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Name of Candidate : ARFA USMANI

Roll No. : PTTP 221371

Registration Number : ..... **Date of Examination :** 29/08/23

Exam Centre : Old Rajinder Nagar ☐ Bhopal ☐ Online ☑

Test - 5 (GS1) **Code : TC075**

MTS IGP Batch 2023

GENERAL INSTRUCTIONS

This Question-cum Answer (QCA) Booklet contains 56 pages. Immediately on receipt of the booklet, please check that this QCA booklet does not have any misprint or torn or missing pages or items, etc. If so, get it replaced by a fresh QCA booklet.

Candidates must read the instructions on this page and the following pages carefully before attempting the paper.

Candidates should attempt the questions strictly in accordance with the instructions specified in the question paper and in the space prescribed under each question in the booklet. Any answer written outside the space allotted may not be given credit.

Question paper will be provided separately and can be taken by the candidates after conclusion of the exam.

.....

SUBJECT/PAPER
GENERAL STUDIES

Invigilator's Sign. : .....

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(For filling by Examiners only)

Evaluator Code :

Q.No	Pg No.	Maximum Marks	Marks	Total
1	1			
2	3			
3	5			
4	7			
5	9			
6	11			
7	13			
8	15			
9	17			
10	19			
11	21			
12	24			
13	27			
14	30			
15	33			
16	36			
17	39			
18	42			
19	45			
20	48			
Grand Total				

Signature

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MACRO COMMENTS

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1. भारत को विदेशों से जोड़ने वाले प्राचीन व्यापारिक मार्गों ने संस्कृति के आदान–प्रदान और प्रसार में किस प्रकार योगदान दिया? (150 शब्दों में उत्तर दीजिए) 10 अंक

How did the ancient trade routes connecting India to foreign countries contribute to the exchange and dissemination of culture? (Answer in 150 words) 10 marks.

India's strategic location, both continentally and marine-wise, has enabled trade with the world since ancient times.

Contribution to Culture

* Presence of Indus Valley seals in Mesopotamia indicates trade links since millenia. It is likely that culture exchange also happened, though concrete evidence is yet to be found.

* Ancient silk road, connecting Asia, Europe and Africa was a thriving trade link. Spread of Indian philosophy (eg: Buddhism) and ideas also accompanied trade. On the other hand, philosophies of China and other regions entered India.

* Gandhara art, located at the intersection of trade routes, contained elements of central Asia, Roman-Greece and Indian elements.

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* In the south, Cholas had trade links with southeast Asia and Sri Lanka. Shaivism and Indian mythology like Ramayana & Mahabharata spread through this.

in India

* Advent of religions like Islam, Christianity and Zoroastrianism also occured through trade routes.

* Buddhism, Jainism, Hinduism spread from India to other regions, esp southeast Asia, Japan and Sri Lanka.

Thus, trade, apart from economic dimensions, has social impact too. British East India Company, along with other Europeans, also came as traders first.

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2. भारत छोड़ो आंदोलन वर्ग विभाजन से परे एक जन आंदोलन था, लेकिन यह महिला नेतृत्व ही था जिसने स्पष्ट छाप छोड़ी। विश्लेषण कीजिए। (150 शब्दों में उत्तर दीजिए) 10 अंक

The Quit India movement was a people's movement cutting across the class divides but it was the women's leadership that left a clear mark. Analyse. (Answer in 150 words) 10 marks.

Quit India Movement was the third & last mass movement initiated by Gandhi in August- ~~1940~~ 1942 in retaliation to British's ~~August Offer~~ Cripps Mission which didn't guarantee complete independence after WW2.

People's Movement

* Gandhiji's clarion call to all, including princely state, govt officials and army personnels, was met with enthusiasm all over the country.

* Parallel govts were set up in different parts. Symbols of British authority like post offices, police outposts, railways etc were attacked.

* People's pent up frustration even made the movement violent in later phases.

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Women's Leadership

* The increase in women participation in freedom struggle which started with the Civil Disobedience Movement of 1930, culminated in Quit India.

* Viceroy Lord Linlithgow reacted to Quit-India with an iron hand, and all major Congress leaders like Gandhi, Nehru, Vallabhai Patel were promptly arrested.

* This leadership vacuum was filled in by women leaders as well. Aruna Asaf Ali's hoisting of national flag in Mumbai, a secret radio channel by Usha are some examples.

* Apart from that, women came out on streets, courted arrests, and played an active role in the movement.

Many of these women held important positions in the Constituent assembly and in independent India's govt thereafter.

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3. 'स्वतंत्रता के पश्चात् के भारत की पहचान विज्ञान और प्रौद्योगिकी के क्षेत्र में इसकी उल्लेखनीय प्रगति रही है'। इस काल में हुए वैज्ञानिक विकास ने भारत को किस हद तक आधुनिकता के पथ पर अग्रसर किया?

(150 शब्दों में उत्तर दीजिए) 10 अंक

'The hallmark of post-Independent India has been its remarkable strides in science and technology'. To what extent did scientific development during this period put India on the path of modernity?

(Answer in 150 words) 10 marks

The British colonial period severly neglected scientific development for it was against their interests. This was taken up after independence by the nation's leaders.

Strides Taken

- The war with Pakistan & China soon after independence cemented the need of military tech. India conducted first nuclear tests in 1974, and is now a responsible nuclear power. This also has uses in civilian sector (power generation)
- The challenge of food security was ~~is~~ met through Green Revolution, which has made Indians an exporter from importer. Apart from this, White Revolution (milk), Pink Revolution (meat) also came on the back of science & technology.
- Call to raise scientific temper has been added to Fundamental Duty of the Constitution.

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- INCOSPAR, later ISRO, has made great advances in space sector. India is among the top 5 space powers of the world, with landing on moon & its own regional navigation system (IRNSS).
- Elite institutions like IITs & IIMs have provided even global leadership.
- Nat'l Supercomputing Mission has enabled India to develop supercomputers.

