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TEST CODE 5 1 1 3 5

FIAS – MGP 2022 (C-9) – Full Length Test #1

Time Allowed : Three Hours  
समय : तीन घंटे**ForumIAS**Maximum Marks : 250  
अधिकतम अंक : 250**GENERAL STUDIES / सामान्य अध्ययन**

Name Of Candidate परीक्षार्थी का नाम	Umaharathi.N		
Roll No./अनुक्रमांक	1910059002	Medium/माध्यम	English <input checked="" type="checkbox"/> हिंदी <input type="checkbox"/>
Center Code/परीक्षा केंद्र	online	Date/दिनांक	23-8-22

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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		<b>For Student Only / केवल परीक्षार्थी प्रयोग हेतु</b>	
Evaluator's Discretion/मूल्यांकन कर्ता का विवेक :			Start Time/प्रारंभ करने का समय :	End Time/समाप्त करने का समय :
			2:00 PM	5:00 PM
Total Marks/कुल अंक :			Mode Of Examination/ परीक्षा की विधि :	Online/ऑनलाइन <input checked="" type="checkbox"/> Offline/ऑफलाइन <input type="checkbox"/>
*Evaluator's Discretion is the marks awarded at the discretion of the evaluator 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 आकड़ों 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।			<b>For Office Use Only / केवल कार्यालय प्रयोग हेतु</b>	
			ECN CODE/ ईसीएन कोड :	Evaluation Date/ मूल्यांकन तिथि :

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Parameters	Excellent	Very Good	Good	Average	Poor	Very Poor
Language						
Structure						
Presentation						
Handwriting						
Content						
Attempt						

**ADDITIONAL REMARKS**

Q.1) Gandhian ideology secured democracy in the country even before it was formally established.  
Comment. (10 marks, 150 words)

गांधीवादी विचारधारा ने औपचारिक रूप से स्थापित होने से पहले ही देश में लोकतंत्र को सुरक्षित कर लिया था। टिप्पणी करें। (10 अंक, 150 शब्द)

Gandhiji not only provided leadership to National movement but also helped chart a vision for democratic Indian society.

Gandhian ideology secured democracy before its formal establishment on 26th January, 1950

① upliftment of Dalits - social democracy

eg: Harijan sangh  
Anti-Untouchability league

② women empowerment - gender justice

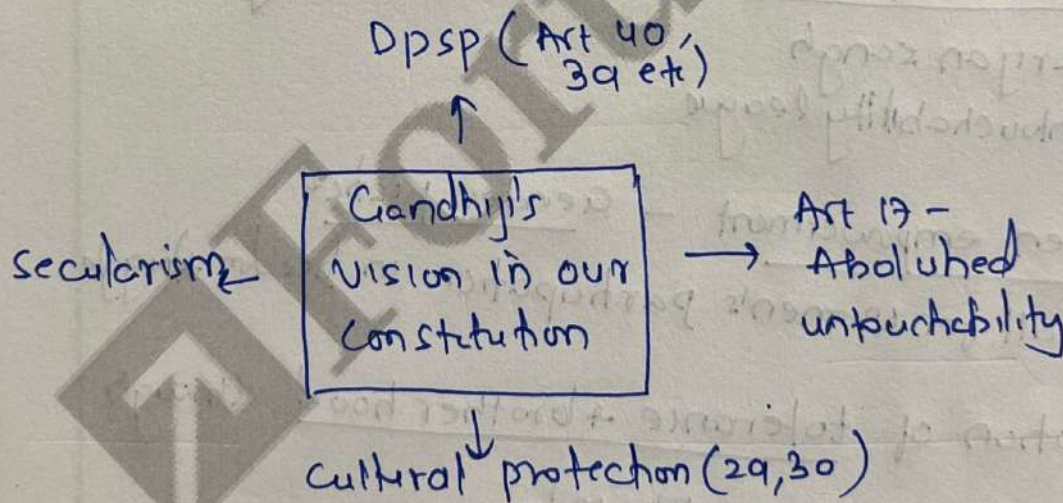
eg: call for women's participation in freedom struggle

③ promotion of tolerance & brotherhood through

'Sarva Dharma Sama Bhave'

④ communal harmony - eg- Fasting for Hindu  
Muslim unity, Khilafat - Noncooperation movement

- ⑤ Cross roots democratic decentralisation envisioned in 'village republic model' of governance
- ⑥ Inclusion of voice of all sections  
eg: Integrating peasant, tribal movements into freedom struggle (Chemparan, 1913)
- ⑦ Indigenous democracy - looked for inspiration from Indian culture (Ram Rajya) not imported democracy
- ⑧ Trusteeship model for economic equality



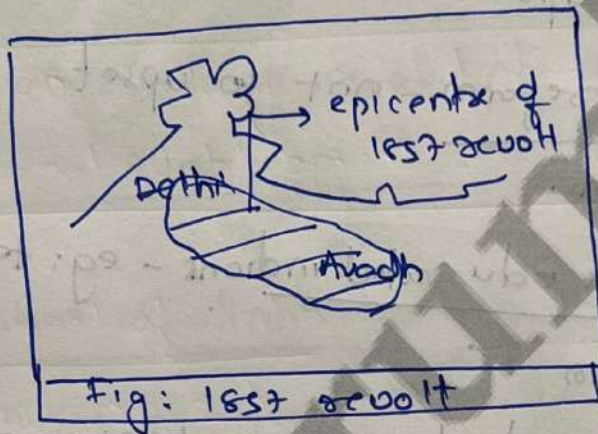
The vision laid out by Gandhiji is a work in progress, and it must propel us in the next 25 years of Indian democracy.

Feedback	
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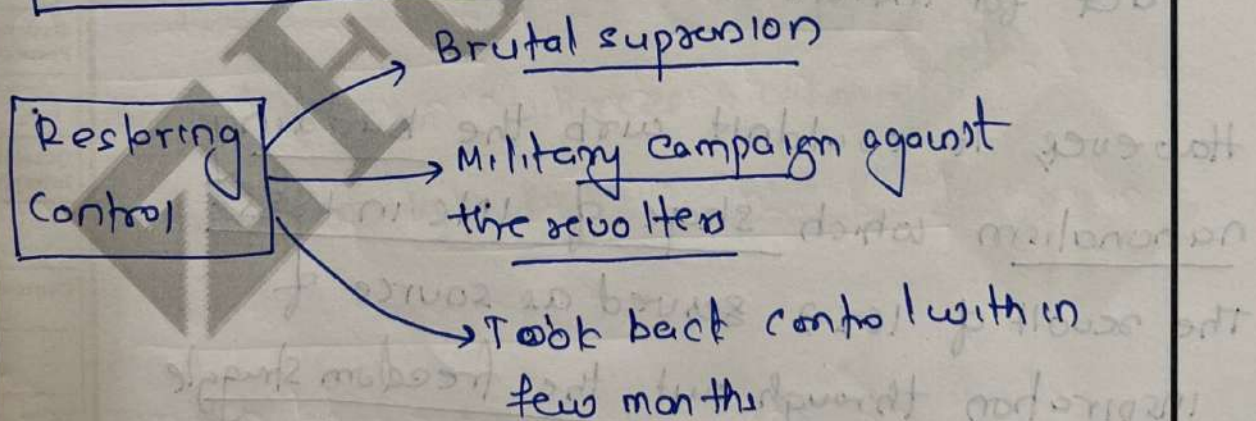
Q.2) British response to the revolt of 1857 did more than merely restoring colonial control; it prolonged the longevity of the British imperialism in India. Examine. (10 marks, 150 words)

1857 के विद्रोह के प्रति ब्रिटिश प्रतिक्रिया ने महज औपनिवेशिक नियंत्रण बहाल करने से कहीं अधिक किया; इसने भारत में ब्रिटिश साम्राज्यवाद की अवधि को लम्बा कर दिया। परीक्षण कीजिए। (10 अंक, 150 शब्द)

V. D Savarkar called 1857 revolt as "first war of Indian independence" against British Colonial rule.



British response to the revolt



However, the response helped prolong British imperialism

- ① European majority in army to ensure such sepoy mutiny doesn't arise
- ② The policy of divide & rule - eg: favoured Hindus over Muslims
- ③ Nurtured loyal sections - zamindars, kings  
eg: Doctrine of Lapse abolished
- ④ Avoided social reform - not to upset orthodox sections.
- ⑤ Hostility towards educated Indians - eg: to curb nationalism
- ⑥ Indians in administration - eg: 1861 councils act for Indians in councils

However, it couldn't curb the budding nationalism which shape of INC in 1885.

The revolt of 1857 served as source of inspiration through out the freedom struggle

**Feedback**  
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Presentation

Question  
Interpretation

Content

Value  
Addition

Total

Q.3) The reasons for World War I lay in Bismarck's system of alliances. Critically analyze.

(10 marks, 150 words)

प्रथम विश्व युद्ध के कारण बिस्मार्क की गठबंधन प्रणाली में निहित थे। समालोचनात्मक विश्लेषण करें। (10 अंक, 150 शब्द)

World war I was an international conflict fought between 1914-1919, involving much of Europe, America and parts of Asia.

