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GENERAL STUDIES (TEST CODE : 1242)

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Medium Eng./Hindi	ENGLISH	Registration Number	76172
Center	ORN	Date	30/06/2018

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
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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।

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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.

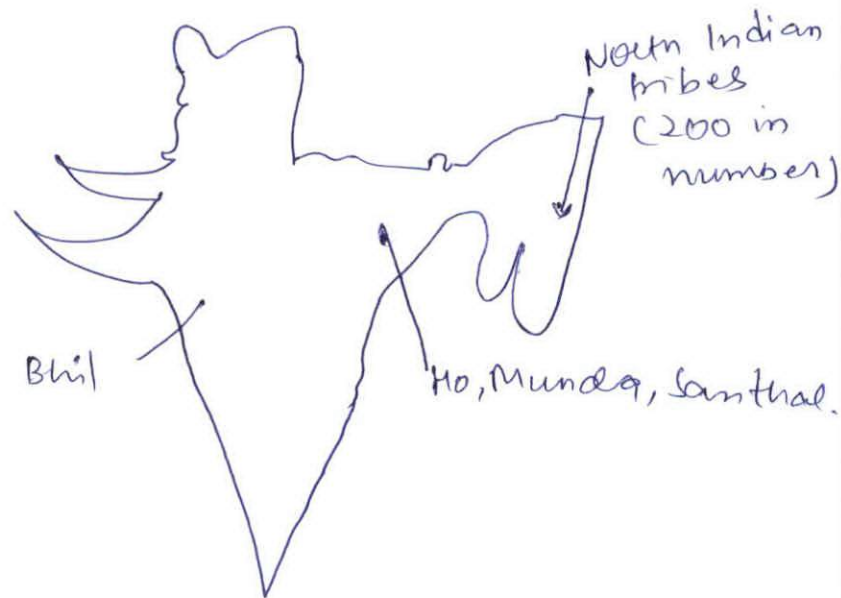
6.

All the Best

1. Tribal art in India generally reflects the creative energy found in rural areas that acts as an undercurrent to the craftsmanship. Explain with reference to the Worli and Gond paintings. **(150 words) 10**

भारत में जनजातीय कला सामान्यतः ग्रामीण क्षेत्रों में पाई जाने वाली उस सृजनात्मक ऊर्जा को प्रतिबिम्बित करती है जो जनजातीय लोगों को शिल्पकारिता के लिए प्रेरित करती है। वार्ली और गोंड चित्रकलाओं के संदर्भ में स्पष्ट कीजिए।

Tribal art provides and enriches India's culture. India's diverse communities of tribes contribute and make our culture wide.



Worli and Gond painting

- ↳ Use of natural colours and locally available material
- ↳ Themes : Day to day, ranging from eroticism to festival celebration

Issues

- ↳ Supremacy of Europeans: European judges could decide on European involving people.
- ↳ Indians in inferior position.

3. Outline the course of the revolutionary movement in the Indian freedom struggle during the 1920s and 1930s, paying special attention to the contributions of Bhagat Singh. **(150 words) 10**

भगत सिंह के योगदान पर विशेष बल देते हुए, 1920 और 1930 के दशक के दौरान भारतीय स्वतंत्रता संग्राम में क्रांतिकारी आंदोलन की कार्यप्रणाली को रेखांकित कीजिए।

- Revolutionary movement believed in
 - sacrifice i.e. giving up one's life
 - violence if required.
 - targeted government institutions
 - active during heavy repression by government
- Between 1920s and 1930s, there was void in the major political movements
- Moderate leaders were working fragmentarily which compelled many to undertake revolutionary activities to expel the Britishers from India
- Various organisations such as Hindustan Republican Association, Anushilan Samiti, Surya Sen group in Chittagong, etc.
- Individuals like Sachin Sanyal, Bhagat Singh, etc. played crucial role.

Bhagat Singh

↳ He was part of Hindustan Socialist Republican Association aiming to form ~~feder~~ United States of India through physically expelling Britishers.

↳ Punjab - Naujawan Bharat Sabha, that he founded was aimed to attract and train young people for revolutionary work.

↳ However, over period of time, he realised the importance of mass movement and worked towards it and gave importance to non-violence.

↳ However, due to brutal killing of Lala Lajpat Rai, he was forced to undertake violence.

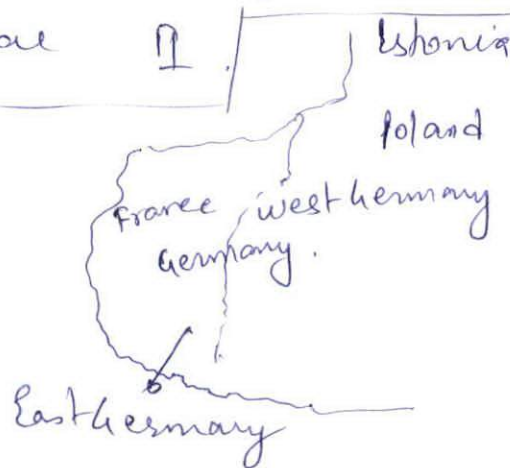
Overall, revolutionary movement helped to keep the zeal of national fervour among people

4. The Marshall Plan was important in the recovery of the European states from the aftermath of the Second World War. However, it also became a crucial factor in the creation of two Europes i.e. East and West. Discuss.

(150 words) 10

द्वितीय विश्व युद्ध के उपरांत यूरोपीय राष्ट्रों को पुनर्जीवित करने में मार्शल योजना महत्वपूर्ण थी। हालांकि, यह दो यूरोप (अर्थात् पूर्वी और पश्चिमी यूरोप) के सृजन में एक महत्वपूर्ण कारक बन गया। चर्चा कीजिए।

Marshall Plan was an economic and aid programme of the United States for the European countries which were devastated in the aftermath of world war II.



↳ Europe was broadly divided into two parts namely ~~East~~ ^{West} Germany (under United States' influence) and East Germany (under former USSR).

↳ Massive loans and aid through the Marshall plan enabled

faster development in the west ~~Germany~~ ^{Europe} while there was widespread deprivation in East Europe (due to USSR's economic crisis).

↳ west Europe → Capitalistic Country
East Europe → Communistic Country

↳ Democracy was spreading in the west Germany while rights particularly political was severely curtailed.

This divide through Berlin wall was vanquished in 1989 led to integration of two Europe.

5. Examine the causes behind the existence of bonded labour in contemporary India. Also, discuss the steps that should be taken for its redress. **(150 words) 10**

समकालीन भारत में बंधुआ मजदूरी की विद्यमानता के अंतर्निहित कारणों की जांच कीजिए। साथ ही, इसके निवारण हेतु उठाए जाने वाले कदमों की विवेचना कीजिए।

Recently, bonded labours were freed from the clutches of feudal individual in Karnataka.

Causes

- ↳ Caste system: Subordination of lower caste by higher caste
- ↳ Economic deprivation: leads to bondage
- ↳ Lack of education
- ↳ Lack of livelihood opportunity
- ↳ Absence of government's proactiveness in service delivery and enforcement of laws.