Shortfalls

- R&D expenditure is <1% of GDP, mainly led by govt. Private sector R&D has remained elusive.
- Quality of research and research-industry linkage remains weak.
- Quality of higher education, barring few elite institutions, is not at par.

Various steps have been taken in emerging tech like AI and quantum computing by the govt in recent times as well.

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4. अन्य क्षेत्रों में जल संकट की समस्या को हल करने के लिए नदियों को आपस में जोड़ने की व्यवहार्यता पर चर्चा कीजिए।
(150 शब्दों में उत्तर दीजिए) 10 अंक

Discuss the feasibility of Interlinking rivers to resolve the issue of water stress in other regions.
(Answer in 150 words) 10 marks

Water stress can be defined as when demand for water exceeds its supply, or water quality restricts its access.

✓ Acc to Central Groundwater Board, >33% of groundwater units are overstressed in India.

Interlinking Rivers

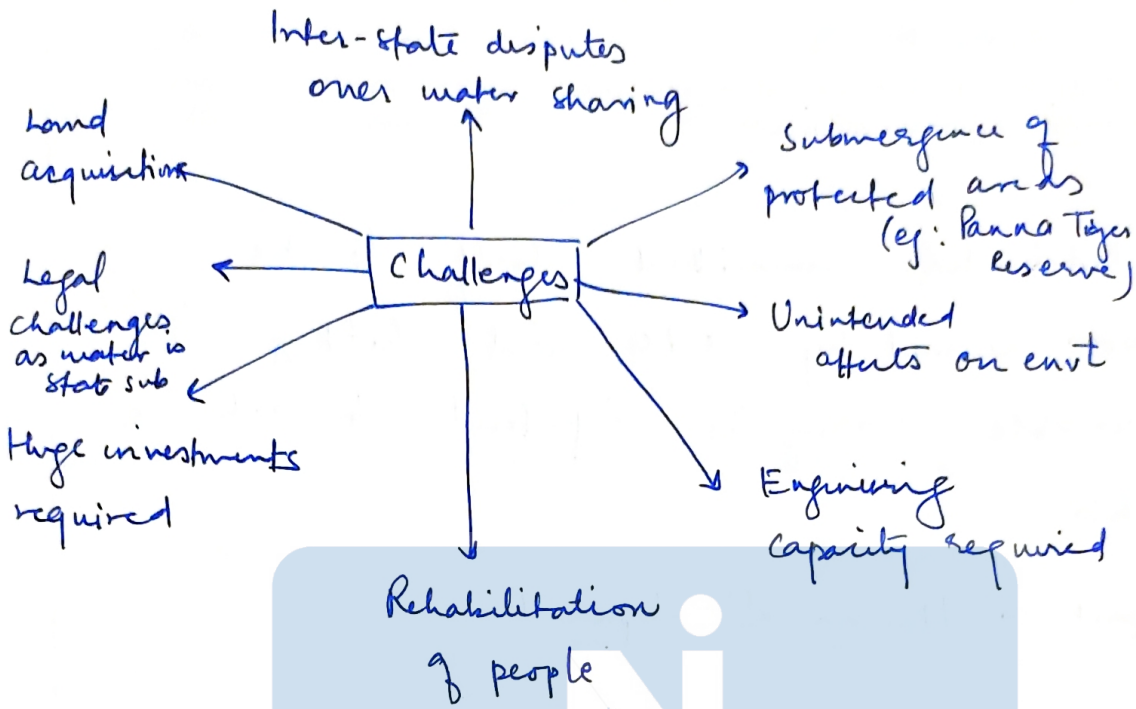
✓ In this context, interlinking of rivers has been posed as a possible solution. By linking rivers, water supply can be regulated.

✓ This will solve problems of floods, drought, irrigation, drinking water, navigation.

✓ However, there are many challenges to make this a ground reality.

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Thus, some experts have called ⇒ to look for other solutions like increasing efficiency of irrigation (per drop more crop), reviving traditional water storage means etc.

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5. कोयला आधारित विद्युत संयंत्रों से नवीकरणीय ऊर्जा उत्पादन की ओर गमन का संरचनात्मक परिवर्तन कोयला समृद्ध राज्यों में मानव विकास को कैसे प्रभावित करेगा? (150 शब्दों में उत्तर दीजिए) 10 अंक

How will the structural shift from coal-based power plants to renewable energy generation impact human development in coal-bearing states? (Answer in 150 words) 10 marks

India has committed itself to be carbon neutral by 2070, and shifting to renewable energy is important to achieve this.

Impact on Human Development

- States like Jharkhand, Chhattisgarh, Odisha, where majority of coal resources are located, are potentially the direct stakeholders in this shift. Coal economy is significant portion of their GDP, providing employment to millions.

- Thus, the shift has to be taken by being sensitive to their needs. Green jobs which will emerge from this shift (eg: solar installation & maintenance) should be made accessible to them through required skill training (eg: ITI, ~~Sk~~ Kaushal Vikas Yojana)

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- The role of coal-based power plant is going to see a slow decline in the next 1-2 decades. This time has to be utilised to plan a smooth transition.

- Southern & western states have done better in renewable energy generation as of now. There is a need to fill this gap.

Thus, coal-rich states are already more backward ~~than~~ regions, and it is important to bridge this gap instead of widening it (eg: setting up ~~bigger~~ hydrogen plants under Green Hydrogen Mission).

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6. तापमान और वर्षण किस सीमा तक मृदा के गुणधर्मों को निर्धारित करने वाले सबसे महत्त्वपूर्ण कारक हैं?
(150 शब्दों में उत्तर दीजिए) 10 अंक

To what extent temperature and precipitation are the most important factors that determine soil properties?
(Answer in 150 words) 10 marks

Soil properties include its nutrient profile, water retention capability, grain size & structure and more.

Temperature

- Temperature dictates rate of evaporation, weathering process, biological activity in the soil (higher with higher temperature), and more. Thus, it plays an imp role.

Precipitation

- Precipitation dictates, amount of water intake, soil erosion (heavy rains), biological activity (moist atmosphere increases biological activity), weathering, and more.