Bismarck's system of alliance as reason behind WWI

- ① Formation of alliances - eg: Britain-France v/s Austria turkey
- ② Deep mistrust eg: Germany and France.
- ③ competition for resources & colonies eg: Germany-Britain naval race

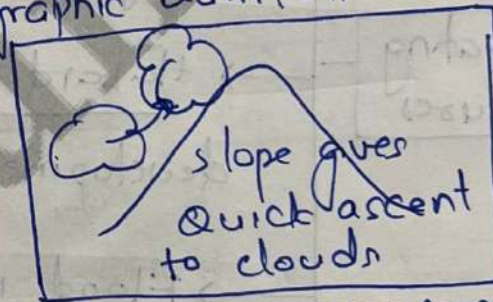
Q.4) Why are hilly regions more vulnerable to cloudbursts? Describe their impact and suggest suitable strategy for mitigating their adverse effects. (10 marks, 150 words)

पर्वतीय क्षेत्र बादल फटने की घटनाओं के प्रति अधिक संवेदनशील क्यों हैं? उनके प्रभाव का वर्णन करें और उनके प्रतिकूल प्रभावों को कम करने के लिए उपयुक्त रणनीति का सुझाव दें। (10 अंक, 150 शब्द)

cloud burst is an unusually large thunderstorm that results in heavy precipitation in hilly areas short span of time. eg: Uttarakhand cloud burst in 2013

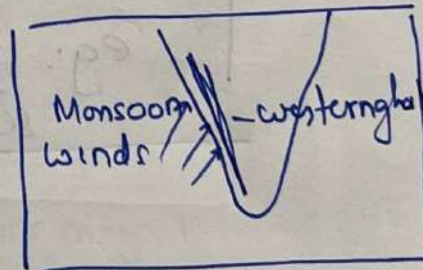
Hilly areas are more vulnerable to cloudburst

① Altitude effect - on orographic rainfall



② Thick vegetation aids evapotranspiration

③ Monsoon winds - hills receive heavy monsoon winds. eg: western ghat



Impact of cloudburst

① Flooding and inundation of slopes + low lying areas

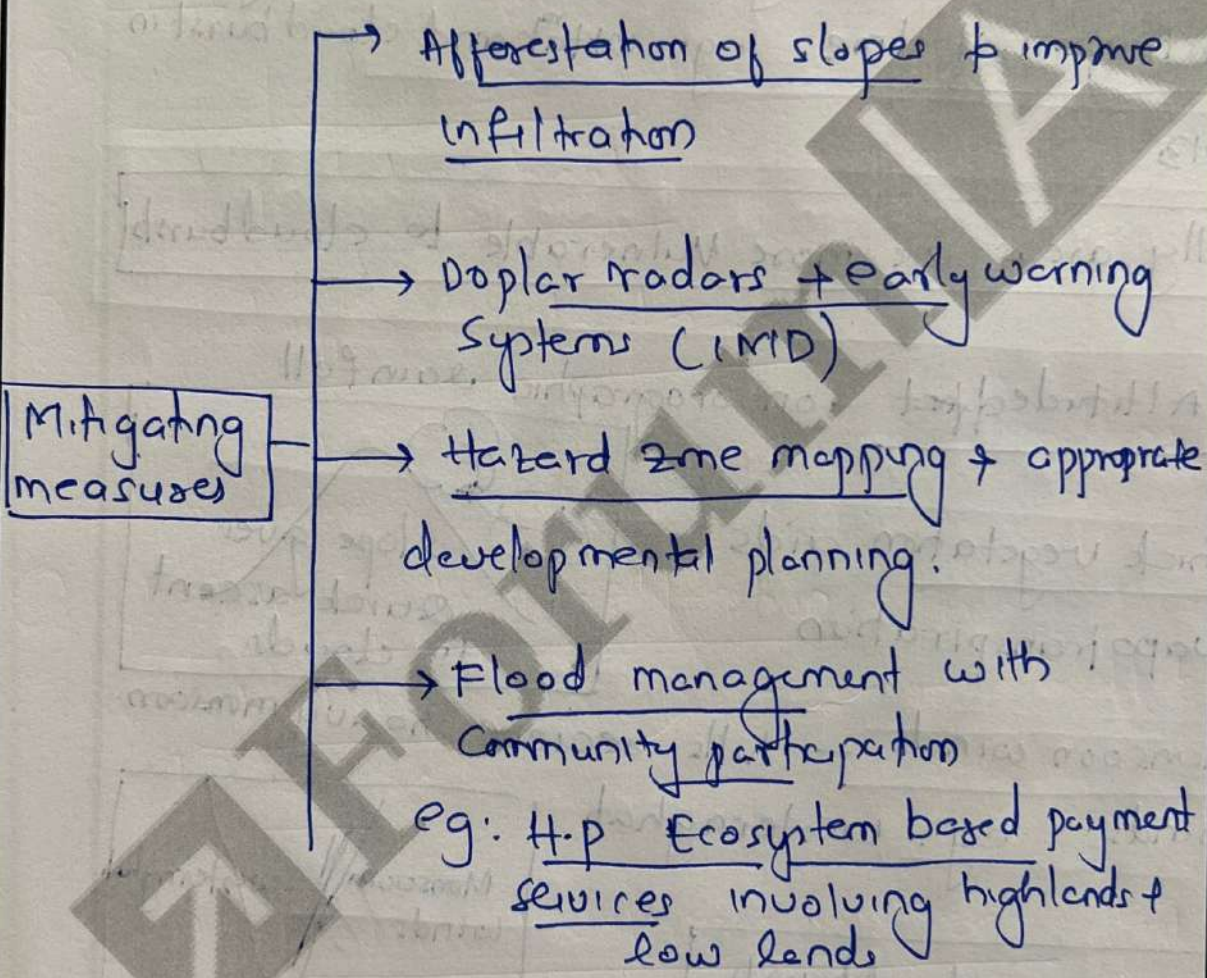
② Infrastructure damage - eg: washing away



of dams, weirs etc

③ Agricultural damage - due to soil erosion

④ Trigger land slides - eg: Manipur landslide, 2022



in the context of climate change and increasing risk of cloudburst, there is need to internalise sendal framework of disaster management into ecocentric developmental model of hills

<b>Feedback</b> (For OFFICE use o
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Total

Q.5) Explain the phenomenon of marine heat waves and their multi-dimensional impacts.

(10 marks, 150 words)

समुद्री ऊष्मा तरंगों की परिघटना और इसके बहुआयामी प्रभावों की व्याख्या करें।

(10 अंक, 150 शब्द)

Marine heat wave refers to rise in temperature of ocean water. It could be a local or a regional phenomena.

Global warming +  
rising ocean temperature  
↑ (1.0°C since 1850)

High carbon absorption by oceans  
(90% of all carbon sequestration)

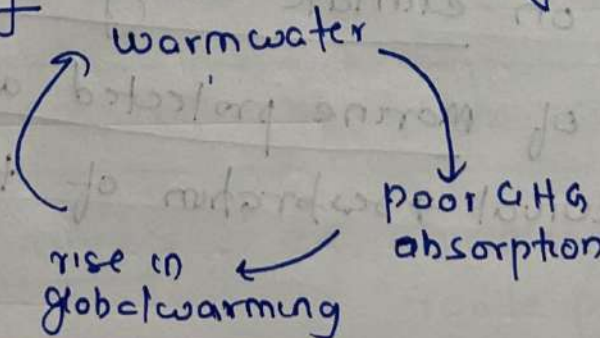
Reasons behind heat waves in oceans

Terrestrial heat waves via conduction

Heat generation through mining, shipping etc.

Multi-dimensional impacts

① climate change worsens - oceans may release CO<sub>2</sub>

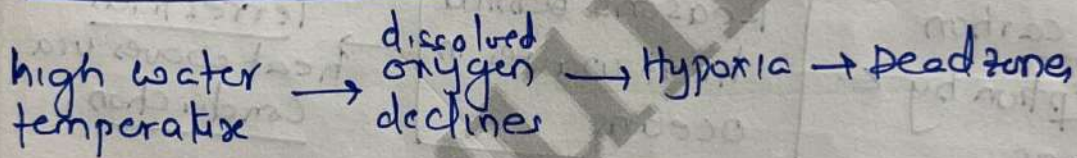


② Biodiversity loss - eg: coral bleaching is on the rise.

③ Livelihood loss - due to decline in fishery yields

④ intensified cyclones & other disasters - due to high latent heat. eg: Terrestrial heatwaves triggered

⑤ spread of ocean dead zones



⑥ Climate / weather modification - For eg:

Marine heat waves in Indian ocean can affect Indian monsoon.

The first ever UN conference on oceans called for progress on climate change mitigation, and creation of marine protected areas for focussed recovery & restoration of temperature

Feedback (For OFFICE use)

Structure / Presentation

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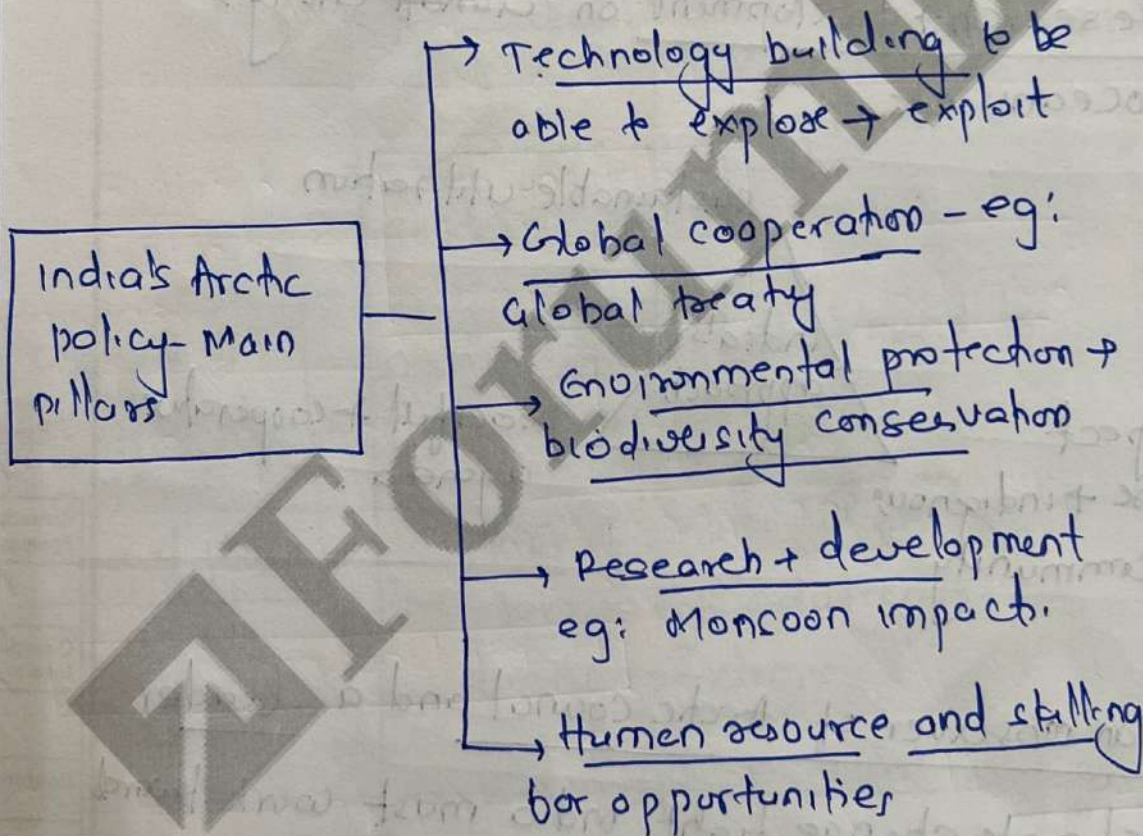
Value Addition

