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GENERAL STUDIES (TEST CODE : 1242)

Name of Candidate	ANKUR DAS		
Medium Eng./Hindi	ENGLISH	Registration Number	670858
Center	ONLINE	Date	05/09/2019

INDEX TABLE		
Q. No.	Maximum Marks	Marks Obtained
1	10	
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4	10	
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17	15	
18	15	
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20	15	

Total Marks Obtained:

Remarks:

INSTRUCTIONS

- Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).
उत्तर पुरितका 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 (क्यूरीए) पुरितका 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 पुरितका में खाली छोड़ा हुआ पृष्ठ या उसका अंश को स्पष्ट रूप से काटा जाना चाहिए।

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

Plot No. 857, 1st Floor, Banda Bahadur Marg (Opp Punjab & Sindh Bank), Dr. Mukherjee Nagar
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. 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 Warli 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 forms are an integral feature of Indian art heritage. They are drawn depicting special occasions like births, festivals, harvests etc.

Warli Art, Gond Paintings, Sarna Art (Odisha) and Bamboo Craft (North East India) are ~~are~~ some examples.

Warli Art (Maharashtra)

→ Drawn using simple shapes like circles and triangles



Fig: Warli Art

- Drawn using white rice powder on red-ochre mud walls.
- Depicts scenes from hunting, dances, harvest, worships etc.
- striking simplicity and aesthetics

Gond Art (Madhya Pradesh)

- depicts Gond's closeness to nature.
- Representation of local flora and animals.
- Uses coloured natural pigments
- Geometric shapes used.

Tribal Art forms are a valuable heritage of craftmanship + creative energy and they should be cherished and preserved

2. Though it had its achievements, the exclusion of Indians from the system was a key feature of judicial reforms introduced by Cornwallis. Analyze. (150 words) 10

यद्यपि कॉर्नवॉलिस द्वारा आरंभ किए गए न्यायिक सुधारों की अपनी उपलब्धियां थीं, तथापि इस व्यवस्था से भारतीयों का बाहर रखा जाना इसकी एक मुख्य विशेषता थी। विश्लेषण कीजिए।

Cornwallis introduced major reforms in the Indian judicial system during his tenure as Governor General.

Features

- Consolidation + rationalisation of courts.
- Created a hierarchy of courts from Munsif Adalat, Diwani Adalat to District Court, Circuit Court and Provincial Court.
- Separated Judiciary from revenue collection (executive)

Achievements

- Common law for all subjects.
- codification of laws.
- hierarchy of laws ensured proper justice delivery
- Sovereignty of laws - cannot be changed at will.

However, it excluded Indians due to the following reasons

- Principle of European superiority
- Allegations of corruptions against native Indians

while judicial reforms by Comwallis ushered in greater rule of law, exclusion of Indians prevented it from being truly inclusive

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।

The sudden withdrawal of the Non-cooperation movement in 1920 led to disillusionment among Indian masses and laid foundations of revolutionary movement.

→ Hindustan Republic Association (HRA)

Ramprasad Bishoi, Bhaturkeswar Dutt et al, inspired by the Irish Republican Army.

→ Hindustan Socialist Republican Association (HSRA) - Chandrashekhar Azad

→ Chittagong Armoury Raid - Masterda Surya Sen.

Bhagat Singh was one of the stalwarts of the Revolutionary movement. His contributions:

- Founded Punjab Naujawan Bharat Sabha to channelise youth to constructive nationalism
- Associated with Hindustan Socialist Republican Association
- Threw Bomb in the Legislative Council to use court trial as propaganda forum.
- Emphasised on brotherhood and elimination of communalism.
- Exposed Marxism and believed in fair and just economic order.
- Inspired youth to join national movement

Bhagat Singh's contribution is an integral part of the national movement and played

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 espoused by American Secretary of State George Marshall in 1948 to aid post war economic resurrection of Europe.

- Reduction in trade barriers
- Rapid industrialisation
- Removal of regulations and start free market economy.

Role in European Recovery

- Aided rapid industrial development and job creation
- Prevented post war

poverty and civil war in
European states.

- Ensured greater economic
and political integration
- Acted as precursor to European
Union.

Role in creation of 2 Blocs

- led to rapid development of
Western Europe (under US influence)
compared to Eastern Europe (under
Soviet USSR)
- led to the establishment of
arms race + cold war
- Creation of Military Pacts like
NATO and Warsaw Pact
- Manifested in proxy military
conflicts in Korea, Vietnam
and Afghanistan

While the Marshall Plan ensured economic
development, it led to creation of 2 power
blocks and divided 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।

Bonded labour refers to work without pay / minimal pay and suspension of basic human rights of workers

Causes

- Socioeconomic realities, large number of poor people (21.6% under Poverty line: census 2011)
- Tradition of caste based opression of lower castes.
- Ineffective implementation of laws.
- Political + monetary clout of perpetrators, making enforcement difficult

Constitutional & Legislative Measures

- Art 23 : Prevents Bonded labour Slavery and "begar"
- Prevention of Bonded Labour Act
- Minimum wages Act stipulating minimum wages for workers.