- Temperature & precipitation, taken together & over an extended period of time, define climate of the region. This determines practically everything of the region, including biodiversity & soil properties.

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However, apart from these 2, other factors like type of bedrock & soil, physiography of region, land & human activity (eg: discharge of effluents) also determine soil properties to a great extent.



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7. अरब सागर में प्रचंड और तीव्र चक्रवात एक नियमित घटना क्यों बनते जा रहे हैं? उदाहरणों सहित सिद्ध कीजिए। (150 शब्दों में उत्तर दीजिए) 10 अंक

Why are severe and intense cyclones becoming a regular phenomenon in the Arabian Sea? Substantiate with examples. (Answer in 150 words) 10 marks

Historically, Bay of Bengal has seen more intense cyclones due to various factors, but with climate change, this gap with Arabian Sea is fast closing.

Regular Phenomenon in Arabian Sea

- Low SST (sea surface temperature) in Arabian Sea than Bay of Bengal prevented development of low pressure regim strong enough to develop a cyclone. However, acc to IPCC 2021 report, global avg temperature is already 1.1°C higher than pre-industrial limits. This rising heat is the major cause behind cyclones.

- Melting of Arctic & Antarctic ice has ripple effects for entire global climate, and increased SST is one of them.

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- Mangrove vegetations, wetlands etc along coasts have reduced, which could mitigate the impact of cyclones.

- Recently, cyclones in Arabian Sea have also become an annual phenomenon, last being Cyclone Biparjoy in Gujarat.

However, cyclones have become one of the most effectively managed disasters in India, aided with accurate predictions, real-time communication & cyclone shelters.

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8. भारत में सांस्कृतिक विविधता के संदर्भ में, क्या हम शेष भारत की तुलना में दक्षिणी राज्यों को विशिष्ट सांस्कृतिक इकाइयाँ मान सकते हैं? अपने दृष्टिकोण के औचित्य को सिद्ध कीजिए। (150 शब्दों में उत्तर दीजिए) 10 अंक

In the context of cultural diversity in India, can we consider Southern states as distinct cultural units in comparison to the rest of India? Substantiate your view. (Answer in 150 words) 10 marks.

India's cultural diversity can be analysed from various lens, and south vs rest of India is one such axis.

Differences

- Southern states' languages belong to Dravidian group of languages (eg: Tamil, Kannada etc) whereas majority of rest of India has Indo-Aryan group (eg: Hindi, Bengali, Marathi etc).

- Southern states owing to their long coastlines, have long been in touch with various communities through trade. (eg: Islam, Christianity) On the other hand, rest of India is continental, and had a great flux of foreign rulers who left Southern India relatively untouched.

- The cuisine is also distinct, with heavy use of rice & coconut. Rest of India

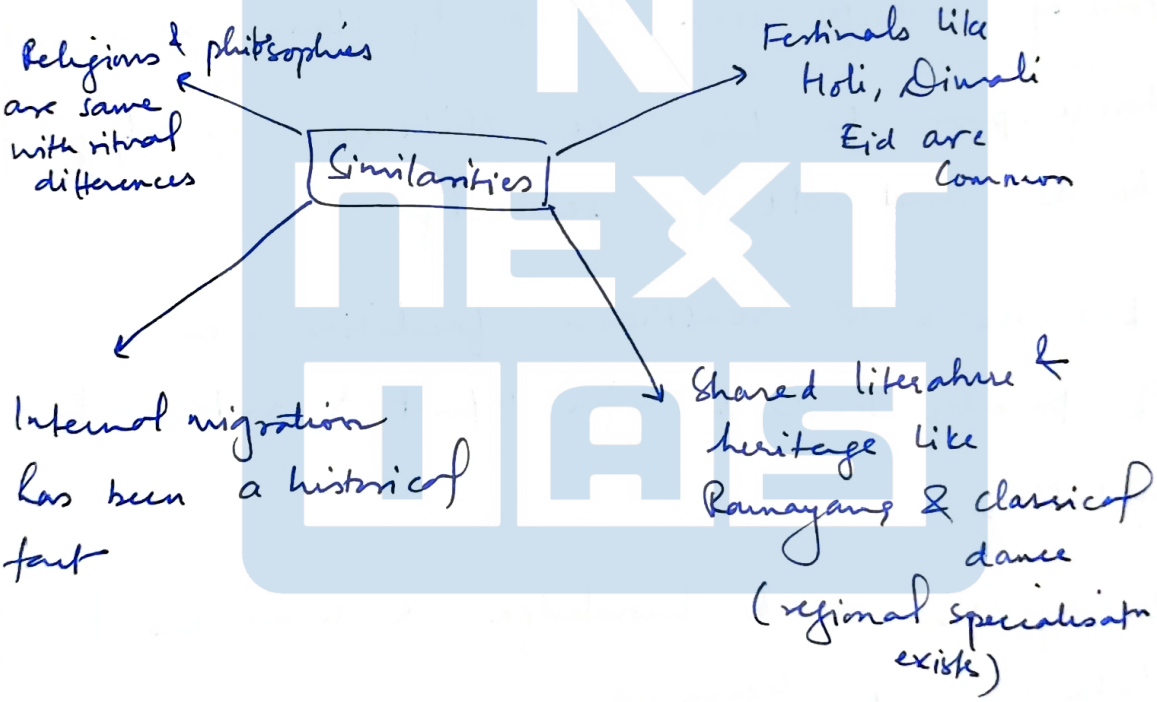
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is ~~as~~ has more wheat & chilly. However, no distinct boundary exists.

↓ Festivals of Southern India are also distinct, like Onam, Ugadi which many regions outside of it are not aware of.

However, there are many similarities as well.



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9. गरीबी और जनसंख्या वृद्धि एक दुष्चक्र में फँसी हुई है, जहाँ गरीबी व्यक्तियों की इस चक्र से मुक्त होने की क्षमता को सीमित करती है, जबकि जनसंख्या वृद्धि संसाधनों पर दबाव डालती है। विवेचन कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

Poverty and population growth are locked in a vicious cycle, where poverty restricts individuals' ability to break free from the cycle, while population growth strains resources. Discuss.