Total

Q.6) Describe the main pillars of India's Arctic Policy. Why is arctic region gaining greater geopolitical significance in the present context? (10 marks, 150 words)

भारत की आर्कटिक नीति के मुख्य स्तंभों का वर्णन करें। आर्कटिक क्षेत्र वर्तमान संदर्भ में अधिक भू-राजनीतिक महत्व क्यों प्राप्त कर रहा है? (10 अंक, 150 शब्द)

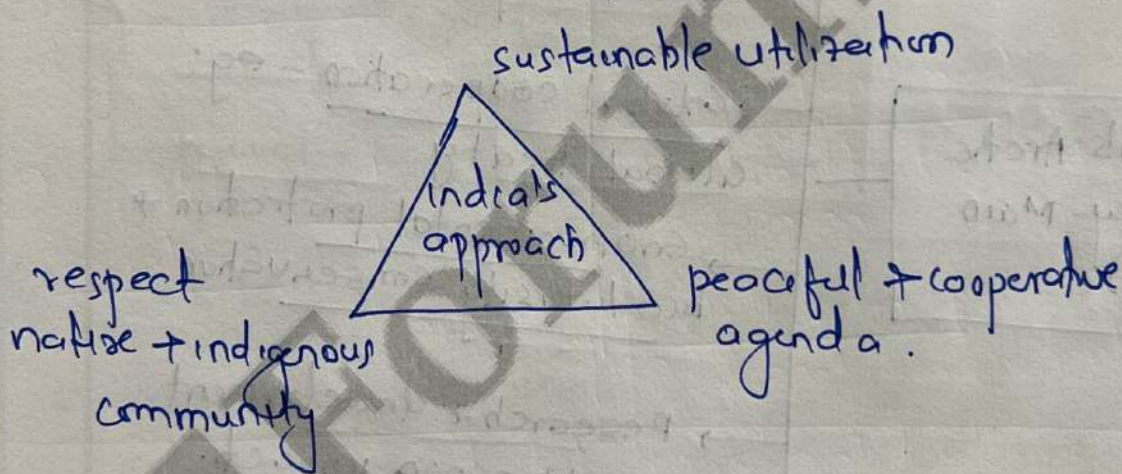
IPCC 6th AR tells that 75% of sea ice volume of Arctic was lost since 1980s. some estimates predict complete melting by 2030. This has made Arctic a key geopolitical region.



Geo political significance of Arctic region

① New shipping routes - eg: china's polar silk route plan.

- ② Energy security - reserve of natural gas
- ③ climate change efforts - for global community to meet paris deal targets + control Arctic melting
- ④ Chinese assertion + claims on Arctic resources
- ⑤ Research + development on climate change, oceans etc.



As an observer of Arctic council and a leader  
in climate change fight, India must work toward  
 inclusive and sustainable approach towards  
Arctic, as in case of Antarctic.

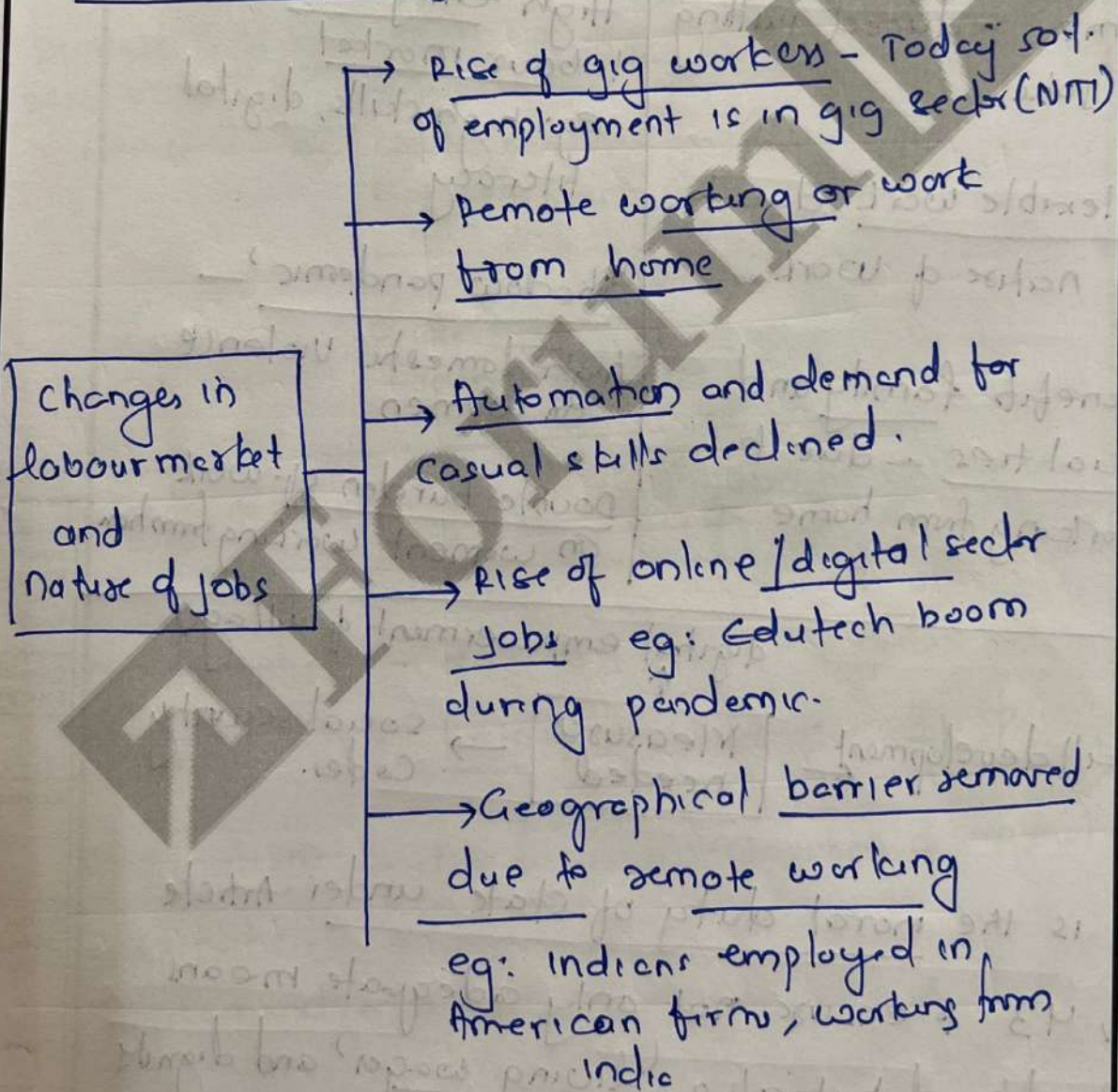
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Structure/ Presentation
Question Interpretation
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Total

Q.7) Covid-19 pandemic has brought fundamental changes in the labour market and nature of jobs. Enumerate these changes and discuss their social consequences. (10 marks, 150 words)

कोविड -19 महामारी के कारण श्रम बाजार और नौकरियों की प्रकृति में मूलभूत परिवर्तन आए हैं। इन परिवर्तनों की गणना करें और उनके सामाजिक परिणामों की चर्चा करें। (10 अंक, 150 शब्द)

Covid-19 pandemic triggered a quick adaptation from the labour market to jobs, with both positive and negative outcomes.



## Social consequences

positive

negative

① Gender/women empowerment

↳ flexibility; work from home reduced quitting of jobs.

② flexible work due to gig nature of work

③ Benefit family and social ties - due to working from home

unemployment for those without digital skills

high entry barrier to labour market  
eg: high skills, digital literacy

'Shadow pandemic' -

high domestic violence on women

Double burden of work on women working from home

digital empowerment of villages

skill development

Measures needed

→ social security codes.

It is the moral duty of state under Article 39, 43 to ensure not only adequate means of livelihood but also 'living wage' and dignity of labour

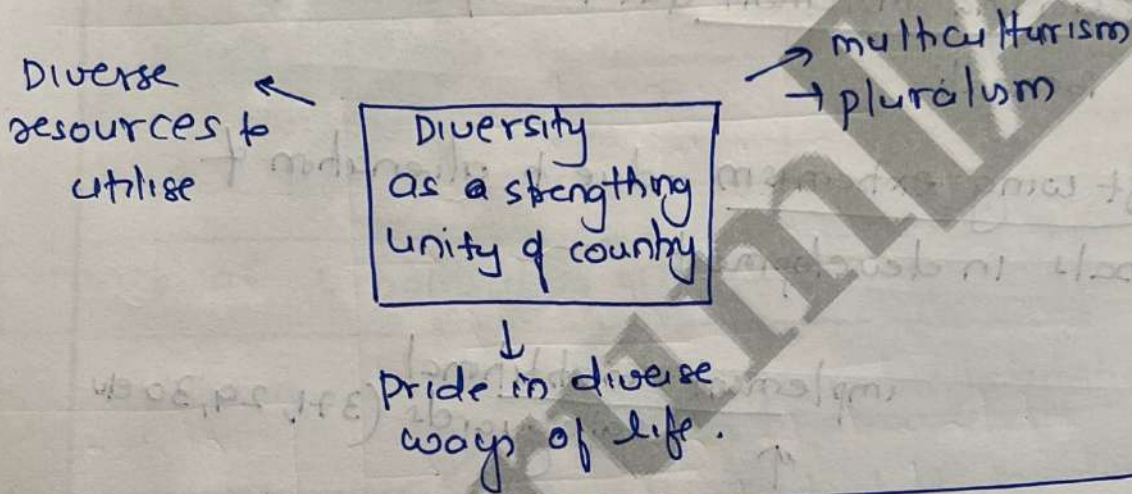
Q.8) It is not the diversity, but threat to diversity that imperils the unity of the country. Comment.

(10 marks, 150 words)

यह विविधता नहीं, बल्कि विविधता के लिए खतरा है जो देश की एकता को खतरे में डालता है। टिप्पणी करें।

(10 अंक, 150 शब्द)

India is one of the most diverse countries of the world. For example, PLSI identified over 780 spoken languages in India.



Threat to diversity  $\Rightarrow$  imperils unity of the country

- ① Communalism - due to intolerance & other faiths. eg: Hate speech  $\rightarrow$  communal mob
- ② Regionalism - due to non recognition of regional aspiration. eg: demand for linguistic reorganisation of states.