Steps:

- ↳ Enforcement of Bonded Labour Prohibition Act -
- ↳ Reaching out to remote villages for development
E.g. Aspirational District Programme

↳ Schemes for rehabilitation of bonded labour

ie. Centrally sponsored scheme for rehabilitation of bonded labour by Ministry of ~~for~~ Social Justice

↳ Prioritise development

↳ Use of PFI bodies to deal with such question system

6. State the factors that enhance the risk for initiation or continuation of abuse of drugs by the youth. What measures can be taken to address this issue? **(150 words) 10**

युवाओं द्वारा मादक द्रव्यों का सेवन आरम्भ करने अथवा उसे जारी रखने के जोखिम को बढ़ाने वाले कारकों का उल्लेख कीजिए। इस समस्या के समाधान के लिए क्या उपाय किए जा सकते हैं?

Factors that enhance risk of drug abuse among youths

- ↳ Lack of awareness about its long term implication
- ↳ Poverty
- ↳ Lack of jobs; leading to depression and falling to drug trap
- ↳ Societal discrimination and ostracisation.
- ↳ Political alienation of the community
- ↳ Law enforcement of the region
- ↳ Support for de-addiction.
- ↳ Availability of drugs
- ↳ Lack of family support

Measures

- ↳ Awareness campaign:-
Uddta Punjab (movie).
- ↳ Control the flow of drugs
using law enforcement agencies.
Allow only sell through
registered outlet on the
basis of prescription.
- ↳ Ensure conducive societal
and political condition that
enable individual to realise
their goals.
- ↳ Provide de-addiction support
- ↳ Skill, health, education, jobs,
poverty alleviation, etc must
be prioritised.

7. Critically analyze the impact of globalization on culture in the context of India. (150 words) 10

भारत के संदर्भ में संस्कृति पर वैश्वीकरण के प्रभाव का समालोचनात्मक विश्लेषण कीजिए।

Globalisation is the process of interwonnected among people, goods, services, ideas, culture, etc -

Positive impact of globalisation on culture :-

↳ New foods + New taste
Eg. Vegetarian food in McDonald during dussehra.

↳ Enhanced information through new tools like social media

↳ Women is emerging and traditional values are taking background_

Issues with globalisation on culture

↳ Consumerism

↳ New food outlet

↳ New shopping outlet

• with artificial attraction and need creation

Eg - perfume, waste clothes etc

↳ Westoxication:

- love for western culture
- English, hollywood music, etc are its reflection

↳ Education

- ornamentation of degree

↳ Festivals

- Emulation of western festivals like various secular day,
- less celebration of their own festivals.

↳ Individualism

- Learning parents alone

↳ worship

- Online worship
- Commodification of worship

↳ women

- segregation in certain jobs like call centres, etc

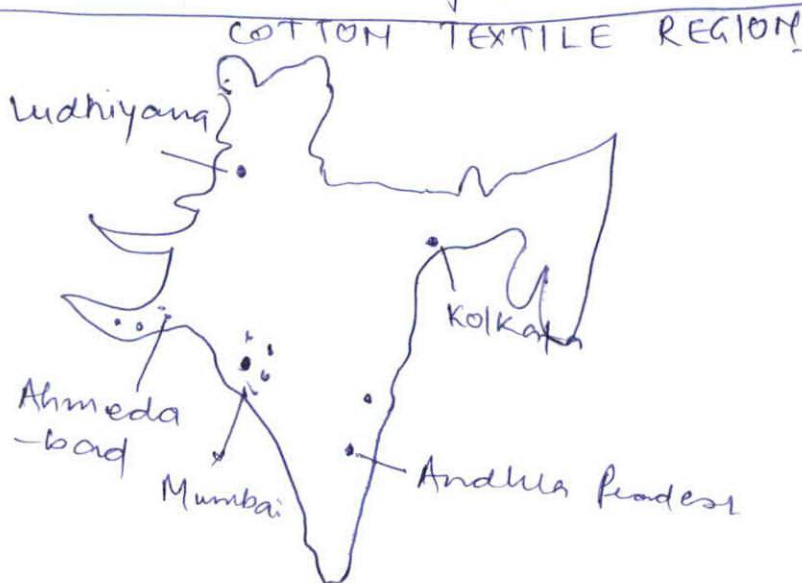
Culture developments should lead to multiculturalism rather than its homogenisation

8. Giving a brief account of distribution of cotton textile industry in India, identify the factors responsible for localization of this industry in Ahmedabad–Mumbai–Pune region. **(150 words) 10**

भारत में सूती वस्त्र उद्योग के वितरण का संक्षिप्त विवरण प्रस्तुत करते हुए, अहमदाबाद-मुंबई-पुणे क्षेत्र में इस उद्योग के स्थानीयकरण हेतु उत्तरदायी कारकों की पहचान कीजिए।

Cotton textile industry started in Maharashtra region (Mumbai, Pune) during British time. Then spread to Ahmedabad and other regions of Gujarat due to congestion in Mumbai and availability of other materials in Gujarat as well.

Now, there is turn towards decentralisation of cotton-textile mill because of cheap transportations, new markets, availability of labour and capital



Factors for localisation of this industry

- ↳ Availability of finance; Mumbai being financial capital.
- ↳ Availability of Labour due to urbanisation.
- ↳ Production of Cotton in these region (Black soil)
- ↳ Port availability; Export potential
- ↳ Humid condition: Ideal condition for the Cotton textile mill.

However, due to technology and new centre of market, localisation factors are changing.

9. How do increasing greenhouse gas (GHG) emissions impact coastal and marine ecosystems? Highlight various measures that can be taken for protection and restoration of such vulnerable ecosystems. **(150 words) 10**

ग्रीन हाउस गैसों (GHG) के उत्सर्जन में वृद्धि, तटीय एवं समुद्री पारितंत्र को कैसे प्रभावित करती है? ऐसे सुभेद्य पारितंत्रों के संरक्षण तथा पुनरुद्धार के लिए अपनाए जा सकने वाले विभिन्न उपायों पर प्रकाश डालिए।

Green House Gas includes CO_2 , CH_4 , SF_6 , CFCs, HFCs, etc which tends restrict the outflow of higher wave length energy thereby increasing earth's temperature.

Impact on Coastal and marine ecosystems

- ↳ ↑ed temperature ⇒ More water in the sea (from snow melt + expansion of water) ⇒ sea level rise ⇒ coastal submergence.
- ↳ Ocean Acidification : ⇒ less corals, death of marine organism ⇒ weaken the resilience of marine ecosystem.
- ↳ Productivity of marine organism, migration, temperature adjustment, etc maybe adversely affected for marine ecosystem.

Various measures

- ↳ Control climate change
· Implement Paris pledge.
- ↳ Encourage mangrove and corals growth by reducing human interference.
- ↳ Sustainable tourism practices to avoid sitting and unsustainable pressure on marine ecosystem.
- ↳ Explore GHGs capture and usage technology
- ↳ fertilisation of Ocean may help to enhance consumption of CO₂

way forward:

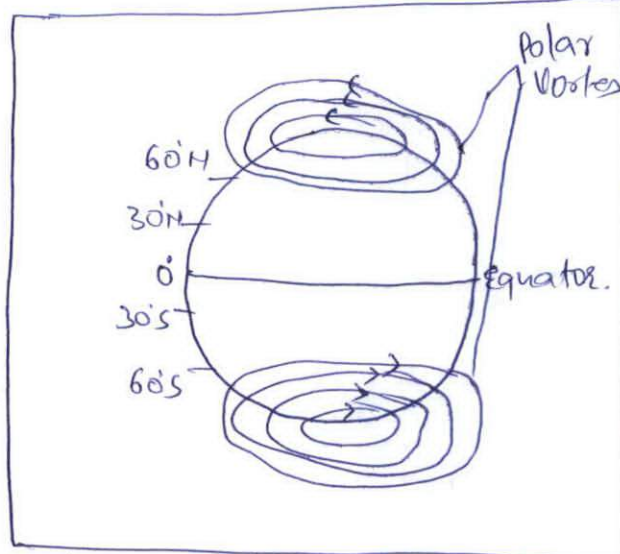
- Government's ambitious INDC's— Carbon intensity reduction, creation of Carbon sink, etc. would help to mitigate climate change
- Coastal Regulation zone guidelines
- National Programme for the mangroves and corals reef would help in ^{building} ecosystem resilience.

