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Registration Number : NIAS 2300018245 Date of Examination : 13/08/23

Exam Centre : Old Rajinder Nagar

Bhopal

Online

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. :

(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

MACRO COMMENTS



- Q.1 भारतीय दार्शनिक वित्तन का ताना—बाना उत्तरी भारत का उतना ही ऋणी है जितना दक्षिण भारत का। स्पष्ट कीजिए।
(150 शब्दों में उत्तर दीजिए) 10 अंक

The fabric of Indian philosophical thought owes as much to Northern India as to Southern India. Elucidate.
(Answer in 150 words) 10 Marks

Our ancient texts provide Bharat is a land
on north of oceans and south of Himalayas.

"Uttaram Yat Sanudrasya, Hinaudrasanya
Dakshinam, Varasham Tad Bharat Naam"

This reflected in our shared
culture, traditions, history, philosophy
albeit regional differences.

Indian philosophy

Orthodox

- Sankhya
- Yoga
- Nyaya
- Vaisesika
- Mimansa
- Vedanta

Heterodox

- Cauwaka
- Jainism
- Buddhism

The fabric which binds the
nation including common Sanatan
parampara, Sanskrit prevalence, commonly

revered places of worships and Kashi -
Tamil sangam show how all parts of
country contributed to development of Indian
philosophical thought.

North India → Philosophers like Kamaliputra,
Patanjali, Jainini, Kanad
gave several orthodox philosophies.
Ved Vyasa wrote Brahmasutras but its
Bhashyas were done by luminaries
like Adishankaracharya, Ramanujacharya
from South.

South India → Vedanta philosophy and
Gyan and Bhakti darsan
got propounded by South. Further several
other saints like Basavanna's Bharat
Mendap contributed to philosophical thought
even as early as 3rd century B.C. Sangam
texts like Thiruvalluvar's Thirukkural provide
ethical philosophy.

is evident hence Ek Bharat Shaesha Bharat

Q.2

सामाजिक परिवर्तन और सुधार के लिए भारतीय समाज का आवेग औपनिवेशिक शासन के प्रति इसके विरोध की एक प्रतिक्रिया थी। परीक्षण कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

The Indian society's impulse for social change and reform was a response to its opposition to colonial rule. Examine.

(Answer in 150 words) 10 Marks

The nineteenth and twentieth century colonial India saw a socio-religious reform movement. Rani Mohan Roy said that present system is not suited to India's interests.

**Opposition to colonial rule
and rise of nationalism**

While fighting foreigners, reformers like Vidyasagar, Ranade, Tyohira Phule and later B.R. Ambedkar realized that this requires a common spirit of belonging to one nation. This realization was supplemented by need to change ^{age} old oppressive practices.

Pride in ancient Indian values

A major feature was revivalism during this time that harked upon taking

pride in Vedas, ancient governance mechanisms.
 It helped to establish a scientific and historical argument against colonial rule.

Spirit of reform & enquiry

with western ideas like liberty, equality, fraternity and reform spirit, reformers realized that it is not only applicable for caste-based discrimination & patriarchal mindset in India but also against oppressive white rule.

Service to mankind & Abhyuday

A new wave of reform emerged with leaders like Dnyanand Saraswati, Vivekananda who urged for upliftment of poor. Gandhiji remarked that our salvation will not come from lawyers, doctors but from farmers. It helped to create mass awareness.

Hence, the socio-religious reform movement served the twin goal of addressing social evils and also infusing nationalism spirit preparing ground for freedom struggle movement.

- Q.3 रूसी क्रांति को प्रभावित करने वाले कारक कौन-कौन से हैं तथा इस क्रांति के क्या-क्या परिणाम हैं? भारतीय राष्ट्रीय आंदोलन पर इसके प्रभाव की विवेचना कीजिए। (150 शब्दों में उत्तर दीजिए) 10 अंक

What are the factors that led to the Russian revolution and what are the consequences of this revolution?
Discuss its influence on the Indian national movement.

(Answer in 150 words) 10 Marks

Russian revolution took place in 1917. There were several underlying grievances and some immediate factors. It led to overthrow of 200 years old Romanov dynasty's rule with far reaching consequences for world.