(Answer in 150 words) 10 marks.

The relation b/w poverty & population growth is indeed complex.

Poverty leading to Population Growth

- Poverty restricts access to family planning measures
- Large, poor families see children as helping hands and old age security
- Low access to healthcare facilities because of poverty leads to high infant & maternal mortality
- Poverty also restricts knowledge & awareness to take informed decisions

Population Growth leading to Poverty

- Low resources per capita reduces access to education & skills. Thus, income capacity is capped early on, leading to a lifetime & low level equilibrium.

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- All resources are strained, both in the family and society (eg: healthcare infra structure, schools, environment etc).

- Poor investment in health & education leads to low human development indicators.

However, methods exist to break this loop, like govt intervention, empowerment of women, universal education & healthcare, etc.

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10. शिक्षा के अंतर्राष्ट्रीयकरण में भारत के पास एक समृद्ध विरासत है। इस संदर्भ में 'शिक्षा के अंतर्राष्ट्रीयकरण' पर हाल ही में दिया जा रहा बल समाज को कैसे प्रभावित करेगा और सांस्कृतिक आदान–प्रदान को कैसे बढ़ावा देगा?

(150 शब्दों में उत्तर दीजिए) 10 अंक

India has a rich heritage in the internationalization of education. In this context how will the recent push for the 'internationalization of education' impact society and foster cultural exchange?

(Answer in 150 words) 10 marks.

From Taxila University more than 2000 years ago to Nalanda, Vikramshila and Odantipur, India indeed has a rich heritage of internationalisation of education.

✓ Monks like Fa-Hein ~~Fa-Hiuan~~ ~~Fa-Hieun~~ & Hieun Tsang came from China to study in India in ancient times.

However, the systemic neglect during British rule set India back by many centuries in the education sector.

✓ Since 1991 liberalisation, a great chunk of Indian students pursues higher education in US, Canada, UK, Australia and even other Asian countries (eg: medicine in China & Ukraine).

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- National Education Policy 2020 aims to redress this situation. It calls for opening of Indian institutes' campus abroad (eg: IITs in Abu Dhabi, Tanzania MoUs have been signed), and also for top ranking global institutes to set up campus in India. They have been offered greater autonomy over curricula & remitting profits to their parent-organisation.
- It also calls for attracting international students to India (eg: setting up std tests like SAT)

Impact on Society

- Earning of forex / saving on expenditure abroad
- Exchange of best practices in pedagogy
- Greater cosmopolitan atmosphere in campus. This could boost creativity & innovation.
- Increase in India's soft power
- Competitive atmosphere to improve quality of higher education.

Thus, policies like Institutes of Eminence are desirable steps in this context.

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11. यद्यपि गांधार और मथुरा कला के बीच कई अंतर थे, तथापि इन दोनों ने अमरावती कला शैली (अमरावती स्कूल ऑफ आर्ट) को पर्याप्त रूप से प्रभावित किया।' सविस्तार वर्णन कीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

'Although there were many differences between the Gandhara and Mathura art, they considerably influenced the Amravati school of art.' Elaborate. (Answer in 250 words) 15 Marks

India has a rich tradition of art & culture, and both external & internal influences shaped many schools of art.

Gandhara vs Mathura art

Gandhara	Mathura
It developed ~ 1st century BC in northwest Pak & east Afghanistan region.	Developed later in Mathura region.
Influence of Greco-Roman & Central Asian elements along with indigenous factors.	Indigenous school of art.
Material used was gray schist.	Material was red sandstone found in the region.
Buddha & Focussed on Buddha.	Esp. Buddha plus other Hindu gods as well

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- Buddha depicted serene & poised. Long earlobes. Muscular. Eyes-half closed. Apollo like youthful face.

Buddha depicted more full and round. Face has more expression. Sensuous sculptures also found.

Amaravati School

- It developed later in medieval times in the Andhra region.
- Both Gandhara & Mathura schools influenced it. However it also had its own independent features (eg: use of marble stone).
- Buddha depicted combing features of both. Halo was intricately carved. Round face. Draping unlike Gandhara. More poses covered.

Each region developed its own style, and influence from other regions can be seen as well.

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12. 'इंग्लैंड की औद्योगिक क्रांति ने न केवल आर्थिक परिदृश्य को बदल दिया बल्कि इसके दूरगामी सामाजिक और सांस्कृतिक प्रभाव भी पड़े'। विवेचना कीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

'England's Industrial Revolution not only transformed the economic landscape but also had far-reaching social and cultural impacts'. Discuss. (Answer in 250 words) 15 marks

first

Industrial revolution started in England in the 18th century, due to development of free market theory (Adam Smiths), steam powered engines, suitable political climate, availability of mineral resources and more.

Economic Impact-

- It led to industrialisation in the modern sense. Inanimate sources of power were replaced. Factory system of production started, where standard goods were produced for market and not consumption alone.

- Money market developed. Industries and companies were established. Share-owners emerged. Financial system, in the modern system, developed on the back of industrial revolution.

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- Generation of profit became the prime motive. Wage labourers were employed in factories. The economy saw a decline of primary sector against secondary & tertiary sectors.

Social & Cultural Impacts

- Economic impacts also led to many social-cultural impacts. Urbanisation happened in large scale, and people shifted to cities to work. Initially, the condition of workers was abysmal, with low-wages, unhygienic dwellings and more.

- Women were relegated to household work, leading to their systemic subjugation acc to feminists.

- Colonialism emerged, in search for need of new markets and to source cheap labor & raw materials. This eventually also played a part in the 2 world wars.

- Slavery and indentured labor also happened to fuel the industrial revolution.

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- Communism as an ideology developed against capitalism, and Russian Revolution of 1917 was greatly influenced by it.

- British's domination via colonialism also led to spread of modernisation, industrialisation, and of english language in its colonies. Ideals of democracy & self-determination spread.

- Theory of nation-state and democracy evolved largely in response to regulate and contain market-based economy.