10. Explain the phenomenon of a Polar Vortex. Also, comment on the reasons as to why tropical areas as south as Florida have been witnessing sub-zero temperatures in recent years. **(150 words) 10**

ध्रुवीय भंवर (पोलर वॉर्टेक्स) की परिघटना की व्याख्या कीजिए। साथ ही, उन कारणों की भी विवेचना कीजिए कि क्यों फ्लोरिडा जैसे दक्षिणवर्ती उष्णकटिबंधीय क्षेत्रों तक में हाल के वर्षों में शून्य से भी कम तापमान देखने को मिल रहा है।

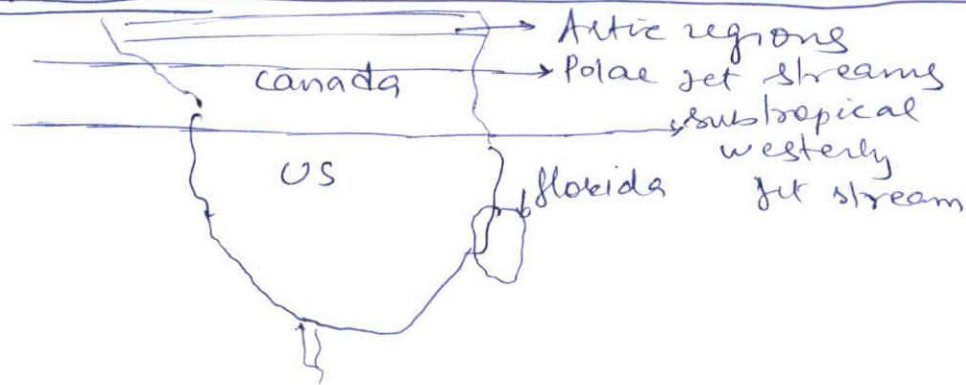
- Polar vortex refers to low pressure counter-clockwise movement at higher latitudes in both the hemisphere

- Polar vortex helps to keep cold air/wind in the higher latitude.



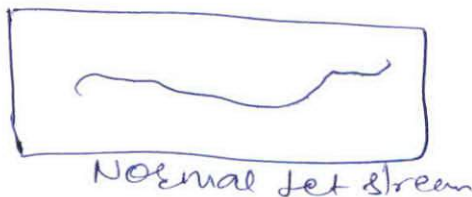
- However, during the winter, the temperature contrast changes between lower and higher latitudes leading to curvy movement of jet streams which tends to disrupt these polar vortex.

Reasons for sub zero temperature in Florida :-

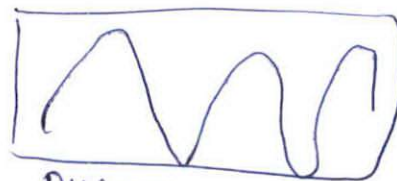


↳ During winter, temperature contrast between tropical and polar regions goes down. This temperature contrast are regions behind formation of jet streams.

↳ As temperature contrast dips, these jet streams i.e. polar jet stream and other becomes unstable and tend to follow wavy path.



Normal Jet stream



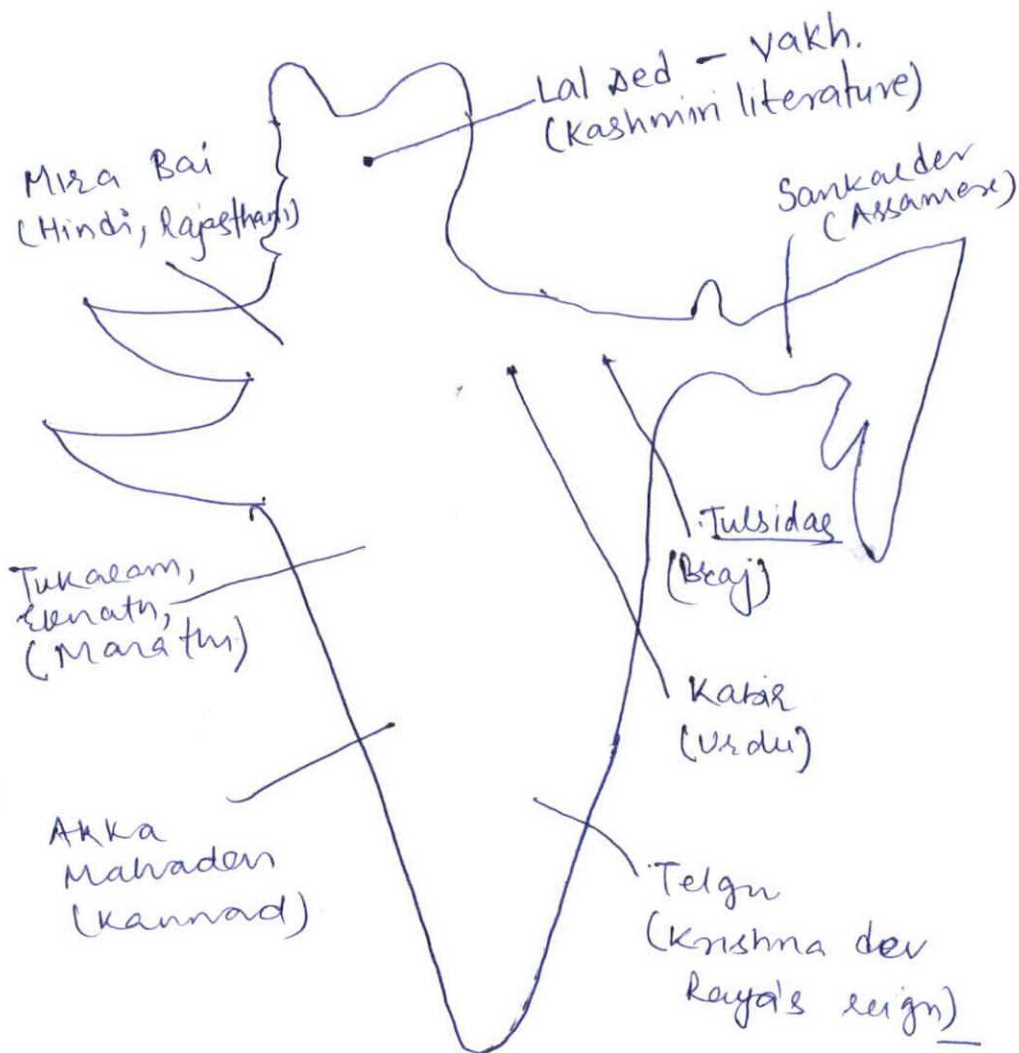
During winter
(when weakened)

↳ These jet stream movements brings colder air from higher latitude to lower latitude.

11. The most powerful trend of medieval Indian literature is devotional poetry which dominates almost all the major languages of the country. Elucidate. (250 words) 15

मध्यकालीन भारतीय साहित्य की सबसे सशक्त प्रवृत्ति भक्ति काव्य है, जो देश की लगभग सभी प्रमुख भाषाओं पर हावी रही। स्पष्ट कीजिए।

Medieval Indian spans from post Gupta period to the arrival of British. The period experienced various cultural events including the development in the field of poetry.