③ Topdown one size fits all development - saw backlash

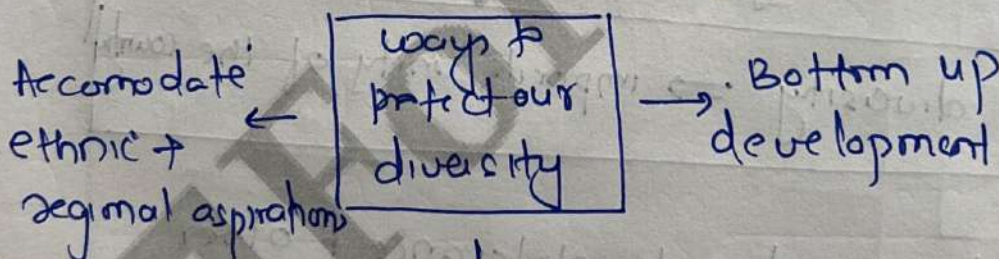
eg: Therchand movement

④ ethnic movements - due to threat to ethnicity

eg: Gorpha movement due to imposition of Bengali

⑤ Left wing extremism - due to alienation of tribals in development.

implement constitutional safeguards (371, 29, 30 etc)



Revive Indian culture of 'Sarva Dharma Sambhava'

Today diversity is India's USP, we must protect it, take pride in it and offer as Indian value in peaceful globalization.

**Feedback**

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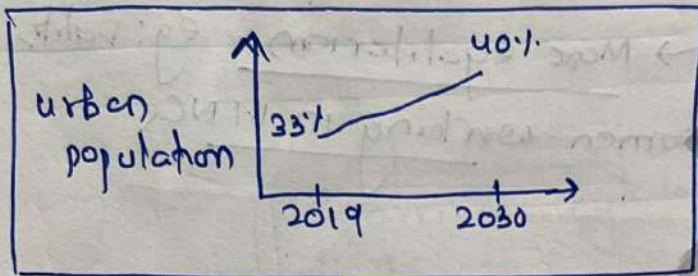
Total

Q.9) Urbanization is a complex process that reflects transformation not only in 'where people live' and 'what they do', but also in 'how they live'. In light of this statement, analyze the impact of urbanization on the Indian society. (10 marks, 150 words)

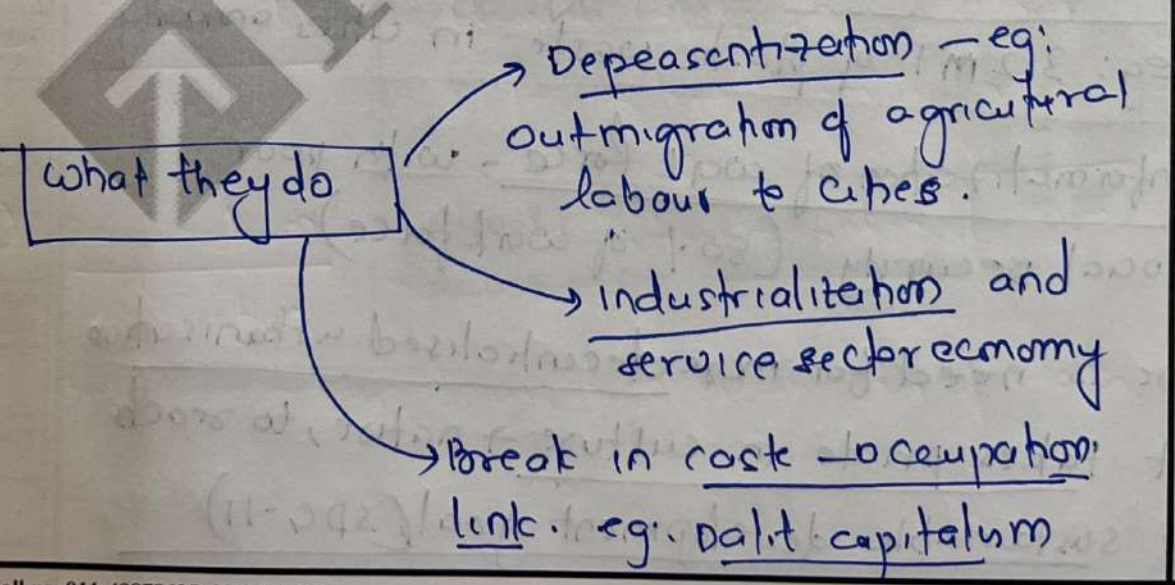
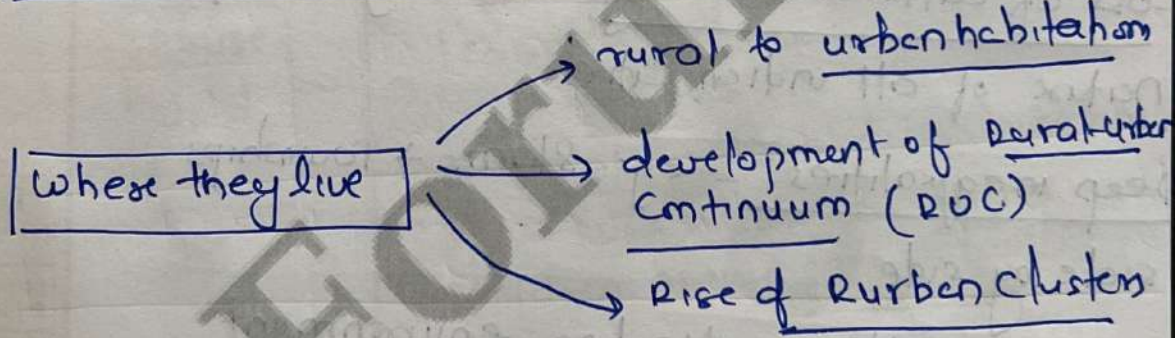
शहरीकरण एक जटिल प्रक्रिया है जो न केवल 'जहाँ लोग रहते हैं' और 'वे क्या करते हैं' में ही, बल्कि 'वे कैसे रहते हैं' में भी परिवर्तन को दर्शाता है। इस कथन के आलोक में भारतीय समाज पर शहरीकरण के प्रभाव का विश्लेषण करें।

(10 अंक, 150 शब्द)

India is one of the most rapidly urbanising countries of the world.



## Impact of urbanisation on Indian society



## How they live

- Adoption of western values  
eg: English language, clothing
- Change in diet + cuisines  
eg: pizza, Burger, Chinese cuisine etc
- More egalitarian - eg: Dalits, women working in MNCs

## Negative impacts

- ① Loss of cultural diversity - For eg: cosmopolitan nature of all Indian cities
- ② Deep inequalities - eg: Slums → Townships side by side
- ③ Consumer culture affecting environment  
eg: 3.2 MT of plastic waste in cities annually
- ④ Informalization of work force - with poor social security (80% of work force)

There is need for more decentralised urbanisation that takes pride in culture → nature, to reach the sustainable development goal (SDG-11)

**Feedback**  
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Q.10) No vulnerability is without an underlying social cause, and child labour is no exception. Analyze. (10 marks, 150 words)

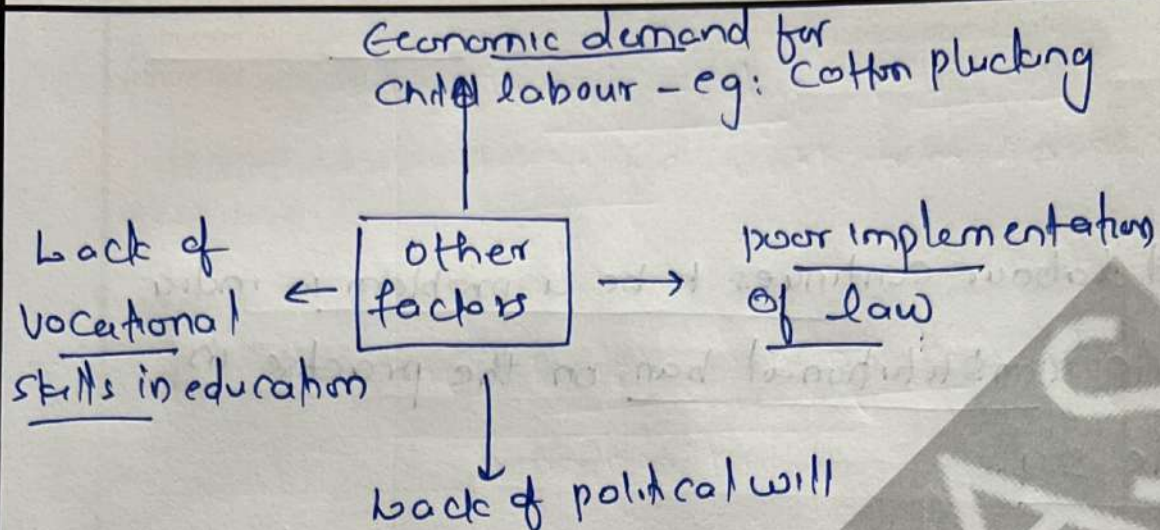
कोई भी सुभेद्यता अंतर्निहित सामाजिक कारण के बिना नहीं होती है और बाल श्रम कोई अपवाद नहीं है। विश्लेषण करें।

(10 अंक, 150 शब्द)

child labour continues to be a problem in india  
despite constitutional ban on the practise in  
Article 24.

Social cause  
behind child  
labour

- Abject poverty - send child to earn money to supplement
- patriarchy - see no point in educating girl child as she leaves after marriage.
- Casteism - social discrimination in schools + outside pushes children away from schools
- Cultural practise - children helping in household business etc.
- low awareness - eg. Tribals unaware of RTE



## Measures to deal with it

- ① social sensitization against child labour for better reporting
- ② vocational education from young age (NEP, 2020)
- ③ counselling of parents ~~from~~ on avenues for education
- ④ strict implementation of law
- ⑤ special emphasis on girl children (eg: UDAN project of Rajasthan)

Child labour has no place in modern democracy. Every societal stakeholder must uphold fundamental duty (SIA) to abolish child labour.