Factors

Immediate

- ↳ Russia's participation in WWI and humiliating defeats in battlefield
- ↳ Huge shortages in food supplies & essentials
- ↳ Tsar was leading army & was considered incapable

long-term

- ↳ Rising inequality in society with frequent food/ration shortages
- ↳ Grievance against Tsar (eg: Khodynka tragedy)
- ↳ Reforms were half-hearted (1905 Duma was established)

Consequences

① for Russia

- Establishment of rule of proletariat
(Czar was overthrown)
- Russia set up a constituent assembly, which was captured by Bolsheviks during civil war
- Embarkment of Leninism, Stalinism with emphasis on industrialization

② for world

- First communist state was established & beginning of ideological fight
- Russia withdrew from world war I with Treaty of Brest Litovsk

③ for India

- Led to rise of revolutionary nationalism (Eg: HSRA with leaders like Bhagat Singh)
- Trade unions, industrial workers started participating in freedom struggle
- First communist party was established by NN Roy & rise of left wing within INC Till today, its consequence can be seen in form of socialist agendas like welfare state

Q.4

पृथ्वी की सतह पर तापमान के असमान वितरण के लिए उत्तरदायी विभिन्न कारकों की चर्चा कीजिए।

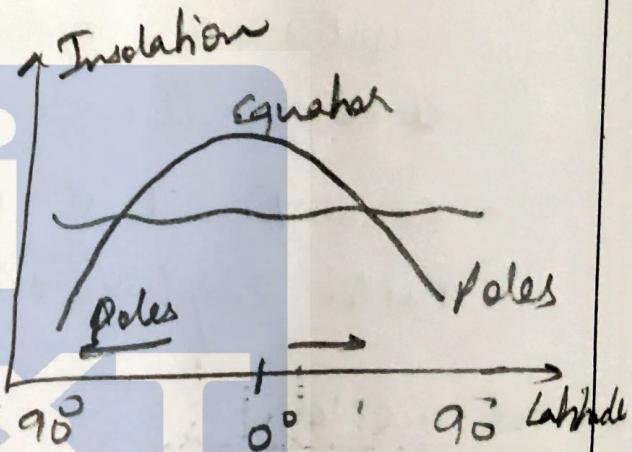
(150 शब्दों में उत्तर दीजिए) 10 अंक

Discuss the various factors responsible for the uneven temperature distribution on Earth's surface.
(Answer in 150 words) 10 Marks

while the Earth's heat budget is balanced,
yet there are horizontal and vertical
variations in temperature distribution

Factors responsible

① Earth's tilt on
23½° axis



Horizontal variation

↳ It causes the Earth while rotating and revolving to tilt towards the sun. North hemisphere tilt during its summer help receive more insolation. Contrast it with moon, which has negligible tilt since south pole is faced all year round.

② Latitude

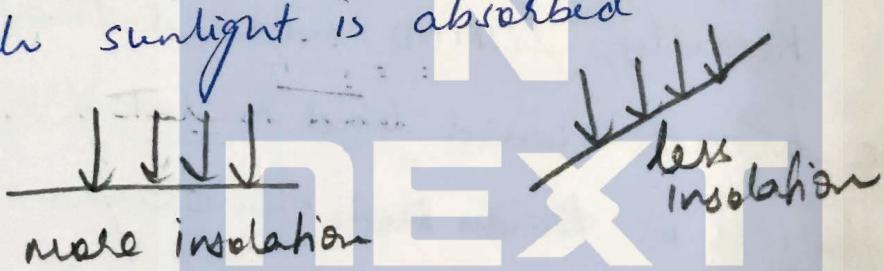
↳ It higher latitude insolation received is less

③ Physiological features

↳ Presence of mountains, deserts, ice-cap snow mountains create different albedo potential which absorbs sunlight different

④ Slope

↳ slope/slant surface affect how much sunlight is absorbed



⑤ Continentiality effect

↳ presence of ocean and land mass affect the temperature distribution

Eg: North Hemisphere has more extreme temperature range

⑥ Presence of winds, currents which try to balance the heat distribution and create different temperatures. Eg: cold currents like Peruvian current or north atlantic drift creates warm temperature in Britain

Hence, these factors contribute to uneven distribution & hence huge variations in biodiversity.

Q5

जलवायु परिवर्तन के कारण हिमनदों के पिघलने का पारिस्थितिकी तंत्र और मानव समाज पर गंभीर प्रभाव पड़ता है। हिमनदों के पिघलने के कारण पर्यावरण पर पड़ने वाले प्रभावों और इस मुद्दे के समाधान के लिए किए जा सकने वाले उपायों पर चर्चा कीजिए।

(150 शब्दों में उत्तर दीजिए) 10 अंक

The melting of glaciers due to climate change has serious implications for the ecosystem and human society. Discuss the effects of melting glaciers on the environment and the measures that can be taken to address this issue.

