



# VISION IAS

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## GENERAL STUDIES (TEST CODE : 1862)

Name of Candidate	SURBHI SINGLA		
Medium Eng./Hindi	ENGLISH	Registration Number	227299
Center	ORN	Date	31/12/2021

### INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
2	10	
3	10	
4	10	
5	10	
6	10	
7	10	
8	10	
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15	15	
16	15	
17	15	
18	15	
19	15	
20	15	

Total Marks Obtained:

Remarks:

### INSTRUCTIONS

- Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).  
उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)।
- There are **TWENTY** questions printed in **ENGLISH & HINDI** इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
- All questions are compulsory.**  
सभी प्रश्न अनिवार्य हैं।
- The number of marks carried by a question/part is indicated against it.  
प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
- 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. No marks will be given for answers written in medium other than the authorized one.  
प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे।
- Word limit in questions, if specified, should be adhered to.  
प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
- Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off.  
उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।

16-B, 2<sup>nd</sup> Floor, Above National Trust Building, Bada Bazar Marg, Old Rajinder Nagar, Delhi-110060

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Delhi- 110009

## EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

1. Jyotiba Phule was not only a key social reformer but also a patron of literary works. Discuss. (150 words) 10

ज्योतिबा फुले न केवल एक प्रमुख समाज सुधारक थे बल्कि साहित्यिक कार्यों के संरक्षक भी थे। विवेचना कीजिए।

Born in a 'Mali' family, Jyotiba Phule survived discrimination & went on to become a key social reformer on the space of Indian Renaissance.

Jyotiba Phule: A key social reformer

- 1) Voiced against 'untouchability' & discrimination against lower castes.
- 2.) An avid supporter of education, opened many schools for dalits & women
- 3.) Strong crusader of women empowerment. Taught & educated his own wife Savitri bai Phule

Patron of literary works

- 1.) wrote 'Brhmagini' to bring forth the plight of 'untouchables'.

2) Under his patronage, his wife wrote many literary pieces - like 'Kavya Khule'

3) wrote in Journals & newspapers ~~to~~ against British rule, & to foster Indian Nationalism.

4) wrote Sarvajaniki Satyadharma to inspire common people about nationality vs religion.

Thus, Phule's works became a major inspiration & even inspired next-gen social reformers - of the likes of Ambbedkar.

2. Cave paintings in India have a long tradition with both religious as well as secular attributes. Elucidate.

(150 words) 10

भारत में गुफा चित्रकला की धार्मिक और धर्मनिरपेक्ष दोनों विशेषताओं से युक्त एक दीर्घ परंपरा रही है। स्पष्ट कीजिए।

Cave paintings are a distinguished element of Indian art & architecture - with a continuous history dating back to ancient times.

Cave paintings : Religious attributes

1) Ancient

1) Ajanta caves : Buddhist cave paintings depicting Buddha in human form

eg: Padmapani Bodhisattva

2) Ellora caves : Coexistence of Hindu, Buddhist & Jain religious elements.

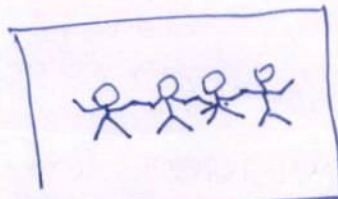
eg: Shiva, Vishnu, Tara images

3) Tanjore group of paintings in Mysore & Kerala - episodes of Ramayana & Mahabharata

4) Badami murals of Vijaynagara -  
Hindia cave paintings

### Secular elements

- 1) Depiction of everyday hunting & dancing scenes by ancient cave-dwellers. eg: Bagh Caves, MP
- 2) Bhimbetka Caves; scenes of food gathering, hunting etc.
- 3) Mithila paintings, Bihar - depict both secular & religious lives of people
- 4) Depiction of art forms :- eg: words  
Art or tribes in regional cave paintings



Dancing scenes,  
Bhimbetka

Thus, cave paintings offer a peek into  
India's religious & secular traditions to help  
historians construct history of that period

3. The Swadeshi movement started as an anti-partition movement, but became a multi-faceted mass movement after 1905. Elaborate.

(150 words) 10

स्वदेशी आंदोलन एक विभाजन विरोधी आंदोलन के रूप में शुरू हुआ, लेकिन 1905 के बाद यह एक बहु-आयामी जन आंदोलन बन गया। सविस्तार वर्णन कीजिए।

Swadeshi movement started in the wake of partition of Bengal in 1906-07 went on to become a major movement against British rule in India.