12. Discuss the major changes introduced by the Government of India Act, 1919 and its significance as a historical landmark in the Indian freedom struggle. (250 words) 15

भारत सरकार अधिनियम, 1919 द्वारा आरम्भ किए गए प्रमुख परिवर्तनों और भारतीय स्वतंत्रता संघर्ष में एक ऐतिहासिक घटना के रूप में इसके महत्व पर चर्चा कीजिए।

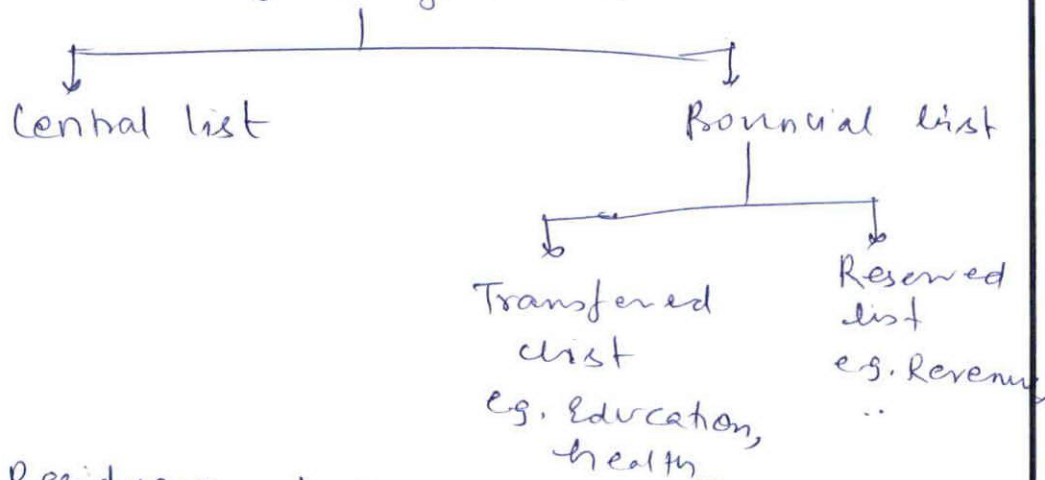
Government of India Act 1909 was also known as Montagu-Chelmsford reform.

This was introduced in the backdrop of

- 1st world war
- Home rule league
- Lucknow session of Congress
ie. unity among Congress, and between Congress and Muslim League,

Major changes introduced

↳ Division of subject list



- Residuary powers were with Central government.

↳ Bicameral legislature at Central level.

- ↳ Voting right to women.
- ↳ Expansion of separate electorate to Sikh, Indian civilian
- ↳ Indian ^{High} Commissioner in London.
- ↳ Added non-official members, system of election, added power of legislature.

Significance

- ↳ August declaration (1917) recognise the rights of Indian to rule over themselves.
- ↳ Right to vote for women: One of the first country to recognise the the right of women.
- ↳ Federation that was in syn with demand of people got its formal structure
- ↳ Establishment of parliamentary form of governance.
- ↳ Demand of Indians to sever the salary of secretary of state from India's coffee was accepted.

Though, the demand of dominion status (self rule) that was being expected was not provided much to the disappoint of Indian freedom fighters. But it paved the path forward leading to Gov 1935 (provincial autonomy) and Gov 1947 (complete independence).

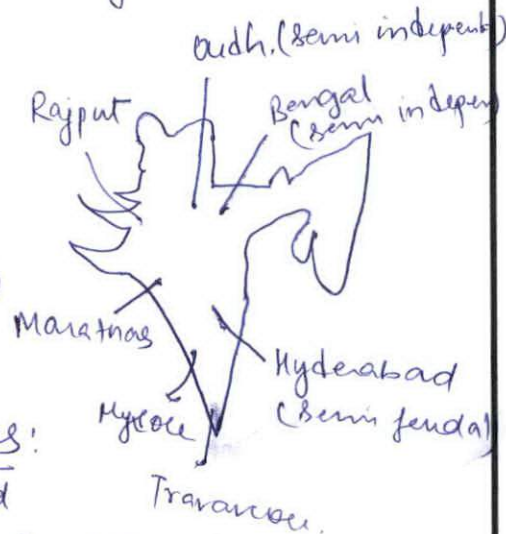
13. Multiple factors allowed the British to gain control over India. In this context, highlighting the main developments, trace the course of British conquest of India from 1757 to 1856. **(250 words) 15**

विविध कारकों ने अंग्रेजों को भारत पर नियंत्रण प्राप्त करने में सफलता प्रदान की। इस संदर्भ में, प्रमुख घटनाक्रमों पर प्रकाश डालते हुए, 1757 से 1856 तक अंग्रेजों के भारत विजय की कार्यवाही की रूप रेखा प्रस्तुत कीजिए।

British arrived in India as chartered company to trade in goods in early 1600s, attempted to occupy political powers and got in 1757, and by 1857, it completely subjugated India and ruled over next 100 years.

Multiple factors

- Fragment polity:
No central authority, Mughal was just nominal power
- Societal conditions:
Decadent, inward looking, regressive practices
- Military strength:
Primitive infrastructure
- Lack of unity among Indian leaders
- Science and technological development was absent
- Awareness about the world was early



1757: Main developments

- ↳ Battle of Plassey: British defeated Siraj-ud-daulah.
 - Got political power in Bengal.
 - Got abundant wealth in terms of tribute.

1764:

- Battle of Buxar: British defeated Shuja-ud-daulah, Mughal ruler, and Bengal ruler (Kam)
- Got complete control over Bengal (Double government of Bengal)
- Diwani rights over Bihar, Bengal, and Orissa from Mughal Emperor
- ↳ buffer state Oudh.

1799

- Subsidiary Alliance
 - ↳ Indian rulers had to disband their own army and British army deployed to be paid by Indian rulers
 - ↳ British resident
 - ↳ No external contact
 - ↳ No declaration of war on any other Indian ruler
- Got control over Hyderabad, Mysore etc.

1850s:

- Treaty of Lapse: British would decide on the fate of areas whose rulers ~~didn't~~ ~~had~~ biological child.
- Satara, Jhansi, etc were integrated.
- Awadh region was annexed on the pretext of malgovernance.

Other developments that contributed in British conquest:

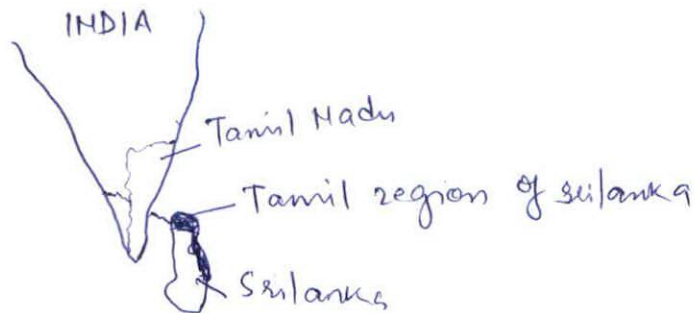
- ↳ Introduction of Railways
- ↳ Introduction of post

But due its anti-people centric rule, it started to loose control and series of movements started from 1856. —
 revolt of 1857, Congress in 1885,
 Swadeshi movement in 1905, etc that eventually ericted British from India.

