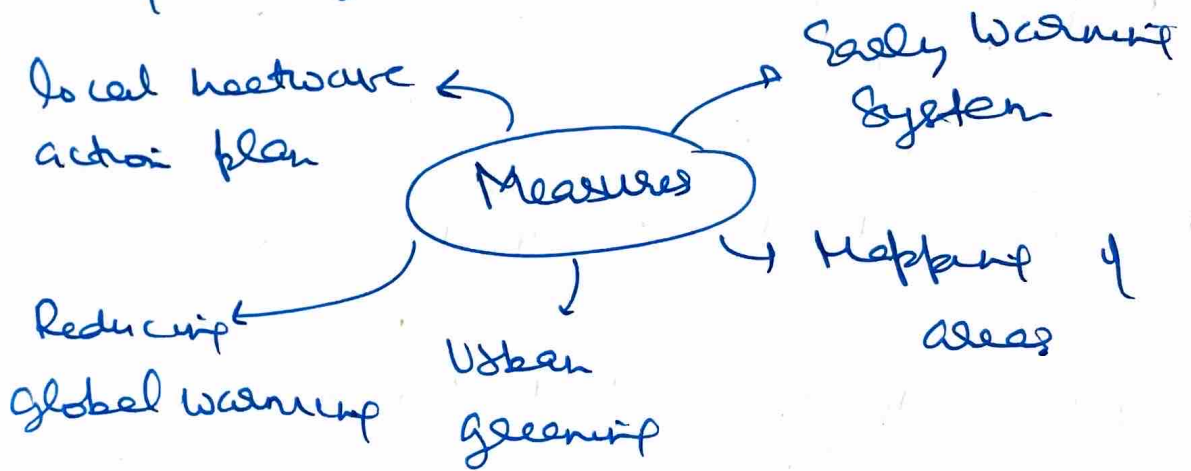
Worries about second heatwaves

- ① Rise in heat related illness — heartstroke, dengue infection etc.
- ② Reduced agricultural productivity threatening food security and income security.

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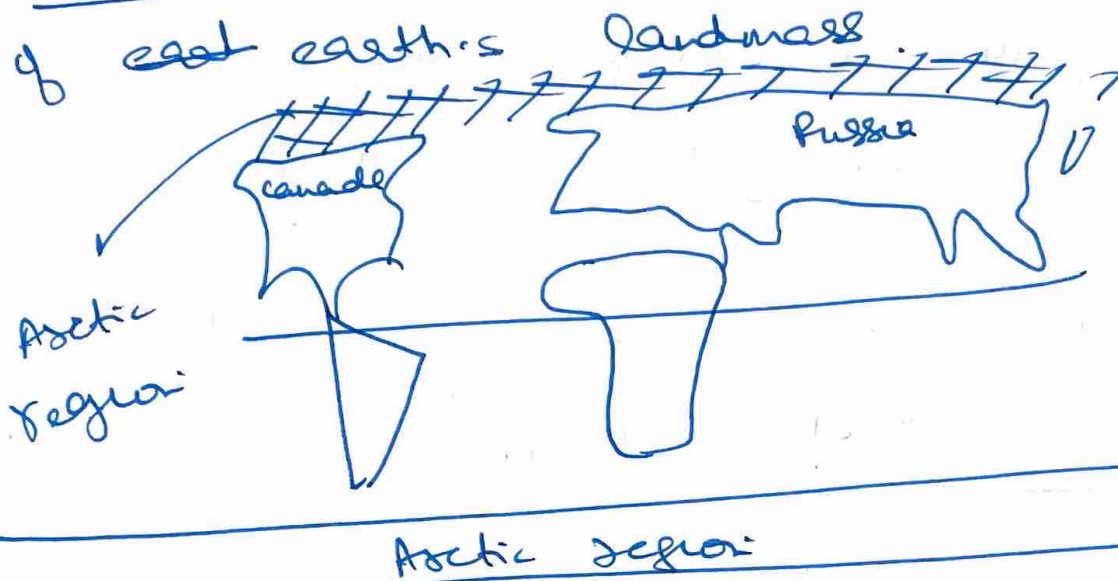
- ③ Water scarcity due to higher rate of evaporation and rising demand.
- ④ Infrastructural damage due to expansion of material
- ⑤ Ecosystem disruption like risk of wildfire.



Addressing network require multi-stakeholder effort to protect ecosystem and enhance resilience.

Q6. Examine the significance of Arctic region in the context of global climate and economy. Also point out the India's Arctic policy. 250 words

Arctic region is the enormous area around North Pole spreading one-sixth of ~~east~~ earth's landmass.



Significance

- ① Abundant mineral resources like coal / natural gas / gypsum
- ② Arctic helps to circulate the ocean current of world thereby influencing climate

- ③ Since Emerging as a theatre of new geopolitical game where China is trying to assert more.
- ④ Melting of ice caps can open up new navigational routes
- ⑤ Council to scientific expedition and Research (S) Summit Base.

India's Arctic Policy

- ① Strengthen science and research
- ② Focus on environmental protection.
- ③ Explore transportation and connectivity potential

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- ④ National capacity building for potential resource exploration sustainably.
- ⑤ Foster international cooperation for coordinated policy making on the implication of the melting.
- ⑥ Study linkage between Arctic and Himalayas.

Arctic region in future is going to define the world politics. ~~It is~~

It is also imperative that development remain sustainable and inclusive.

Q7. Discuss the potential of the blue economy in India? Explain the problems and strategies for sustainable development of it in India. 250 words

Blue economy refers to strategic and sustainable use of marine resources for the development of economy and well being of human. It is a blue sector

Potential

- ① Fisheries and Aquaculture
 - ↳ 28mn people employed
 - ↳ export potential
- ② Maritime transport via bulkers
ports
- ③ Marine Ocean energy
 - ④ Tidal energy

- ④ Exploite deep sea mining -
 - ④ poly metallic nodules
- ⑤ Tourism via blue flags beaches
 - ④ Kovalam beach, Tamil Nadu

Problems/Challenges to Blue economy

- ① Environmental concerns
 - ↳ plastic pollution
 - ↳ coral bleaching
- ② Technology deficit
 - ↳ large fishing vessel missing
 - ↳ deep sea mining potential untapped
- ③ Lack of unified regulatory framework coupled with poor implementation.

~~Stage~~

Strategies/Steps taken

- ① Sagarmala Project for post led development of region
- ② Matsya Sampada Yojana — sustainable development of fisheries sector
- ③ Deep Ocean Mission — develop technology to harness underwater mineral resources.
- ④ Indian Ocean Rim Association for promotion of blue economy.

Flourishing blue economy is
qu^oessential for achieving nutritional
security and inclusive growth.