Thus, multi-faceted impacts of industrial revolution were seen across the world.

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13. उन्नीसवीं सदी में पिछड़े पारंपरिक तत्त्वों और औपनिवेशिक संस्कृति के आधिपत्य के खिलाफ सामाजिक सुधार और वैचारिक संघर्ष ने एक विशिष्ट सांस्कृतिक पहचान और राष्ट्रीय चेतना के उद्भव को कैसे प्रभावित किया?

(250 शब्दों में उत्तर दीजिए) 15 अंक

How did the social reform and ideological struggle against the backward traditional elements and hegemony of colonial culture in the nineteenth century influence the emergence of a distinct cultural identity and national consciousness?

(Answer in 250 words) 15 marks.

19th century is dubbed as Indian Renaissance by historians, but it was unique & distinct from the European Renaissance of a few centuries earlier.

Distinct Identity & National Consciousness

- The colonial challenge that India faced forced it to relook its traditions. The colonisers justified their rule by citing many drawbacks of Indian tradition & culture. Some were justified, many were not (eg: status of women vs ancient Indian knowledge).

- The 19th century reform movement was led by Western educated urban middle class men like Raja Rammohan Roy, Ishwar Chandra Vidyasagar, Ranade and Keshub Chandra Sen. They imbibed the

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West without abandoning Indian traditions completely.

* Rammohan Roy cited the Vedas to make his claim that idolatry, sati, and polytheism were not sanctioned by scriptures. He called to reason and scientific ~~temperated~~ temperament to rationalise rituals. This led to a distinct Indian identity.

* The British challenged traditions like female foeticide, ~~sati~~ casteism, sati, child marriage, tribal culture. Organisations were formed in response to this, like Arya Samaj, Prarthna Samaj, Satyashodak Samaj, and Brahmo Samaj. They used various methods to ward off social ills that had crept into Indian Society.

* Modern interventions like railways, post, printing press were used to undertake the reform agenda.

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However, distinct identity was maintained, as India embraced its language & religious diversity. The literary activity in vernacular languages & indigenous art was seen.

Thus, there was no wholesale rejection or acceptance of western ideas, rather they were adapted to suit Indian circumstance.

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14. तापमान व्युत्क्रमण वायुमंडलीय दशाओं को कैसे प्रभावित करता है और स्थानीय मौसम प्रतिरूप और वायु प्रदूषण स्तरों के लिए इसके क्या निहितार्थ हैं? (250 शब्दों में उत्तर दीजिए) 15 अंक

How does temperature inversion affect atmospheric conditions and what are its implications for local weather patterns and air pollution levels? (Answer in 250 words) 15 Marks

Temperature usually falls with rise in height ("normal lapse rate"), however sometimes, this relationship is reversed. This is known as temperature inversion.

Atmospheric Conditions

- Temperature inversion happens on clear ~~clear~~ ~~cloudy~~ cold nights, when the earth's heat is ~~not~~ able to escape rapidly. The ground thus becomes colder than the air above.
- Topography also plays a role, as temperature inversion is usually seen in mountain valleys.
- Atmospheric conditions are affected due to this peculiar situation. Air column below is warmer, which prevents very cold temperatures in valleys. This prevents frost bite in biodiversity as well.

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Effect on Local Weather Pattern / Air Pollution

- Temperature inversion can be imagined as a cold lid over warm air. Thus, air circulation is prevented. This leads to stagnation of atmospheric column, with no winds to redistribute temperature.
- Temperature inversion can last for days. This static column thus gets polluted as well. Closer to the ground, accumulation of pollutants like Particulate Matters, aerosols, and other gaseous emissions occur.
- Increases temperature of the lower areas.
- This deteriorated air quality harms plants, animals & humans. Development of photochemical smog can also occur.

Steps Taken

- Monitoring of air quality becomes important in this context.
- Nat'l Clean Air Program envisages reduction in PM concentration by 40% by 2025-26 from 2017 level. This will help tackle temperature

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inversion as well.

Thus, temperature inversion, though often goes unnoticed, needs further research to understand & tackle it better.



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15. भारत में मैंग्रोव वनस्पति के लिए कौन से भौगोलिक कारक उत्तरदायी हैं? जलवायु परिवर्तन भारत में मैंग्रोव वनस्पति के लिए किस प्रकार खतरा उत्पन्न करता है? (250 शब्दों में उत्तर दीजिए) 15 अंक

What are the geographical factors responsible for mangrove vegetation in India? How does climate change pose a threat to mangrove vegetation in India? (Answer in 250 words) 15 Marks

Mangrove vegetation is found mostly in coastal areas, in transition areas b/w freshwater and saline/brackish estuaries.

Geographical Factors

- Acc to Indian State of Forest Report, West Bengal & Gujarat are leading states in mangrove vegetation.
- Mangroves are categorised under tropical evergreen rainforest, thus they prefer ample sunlight, humidity, rainfall and brackish water.
- Coastal states in India, ~~have~~ along with 2 island UTs, have mangrove vegetation.
- They are very productive & fragile ecosystem, providing a lot of ecosystem services and products. They also protect against cyclones & tsunamis by mitigating their impact.