14. Give a brief account of the circumstances under which Indo-Sri Lanka Peace Accord was signed in 1987. Mentioning its important provisions, provide a critical assessment of this accord. **(250 words) 15**

उन परिस्थितियों का संक्षिप्त विवरण दीजिए, जिसके तहत 1987 में भारत-श्रीलंका शांति समझौते पर हस्ताक्षर किए गए थे। इसके महत्वपूर्ण प्रावधानों का उल्लेख करते हुए, इस समझौते का आलोचनात्मक मूल्यांकन प्रस्तुत कीजिए।

Indo-Sri Lanka Peace Accord was significant event in the post independence period. This was signed in 1987 by Rajiv Gandhi government in the backdrop of continued protest, and agitation by Tamil population of Sri Lanka.

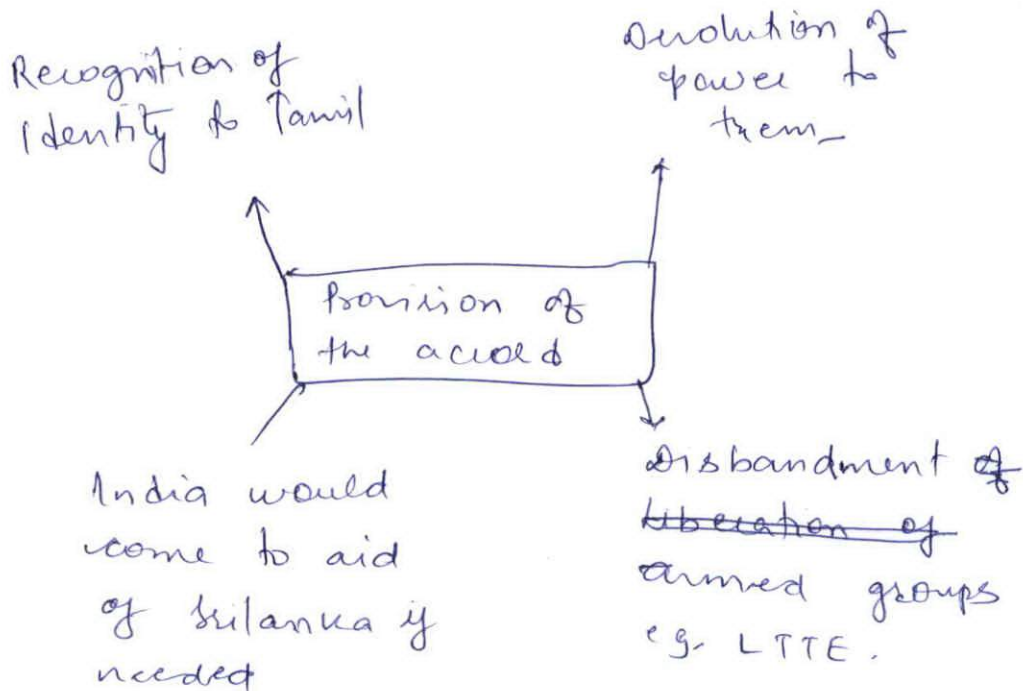


Circumstances

↳ Protest, agitation and armed revolt by Tamil people due to denial of rights (right to citizenship, right to recognition of religion, right to government's services, right to recognition of

language).

- ↳ These Tamil population owe their origin to India. But they migrated to Sri Lanka hundred years back, integrated into Sri Lanka's society and contributed in their development.
- ↳ So, in order to address this internal strife of Sri Lanka, Indo-Sri Lanka peace accord was signed.



Assesement+ve

- provided a pathway for resolution of issues
- Armed revolution was not going to give solution as evident from defeat of LTTE (2009).
- Tamil region got concession and political rights

-ve

- No political devolution.
- Disoid between Tamil and Non-Tamil continued.

15. With India becoming increasingly urban and the urban poor increasing in number, it is imperative that the challenges they face be addressed urgently. Discuss. **(250 words) 15**

भारत में हो रहे द्रुत शहरीकरण और शहरी गरीबों की बढ़ती संख्या के साथ ही, यह अत्यावश्यक हो गया है कि इनके द्वारा सामना की जाने वाली चुनौतियों का तत्काल समाधान किया जाए। चर्चा कीजिए।

According to census 2011, around 31% of India's population was in urban area, it is expected to be around 40% by 2030. Around 16% of urban population lives in slum areas.

Thus, it is clear that with increasing urbanisation, poverty may exacerbate and thus would require to be confronted.

Challenges faced by urban poor

1) Housing:

- cost of House.
- High rent.
- limited availability

2) Water and sanitation.

- According to NITI Aayog's composite water management index, over 20 cities may be without water by 2025.

3) Jobs

- majority of jobs are in informal sectors which tends to follow cyclic in its growth.
- over 6% of Unemployment rate (recent NSSO ^{Survey} 2016-17).

4) Education and skill

- unaffordable for migrant's children.
- Skill to adult so that they can earn decently.

5) Government's services

- Due to lack of address proof, they are denied government's services.
- It can act as succor to their meager income.

6) Health

- Poor environmental condition make them susceptible to various diseases.

7) Transportation, safety to women, security to all, etc. are other issues.

way forward→ Housing

- Housing for All - Urban.
- NITI Aayog's proposal to subsidise the rent for poor.

→ water and sanitation

- Swachh Bharat Abhiyan
- Promote water harvesting.
- Provide quality drinking water through kiosks.

→ Jobs

- Big manufacturing units
es. NIMZ, CEZ

→ Education & Skill

- Increase capacity of government's school.
- Implement 25% reservation of seats for ^{economically} backward sections.
- Skill India Mission

→ Government's services

- Ensure portability of ~~set~~ social security

Strengthening urban governance would help in effective delivery of these services which can liberate poor from vicious cycle of poverty.

16. Violations of women's sexual and reproductive health rights are often deeply engrained in societal values and traditions. Comment.

(250 words) 15

महिलाओं के यौन और प्रजनन स्वास्थ्य अधिकारों का उल्लंघन प्रायः सामाजिक मूल्यों और परंपराओं में गंभीरतापूर्वक अंतर्निविष्ट हैं। टिप्पणी कीजिए।

Women's sexual and reproductive health rights includes:

- ↳ right over her own's body
- ↳ right to decide reproductive issues including when to have children, how many, etc.

However, women's in our country continues to be deprived of these rights because of

1) Societal values

↳ patriarchy: is systemic issue in which men have overbearing power to decide.

↳ subordination of self. to the family's demand. eg. ~~high~~ having as many child till one gets son.