(Answer in 150 words) 10 Marks

IPCC reports have given a red warning for melting glaciers with rise in global temperatures. Be it Hindu kush Mountains or Arctic ice it has serious implications.

Recently, ICIMOD warned that 2°C climate breach could lead to loss of upto 80% glaciess in Hindu kush Himalayas.

Effect on environment

1. Impact rainfall and weather pattern, with more moisture availability & high temperatures, there will be erratic & intense rainfall (consider recent floods in Himachal Pradesh)

2. It will lead to rise in sea level and affect global distribution of currents and wind pattern.

3. It will impact the drainage basin.

Consider 2.5bn people in Asia impacted with changes in Indus, Brahmaputra and Ganga river basins impacting lives upto plains & coastal areas

4. Lead to glacial lake outbursts

5. More disasters like cloudbursts, landslides

Measures

1. More research & international collaboration through forums like Arctic Council, ICIMOD
 2. Address developmental and urbanization problems in fragile ecosystem
 3. Dedicated mitigation and adaptation measures like land-zoning, afforestation
 4. Pursue national carbon targets as part of commitments to UNFCCC
 5. More awareness in citizens
- India has dedicated mission on Himalayan Restoration, it should be implemented with more international support in subcontinent.

Q.6

श्वेत क्रांति भारत के पश्चिमी भाग में सर्वाधिक सफल रही। श्वेत क्रांति की इस क्षेत्रीय सफलता के कारकों की विवेदना कीजिए।
 (150 शब्दों में उत्तर दीजिए) 10 अंक

The White Revolution was most successful in the Western part of India. Discuss the factors for this regional success of the White Revolution.
 (Answer in 150 words) 10 Marks

white revolution refers to the milk and dairy sector revolution that has made India as largest milk producer in world.

While dairy and allied sector is part of Indian agriculture and contributes to income to more than two-thirds rural households, it has seen more success in western states like Gujarat, Maharashtra.

Factors

1. Presence of dairy cooperatives: cooperative sector with emphasis on economies of scale is highly present in these states as compared to say north India. This is evident in Amul, Nandini milk cooperatives.

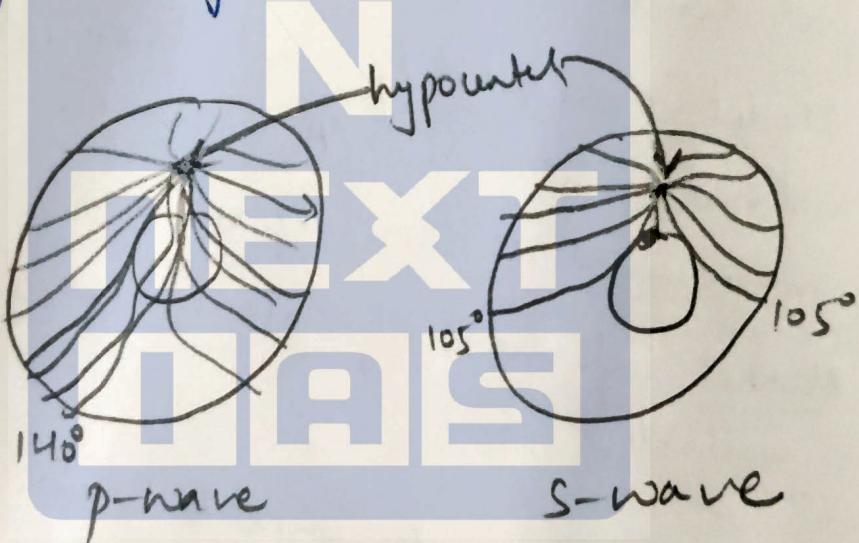
2. Extension services to dairy sector are present and easily accessible by farmers
3. Backward and forward linkages are more effective in western states due to improvement in basic infrastructure facilities (contrast it with poor road network in Bundelkhand)
4. Credit availability and financial inclusion through PACS has been instrumental in the success
5. Market information is more readily available

This provides important input for other state governments to emulate success in the sector. Further schemes like Rashtriya Gokul Mission, Dairy Development Board should be implemented in time spirit and current challenges like high fodder prices be checked for continued success across India.