Steps needed

- Increased focus on implementation of laws
- Providing impetus to agricultural economy to prevent distress.
- Land reforms, tenancy regulation and redistribution of land to landless labourers.
- Providing social security to unorganised workers.

The erogence of Bonded labour is a blot on principle of social Justice in our Preamble and must be remedied at the earliest.

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?

According to the World Drug Report by UNODC, 13% of the global population has indulged in drug abuse.

Reasons

- Easy availability of drugs, particularly "soft drugs" like cannabis.
- Peer pressure among youth
- Location of India proximal to drug producing areas Golden Triangle and Golden Crescent.
- Glorification of drug use among movie stars, musicians etc.

Measures to address

- Proper enforcement of anti-drug laws.
- Capacity building + rehabilitation of existing drug users.
- Awareness against drug use in schools, television and social media ["Say No to Drugs" campaigns]
- Increased vigilance along international borders, particularly in Punjab + North Eastern sectors.

The menace of drug abuse is detrimental to youth and their role in nation building. It is essential that the issue is checked at the earliest.

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।

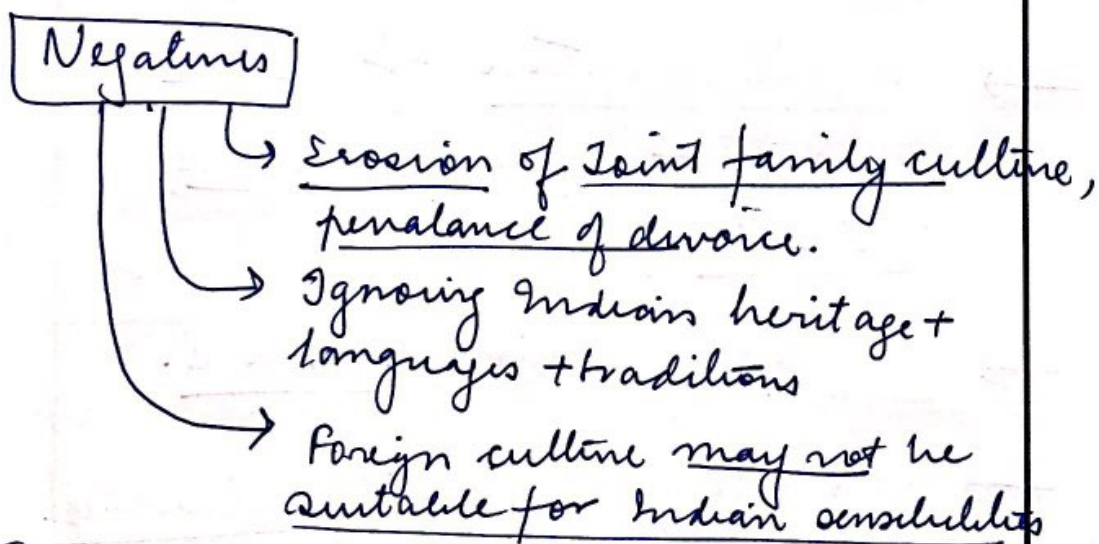
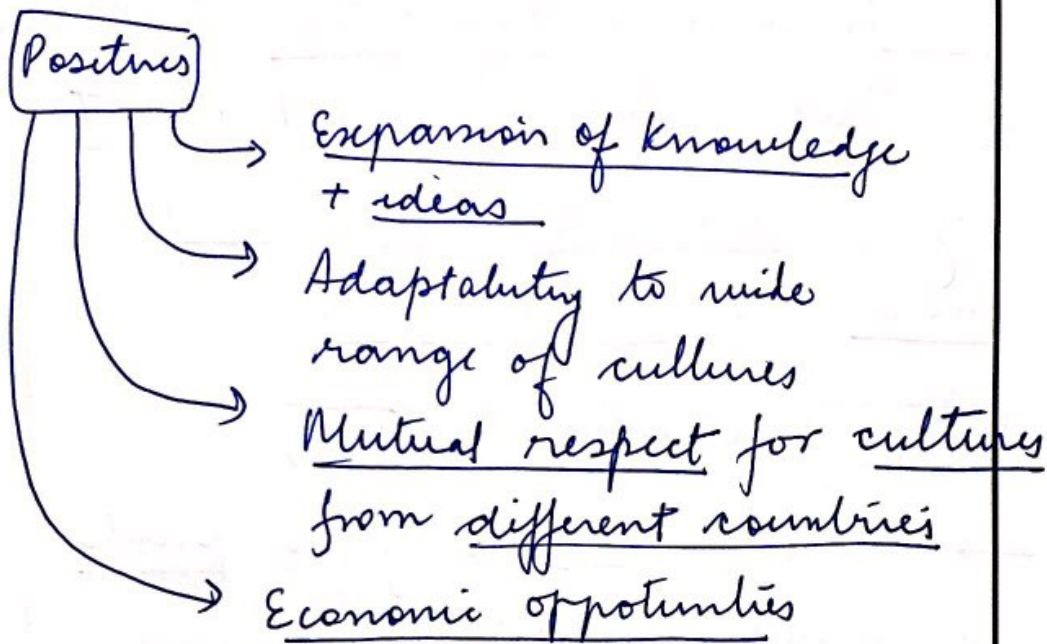
Globalisation refers to the intermingling of social, economic and cultural aspects among populations of various countries. It is brought about by economic interaction, print, visual and social media.