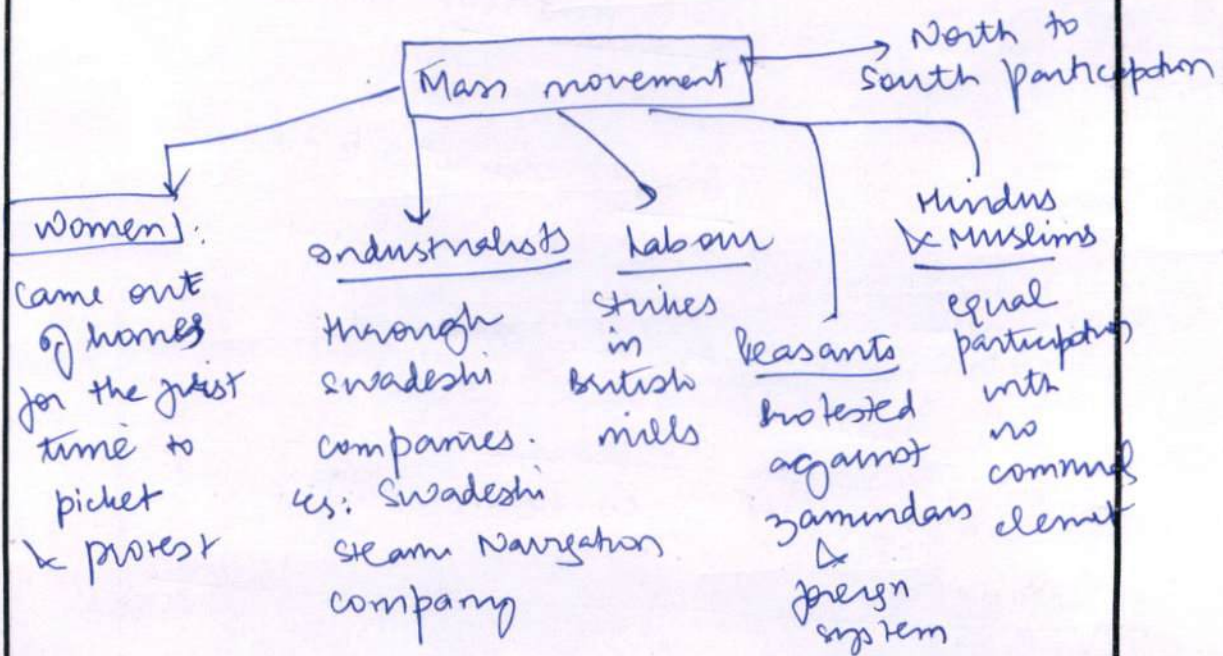
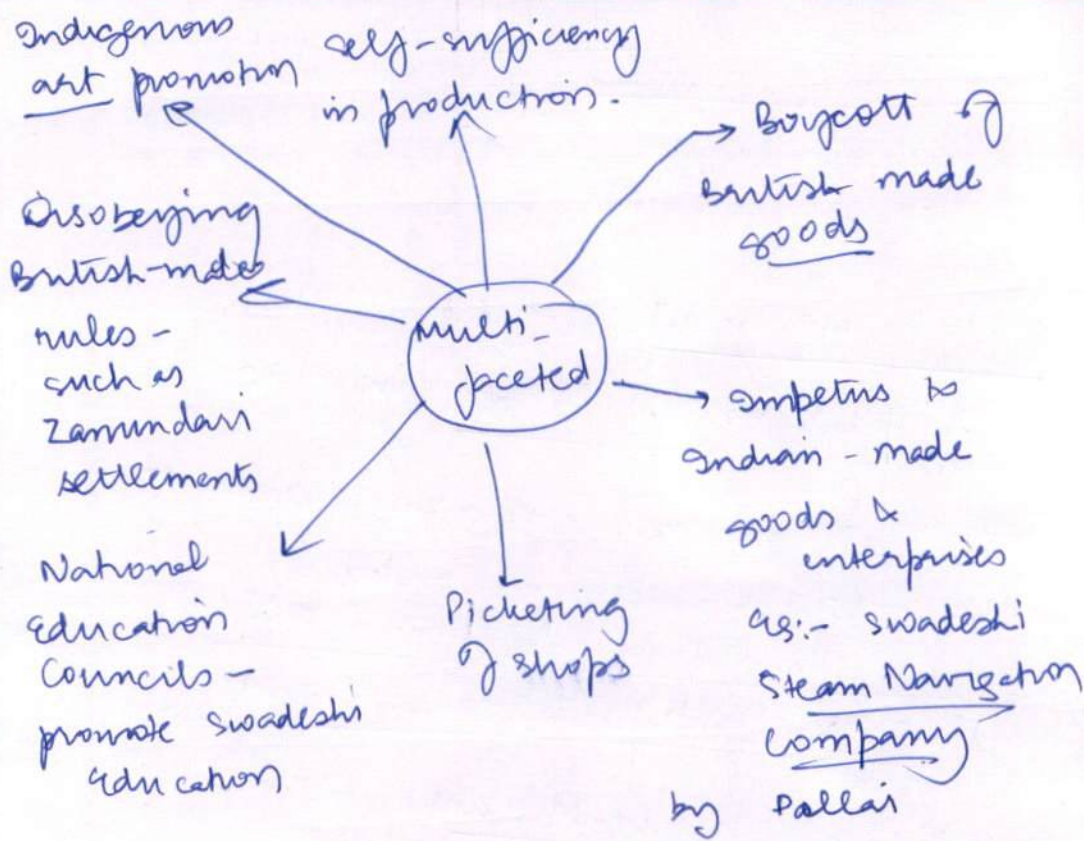
Swadeshi: An anti-partition movement

1) Building Hindu-Muslim unity in wake of communal partition of Bengal.

2) symbol of protest against partition

3) cratering voices to turn anti-partition into a mass movement.

Swadeshi movement becomes a multi-faceted mass movement



Thus, Swadeshi went on to become a major tool to cripple British economic exploitation & foster nationalism in India.

4. Although the National Emergency of 1975 was a temporary blip in independent India's history, it emboldened the spirit and resistance of our democracy. Discuss. (150 words) 10

यद्यपि, स्वतंत्र भारत के इतिहास में 1975 का राष्ट्रीय आपातकाल एक अस्थायी आघात था, तथापि इसने हमारे लोकतंत्र की भावना और सहज-विरोध को प्रोत्साहित किया। चर्चा कीजिए।

National emergency of 1975 - imposed in the wake of popular unrest & economic hardships - became a watershed due to long lasting impacts on Indian polity.

Temporary blip : On independent India's history

1) Violation of Fundamental Rights

(a) Press Restrictions (Article 19 violation)

- Suspension

2) Suspension of Judicial review (A32)

3) Violation of Doctrine of separation of powers (concentration of powers in hands of executive)

4) human rights violation - Detention  
↳ Jail without trial. torture -

however, post the temporary blip,

emergency of 1975 was able to embolden

spirit & resistance of our democracy:

1.) Constitutional changes

a) Separation of Powers & Judicial Review  
became a part of basic structure of  
constitution (Minerva Mills)

b) 'Armed rebellion' replaced 'Internal  
disturbance' to increase threshold for  
imposition of emergency.

2. Strengthened fundamental rights:

a) Press freedom to report true  
proceedings of Parliament.

b) Articles 20, 21 cannot be suspended  
even during emergency

3) Checks against arbitrary executive action:

a) emergency only on written approval  
of cabinet (44<sup>th</sup> C.A Act)

b) repeated approval for continuation of  
emergency.