Q.11) Indian sculptures are not just an expression of religious traditions but also a reflection of technical brilliance and aesthetic sensibilities of their time. Elaborate. (15 marks, 250 words)

भारतीय मूर्तिकला न केवल धार्मिक परंपराओं की अभिव्यक्ति है, बल्कि अपने समय की तकनीकी प्रतिभा और सौंदर्य संबंधी संवेदनाओं का भी प्रतिबिंब है। विस्तारपूर्वक वर्णन करें। (15 अंक, 250 शब्द)

India has a long & rich tradition of sculpture going back to Indus valley civilisation and its bronze sculpture (3000-1500 BCE)

Indian sculpture as expression of religious traditions

- ① Buddhism - Gandhara Buddhist sculpture  
Amravati sculptures in Andhra  
Maraviyaya sculpture at Ajanta
- ② Hinduism - Shiva and Vishnu sculptures  
at Ellora
- ③ Shaivism - Nataraja Bronze sculpture of  
Cholas
- ④ Vaishnavism - Vaishava sculpture in Bagh  
Caves, Udaygiri caves - M.P
- ⑤ Jainism - Jain sculpture at Sittanvandal  
Caves, Tamil Nadu.

1

Reflection of  
Technical  
brilliance →  
Aesthetic  
sensibilities

→ ① 'Cire perdue' or lost wax  
technique right from Harappan  
age

→ ② Bronze dancing girl striking  
Tribhanga pose

→ ③ Mara Vijaya of Ajanta  
showing vivid life size  
depiction of Buddhist tale.

→ ④ Attention to detail in narration  
of large events  
eg: open air sculpture at  
Shore temple

→ ⑤ Emotions & narrative element  
eg: Amravati stupa sculpted  
with Jatakas

→ ⑥ Carefully sculpted Mudras  
expressions.  
eg: Nataraja Bronze sculpture

Today, they must be protected as a part of our cultural heritage, and also be revived to generate livelihoods at grass root level - as envisioned in PM Modi's PANCH PRAN vision

**Feedback**

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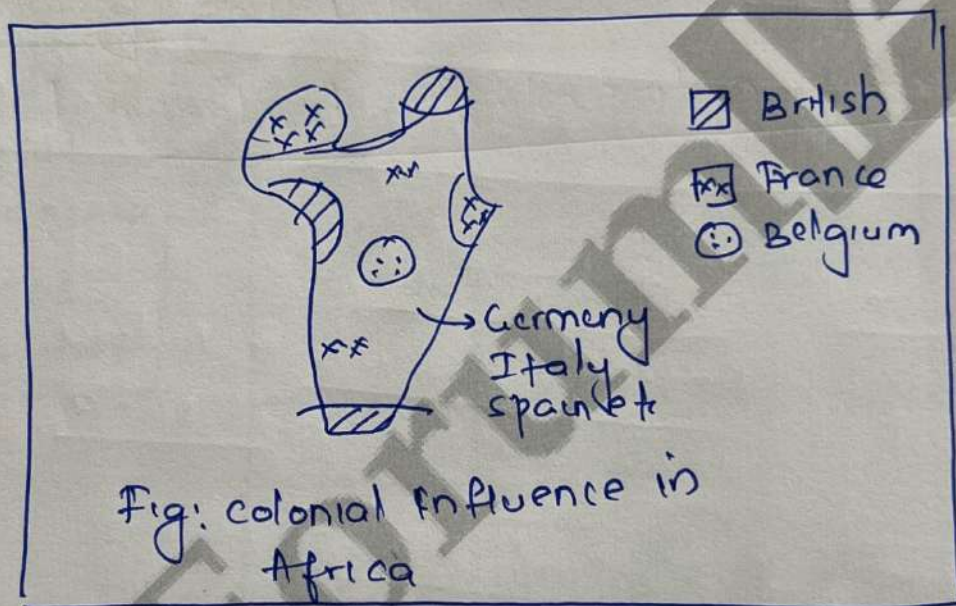




Q.12) From paper partition to delayed decolonization, African colonial experience was different from rest of the world. Discuss. (15 marks, 250 words)

कागज पर बंटवारे से लेकर उपनिवेशवाद से मुक्ति में देरी तक, अफ्रीकी औपनिवेशिक अनुभव बाकी विश्व के हिस्सों से अलग था। चर्चा करें। (15 अंक, 250 शब्द)

The colonial experience in Africa is popularly termed as "scramble for Africa" on account of its peculiar character.



① Delayed entry of colonial powers

eg: Began with Belgium conference in 1885

② Multiple colonisers unlike in other parts

eg: India - only British.

- ③ carving of spheres of influence amongst various colonial powers.
- ④ Delayed sense of nationalism due to tribal politics/tribal way of life.
- ⑤ Artificial nation creation - by drawing lines on map in favour of colonisers.
- ⑥ internal ethnic clashes dominated  
 National boundaries ↔ Not matching ethnic boundaries  
 ↓  
 ethnic disputes
- ⑦ Delayed colonialisation from 1950's onwards
- ⑧ Diversity in <sup>Anti</sup> colonial struggle - from peaceful to outrightly violent (eg: Zambia, Tunisia)
- ⑨ Continued colonial hangover - eg: tribal conflict, resource competition, external interference etc. even today

⑩ prolonged Neocolonialism - Europe, USA exploited for resources even after decolonialisation

In <sup>Africa's</sup> Anti colonial struggle India displayed solidarity and later as founder of NAM helped accelerate decolonization of Africa.

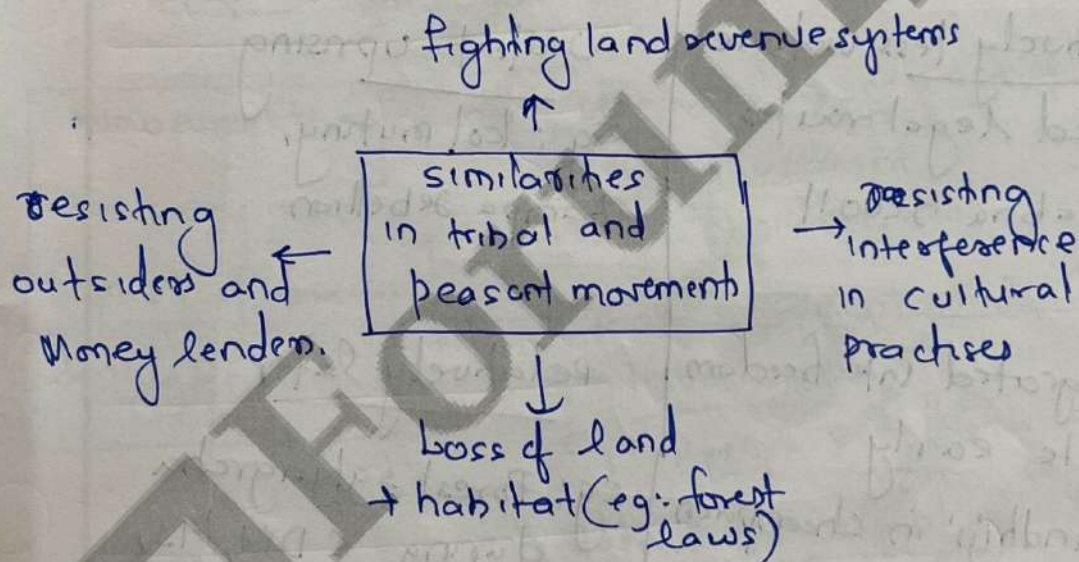
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**Q.13)** Compare the peasant and tribal movements in pre-independence India. How far would it be correct to classify peasant and tribal movements as a part of national freedom struggle? Justify with suitable examples. (15 marks, 250 words)

स्वतंत्रता पूर्व भारत में किसान और आदिवासी आंदोलनों की तुलना करें। किसान और आदिवासी आंदोलनों को राष्ट्रीय स्वतंत्रता संग्राम के हिस्से के रूप में वर्गीकृत करना कहाँ तक सही होगा? उपयुक्त उदाहरणों के साथ औचित्य सिद्ध करें। (15 अंक, 250 शब्द)

The entry of colonial administration destroyed self-sufficient rural economies on one hand, and harmonious way of tribal life on other hand. This triggered series of peasant and tribal movements.



**Differences**

Peasant	tribal movement
<p>① Mainly targeting <del>forest</del> <u>land revenue policies</u> eg: permanent settlement</p>	<p><u>Forest laws</u> - eg: forest law of 1864 that denied tribal right</p>

② Absence of peasant solidarity in the beginning

strong tribal solidarity  
eg: santhal rebellion

③ Mainly economic struggles  
eg: over crowding of agriculture

Cultural & economic  
eg: bondh uprising against ban on human sacrifice

④ Relatively less violence → used legal routes  
eg: pabna revolt

Violent uprising  
eg: kol mutiny, Rampa rebellion

⑤ Integrated into freedom struggle early  
eg: Gandhiji in Champaran satyagraha

relatively later  
eg: Forest satyagraha during CDM, 1930

⑥ More organised  
eg: All India Kisan Sabha

Less organised → fragmented

Can they be called as part of freedom struggle?

- ① No sense of nation - eg: Champaran satyagraha
- ② immediate targets rather than colonial rule  
eg. Deccan revolt 1870 - moneylenders
- ③ Diverse & interest compared to mainstream

However they are very much a part of freedom struggle

- became mass base of the movement  
eg. Non-cooperation, 1920
- Took movement to rural & tribal areas  
eg. Pampa rebellion in 1928
- Hatred for colonial rule
- Conceived vision of new India  
eg. Karachi resolution.

Thus the contribution & vision of these movements helped shape our constitution, reflected in Part III (DPSP) of the constitution.

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Q.14) How is general pattern of ocean surface current circulation related to global atmospheric circulation patterns? Also discuss the influence of these circulations on climate and human activities.  
(15 marks, 250 words)

महासागरीय सतही जलधाराओं के परिसंचरण का सामान्य पैटर्न वैश्विक वायुमंडलीय परिसंचरण पैटर्न से कैसे संबंधित है? जलवायु और मानवीय गतिविधियों पर इन परिसंचरणों के प्रभाव की भी चर्चा कीजिए।  
(15 अंक, 250 शब्द)

ocean surface currents are large, fast moving bands of ocean water that play key role in earth's climate equilibrium maintenance.