Impact on Indian Culture

- Prevalance of English speech among youth.
- higher adoption of Western media — music, movies, TV serials.
- Erosion of traditional values.
- Changing of family structures.

→ Increased exposure to outside world through media + foreign visits.

→ Increased economic opportunities.



Globalisation is a two edged sword, its benefits must balance its faults

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 मूती 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।

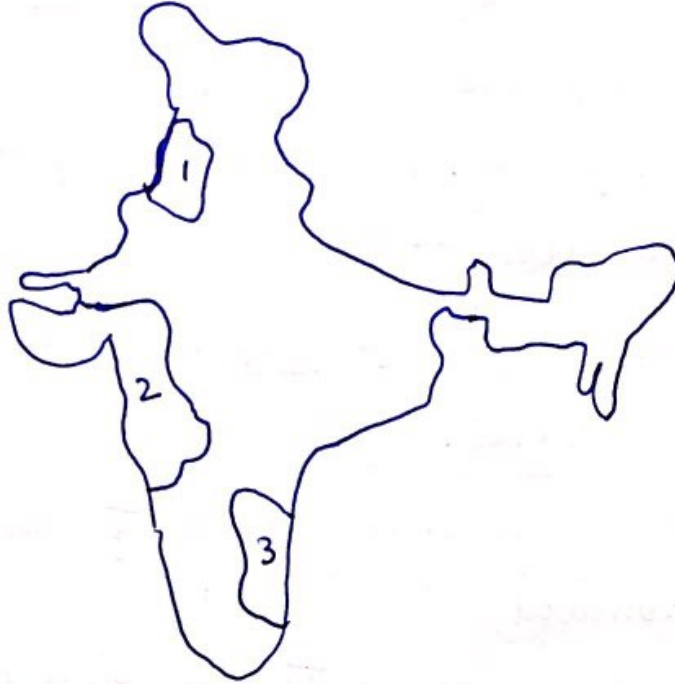


Fig: Cotton producing Areas

- 1 - Punjab Haryana belt
- 2 - Maharashtra Gujarat belt
- 3 - Tamil Nadu - Andhra P.

India is the 2nd Largest producer of cotton in the world and the cotton industry is localised in the Ahmedabad Pune Mumbai Region.

Factors Responsible

- Fertile soil (black soil), Temperature (20-30°C) and rainfall (50-100cm) in the area
- Presence of adequate capital (Mumbai - financial centre)
- Cheap labour from adjoining heartland.
- Presence of Major Ports (Mumbai, Kandla)
- Adequate Markets in high density population areas
- historical factors - site for cotton industry since Indus valley times - medieval trade, British era.

The Mumbai - Pune - Ahmedabad region is the largest cotton producing region owing to a combination of geographical, economic & historical factors

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।

Greenhouse Gas emissions play a major role in global climate change and affect a vast spectrum of ecosystems

Impact on Coastal + Marine Ecosystems

→ Deoxygenation of ~~gas~~ sea water due to increasing temperature

→ Acidification of sea-water

→ Heating of water prevents upwelling of cold water — less food for marine organisms.

- Increased susceptibility of coastal plants (Mangroves) to heat stress
- Increased risk of natural disasters like floods, cyclones

Mitigation

- Protection of marine ecosystems + coastal areas from unauthorised development/encroachment.
- Eliminating discharge of untreated effluents + sewage into sea-water
- Partnerships with global community (Mangroves for Future Campaign).

Marine and coastal ecosystems are vital to a healthy environment and they should be protected from adverse effects of climate change.

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 a region of low pressure winds encircling the North & South poles

→ It prevents icy - cold winds from reaching lower latitudes.