In long term, Judiciary became more  
proactive & civil society gained greater  
role in Indian democracy - to make it  
vibrant & proactive

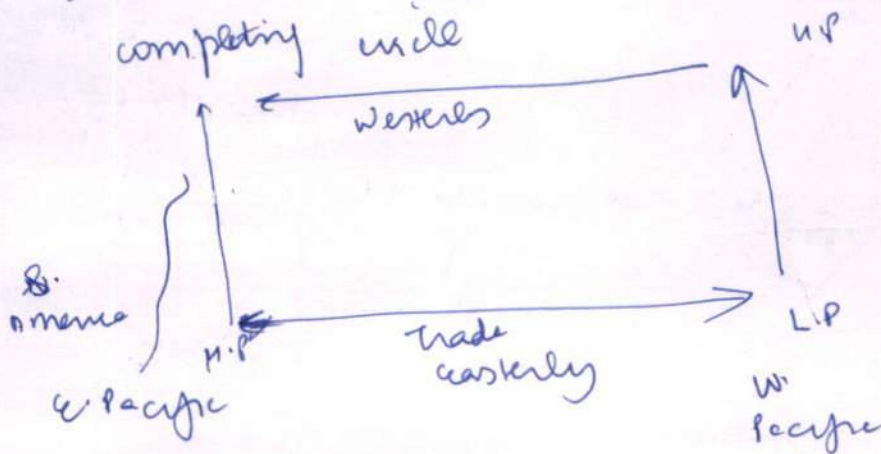
5. Examine the relationship between the Walker Circulation and the Indian Monsoon. (150 words) 10

वाकर संचरण और भारतीय मानसून के बीच संबंध का परीक्षण कीजिए।

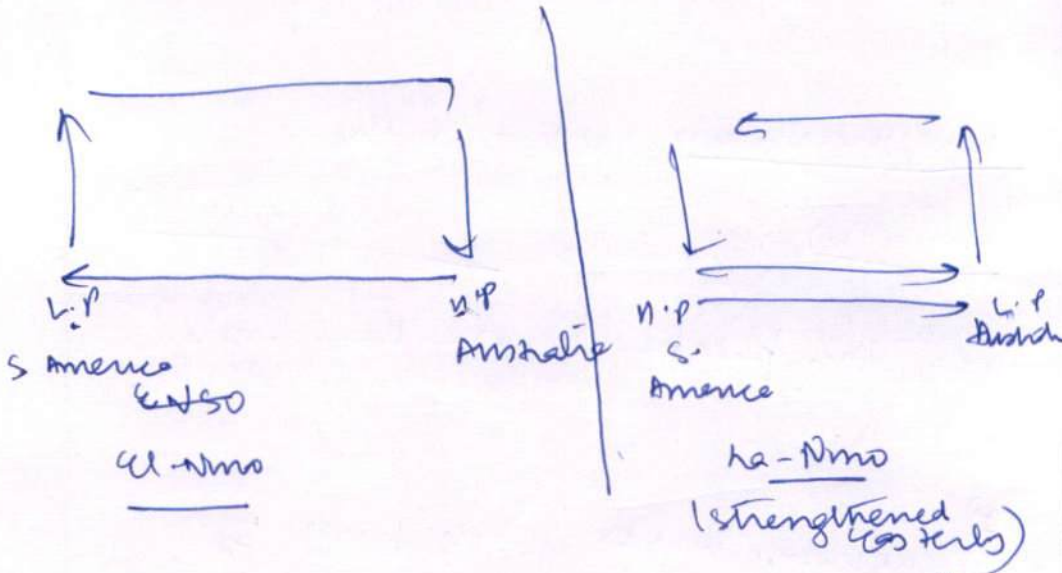
Walker circulation refers to the phenomenon of a cell of air circulation over the Pacific ocean, characterized by:

1) <sup>E</sup> trade winds flow from South American coast towards Australia in lower troposphere.

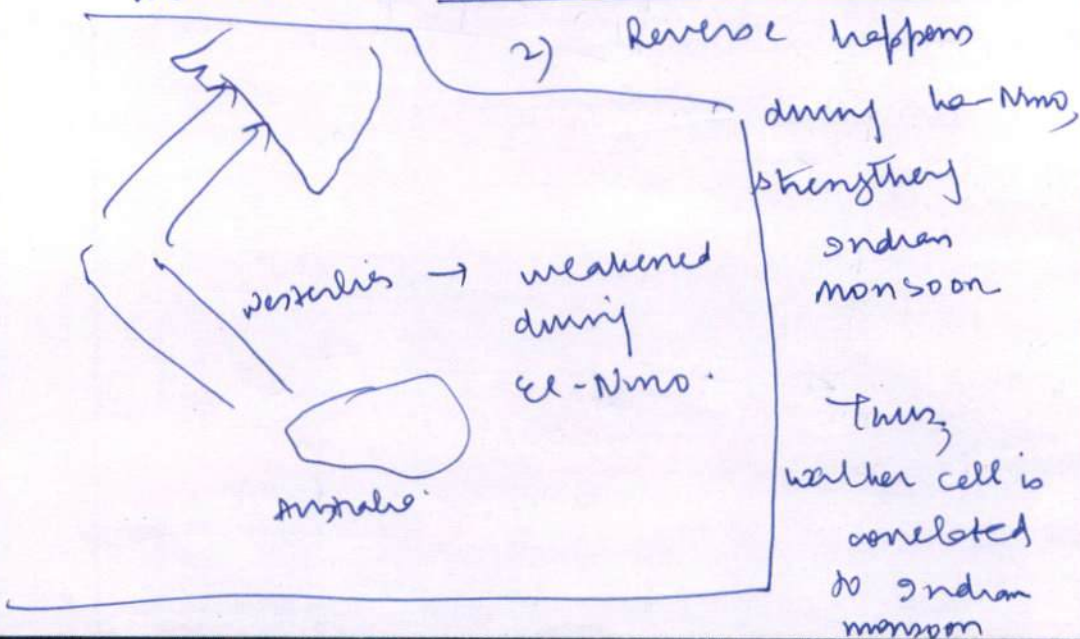
2) High low pressure over Australia causes winds to rise up, cool down & flow as westerly winds towards S. America in upper troposphere, completing circle.