↳ Inheritance to son and not to daughters → weaken the position of women → dependence on husband → follow or submit to husband or his family's demand

2) Tradition:

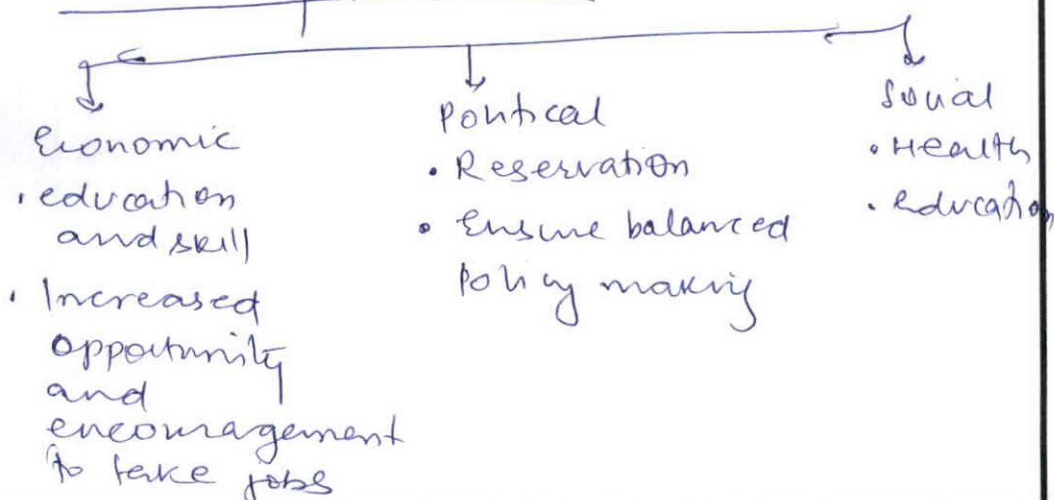
↳ following others or following past leads to continuous cycle of violence and its acceptance.

↳ Tradition of son ^{to} dit the funeral type ⇒ urge for having boy child.

Economic survey 2018-19 has highlighted the improved condition of women on multiple counts including right over sexual and reproductive rights.

way forward

↳ Campaign to highlight the various rights that women have on lines of Swachh Bharat Abhiyan.

↳ women empowerment

- ↳ Enforcement of various acts such as inheritance laws, PWD Act, etc. to ensure equality between men and women.
- ↳ Programmes such as STEP, stand up India, etc. can help to empower women economically which in turn would enhance their decision making power.

17. What do you understand by the term Land Degradation Neutrality? Highlight its significance and the steps required to achieve it.

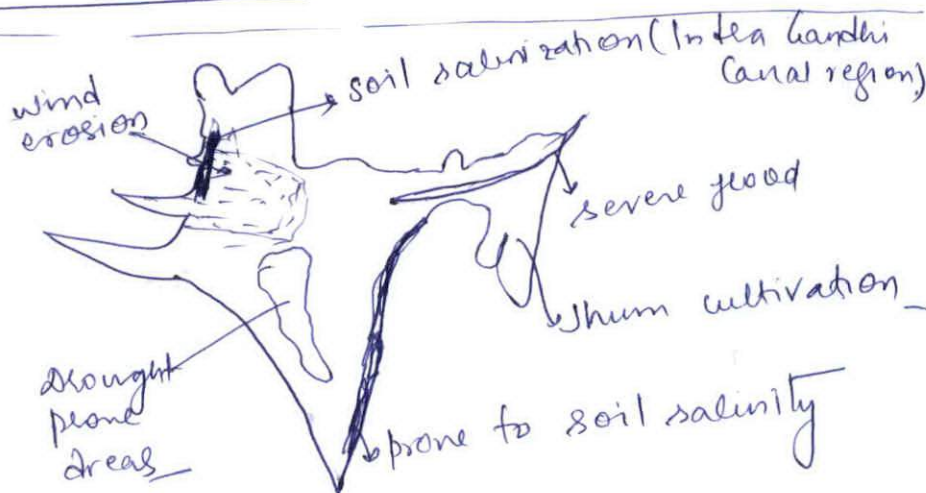
(250 words) 15

भू-निम्नीकरण तटस्थता पद से आप क्या समझते हैं? इसके महत्व पर प्रकाश डालिए एवं इसे प्राप्त करने हेतु आवश्यक कदमों का उल्लेख कीजिए।

Land Degradation Neutrality refers to the concept which says that total degradation of land should be zero i.e. if there is degradation in some areas then there should be at least equal amount of land reclamation in some other areas thereby reducing land degradation to zero.

The concept was enunciated and included in United Nation Convention on Combating Desertification (UNCCD). It aims to achieve land degradation neutrality.

Significance



- ↳ Around 30% of India's land is facing desertification. Around 8 states have over 50% of desertification threat.
- ↳ Various forms of threats: wind erosion, soil salinization, excessive fertilizers, deforestation, monocropping, soil degradation due to flood, etc.
- ↳ In this context, land degradation neutrality is crucial.
- ↳ Moreover, western Africa is also facing extreme vulnerability to desertification.
- ↳ Population is rising (expected to be 9 billion by 2030) ⇒ food requirement + need of land for urbanisation ⇒ Need of land protection.
- ↳ Livelihood of vulnerable people is dependent on it, so crucial to protect land.
- ↳ Sustainable Development Goals 1, 2, 13, 15, etc.

Steps required

↳ Finance

- Land degradation Neutrality fund by UNCCD.
- National fund can be created.

↳ Promotion of afforestation.

- Green Indian Mission

↳ Agroclimatic regionalisation.

- Economy + Environment in harmony.

↳ Promote sustainable practices such as crop rotation, micro irrigation, use of locally available natural fertilisers.

↳ Land use planning, policy and programmes with institutional and infrastructural support.

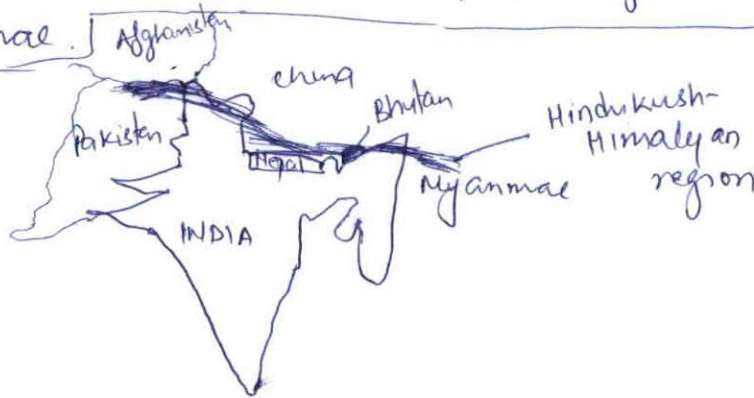
↳ Promotion of watershed management.

↳ Ensuring delivery of services and make available sustainable livelihood opportunity.

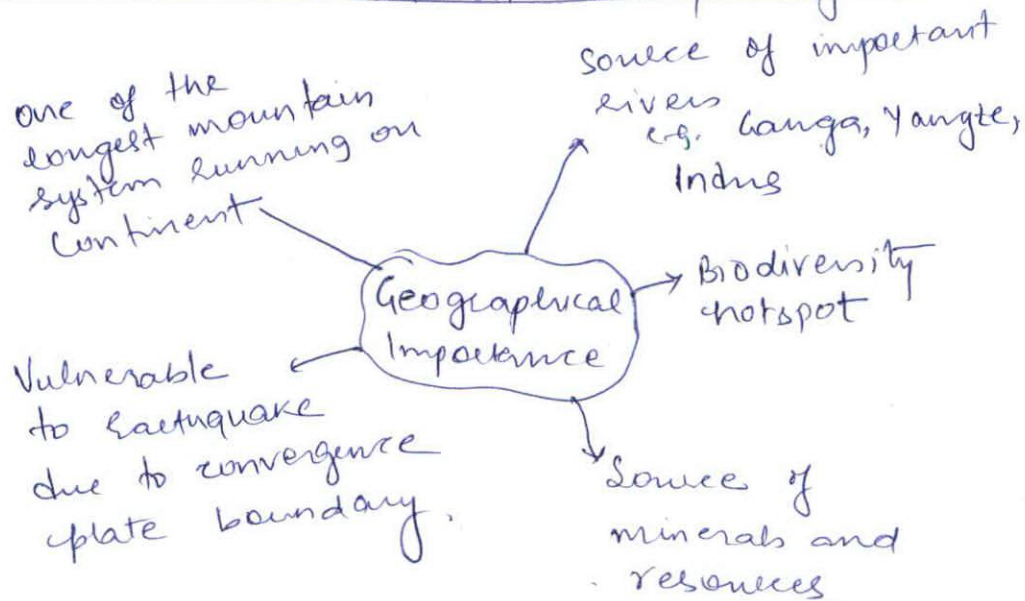
18. State the geographical and economic importance of Hindukush-Himalayan region. How are the critical geographical features of this region changing and what possible consequences will it have? **(250 words) 15**

हिंदुकुश-हिमालय क्षेत्र के भौगोलिक एवं आर्थिक महत्व को स्पष्ट कीजिए। इस क्षेत्र की महत्वपूर्ण भौगोलिक विशेषताएं किस प्रकार परिवर्तित हो रही हैं और इनके संभावित परिणाम क्या हो सकते हैं?