→ They ~~are~~ circulate anti-clockwise in Northern Hemisphere and clockwise in Southern Hemisphere



Fig. Polar Vortex

The incidents of sub-zero temperature in southern latitudes in winter of 2018-19 brought into focus the effect of polar vortex

→ Disruption of polar vortex causes influx of icy cold winds to southern latitudes

→ They are caused by

- ① Global warming
- ② Arctic warming
- ③ Disruption of circulation patterns in Arctic region

The disruption of polar vortex and associated cold weather is symptomatic of the devious role of climate change and should hasten efforts to mitigate it.

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 मशक्त प्रवृत्ति भक्ति काव्य है, जो देश की लगभग सभी प्रमुख भाषाओं पर हावी रही। स्पष्ट कीजिए।

Medieval Indian literature is majority devotional and draws on the relationship between man and God.

Major languages

- Bengal: Chaitanya - proponent of Vaishnavism and Vaishnav Bhakti through Kirtans
- Assam: Sankaradeva - Sattriya culture through music dance and drama
- Tamil Nadu: Nyanyar and Alvars - poetry and devotional songs in

Tamil our relationship
b/w man & God

→ Punjab: Guru Nanak, Sikhism
and Gurbaani (Naam
kirtan)

→ Hindi Belt: Saints Kalid,
Tulsidas, Mirabai
who composed dohas,
kirtans and bhajans

→ Maharashtra: Namdev
and devotional congregations
of kirtans and music.

[Significance of Bhakti Devotional
literature]

→ Composed in local language
as opposed to Sanskrit.

→ Stressed on personal relationship
with God - relatable to
masses

→ Promoted unity and universal
brotherhood b/w all religions
(eg. Sikhism, Sufism)

→ Focus on performing arts
(Sattriya dance, Bhaona
plays || Vaishnavite kirtans)
to draw devotees.

Medieval devotional literature is an
important component of contemporary
Indian literary heritage and should
be preserved and encouraged.

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

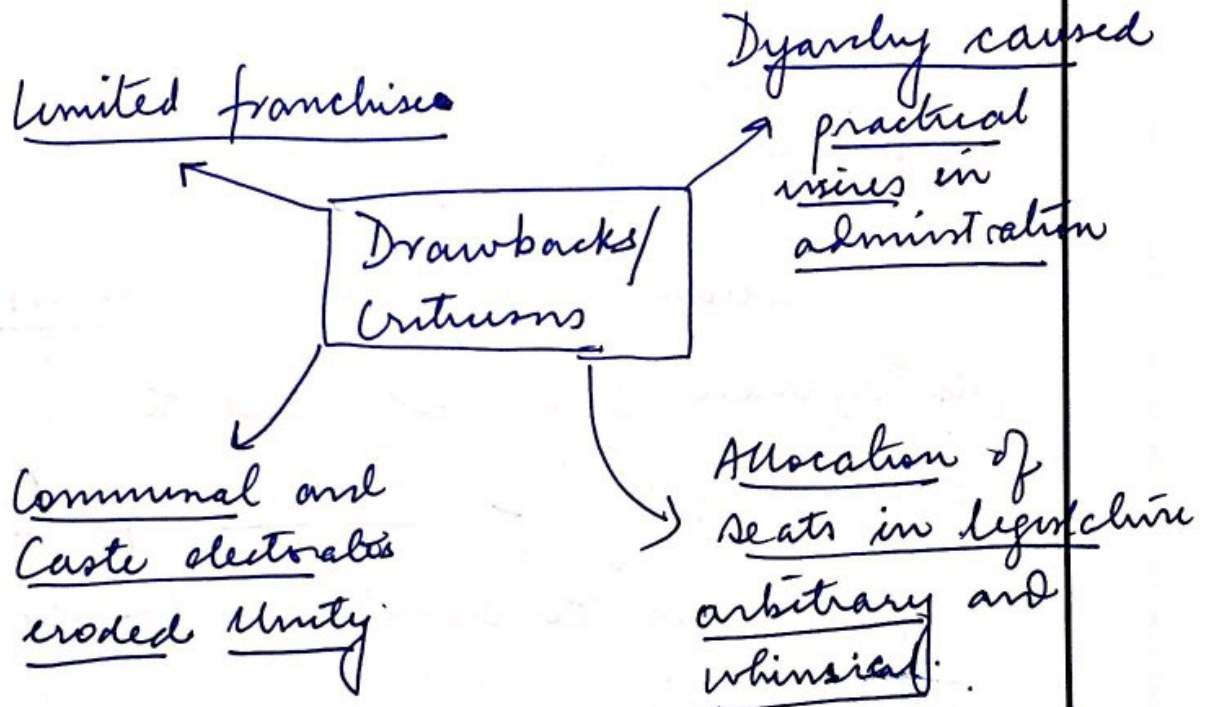
भारत सरकार अधिनियम, 1919 द्वारा आरम्भ किए गए प्रमुख परिवर्तनों और भारतीय स्वतंत्रता संघर्ष में एक ऐतिहासिक घटना के रूप में इसके महत्व पर चर्चा कीजिए।