## Relationship with Indian monsoon



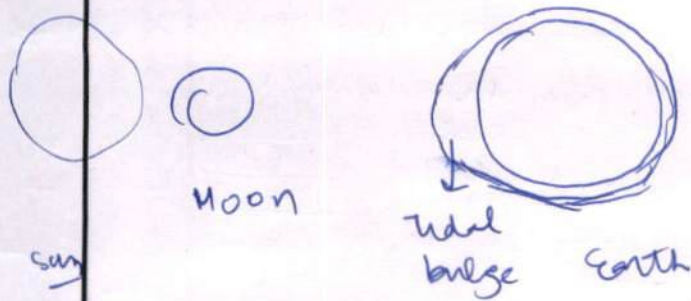
1) At times, ~~when~~ warm ocean current replaces cold water along ~~A~~ American coast.  $\Rightarrow$  L.P. over S-America  $\Rightarrow$  Reversal in wind direction from W. Pacific  $\rightarrow$  eastern Pacific  $\Rightarrow$  weakens ~~of~~ South Asian monsoon



6. Identifying the factors responsible for formation of tides, discuss their geographic and economic significance. (150 words) 10

ज्वार-भाटा के निर्माण के लिए उत्तरदायी कारकों की पहचान करते हुए, उनके भौगोलिक और आर्थिक महत्व की विवेचना कीजिए।

Tides are periodic rise & fall of  
coast sea-level along coasts due to  
~~sun~~ gravitational pull of the moon  
& sun

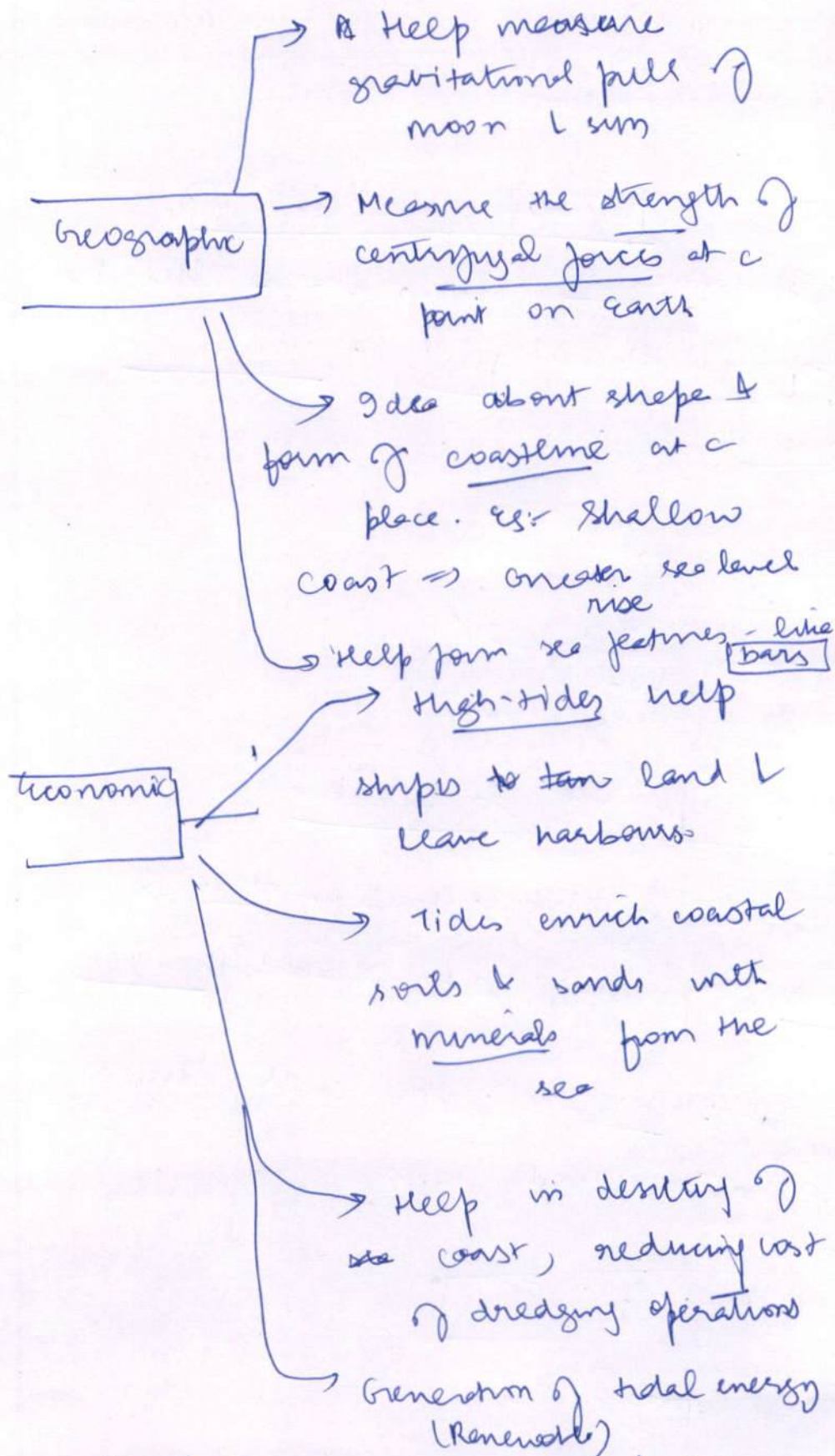


Factors responsible for formation:

- 1.) ~~sun~~ gravitational pull of moon & sun, pulling water towards themselves.
- 2.) Coriolis force of the earth, due to rotation on its axis.

Significance of tides

1) Geographic

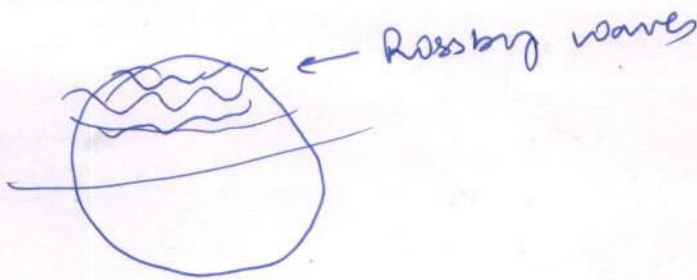


Thus, tides have great significance for life on earth

7. What are Rossby waves? Discuss the role played by them in shaping the climate of the earth. (150 words) 10

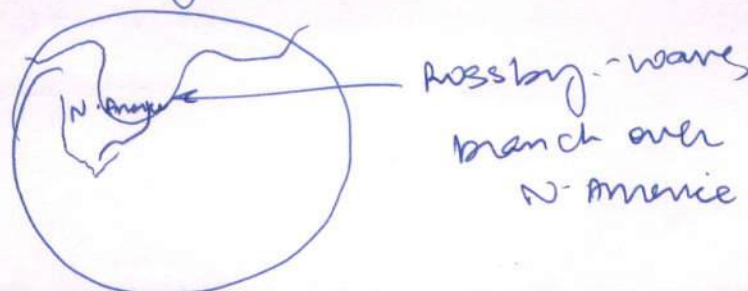
रॉस्बी तरंगें क्या हैं? पृथ्वी की जलवायु के निर्धारण में उनके द्वारा निभाई जाने वाली भूमिका की विवेचना कीजिए।

Rossby waves refer to zig-zag motion of polar jet streams in the upper latitudes of earth.