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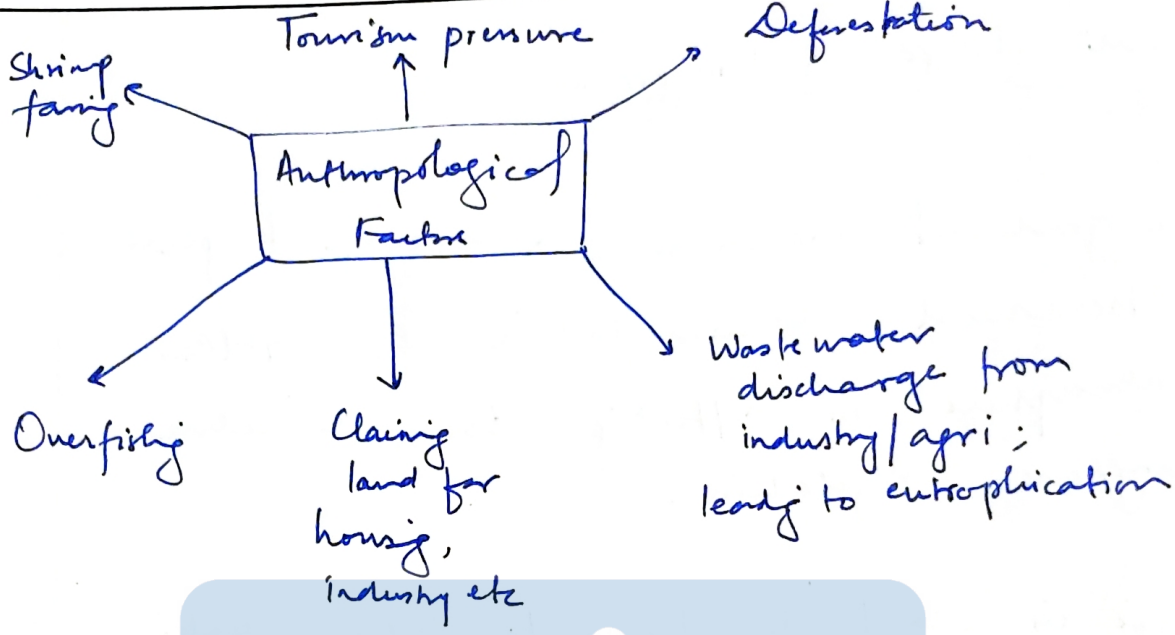
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Climate Change & Mangroves

- The gradual increase in average temperatures & increased accumulation of GHGs in atmosphere is affecting the sensitive mangrove vegetation.
- Rise in sea levels leads to saline water intrusion
- Erratic rainfalls & intense cyclones damage mangroves
- Soil degradation & soil erosion is also affecting them.
- Sustained periods of no rainfall ~~ds~~ because of climate change.
- Increase in diseases due to temperature rise (eg: bleaching of corals)

Apart from this, many anthropological factors are also responsible.

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Thus, initiative like Mangrove Alliance for Future at the global level are required to deal with the problem.

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16. चीनी उद्योग की अवस्थिति को प्रभावित करने वाले भौगोलिक और आर्थिक कारक कौन–कौन से हैं, और वे भारत और विश्व के विभिन्न भागों में इस उद्योग के विकास में किस प्रकार योगदान करते हैं?

(250 शब्दों में उत्तर दीजिए) 15 अंक

What are the geographical and economic factors that influence the location of the sugar industry, and how do they contribute to the growth of the industry in India and different parts of the world?

(Answer in 250 words) 15 Marks

Sugar industry is an important agro-based industry, with millions of sugar farmer linked directly or indirectly to it.

Geographical Factors

- Sugarcane is a tropical crop, requiring hot, humid temperature with abundant rainfall (>100 cm). Since sugar is a weight-losing industry, many sugar mills are located close to sugarcane producing areas (eg: UP, Maharashtra).

- Areas where irrigation facilities are good also produce sugarcane (eg: Tamil Nadu).

Economic Factors

- Closeness to market (eg: UP)
- Closeness to ports for export (eg: Mangalore)

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- Infrastructure for quick transport of sugarcane. The yield is maximum shortly after harvest, thus any delay in accessing sugarcane reduces yield significantly.
- Govt policy support also plays a role (eg: presence of cooperatives, cheap credit, subsidy etc).
- Presence of low cost labor.

Contribution to Industry

- India is the 2nd largest ~~producer~~ exporter of sugar after Brazil. Thus, it's an important player globally.
- Sugar is used as a raw material in various other industries like sweets, ice creams, other FMCG products, etc.
- They also play a role in food security as they are pure carbohydrate sources.
- In India, they provide security to sugarcane farmers. Govt announces FRP (Fair & Remunerative Prices) to be paid by mills.

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↓ Globally, sugar is exported to various regions, including US, Europe and China.

However, various issues mar the Indian sugar industry, including rising cost of input, issue of subsidies at WTO, low yield, and increasing awareness against consuming sugar.

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17. शुष्क और अर्ध–शुष्क क्षेत्रों में जल की कमी को दूर करने और कृषि उत्पादकता को अधिकतम करने के लिए शुष्क–भूमि कृषि में उपयोग की जाने वाली मुख्य रणनीतियाँ क्या हैं? साथ ही, भारत में शुष्क–भूमि कृषि को बढ़ावा देने की आवश्यकता पर भी चर्चा कीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

What are the key strategies used in dryland farming to overcome water scarcity and maximize agricultural productivity in arid and semi-arid regions? Also, discuss the need to promote dryland farming in India. (Answer in 250 words) 15 Marks

Dryland farming is farming done without/extensive irrigation support, ~~mainly~~ mainly rainfed. In India, >50% of area under cultivation is under dryland farming.

Key Strategies

* Water guzzling crops like rice/wheat/sugarcane should be avoided. Instead, crops like millets & pulses should be grown which require considerably less water.

* To increase productivity, genetically modified crops can be used (eg: ICRISAT, Hyderabad undertakes research in this area).

* Scientific irrigation is undertaken which uses less water with greater efficiency (eg: drip irrigation, sprinkler irrigation).

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- Integrated Farming System can be adopted to utilise resources.

- Precision agriculture should be adopted, which reduces cost of input and also reduces adverse environmental impacts of using excess chemical fertilisers.

- Sustainable practices like organic farming, ZBNF, zero tilling etc suit dryland farming more.

- Instead of monocrop culture, mixed/alternate cropping techniques restore and maintain soil nutrients.

- ~~to~~ Crop insurance like PMFBY (Fasal Bima Yojana) to protect against downsides.

Need to promote

- 90% of groundwater is used in irrigation, which is highly inefficient. This can improve with dryland farming.

- India is essentially exporting water by exporting wheat & rice.