Government of India Act was a major watershed moment in the National Movement:

Features

- Dyarchy in provinces: ~~Reserved~~ ^{Transferred} subjects under popular ministers and Reserved subjects under Governor
- Allowed women right to vote.
- Expansion of Provincial legislatures (70% elected)
- Bicameral legislature at central level

→ 3 out of 6 members of Viceroy's
Executive Council to be Indian



Significance in freedom
Struggle

→ Dissatisfaction over reports
caused mass demonstrations
(included women)

- Played role in Non-cooperation movement.
- Promoted new generation of leaders experience in electoral politics
- Formation of Simon Commission to review reforms led to the drafting of Nehru Report (in response to Lord Birkenhead's challenge)
 - ↳ First attempt at drafting constitution

The 1919 Act, while allowing certain concessions, left much to be desired - ultimately playing a major role in further intensification of National Movement.

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।

The British conquest of India was a gradual process involving both external & internal factors

→ Battle of Plassey (1757)

Gave British stronghold in Bengal Region - ports and economic powerhouse

→ Battle of Buxar :

Duriani Rights of Bengal to British - provided source of funding.

→ Lack of Unity among
Native Princes

As shown by Anglo-Marathas
and Anglo Mysore wars -
weakened Indian ~~empires~~ kingdoms

- Anglo French wars : Drive
out French from large tracts
and confined them to small
area → removal of rival
powers and better consolidation
of British Rule
- Lack of charismatic leaders
helped British to acquire
various states by treachery
~~(Aurang)~~
- Policies like Doctrine of
Lapse allowed annexation
of Shanasi, Sataras etc.

→ Superior arms & ammunition
of British aided in
defeating native princes

→ Swift diplomacy and
political strategy by British
aided expansion (Policy
of Ring Fence, Subordinate
Alliance)

The British conquest of India
befor 1857 was aided by
various factors - both external
and internal - pointing to
lack of cohesion, coordination
and trading among native states

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 (1987) was signed between the two nations as an attempt to end the Lankan Civil War

Circumstances

- Following Sri-Lankan independence in 1948, majority Sinhalas formed Government.
- Systematic discrimination against Sri-Lankan Tamils ensued
- Imposition of Sinhalese as official language.

- Formation of liberation of Tamil Tigers Eelam (LTTE) as an armed group to fight for Tamil rights.
- Seige of Jaffna (Tamil stronghold) by Sri Lankan Army.
- India's aid and dropping of humanitarian aid in Jaffna and domestic pressure to reach settlement on Tamil Issue.

Key provisions

- Disarming of LTTE rebels
- Withdrawal of Sri Lankan Army from Tamil areas
- Cessation of Indian support to armed Tamil conflict

→ Deployment of Indian Peace Keeping force (IPKF).

Critical Assessment

→ Large number of Indian Soldiers martyred.

→ Discontentment on both Lankan and Tamil sides on Indian military involvement.

→ Domestic resentment by Tamil Parties

→ Assassination of Rajiv Gandhi by LTTE.