Role played in shaping climate of earth:

- 1.) keep keep cold polar winds in upper latitudes
- 2.) <sup>sudden</sup> weather changes over N. American & other regions are a result of branches of Rossby waves.



- 3) Development of cyclonic & anti-cyclonic disturbances in upper latitudes
- 4) Heat balance of the earth via transfer of heat between latitudes
- 5) Habitability of coastal regions impacted - ~~very~~
- 6) effect on movement of ocean currents - leading to greater biodiversity movement in oceans

Thus, Rossby wave has far-reaching effects on climate of earth

8. One of the reasons for increased global interest in Afghanistan is its endowment with key natural resources. Discuss. (150 words) 10

अफ़गानिस्तान में बढ़ते वैश्विक रुचि के कारणों में से एक यहां प्रमुख प्राकृतिक संसाधनों की उपलब्धता है। चर्चा कीजिए।

Afghanistan - situated in West Asia has been a region of key interest for global superpowers - since the time of cold war.

Natural resources: A reason for global interest

- 1) oil reserves: A key resource of interest for all major superpowers.
- 2) Rare-earth minerals: gaining currency due to wider role of electronics & semi-conductors.
- 3) iron & copper reserves: are another major asset of Afghanistan.

Other reasons for global interest:

- 1) strategic location: on the heart of Central Asia - connecting it to South

Asia.

2.) Route for major pipelines connecting Europe & Asia. Fig: Ashgabat Agreement, TAPI pipeline

3.) Bypassing Pakistan for connectivity to Central Asia - with India.

4.) Part of Colden Crescent - governing world's drug production & trade.

Thus, Afghanistan's strategic positioning & endowment with natural resources are key reasons for global interest

9. The traditional structure of the caste system has witnessed paradoxical changes over the last few decades in India. Comment. (150 words) 10

भारत में पिछले कुछ दशकों में जाति व्यवस्था की पारंपरिक संरचना में विरोधाभासी परिवर्तन देखे गए हैं। टिप्पणी कीजिए।

Caste system - or the 'Chaturvarna system' has been an integral element of Indian society since ancient times.

Traditional paradoxical changes over last few decades

Traditional structure	Changes
<p>1) Strict 4-fold division of occupations:</p> <p>(Brahmins - religious rituals, 'Shudras' - menial jobs)</p>	<p>a) Rapid strides by education &amp; its penetration have diluted caste-based occupational division.</p> <p>b) Reservation in jobs &amp; educational institutions have made many occupation <u>multi-caste</u></p> <p>↳ <u>multi-lingual</u></p>

2.) Segregation  
of living -  
caste-based

a) Rapid urbanization &  
globalization has diluted  
caste-based segregation

b) MNC offices & urban  
apartments :- home to  
co-existence of all castes

3.) Discrimination  
on basis of  
caste -  
'untouchability'

economic & social upliftment

has raised the status of  
erstwhile 'so called'  
'lower castes.'

[eg]: Indira's first citizen,  
President Kovind, an example  
of social mobility

Remnants of caste system remain

- in occupations like manual  
scavenging, majority 'lower-castes'

- Discrimination still reported under  
prohibition of untouchability act

- unequal social indicators:

[eg]: literacy rate:



thus, a paradoxical mix of changes have occurred

10. Economic empowerment of women is the key to ensure their social empowerment. Discuss in the context of India. (150 words) 10

महिलाओं का आर्थिक सशक्तीकरण उनके सामाजिक सशक्तीकरण को सुनिश्चित करने की कुंजी है। भारत के संदर्भ में चर्चा कीजिए।

Our Constitution prohibits discrimination on the basis of gender, & strives for equal pay for equal work (DPSPs). This depicts the link between economic & social empowerment.

Economic empowerment: key to ensuring social empowerment.

1) economic empowerment brings independence in decision-making & gives more agency.

eg :- Women who earn a decent living can make life choices independently.

2) enhances reproductive choices & agency through better access to contraceptives → ~~sex~~

3) enables empowerment to raise voice against injustices & gender-violence

eg. #MeToo movement <sup>against</sup> workplace violence

4) economic participation enhances awareness of rights & their realization.

(eg): workplace socialization - a means to awareness

However, economic empowerment is not the panacea:-

1) Issue of glass ceiling & wage gap (Global Gender ~~work~~ index:- India has among highest wage gap in world)

2) Care burden falls disproportionately on women.

3) Safety concerns & patriarchal attitudes at workplace.

Thus, way forward is to engender economic empowerment along with enhanced social safeguards - such as Maternity Benefit Act,

Care economy - to for true upliftment of women

11. India has the highest number of endangered languages in the world as per the UNESCO. In this context, discuss the factors that have endangered native languages in India and highlight the steps taken to conserve and protect these languages. **(250 words) 15**

यूनेस्को के अनुसार, विश्व में संकटग्रस्त भाषाओं की सर्वाधिक संख्या भारत में हैं। इस संदर्भ में, उन कारकों की विवेचना कीजिए जिन्होंने भारत में देशज भाषाओं को संकटग्रस्त बना दिया है और इन भाषाओं के संरक्षण और सुरक्षा हेतु उठाए गए कदमों पर प्रकाश डालिए।

India is home to a rich  
linguistic diversity:-

- ~ 22 scheduled languages
- ~ >10000 spoken languages & dialects
- ~ Manuscripts & historical texts in many languages.

Despite above diversity, India also faces a high risk of due to highest no of endangered languages in world.

[eg]: Apatani language, Arunachal Pradesh  
- Near extinct.

Factors leading to endangerment of  
native languages:-

1) Social factors

a) isolation of many tribes in India - to preserve tribal distinctiveness (wheels principles)

b) Bias in favour of English as the language of education

2) Economic factors

a) English being the predominant language for higher education & research, other languages find less economic utility

b) Lack of funding for preservation of languages

c) Lack of employment opportunities for vernacular languages

3) Policy-related issues

a) Lack of a dedicated effort to safeguard & document all distinct languages of India.

b) Vernacular language in primary school is not implemented effectively, yet

Steps taken to conserve languages)

- 1.) NEP 2020 :- education at primary & secondary levels in vernacular languages.
- 2.) Traditional digital knowledge library; to preserve & document manuscripts in distinct languages via digitization.
- 3.) collaboration with UNESCO to enable learning of vernacular language by younger generations.
- 4.) provision for funding for development of 22 scheduled languages.
- 5.) Scheme for protection & Preservation of endangered languages.