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* Better nutritional security
* Rise in income of farmers which are suffering under rising cost of inputs of intensive farming
* Reduced subsidy burden on govt (eg: power, fertiliser)
* Improved health outcome as water quality improves (eg: reduced use of fertiliser)
* Reduced adverse health impact of bioaccumulation & biomagnification
* Traditional knowledge & seed diversity can be preserved.

Thus, dryland farming holds great potential, which can be unlocked via schemes like National Mission on Sustainable Agriculture.

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18. समकालीन महिला आंदोलन ने पारंपरिक पद्धतियों से परे विविध दृष्टिकोणों को कैसे सम्मिलित किया है? साथ ही, समकालीन महिला आंदोलन के अनूठे योगदान और चुनौतियों पर भी प्रकाश डालिए।

(250 शब्दों में उत्तर दीजिए) 15 अंक

How has the contemporary women's movement encompassed diverse approaches beyond traditional methods? Also, highlight the unique contribution and challenges of the contemporary women's movement.

(Answer in 250 words) 15 marks.

Women's movement in India started since the 19th century, and has come a long way since then.

Contemporary Approach vs Traditional

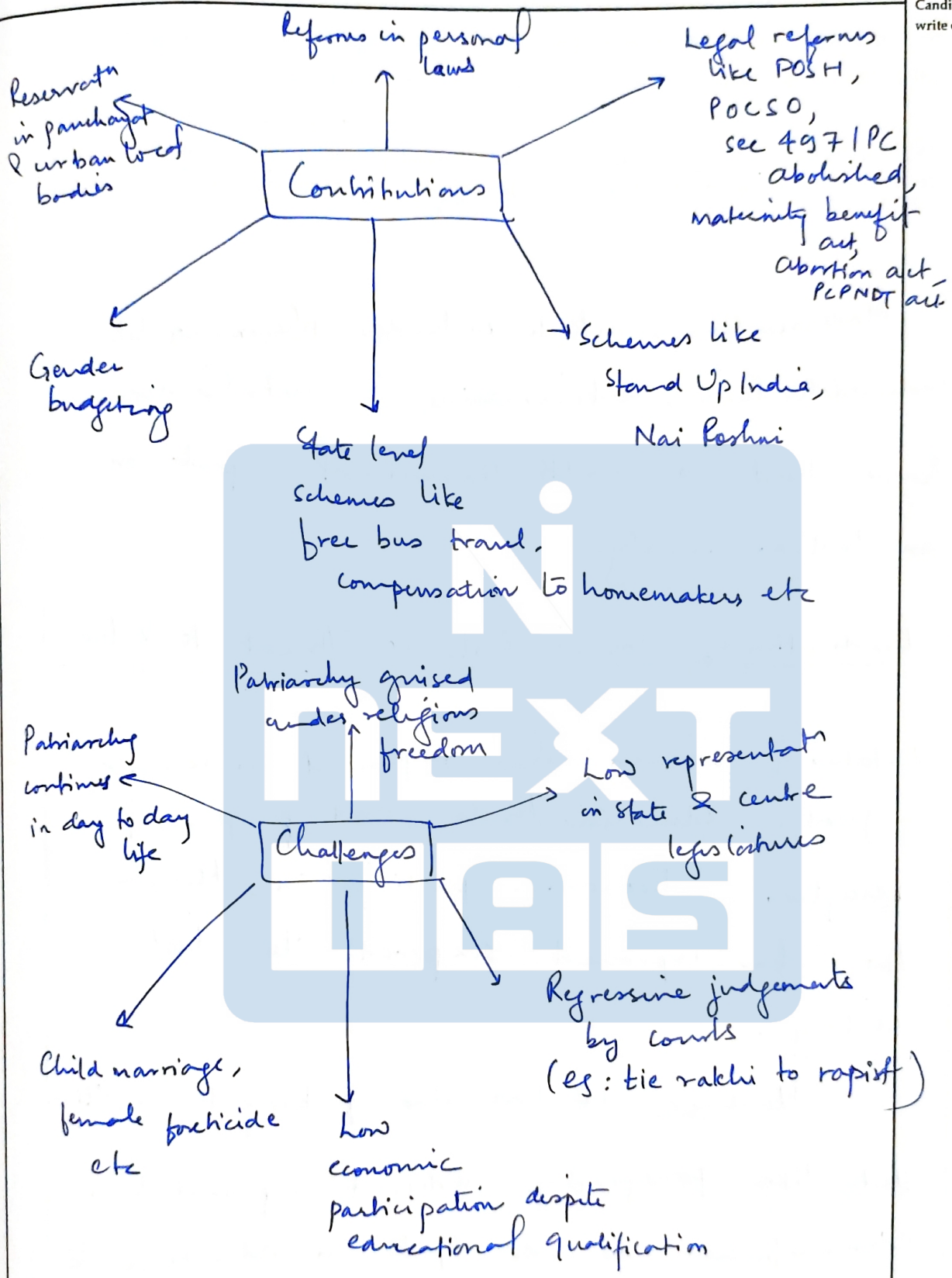
- The 1970s saw a resurgence in women's movement, with Towards Equality Report of 1974. UN also declared 1975-85 as Decade of Women.
- The 1970s saw emergence of new issues like custodial rape & death, sexual harassment at workplace, Indecent representation in media, domestic violence & dowry compared to older issues like sati, female education and child marriage.
- Many apolitical organisations were formed towards this end (eg: 1972 SEWA by Ela Bhatt in Gujarat)

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- Globalisation & rise of social media led to widening of political borders, and common issues of women across the world were voiced (eg: #MeToo movement).
- PILs and judicial activism also played a major role. Examples include Vishaka Judgement, property inheritance rights, Shah Bano case, triple talaq case, permanent Commission in army among others.
- Focus was also shifted to encourage women entrepreneurship. Govt also supported via schemes like Stand Up India & Mudra Yojana.
- Women ~~used~~ acted as pressure groups and organised themselves against the menace of liquor (eg: ban in Bihar).
- Environental movements were also led by women (eg: Chipko moment, Narmada Bachao Andolan).

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Thus, women's movement is an ongoing struggle in India. The problems of LGBTQ community too can be linked to it.