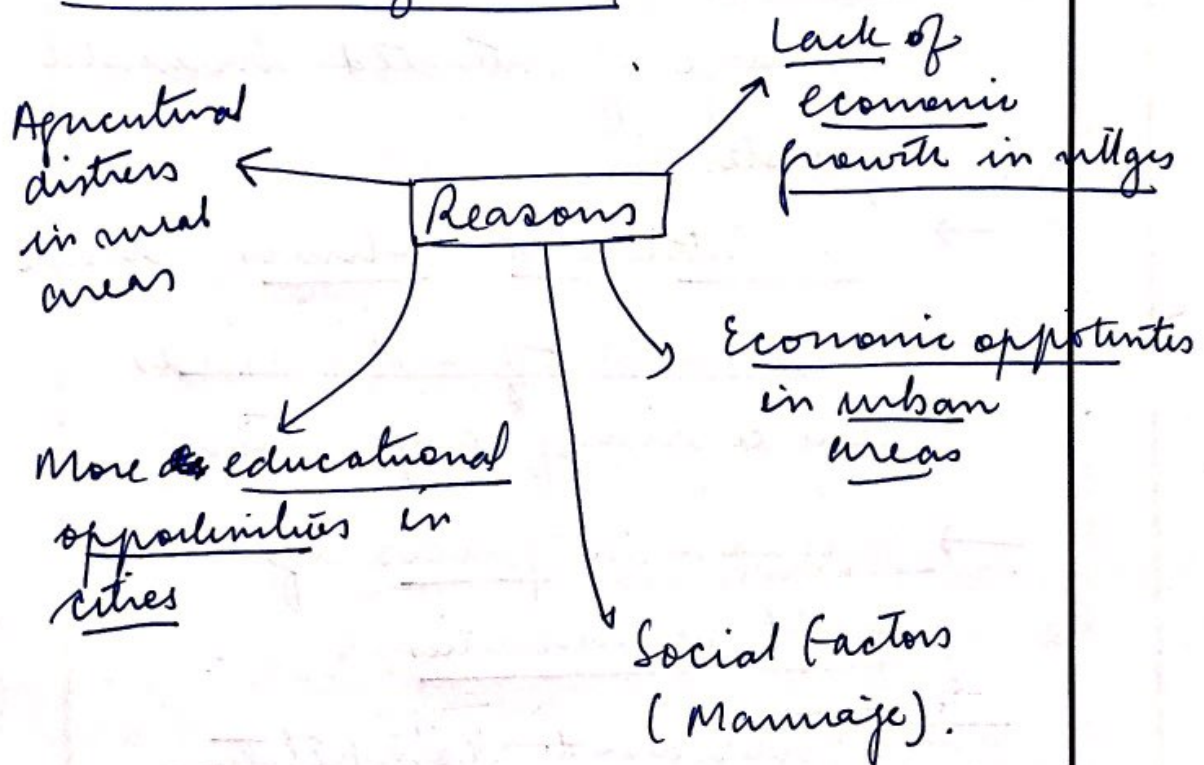
Following a series of unseemly incidents, the IPKF withdrew, plunging Lanka back in Civil War.

→ While the IPKF was well intentioned, lacunae in planning, strategy and management led to undesirable results of the project.

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, 31.4% percent of population resides in urban areas. Further 307 million registered as "Migrants" in the census, mostly rural to urban migration.



Challenges

- Pressure on urban infrastructure like housing, water supply, sanitation
- Scarcity of living spaces, increase in real estate costs.
- Pollution (water, air) due to vehicular emissions, discharge of untreated household wastes
- Unauthorized colonies, slums.
- Law and order issues due to rising population
- increase in prices of food commodities
- Increased competition of economic opportunities.

Addressing Challenges

→ Economic development in rural areas

- ① Increase in agri productivity through better yielding crops, fertilizers, irrigation.
- ② Credit availability to farmers for agri-entreprensis
- ③ Value addition, food processing industries.

→ Overhaul of Urban spaces

- ① Housing affordability (PM Awas Yojana - Urban)
- ② Overhaul of urban infrastructure (JNNURM, AMRUT scheme)
- ③ Semi-Urban area development + economic opportunities (RURBAN mission)

While urbanisation points to increasing economic development, it should be

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।

Womens sexual and reproductive
health rights are often relegated
to secondary positions in
Indian traditional values

→ Talooos on discusion on
menstrual hygiene and
superstitions associated
with it.

→ Early marriage + child
marriage leading to childbirth
occurring when girl is not in
full sexual maturity

→ Reluctance on sexual
education in traditional
circles.

→ Reluctance on contraceptive
use

- Practice of female genital mutilation in certain communities
- Patriarchal notions on marriage - wife becomes "property" of husband - perpetuates marital rapes.
- Taboo on breast feeding in public.

Way forward

- increasing awareness on women rights including sexual rights
- Provision of sex-education in schools
- concerted efforts towards prevention of child marriage

→ Criminalisation of marital rape and genital mutilation.

→ Increased access to menstrual hygiene products.

Govt interventions

→ Rashtriya Kishore Ekasthya Karyakram (RMNCH + A focus on adolescents + sexual health)

→ "Sunidha" sanitary napkins at low cost.

→ MAA program to promote breastfeeding.

→ Awareness programs on menstrual + reproductive health & contraceptives

Health of women, including sexual health is key to ensuring all round development in a holistic manner.

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 मे आप क्या समझते हैं? इसके महत्व पर प्रकाश डालिए एवं इसे प्राप्त करने हेतु आवश्यक कदमों का उल्लेख कीजिए।

According to UN Convention to Combat Desertification (UNCCD) Land Degradation Neutrality is the state in which value of land providing economic + ecosystems services remains constant or increases over a period of time.

Principles

- ① AVOID: aims at prevention of degradation through preventive + curative measures
- ② REDUCE: Reduction of activities which contribute to land degradation

③ REVERSE : Reversal of conditions in degraded land through remedial measures

Significance

- Ensures proper soil quality for agricultural production & forestry.
- Restores + maintains soil fertility
- Prevents drying up of water resources + aquifers.
- Prevents destruction of biodiversity due to desertification
- Ensures economic + food security through continued agricultural production.