Diverse languages are an asset of India's cultural distinctiveness & must be preserved through local efforts & collaboration.

12. The policy of 'Subsidiary Alliance' helped in establishing British control over internal affairs of Indian states without incurring any direct imperial liability. Discuss. (250 words) 15

'सहायक संधि' की नीति ने बिना किसी प्रत्यक्ष साम्राज्यिक दायित्व के भारतीय रियासतों के आंतरिक मामलों पर ब्रिटिश नियंत्रण स्थापित करने में सहायता प्रदान की। चर्चा कीजिए।

'Subsidiary Alliance' was an administrative policy initiated by Wellesley to enhance control over provinces & princely states.

Subsidiary Alliance: Components:

- 1.) Maintenance of troops at the expense of Indian rulers on pretext of 'Defense'
- 2.) Posting a Resident in Indian rulers' territory - who meddled with internal affairs
- 3.) Not allowing Indian rulers to engage with any other foreign-powers.

Above tools helped the British establish control over internal affairs of Indian states, as

1.) Resident enabled update on day to day administrative policies

2.) Making rulers dependent on EIC for defense → No troops

3.) Establishing supremacy by cutting off other foreign powers from Indian

arena.  
4.) A vast force of army throughout the country above control came without any

direct imperial liability as

1.) Indian rulers paid for maintenance of army of EIC

2.) Indian rulers fought wars on behalf of EIC. Ex) 7-years war - Indian Rulers' involvement

3.) Payment of fees by Indian rulers

for expenses of Resident.

4) Upgradation of army & weaponry at  
Indian expense

Thus, 'subsidiary Alliance' rightly helped,  
Wellesley convert 'British empire in India  
to 'British empire of India'

13. "Before 1857 the British were effectively working against the traditional grain of Indian society; afterwards they were working with it". Comment.

(250 words) 15

"1857 से पूर्व अंग्रेज भारतीय समाज के पारंपरिक स्वरूप के विरुद्ध प्रभावी ढंग से कार्य कर रहे थे, लेकिन बाद में उन्होंने इसके साथ कार्य किया।" टिप्पणी कीजिए।

British policies & approach towards Indian traditions & the socio-cultural reform movement was guided by purely imperialist motives - thus changing as per imperial interests.

Pre-1857 : Against traditional grain:

Before Revolt of 1857, Britishers supported socio-cultural reforms & modernization of India, due to following reasons:

- 1) Oppress Christian missionaries who wanted rational & modern outlook
- 2) Modern educated Indians served as a market for British-made goods.

(eg): Western cloths

3) Justify British imperialist motives of 'White Man's Burden' by 'civilizing' Indians.

4) Above was visible in following reforms

1) Abolition of sati

2) Raising age of Marriage to 12 for girls & 14 for boys by Regulation of 18

3) Religious Disabilities Act - following religious converts right over ancestral property

4) support to IC vidyasagar, Kamnandan Roy's efforts for widow Remarriage

5) opening of girls schools & colleges (Bethune school)

however, post 1857, British response changed - to oppose reform movements Reasons

1) Rallying conservative sections of society & their support for continued British

rule.

2.) Avoid an uprising of kind of 1857-revolt, whose immediate trigger was introduction of enfield rifles in Army. (Ganar's religious practices)

3.) Rational & Liberal ideas (as: French ideals of L&F) - Pop. perpetrated national ideology - Threatening imperialism

Above approach was visible in :

- 1) Policy of Divide & Rule
- 2) Support to reactionary zamindars
- 3) Not supporting reformist Bills in Govt Council.

Thus, British attitude towards socio-religious reforms <sup>was</sup> was guided by imperial motives. Nonetheless, exposure of Indians to new & rational ideas

occasioned by contact with Britishers

helped usher in social reforms for India

ultimately helping us draft a forward-looking constitution.

14. Enumerating the revolutionary maxims propounded by Sun Yat-sen, discuss the conditions that led to the revival of Chinese nationalism in the early 20th century. (250 words) 15

सन यात-सेन द्वारा प्रतिपादित क्रांतिकारी सिद्धांतों को सूचीबद्ध करते हुए, उन परिस्थितियों पर चर्चा कीजिए जिनके कारण 20वीं शताब्दी की शुरुआत में चीनी राष्ट्रवाद का पुनरुत्थान हुआ।

Sun Yat-sen was a Chinese communist leader, & <sup>among the</sup> founders of communism in China.

Maxims propounded:

- 1.) improve condition of peasants via land redistribution
- 2.) Greater power to workers & peasants  
- as in a communist setup.
- 3.) Chinese Nationalism

Conditions leading to revival of Chinese Nationalism:-

- 1.) external Aggressions  
→ Japanese Invasion of Manchuria (1930s)

- Russia's aggression on Chinese borders

2.) Greater involvement of foreign players in Chinese economic domain

[eg] USA's Open Door Policy of allowing all to opening up China to colonial powers

3.) Leadership provided by the Kuomintang & Chinese Communist Party.

4.) economic conditions - such as unemployment & food shortage in wake of wars ⇒ awakening among masses

5.) events like the October Revolution in 1917 in Russia ⇒ Dominio effect

Above factors led to revival of nationalism in China in 20th

century. It was characterized by:

- 1) Rise of two ~~opposed~~ parties -  
Chinese Communist Party &  
Kuomintang.
- 2.) Movement against outsiders in  
China - (e.g.): both parties united  
against Japanese Aggression
- 3) Greater economic reforms - with  
workers & peasants at centre

15. Based on their geological age, present a brief account of the classification and distribution of coal reserves in India. Also, discuss the ongoing stress in the coal sector in India. (250 words) 15

भारत में कोयला भण्डारों की भूवैज्ञानिक आयु के आधार पर, उनके वर्गीकरण एवं वितरण का एक संक्षिप्त विवरण प्रस्तुत कीजिए। साथ ही, भारत में कोयला क्षेत्र में जारी दबाव पर भी चर्चा कीजिए।

Coal is a crucial reserve for India, meeting more than supplying more than 70% of India's power plants & electricity need.

Coal reserves in India: Classification & Distribution:

1) Gondwana Coal: Accounting for 92% of India's coal reserves. Oldest coal reserves in India, by geological age.

Distribution:

- Peninsular India - MP, Chhattisgarh, Jharkhand (Jh - 45%), Rengali, there.