Hindukush-Himalayan region encompasses eight countries namely Afghanistan, Pakistan, India, China, Nepal, Bhutan, ~~Nepal~~, ~~Bangladesh~~ and Myanmar.



Hindukush Himalayan Region



Rivers that flow from here
is lifeline to many
countries
Eg. 600 million
people depends
on Ganga.

Economic
Importance

Disaster can
cause huge loss
to economy
Eg. flood because of
glacial burst, landslides
etc.

Minerals such as
coal, copper, etc.
are found

Indigenous people
depends on its
ecosystem for
livelihood.

Eg. Bakarwals,
Bhotias, etc.

Recent report by a Kathmandu based
organisation on Hindukush-Himalayan
region has highlighted various changes
that are taking place.

change in critical geographical features

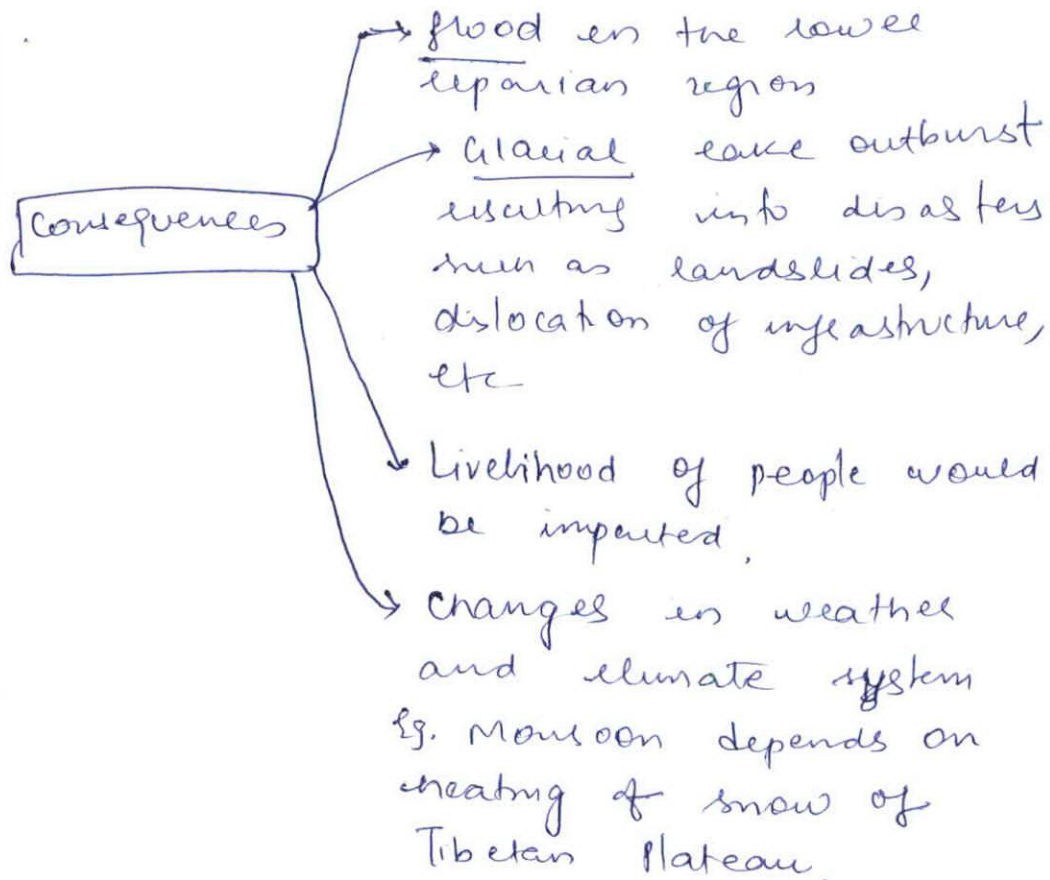
↳ Increasing temperature

⇒ More melted water and constant
degradation and deterioration of
snow.

↳ Increased formation of glacial lakes.

↳ Pollutants such as dust, aerosol, carbon
pollutants have been found
⇒ further strengthening of melting

Intergovernmental Panel on climate change (IPCC) in 2007 also highlighted that with current increase in temperature, snow in the region ^{may} ~~might~~ meet its complete depletion by 2035.



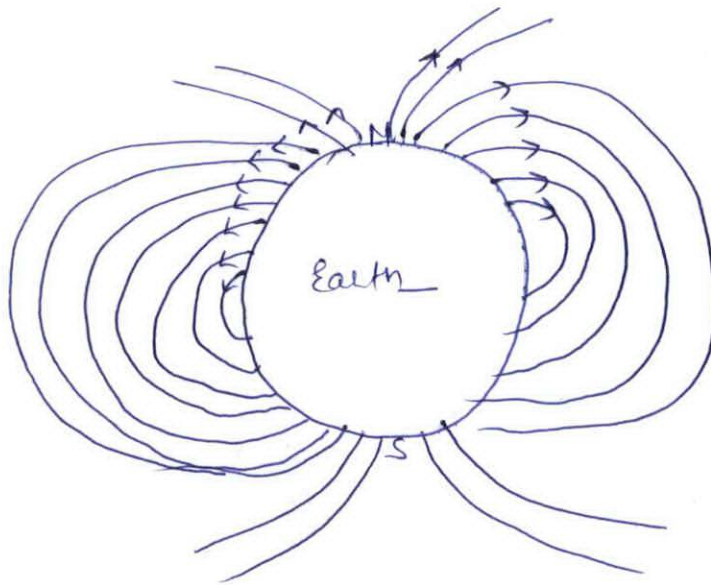
way forward

- ↳ Reduce climate change & implement INDCs, Paris climate pledges and strive for more ambitious target
- ↳ Promote afforestation in upper regions
- ↳ check pollution, ↳ constant monitoring
- ↳ Promote sustainable development in the upper regions.