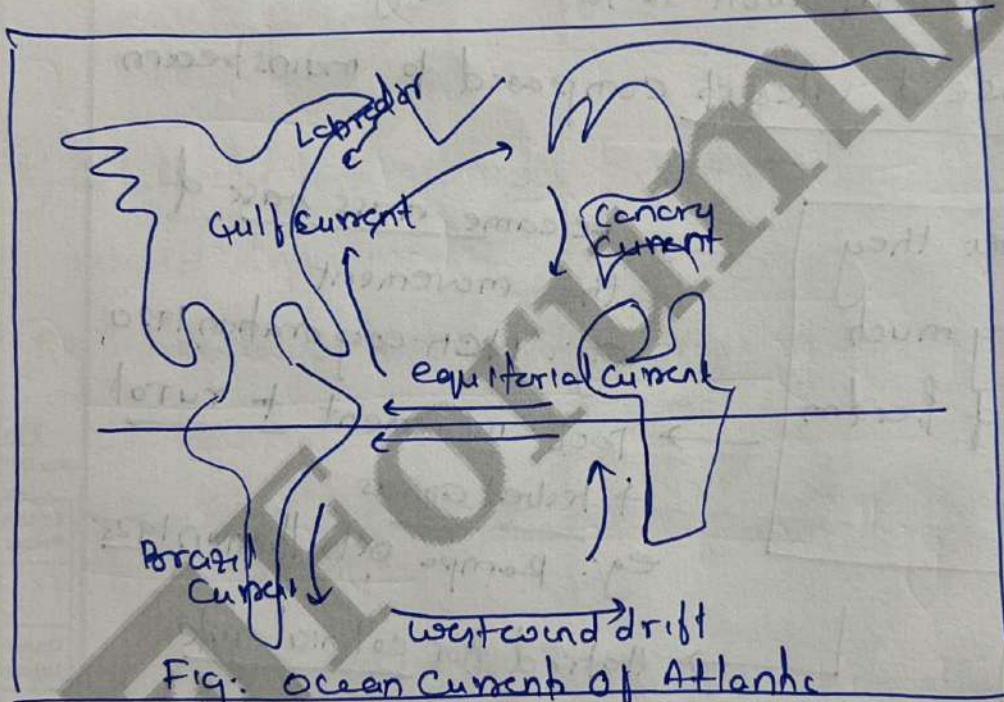
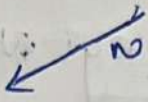


Fig. ocean currents of Atlantic


Global atmospheric circulation → ocean currents

① prevailing winds - exert drag force moving the ~~winds~~ water

Trade Winds:  N.E. Trade Winds  
 move water from Northeast to South West

② Coriolis force - turns the moving water

Northern hemisphere

  $\uparrow$  + Coriolis force  $\Rightarrow$   
 water movement

③ Atmospheric pressure creates gradient for water movement

subtropics - high pressure  
 $\downarrow$   
 Equator - low pressure

## Other factors at play

① Orientation of coastline - For eg: Gulf stream partitioned by Gulf of Mexico

② Melting of glaciers - generation of cold current eg: Labrador current

## Impact of ocean current on climate

① dry v/s Humid climates by cold & warm current

eg: Peru current  $\rightarrow$  Cold  $\rightarrow$  High pressure  $\rightarrow$  stifles rain



① Moderation of temperature - eg: North Atlantic drift (warm) protects western Europe from freezing

Human activities

- ① Aids shipping in direction of current
- ② Fisheries - eg: Meeting of cold & warm currents creates rich fish grounds - Newfoundland fishing ground
- ③ Protecting ports from freezing - eg: Britain's ports.
- ④ sea farming - in areas of upwelling

Today, ocean current are impacted by climate change rising human development. There-

IPCC special report on ocean calls for greater ambition & boldness in tackling climate change & investing in ocean science

<b>Feedback</b> (For OFFICE use o
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Q.15) Describe the ecosystem services provided by the mangrove forests. Examine the causes of depletion of mangrove forests and suggest measures for their protection. (15 marks, 250 words)

मैंग्रोव वनों द्वारा प्रदान की जाने वाली पारिस्थितिकी तंत्र की सेवाओं का वर्णन कीजिए। मैंग्रोव वनों के ह्रास के कारणों का परीक्षण कीजिए तथा उनके संरक्षण के उपाय सुझाइए। (15 अंक, 250 शब्द)

Mangroves are the halophytic vegetation found in the coastal waters of the tropical belt. eg: Sundarbans in West Bengal.

Provisioning

- ① Habitat - eg: Royal Bengal Tiger
- ② Wood & other forest products
- ③ Fisheries in the area

Regulating

- ① Carbon sequestration - 55 times more than forest
- ② Cyclone Velocity control
- ③ Coastal erosion control

Ecosystem services

Cultural

- ① Sacred groves of Bengal
- ② Tourism revenue due to biodiversity
- ③ Environmental education

Supporting

- ① Water filtration controlling salinity of ground water
- ② Nutrient recycling

Depletion of Mangrove forest

- Encroachment by developmental activities  
eg: ports in coastal areas
- population pressure  
eg: Bhiterikanika mangrove for agriculture
- climate change - affecting water salinity and temperature, erosion.
- invasive alien species due to 'ballast water' discharge
- overexploitation - for wood fisheries etc.
- Ocean pollution - eg: smt of plastic waste in oceans.

Measures for protection

- ① Declaration of more Marine protected areas
- ② implementation of Coastal zone regulations (CRZ rules).
- ③ Ecotourism model to reduce pressure
- ④ sustainable community led utilisation of resources.
- ⑤ Reforestation of patches. For eg: women in Sunderbans reforesting lost patches.

Mangroves are key to both mitigation and adaptation to climate change. They must be protected in the spirit of 'Blue economy' for development of coastal areas → biodiversity

**Feedback**

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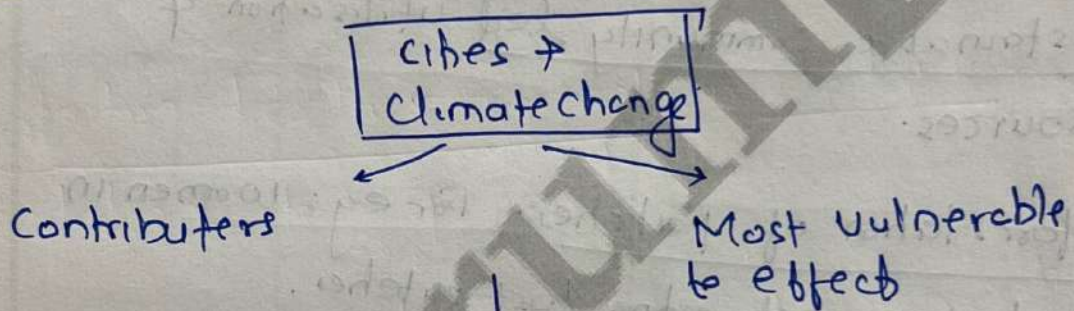
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Q.16) The largest contributors to climate change, cities are also one of the most vulnerable to its adverse effects. Explain. Also analyze the role of cities in achieving carbon neutrality and building climate resilience.  
(15 marks, 250 words)

जलवायु परिवर्तन में सबसे बड़े योगदान देने वाले शहर भी इसके प्रतिकूल प्रभावों के प्रति सर्वाधिक सुभेद्य हैं। व्याख्या करें। कार्बन तटस्थता प्राप्त करने और जलवायु लचीलापन बनाने में शहरों की भूमिका का भी विश्लेषण करें।  
(15 अंक, 250 शब्द)

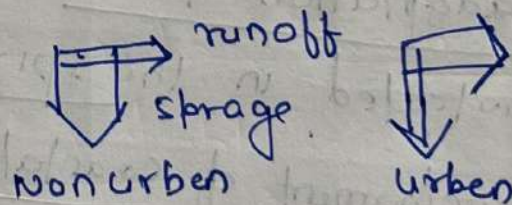
World is rapidly urbanising and by 2050, over 50% of world's population will be living in cities.  
Today cities contribute to over 75% of cities emissions.



① GHA emissions - from transport & industry  
eg. transport - 18% of emissions in india

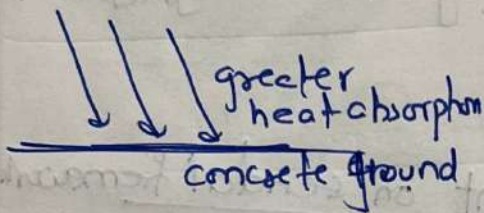
② Encroachment of Green spaces that are carbon sinks  
eg. Axey Forest movement

① urban floods due to low infiltration



③ Destruction of Buffer spaces like wetlands  
eg. loss of Pillaikarai Marsh in Chennai

④ Urban heat islands due to concretization



① urban heat waves  
eg. Denmark, Germany  
Japan, 2022

② large population at risk

④ Economic cost of disasters very high.  
eg. Chennai floods  
→ infrastructure damage.

## Role of Cities in achieving carbon neutrality and climate resilience

① investing in green technologies in industry  
eg. solar startups

② Green public transportation - eg. Curitiba  
Brazil Rail transport

- ③ IPCC AR6 suggests compact walkable cities to reduce fossil fuels
- ④ sponge city model of china for drought & flood management
- ⑤ Miyawaki' urban forestry (eg. Tree City Hyderabad) to absorb emissions
- ⑥ Effective disaster management on sendai framework guidelines to be prepared.
- ⑦ Community based management of Green and open spaces.

Joseph Stiglitz called climate change as Third world war. If it is so, then the battle ground is Cities for no doubt. Thus Green cities are way to achieve SDG 11 - sustainable & inclusive urbanisation



Q.17) Account for the shift in location of sugar industry. What has been the economic and ecological consequences of these shifts? (15 marks, 250 words)

चीनी उद्योग के अवस्थिति में परिवर्तन के कारणों का विवरण दें। इन परिवर्तनों के आर्थिक और पारिस्थितिक परिणाम क्या रहे हैं? (15 अंक, 250 शब्द)

sugar industry is a historical agro industry with strong linkages with agriculture and other food processing industries.