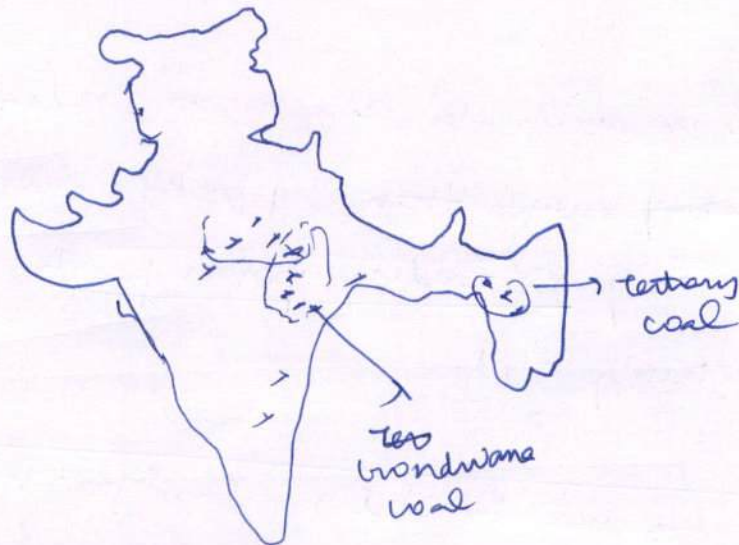
2) Tertiary coal reserves: Just 2% of

coal reserves in India. Younger origin than Gondwana reserves.

Ditto

Distribution

- Assam hills
- Arunachal Pradesh

Ongoing stress for coal sector in India

- Push for renewables - such as solar & wind energy has led to uncertainty around India's coal-based thermal power plants
- the 2G scam & Coal Allocation blocks cancelled - by SC in a few years ago, raised concerns & raised cost of doing business.

- 3) Obsolete infrastructure of many thermal power plants → led to low efficiency & low remunerability.
- 4) High debt of Discoms ⇒ Policy uncertainty.
- 5) High dependence on imports, especially for good quality bituminous & anthracene coal.
- 6) High Ash content of Indian coal ⇒ washing & processing requirements.
- Illegal mining (as: Rat-hole mining Meghalaya)

### Way forward

- 1) R&D & investments in cooking retrofit technologies to make the sector environment-friendly.
- 2) Rationalize transparency in allocation  
e.g. Shakti app, Tarang app
- 3) Rationalize transport distances.
- 4) Policy certainty.

Coal will remain a major element of India's energy mix for trials to come, & needs reforms.

16. In view of the importance of Blue Economy to New India Vision 2030, delineate the distribution of key ocean minerals that can help India realise its potential. (250 words) 15

न्यू इंडिया विज़न 2030 के लिए ब्लू इकोनॉमी के महत्व को देखते हुए, उन प्रमुख समुद्री खनिजों के वितरण को चित्रित कीजिए जो भारत को अपनी क्षमता को समझने में मदद कर सकते हैं।

Blue economy refers to the economic value & potential associated with oceans & ocean ecosystem.

Importance to New India Vision 2030

- 1) Sustainable livelihood opportunities  
[Ex]: Fishermen, seafarers, etc
- 2) Sustainable tourism ⇒ Boost India's soft power & cultural richness
- 3) Vast reserve of minerals ⇒ energy security & Atmanirbharta

Distribution of key ocean minerals:

- 1) Poly metallic nodules in Indian Ocean Basin → can help India attain self-sufficiency in minerals like cobalt,

Nickel, rare-earth

(eg): Central Indian Ocean basin  
reserves

2.) oil reserves - to help at

(eg): Mumbai High basin

3.) Natural Gas reserves : eg: Cambay  
Basin, Son valley, K-G basin

4.) Polymetallic Gas nodules - associated  
with Central Indian Ocean basin.

5.) Calcium Carbonate deposits found in  
coral reefs, all along India's coastline.

6.) Thorium deposits associated with  
Monazite sands, Kerala ⇒ India's  
Nuclear ambitions.

⇒ Thus, India's Blue economy holds  
great potential to drive its development.

Measures to harness Blue economy :-

1.) Deep Ocean Mission : to send

submarines to deep ocean basins  
to explore minerals trapped.

- 2) Agreement with UNCLOS - India  
won a ~ 15000 km<sup>2</sup> region in Central  
SO Basin for exploration of marine  
reserves.
- 3) Collaboration with ISRO to prepare  
a map of Indian Ocean basin.

Blue economy can help attain targets of  
₹ 5 trillion economy by 2025 while  
helping meet SDGs & Paris commitments

17. What is Atlantic Meridional Overturning Circulation (AMOC)? Discuss the reasons for recent decline in the AMOC and its associated impact.

(250 words) 15

अटलांटिक मेरिडियनल ओवरटर्निंग सर्कुलेशन (AMOC) क्या है? AMOC में हालिया अवनति के कारणों और इससे संबंधित प्रभावों पर चर्चा कीजिए।

Atlantic Meridional Overturning Circulation  
is a phenomenon of large ocean  
current circulation in the Atlantic  
ocean, that redistributes heat, salinity  
etc between parts of the ocean, as  
below.



- Warm North Atlantic Current takes warm water towards coast of Norway, heating surrounding coast.

2) A branch of this warm current, only stream, flows along coast of western Europe

3-) Cold current flows along N. American coast southwards, completing circulation.

4) Cold water along N. Atlantic coast down  $\downarrow$  sinks to bottom  $\rightarrow$  flows south

Recent decline in AMOC reasons

1) Melting of glaciers  $\Rightarrow$  freshwater from Greenland, Iceland etc  $\Rightarrow$  reduces salinity of water  $\Rightarrow$  slows down sinking & circulation

2) Global warming  $\Rightarrow$  weakens cooling of circulation.

Impact of decline:

1) on climate: enhanced extremes of temperature along Norwegian coast

2) livelihood: Declined fishing & other

ocean livelihood along North Atlantic coast

3.) Impact on biodiversity:

→ Marine biodiversity has a narrow range of temperature habitability

→ threat of loss of biodiversity due to AMOC changes

4.) Impact on Indian Monsoons: AMOC

is associated with monsoon winds over South Asia. Decline in AMOC will impact rainfall over India.

⊕ Thus, AMOC has far-reaching impacts on marine & terrestrial ecosystems

18. Recent reports and National Family Health Surveys have signalled a monumental shift in Indian demographics. Highlighting this shift, discuss the challenges that it will pose. Also, suggest remedial measures.