19. What is the most accepted reasoning behind occurrence of earth's magnetism? Discuss the factors behind its variation temporally and spatially. (250 words) 15

पृथ्वी के चुंबकत्व की घटना के पीछे सर्वाधिक स्वीकृत कारण क्या है? कालिक और स्थानिक रूप से इसके परिवर्तन हेतु उत्तरदायी कारकों पर चर्चा कीजिए।

Earth's magnetism refers to North-South magnetic orientation of the earth in its external atmosphere

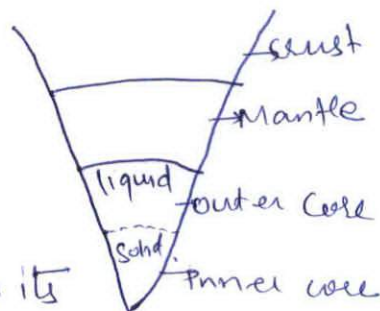


Earth's magnetism

Reasoning behind occurrence of earth's magnetism

↳ Due to temperature and pressure variation, outer core is in liquid state

↳ The liquid consisting of iron, silica, etc. moves in its zone (outer core) and this movement creates magnetic field in earth's



Earth's internal structure.

external atmosphere.

Factors behind its variation

• Recently European satellite Sentinel observed the movement of earth's magnetic pole which is presently located in Canadian Arctic.

• Temporal factors and spatial factors

→ Over long period of time (millions years), magnetic fields even reverses its position. It is primarily because of reversal in the movement of liquid in the outer core.

→ Movement of plates, geographic phenomena like volcanoes, earthquake, etc which tends to alter the structure and distribution of earth's mass.

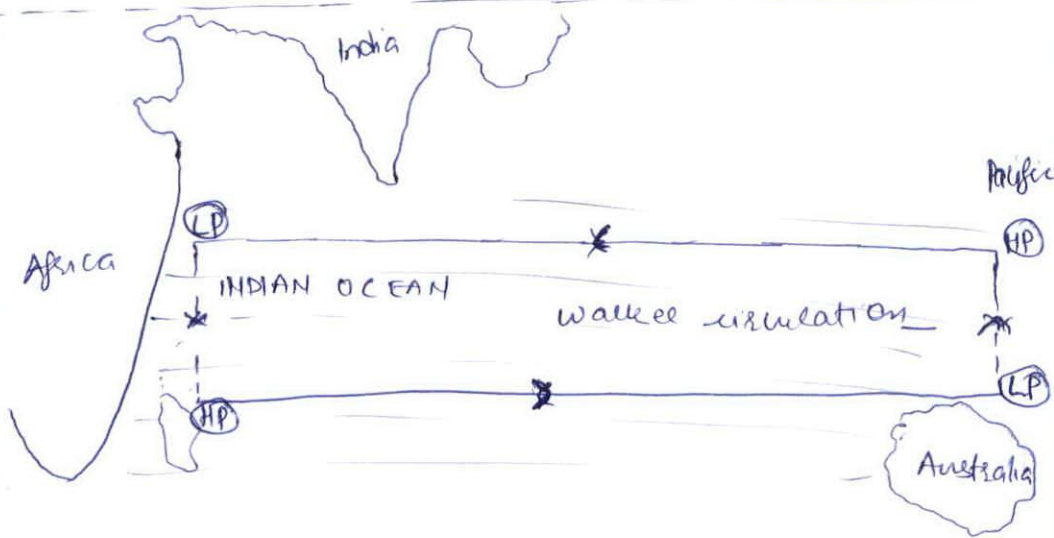
Eg. Paleomagnetic theory to explain the movement of plates.

20. Explain Walker Circulation. Discuss how it influences Indian Monsoon.

(250 words) 15

वाँकर परिसंचरण की व्याख्या कीजिए। चर्चा कीजिए कि यह भारतीय मानसून को कैसे प्रभावित करता है।

Walker circulation is oceanic-atmospheric coupled phenomenon in the Indo-pacific region that affects Indian monsoon.



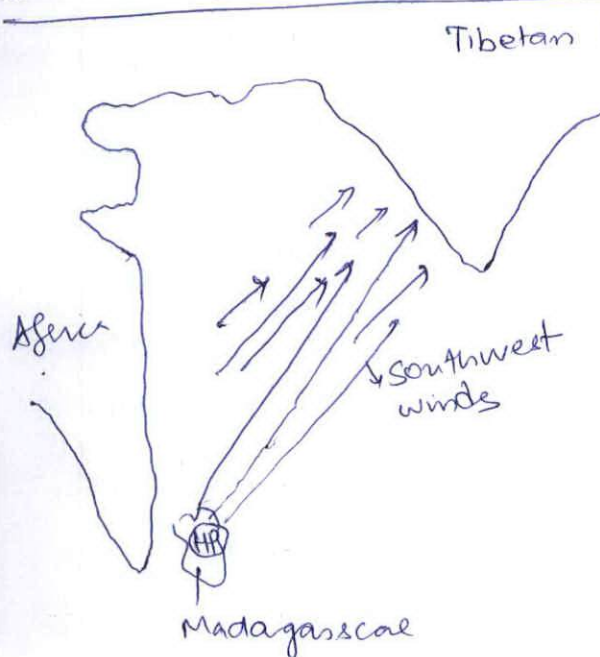
walker circulation

- Driving force behind the movement of water in the ocean and wind in the atmosphere is the pressure difference between west Indian ocean and east coast of Australia (which in turn is connected with Peruvian current & its circulation).
- Pressure difference tends to vary on year-to-year basis so does the circulation. This sea saw

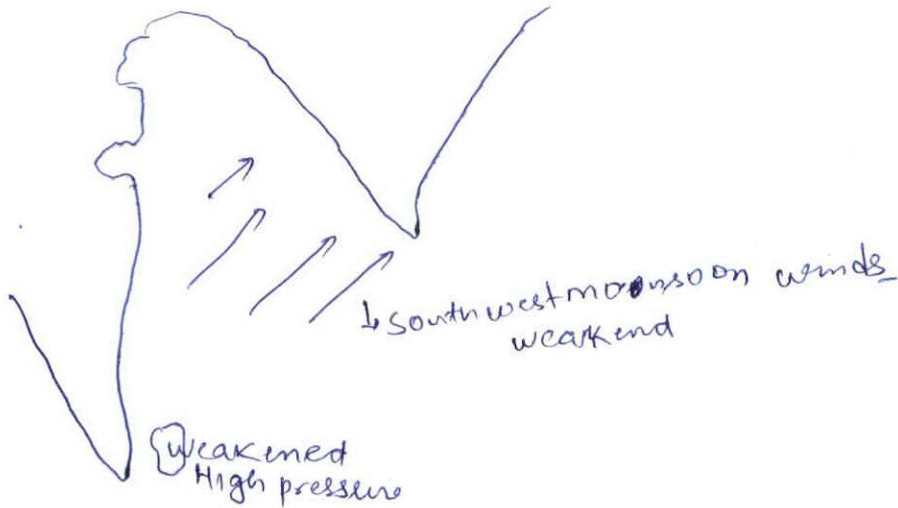
arrangement of pressure difference is
walkal circulation.

- In normal year, walkal circulation tends to
augment. High pressure near Madagascar
thereby strengthening the Indian Monsoon —
(High pressure \Rightarrow south west monsoons get
push).
- If the walkal circulation gets weakened
(happen during El-Nino years), High pressure
is weakened near Madagascar thereby
weakening the southwest monsoon.

walkal circulation and Indian Monsoon



During normal year of walkal circulation
 \Rightarrow Adequate monsoon —



During weakened times
→ less rainfall.

Though various factors such as Indian Ocean dipole, heating of Tibetan plateau, Madden Julian Oscillation, movement of subtropical westerly jet stream, etc. affect the Indian monsoon apart from Walker circulation.

Recent year variation in Walker circulation has impacted Indian monsoon adversely. The primary factor is known to be climate change. Thus, controlling it is key to ensure stability of atmospheric and oceanic system.