Steps to achieve it

- Prevention of soil erosion through afforestation, planting of strip crops
- Recharge of groundwater ~~as~~ aquifers.
- Scientific irrigation to prevent soil salinity
- Means to check deforestation and moderately loss.
- Adopting traditional agriculture + water harvesting practices.

According to UNCCD, 122 countries have committed to ensure Land Degradation Neutrality. Global co-operation is essential to prevent loss of land resources in the long run.

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
is described as the "Third Pole"
as plays a very important
economic + geographical role

~~Economic~~

Geographical Role

- Source of 12 major rivers of Indian subcontinent.
- Protects Indian subcontinent from icy-cold winds of Central Asia
- Causes orographic rainfall in sub-Himalayan belt
- Acts as bio-diversity hotspot due to varied climate + flora and fauna

Economic Role

- Rivers originating provide backbone of Indian economy
- Himalayan foothills provide temperate / alpine climate to grow high value crops (walnuts, apples, saffron)
- Tourism + aesthetic value.

Changing features

- Melting of glaciers.
- Increased glacial erosion
- Deforestation and increased landslides
- Melting of glaciers → more water level of rivers → more destruction.

Consequences

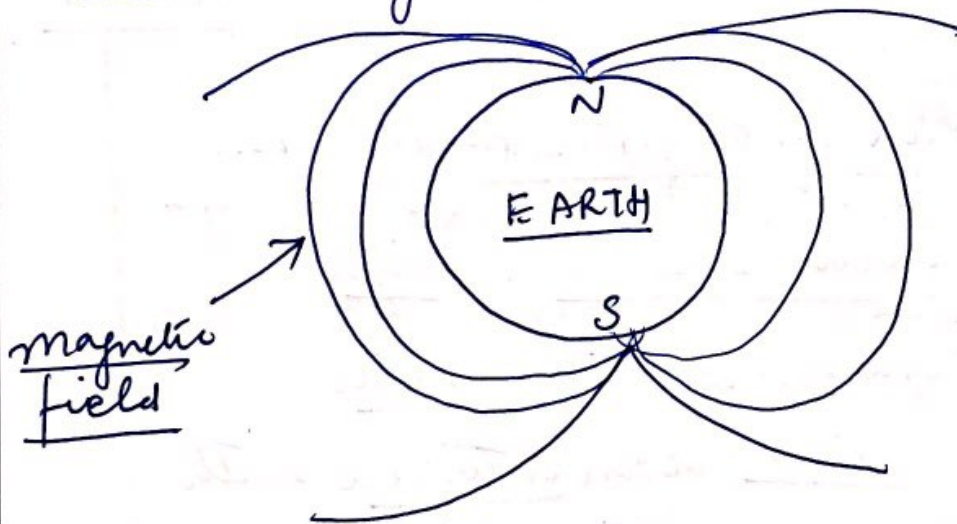
- Increased instances of floods in lower areas.
- Rise in sea levels.
- Landslides causing destruction of infrastructure.
- fragile environment affected - loss in biodiversity.
- Reduction in yields of local agriculture.

The Himalayan region is important from geographical, economic and civilizational perspectives. Measures like SECURE Himalayas, National Action Plan on Himalayan Ecosystems can help mitigate ill effects of its changes.

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 is akin to a large bar magnet with the North and South pole acting as 2 ends



It is caused by the presence of ferromagnetic substances in the earth's core and mantle.

The convective circulation
of liquid ~~now~~ ferromagnetic
constituents in the mantle
causes the formation of an
electro-magnetic field - giving
the earth its constant magnetism.

Variation of Magnetic Field

→ Solar winds : High
energy electromagnetic
winds can interfere with
the earth's magnetism

→ Sunspot cycle : Appearance
and disappearance
of sunspots is linked to
magnetic variation on
the Earth.

→ Core-mantle currents: Currents
inside the Earth change
in motion and composition,
causing variation