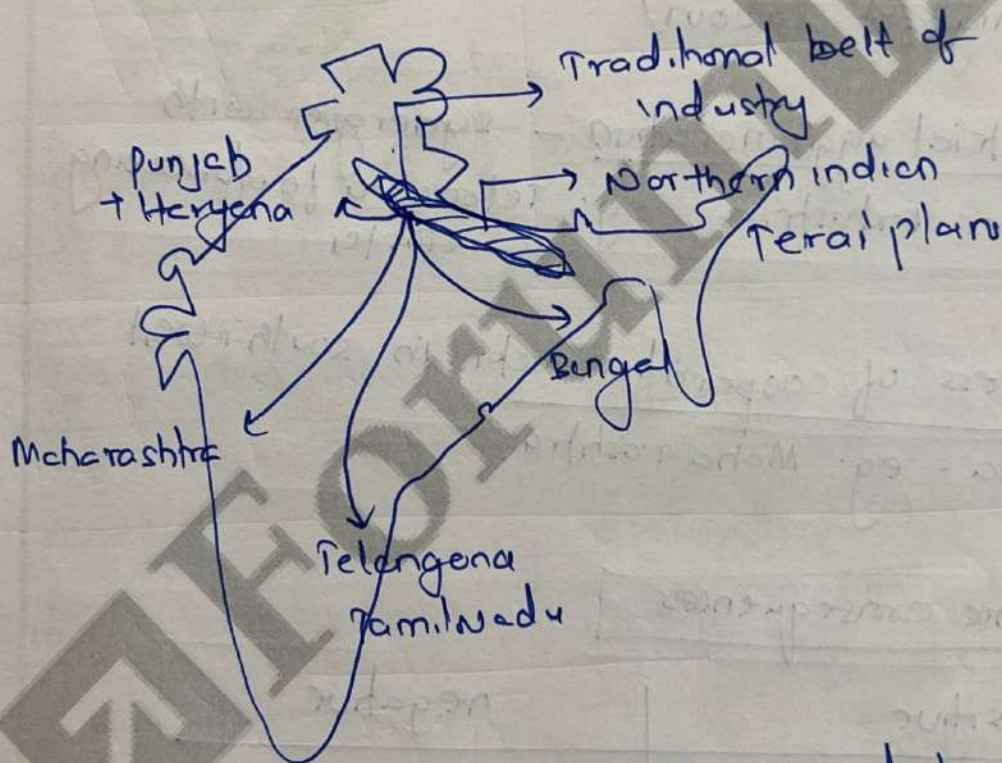


Fig: Changing location of sugar industry

### Reasons for shift in location

- ① Raw material availability — eg: sugar cane  
Cultivation in Maharashtra



- ② Market opportunities - over 40% urbanisation in south India
- ③ New technology - Compared to old machinery in North India
- ④ labour availability - in southern states (eg: migrant labour)
- ⑤ Industrial agglomeration - synergies with other industries. eg: Telangana food processing cluster
- ⑥ Success of cooperative sector in south + west India. eg: Maharashtra.

Economic consequences

positive	negative
① <u>Regionally balanced agro industries</u>	① over supply leading to <u>depressed prices</u>
② <u>Employment opportunities</u> in south + west	

③ Agricultural growth in drought prone Telangana, Rayalseema et

② Northern belt losing out on competition

④ Biofuel opportunities

Ecological consequences

positive

negative

① Recovery of Terai belt from water guzzler Cane

water scarcity in drought prone peninsula eg. Marathwada Belt

② crop diversity in India - Agroclimatic benefits

ground water deficit eg. Telangana

③ Biofuel promotion

salinity due high water + fertilizer use

Sugarcane industry needs to be in line with agroclimatic sensibilities of a region. only then can it help double farmer's income → achieve \$100bn goal of agro-export sustainably

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Q.18) Population composition, rather than population size, is more critical determinant of development trajectory of a country. Examine. Also discuss the desirability of raising legal age of marriage for women to stabilize population size. (15 marks, 250 words)

जनसंख्या के आकार के बजाय जनसंख्या संरचना, किसी देश के विकास पथ का अधिक महत्वपूर्ण निर्धारक है। परीक्षण करें। जनसंख्या के आकार को स्थिर करने के लिए महिलाओं के लिए विवाह की वैधानिक उम्र बढ़ाने की वांछनीयता पर भी चर्चा करें। (15 अंक, 250 शब्द)

UNFPA projects that India is set to become the world's largest country by 2030, overcoming China in population.

Population composition than size is a determinant of development trajectory

① Balanced sex ratio for gender inclusive development  
eg. India : child sex ratio is just 929.

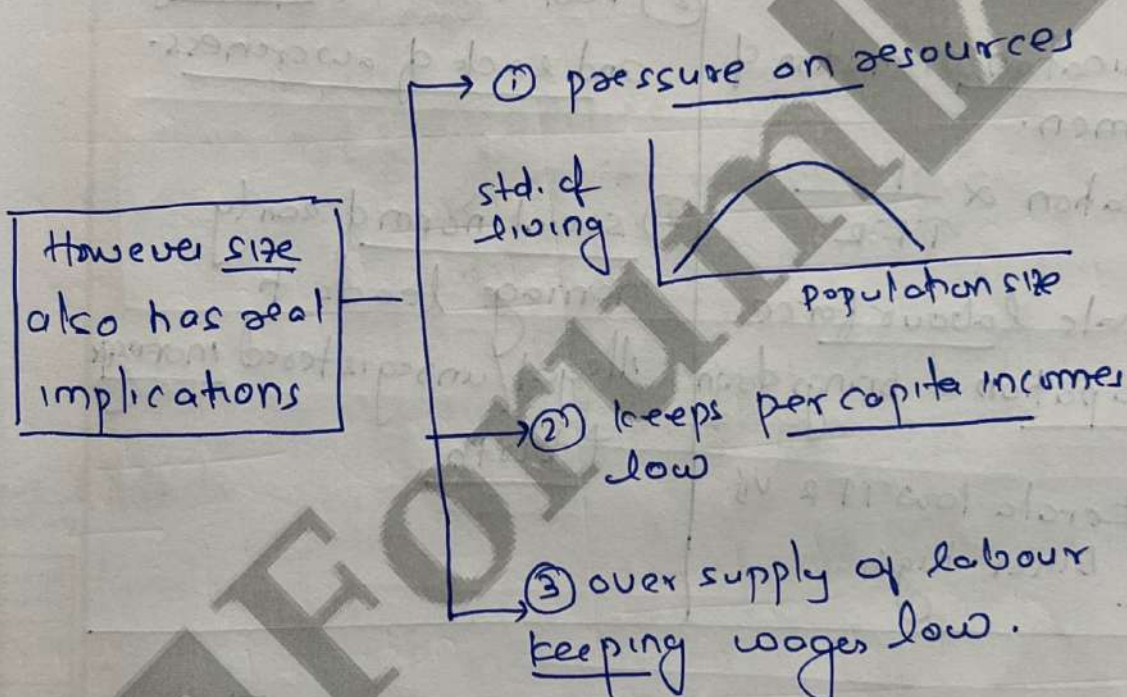
② working age population for demographic dividend  
eg: India - 66% in working age

③ old age population determines dependency  
eg: India's elderly set to reach 20% by 2040

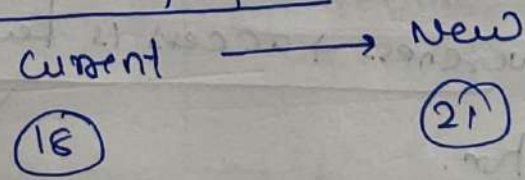
④ skilled population - to actually leverage the demographic dividend

India skills report 2021 → employability just 46% in India.

⑤ socially harmonious population - eg: absence of caste, religion based injustice.



In this regard, increase in age of marriage of women is proposed, to stabilise population.



Desirability of this more

Benefits

Challenges

① Reduces fertility by reducing fertility window

② Education promotion of women.

education  $\propto \frac{1}{TFR}$

③ Female labour force Participation - brings down

TFR  
 (eg: Kerala low TFR vs Bihar high)

① penalises poor who tend to have large population

② Root cause is poverty and lack of awareness

③ social norm of early marriage leads to illegal/unregistered marriage + birth

In this regard, the evidence shows investing in women's education, skills, and improving family planning awareness + access is key to population stabilization.

Feedback

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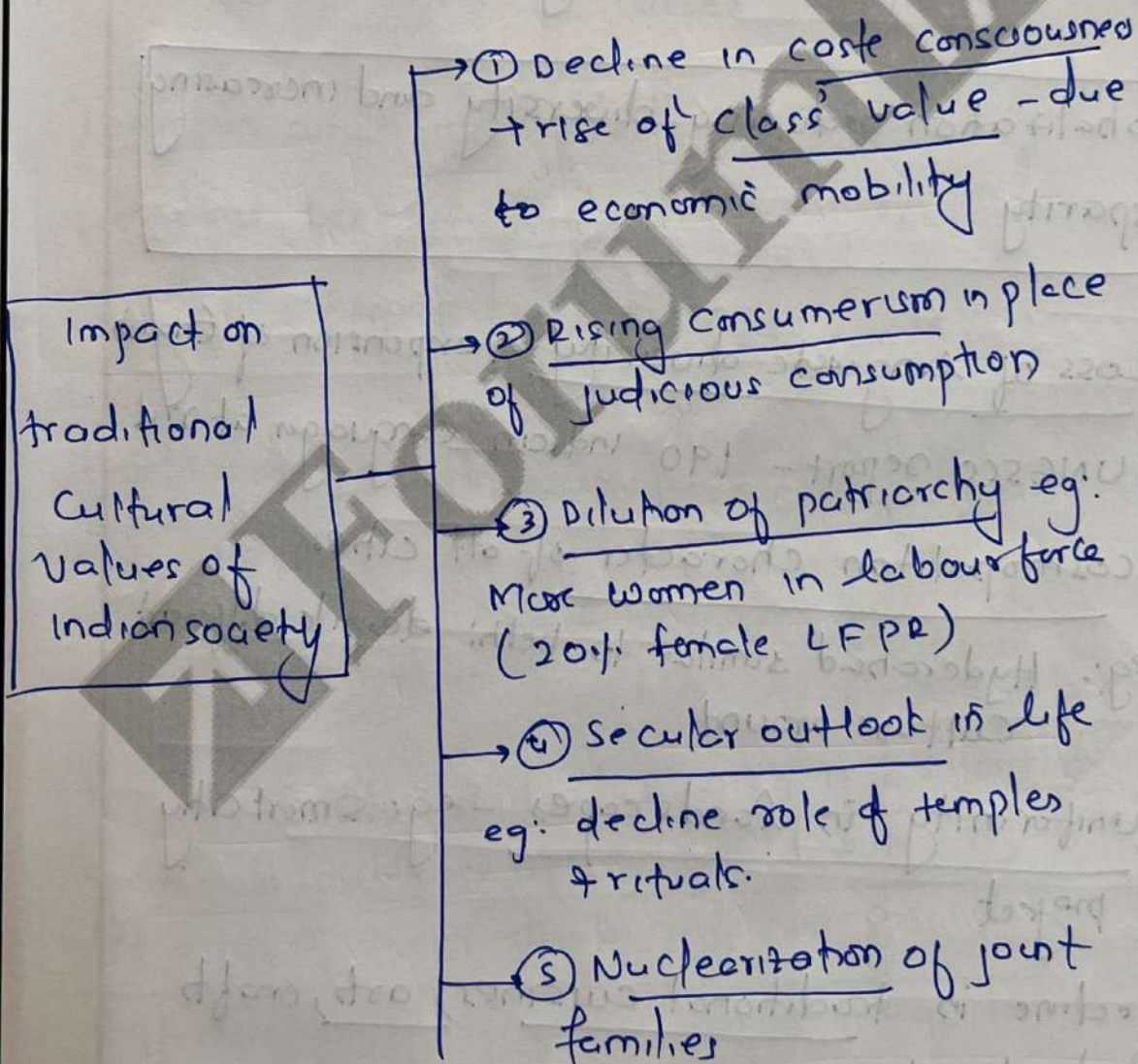


Q.19) How has globalization impacted traditional cultural values in the society? Do you agree that globalization has reduced diversity and increased disparity in the country? Justify.