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19. क्या आपको लगता है कि आधुनिकीकरण की ताकतें, जिन्होंने भारतीय समाज में सामाजिक बुराइयों के उन्मूलन को उत्प्रेरित किया, ने हमारे सांस्कृतिक मूल्यों और लोकाचार को भी खतरे में डाल दिया है?

(250 शब्दों में उत्तर दीजिए) 15 अंक

Do you think that the forces of modernization that catalyzed the eradication of social evils in Indian society have also threatened our cultural values and ethos? (Answer in 150 words) 15 marks.

Modernisation, which includes phenomena like industrialisation, urbanisation & globalisation have had a multi-dimensional impact on Indian society.

Eradication of Social Evils or Threat to Values?

- Status of women has improved in terms of greater education levels and a general perception. Economic participation, though low, has improved compared to last century.

However, it has also brought negative effects like pornography, indecent representation, commodification as sex object in advertisements etc

- Religious reforms have occured, like challenging ideology of caste-based discrimination & untouchability. Solidarity with other global

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movements also established (eg: Black Panthers in US & Dalit Panthers in Maharashtra)

However, contentious issues like entry of women in Sabrimala have no clear consensus on where religious freedom ends & gender equality begins.

- Family structure is changing from joint to nuclear. This has enabled greater individuality and privacy, but neglect of aged parents and erosion of social support are negative fallouts.

- Rise in consumerism culture under globalising & modernising forces.

Negative fallouts like environmental degradation (Indian ethos), status signalling etc seen.

- Religious minority have organised themselves via modern medium of communication, but this has also been used to radicalise by terrorist organisations, spread of fake news

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and hate speech etc.

Thus, forces of modernisation have been a double-edged sword, but Indian culture & values have always adapted themselves to changing times.



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20. भारत में राज्यों के संदर्भ में क्षेत्रीय विषमता और क्षेत्रीयता की भावनाओं के बीच संबंधों का मूल्यांकन कीजिए। क्या क्षेत्रवाद राष्ट्रवाद के विचार का विरोधी है?
(250 शब्दों में उत्तर दीजिए) 15 अंक

In the context of states in India evaluate the relationship between regional disparity and sentiments of regionalism. Is regionalism antagonistic to the idea of nationalism? (Answer in 150 words) 15 marks.

Regionalism is the ideology when affiliation to a region gains priority over national identity. India, since the linguistic reorganisation of states in 1950s, has grappled with regionalism due to its immense diversity.

Regional Disparity & Regionalism

- Regional disparity has a strog link with regionalism. Uneven economic growth vents its anger in the ideology of regionalism.

- Eg. Jharkhand, Chhattisgarh & Uttarakhand broke away in 2000 for they alleged of uneven distribution of development. Later, Telangana also took a similar path (though cultural difference was also a factor).

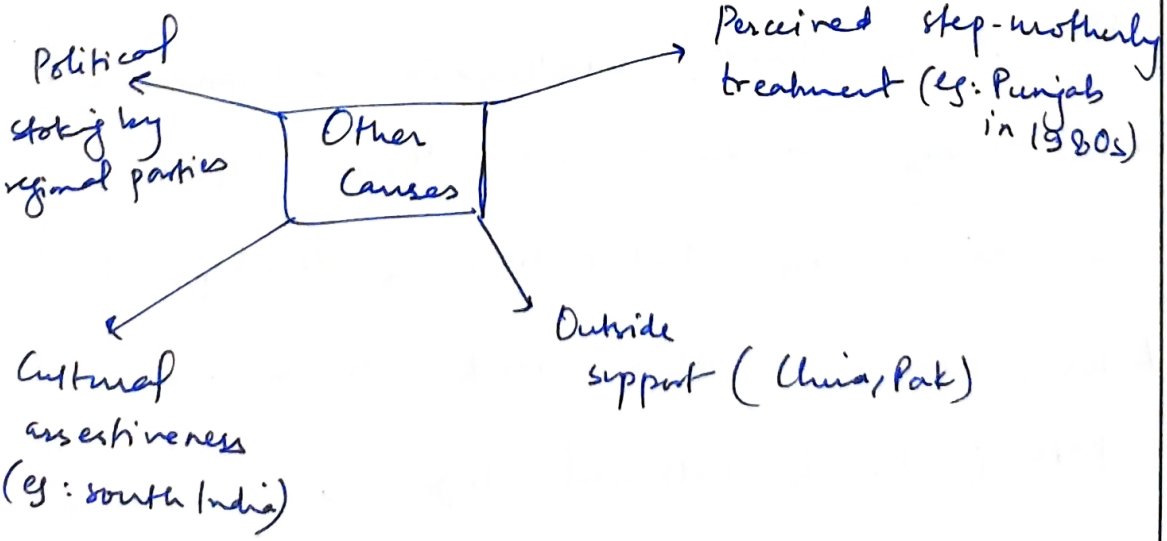
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- Split of Gujarat & Maharashtra in 1960, and further sons-of-soil movement in Maharashtra, can also be analysed from this lens. Marathis alleged appropriation of benefits by migrants. Within Maharashtra, Vidarbha region has called for autonomy because of regional disparity.

- In the northeast, various states formed out of Assam due to various reasons, and regional disparity was also a cause.

- Thus, control over economic & political resource is a major contributor to regionalism. Recent violence in Manipur can also be attributed to this, where each ethnic group accused the other of beg better off.



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Regionalism vs Nationalism

- Regionalism, when managed effectively, need not be antagonistic to nationalism. In fact, it can be harnessed as a positive force (eg: ranking of States by NITI Aayog on HDI, export-performance etc).

- Countries like USSR, Pakistan, Sri Lanka, Yugoslavia have paid the price of suppressing regional statements with an iron hand. India, on the other hand, has taken a case-by-case stance, and regional aspirations have been healthily accomodated within an umbrella national identity.

Thus, federalism & democratic functioning ~~functioning~~ within a dynamic constitution has contained the challenge of regionalism effectively in India.