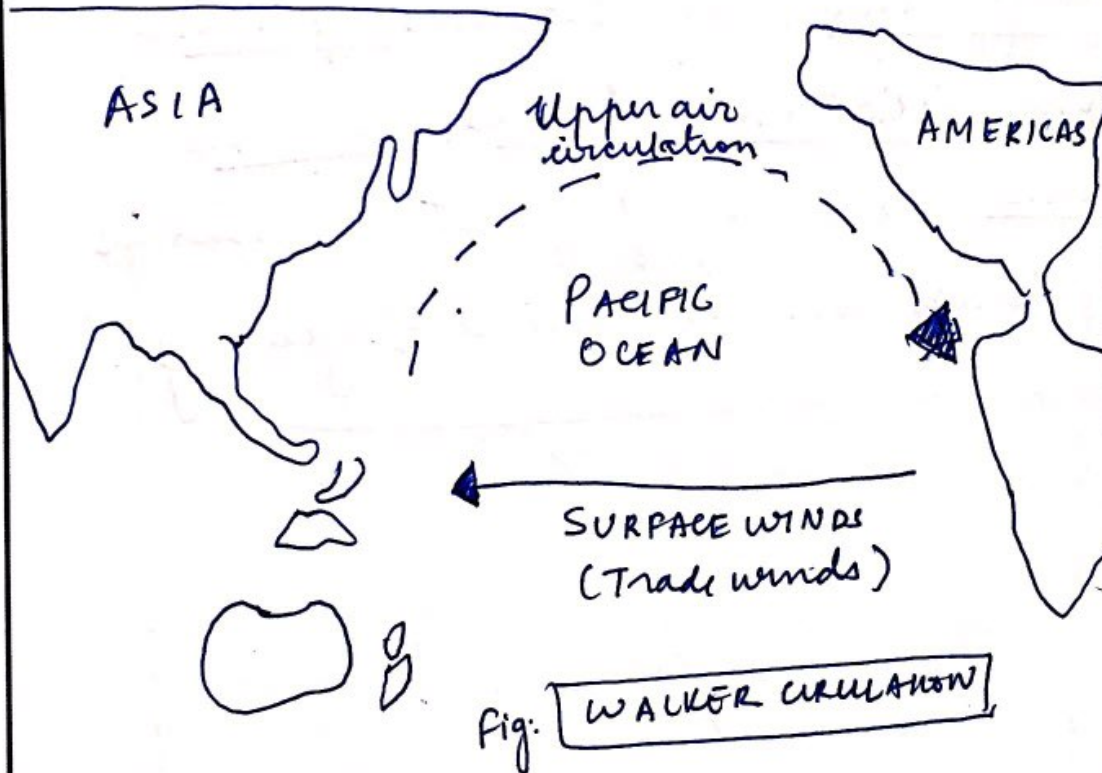
While the variation of Earth's
Magnetic field does not influence
daily life, it has an effect on
communication networks, satellite
links and is of great academic
interest in the field of geology.

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

(250 words) 15

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

Walker circulation is an atmospheric circulation pattern in the Tropical Pacific Ocean involving surface and sub-surface winds.



It involves surface winds from Eastern to Western Pacific due to higher temperature

in western Pacific Ocean.

This leads to :

→ increased rain in Asia +
Australia

→ Upwelling of ^{cold} sea water
off the Peru coast

→ Greater fishing population
of South American coast.

→ Prevalance of TRADE WINDS
in the Pacific Ocean.

Influence on Indian Monsoon

→ Reversal of Walker circulation
occurs during EL-Nino
years

P.T.O.

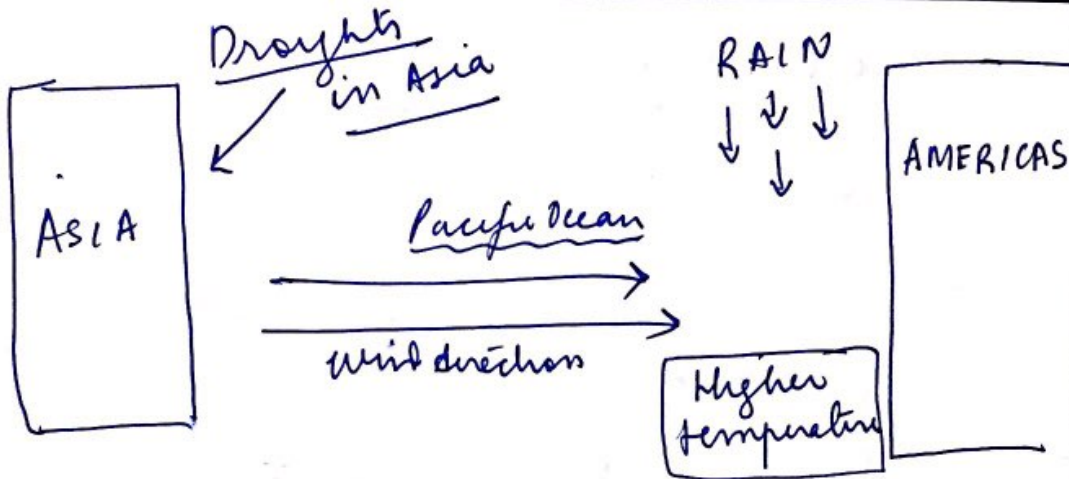


Fig: El - Niño year

→ leads to increased temperature and higher rainfall off Peruvian coast

→ Decrease in Intensity of Indian Monsoon due to Weaker Trade winds.

The Walker circulation and associated El-Niño is of great interest in predicting performance of Indian monsoon and its consequent effects on Indian economy.