(250 words) 15

हालिया रिपोर्ट्स और राष्ट्रीय परिवार स्वास्थ्य सर्वेक्षणों ने भारतीय जनसांख्यिकी में एक महत्वपूर्ण बदलाव का संकेत दिया है। इस बदलाव को रेखांकित करते हुए, उन चुनौतियों की विवेचना कीजिए जो इसके कारण उत्पन्न होंगी। साथ ही, उपचारात्मक उपायों का भी सुझाव दीजिए।

Recently released NFHS-5 report indicated a monumental shift in Indian

demographics:

1) <sup>below</sup> Population Stabilization TFR  $\approx$  2.0 achieved

2) share of young people in Indian demography has started to decline

even ~~the~~ UN-DESA highlighted that India is soon to witness the phenomenon of ageing, & share of elderly will rise to ~20% by 2050.

Challenges posed by the shift:

1) window to reap the demographic dividend has reduced. of human

Capital - health & education is not strengthened, it may turn into a demographic disaster.

2.) India's advantage of being a labour surplus nation is soon to fade.

3.) May demand a structural shift in economy with less labour-intensive sectors.  
ex: impetus shift from textile & leather to service sector.

4.) phenomenon of ageing :-

→ Rising elderly population & need for social security to them  
→ Rising ratio of dependents in economy.

5.) North-south divide may widen  
- southern states like Kerala - much below TFR.

→ Northern states - UP, Bihar - above TFR.

↓  
migration, etc

Remedial measuresChallengeMeasures1) Ageinga) enhance social security  
net via universal  
insurance coverageb) enhance geriatric healthcare  
facilitiesc) enhance research & infra  
on non-communicable  
diseases, like Diabetes, BP  
etc2) Demographic  
divident  
narrowingd) enhanced ampetus to  
health care for all (Ayushman  
Bharat) & education for  
all (NEP)e) Invest in critical  
technologies - like AI, Big  
Dataf) ampetus to higher  
education via schemes  
like RUSA.3) Structural  
shiftg) Rationalize no. of  
primary education institutions,  
focus on quality

Thus, India's demographic shifts need complementary

19. Looking at all poverty from the rural perspective and applying rural solutions to urban conditions will not yield results. Discuss the statement in context of differences between urban and rural poverty in India.

(250 words) 15

सभी प्रकार की निर्धनता को ग्रामीण दृष्टिकोण से देखने और शहरी परिस्थितियों के लिए ग्रामीण समाधानों को लागू करने से परिणाम नहीं निकलेंगे। भारत में शहरी और ग्रामीण निर्धनता के बीच अंतर के संदर्भ में इस कथन की विवेचना कीजिए।

As per UNDP, about 21% people  
in ~~to~~ India live Below Poverty line.  
Within this, ~80% of poor live in  
rural areas, rest in urban areas.

Difference between urban & rural  
poverty in India :

	Rural poverty	Urban poverty
1) Major cause	non-remunerative agriculture, small land-holdings	Lack of employment, informal & unremunerative employment ex:- Domestic help.
2) Geographic distribution	scattered through the villages	characterized concentrated in slums of urban India.

3) Impact on nutrition	Lower, due to self-sustainable nature of agriculture	High, due to low affordability of nutritious food in urban areas
4) Impact on living conditions	Major impact on access to health care & education	Exposure to high risk diseases from WASH-like typhoid, Diarrhoea

Thus, need for different approaches towards urban & rural poverty:-

b) Policy focus in rural areas :- enhancing viability of agriculture (ex: PM-KISAN, soil health card, Mechanization)

Urban : generating more job opportunities  
↳ focus on formalization of workforce.

ex:- PLI-scheme, PMEG, etc

2) enhanced need for effective implementation of RDS in urban areas, & inclusion of ~~micro~~ micro nutrient rich food like eggs, pulses & millets

3) ~~Impact on~~ Enhancing affordable urban housing. eg: PM Awas Yojana

4) ~~for~~ common approaches despite differences

1) universal health care to reduce OpEx (Present: ~ 18%) on health care

2) Access to quality education at all levels - for enhancing social mobility (social mobility report)

3) oversight of skills & vocational training for youth (NEP)

4) Enhance investments in R&D - to give boost to entrepreneurship.

'One size fits all' approach to poverty will not work. Rather, participative & bottom-up approach with specific attention to regions is needed

20. Regional movements are often conservative in orientation, supported by traditional social classes and religious groups and oppose social change imposed by modernity. Critically discuss in the context of India.

(250 words) 15

क्षेत्रीय आंदोलन प्रायः रूढ़िवादी होते हैं, पारंपरिक सामाजिक वर्गों और धार्मिक समूहों द्वारा समर्थित होते हैं और आधुनिकीकरण के कारण आए सामाजिक परिवर्तनों का विरोध करते हैं। भारत के संदर्भ में समालोचनात्मक चर्चा कीजिए।

Regional movements are a natural outlet of a multi-diverse & multi-cultural society - as a form of expression of regional aspirations.

Regional movement - characterised by conservative & traditional elements

1) Demands for secession based on religions & language factors. [eg]:-  
Khalistan movement of Punjab - as Sikh nation

2) Tribal affinities as a basis of demand for separation or greater autonomy.  
eg. Greater Nagaland movement.

3) Sons of soil concept: against immigration or benefits for outsiders. eg:- Andhra

Kadach - ~75% reservation for locals

- 4.) Reactionary movements in colonial India against 'inclusion of untouchables' in dining & public life, against widow remarriage
- 5.) Caste-based movements . eg. Demand for reservation under OBC by Yadavas, Gujjars, Marathas

However, regional movements are also have also come to be based on modern outlook, contributing to overall peace & development.

- 1.) Demands for formation of Chhatu Garh & Shankhant based on economic backwardness
- 2.) Movement led by ale Bhatt for greater rights & information to citizens, originating in Western India
- 3.) Demands for greater autonomy help

realization of 'unity in diversity'.

eg. - 5th & 6th schedule areas,

Also Asymmetric federalism helped India  
avoid a Bangladesh-like secession

5) Chipko movement - of Uttarakhand -  
for protection of local forest - rooted  
in environmental ethos

Thus, regional movements help realize  
regional aspirations & must be dealt  
with cautiously, using a mix of hard &  
conciliatory & regulatory approaches