(15 marks, 250 words)

वैश्वीकरण ने समाज में पारंपरिक सांस्कृतिक मूल्यों को कैसे प्रभावित किया है? क्या आप इस बात से सहमत हैं कि वैश्वीकरण ने देश में विविधता को कम किया है और असमानता को बढ़ाया है? औचित्य सिद्ध करें। (15 अंक, 250 शब्द)

Globalisation is the process of greater integration → interdependences between nations' economies, societies & cultures.



⑥ outsourcing of child care  
eg: crecher in cities

⑦ More equal division of labour in marriage  
eg: #He for she during Covid lockdown - men sharing domestic work

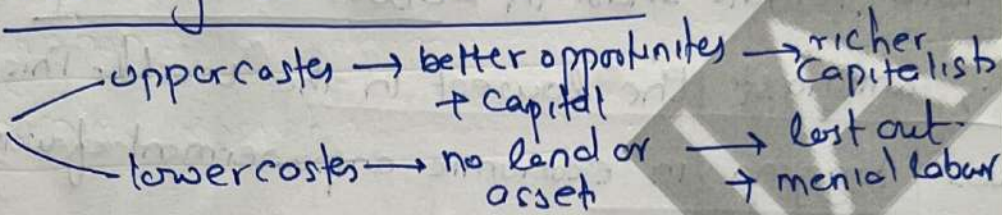
Globalization reducing diversity and increasing disparity

- ① Loss of linguistic diversity → expansion of English  
UNESCO report - 190 Indian languages at risk
- ② cosmopolitan character of all cities  
eg: Hyderabad similar to Delhi despite different culture around
- ③ uniformity in landscapes - eg: smart city project
- ④ Decline in traditional cuisines, arts, crafts festivals etc.

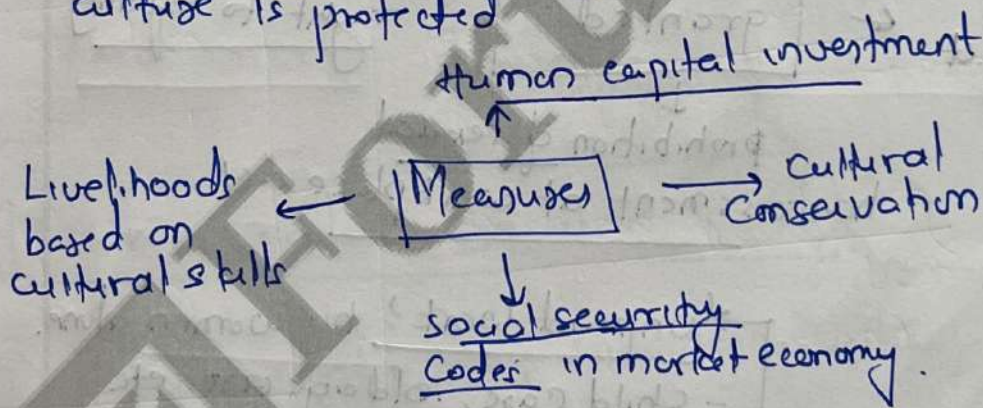
eg. puppetry on extinction, while Mall culture  
 → theatre is on rise

① increasing economic inequalities - eg.:  
 slums → gated communities in cities

② worsening social divides



Therefore what is needed is to make sure all sections benefit from globalisation, and culture is protected



Thus as Gandhiji said "I wish to be familiar with all cultures of the world, but I refuse to let any of them shake my own ground"

Effectively calling for inclusive + equitable globalisation.

### Feedback

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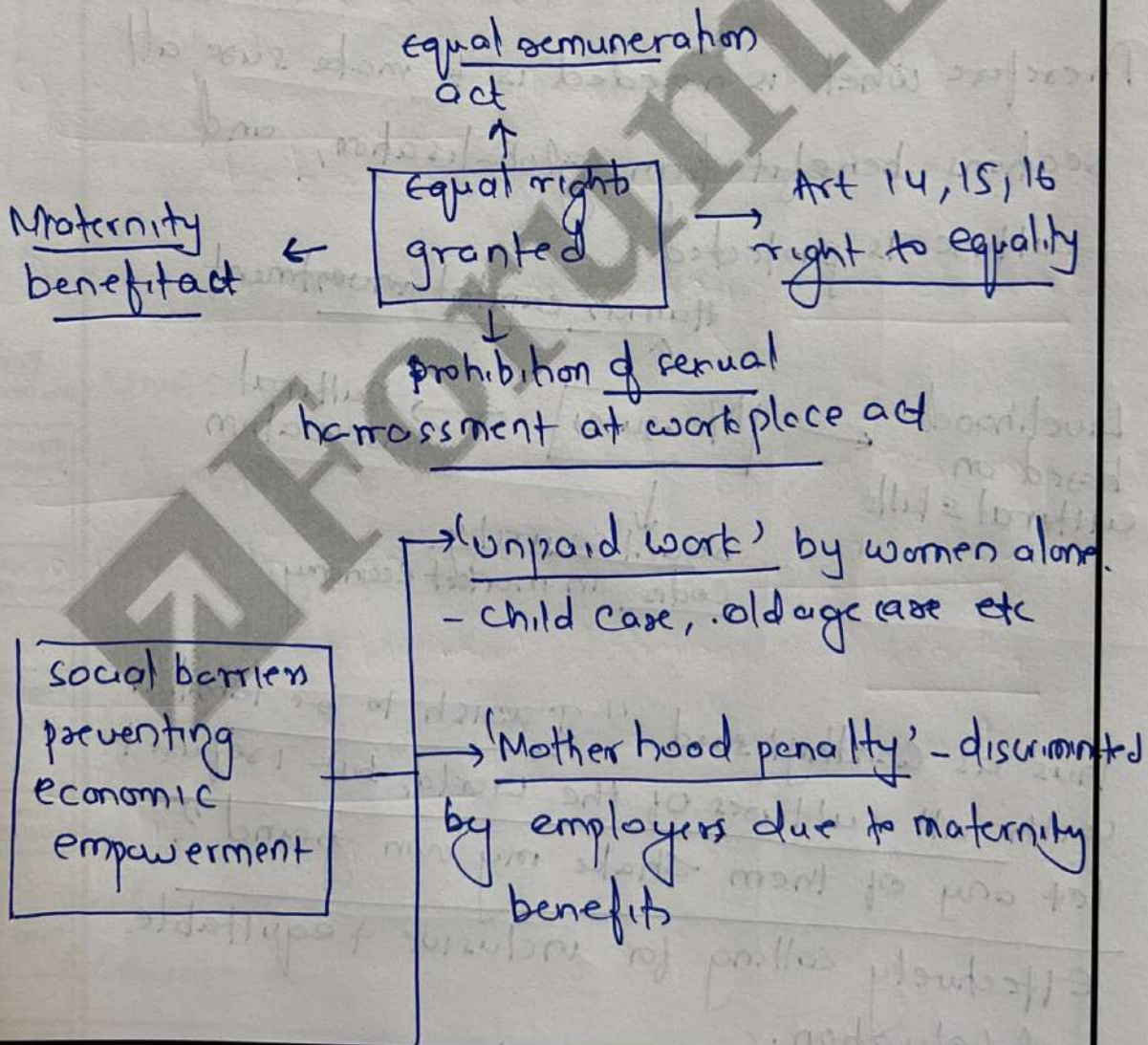
Q.20) While equal rights have been granted to both men and women to participate in economic activities, economic empowerment of women has been slow in coming due to various social barriers. Examine the statement based on your understanding of economic empowerment.

(15 marks, 250 words)

जबकि आर्थिक गतिविधियों में भाग लेने के लिए पुरुषों और महिलाओं दोनों को समान अधिकार दिए गए हैं, फिर भी विभिन्न सामाजिक बाधाओं के कारण महिलाओं का आर्थिक सशक्तिकरण धीमा रहा है। आर्थिक सशक्तिकरण की अपनी समझ के आधार पर इस कथन का परीक्षण कीजिए।

(15 अंक, 250 शब्द)

In India female share in labour income is just 18.1%, amongst the lowest in the world. This shows lagging in economic empowerment of women.



- unequal wage and discrimination at work  
eg: glass ceilings
- Gender violence at workplace  
eg: #MeToo movement
- low access to education  
eg: high dropout in secondary & higher education
- inadequate role models
- social stereotypes on women in business → curbs entrepreneurship

ways to address the above issues

- ① Entrepreneurship - by leveraging STE model  
eg: Lizzy Papad - 800cr large company
- ② women business incubators  
eg: WE HUB of Hyderabad

- ③ skill development programs + connecting with employers  
eg: SHEJobs portal of A.P
- ④ Gender audit of workplaces + curb bias.
- ⑤ Retaining women in education  
eg: UDAAN project of Rajasthan community approach to control drop outs
- ⑥ social campaigns celebrating role models  
eg: Kadamini Ganguly → Falguni Nayar
- ⑦ conversion of compensating household work

WEF says if women take part in economy on par with men it can give 20-25% boost to GDP. Thus we must leverage the "gender demographic dividend" for economic + social goals (SDGs)

Feedback	
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