- Q.7 पृथ्वी की आंतरिक संरचना की हमारी समझ में भूकंपीय अनुसंधान किस हद तक योगदान करता है? इसके महत्व का विस्तार से विश्लेषण कीजिए। (150 शब्दों में उत्तर दीजिए) 10 अंक

To what extent does seismic investigation contribute to our understanding of the Earth's interior structure?
Analyze its significance in detail.
(Answer in 150 words) 10 Marks

Seismic studies and earthquake investigation provide an indirect, yet scientific mode to study interior of Earth since they are waves propagating both within (body waves) and on surface (surface waves).



Thus the study provides that Earth's interior is not of solid/uniform density since S-waves are not recorded everywhere.

Further P-wave shadow zone provides that there is changing density within the core as well (outer and inner core).

It has helped to understand different densities of crust, mantle and core and discontinuities like Mohor, Conrad etc.

However, it is not sufficient and needs to be complemented by other direct and indirect measures like drilling, volcanic eruptions study, temperature, pressure distribution etc.

Significance

- ↳ Provides a scientific basis for investigation
- ↳ Since it's difficult to drill down till core due to high temperature & pressure, it provides inputs on Earth's core by analysing p-waves
- ↳ Useful in monitoring seismic activities

Thus it has emerged as an important tool for analysing our interior and also contributed to evolution of convection & plate tectonic movements study.

Q.8 जनसांख्यिकीय संक्रमण की गति भारत के विभिन्न राज्यों में भिन्न-भिन्न है, जिससे जनसंख्या वृद्धि दोधारी तलवार बन जाती है। टिप्पणी कीजिए।
 (150 शब्दों में उत्तर दीजिए) 10 अंक

The pace of demographic transition varies across different states of India making population growth a double-edged sword. Comment.
 (Answer in 150 words) 10 Marks

Recently NFHS-5 reported regional variations in total fertility rates. For states like Sikkim it is as low as 1.1 while 5 states of U.P., Bihar, Jharkhand, Meghalaya and Manipur have more than national average of 2.0.

Double edged sword - positive effects

- overall TFR has been reducing in all states showing success of family planning approach with emphasis on education & healthcare facilities
- Young population will help to contribute to demographic dividend when human capital formation takes place
- It will help to reduce dependency on older population
- National average is balanced albeit regional variation which means that

with effective mobility and ease of travelling & doing business nation on whole can move to development (eg: regional economic centers be created)

Double edged - negative effects

- .) It could create regional imbalances and enhance north-south rift
- .) States like UP, Bihar, Jharkhand already have low HDI (as per NITI aayog state index) with higher than national average incidents of multidimensional poverty
- .) If social overhead capital formation doesn't take place then dividend could turn into liability
- .) potential to fuel regionalism (eg: recent migrant crisis in Tamil Nadu)

Overall, the developments are positive, now efforts should be on targeted measures for vulnerable sections. State governments also need to match up with effects of Union & ensure localization of SDGs.

Q.9

भारत में नृजातीय और सांस्कृतिक विविधता हमेशा से एकता के सूत्र में बँधी रही है। भारत की सांस्कृतिक एकता में योगदान करने वाले प्रमुख कारकों की चर्चा कीजिए। (150 शब्दों में उत्तर दीजिए) 10 अंक

The ethnic and cultural diversity in India has always been bound by the thread of unity. Discuss the major factors that have contributed to the cultural unity of India. (Answer in 150 words) 10 Marks

Socio-economic milieu of India has diversity of sub-continental nature with different languages, cultures, traditions etc. Yet, there has always been unity in diversity and impetus for EK Bharat, Shreshtha Bharat.

Factors

1. Common religious practices and sacred texts like Mahabharat, Ramayana, Puran bind people together
2. Pilgrimages like Mathura Kashi to Jagannath Puri to Dwarka to Rameshwaram provide one sense of nation
3. Historically there has been cultural exchange of ideas like Adi Shankaracharya establishing four maths in different parts (Jyotimath, Dwarka, Puri, Sringeri)

- y. There has been flow of ideas from one part to another. eg: Kashi-Tamil Sangam. Bhakti movement started in south and established foothold in North
5. leaders like Ashoka, Chanakya aimed for one identity while also allowing sufficient decentralization in administration
6. common sports, entertainment medium like cricket, Bollywood, Tollywood bind us together
7. Today, technology has been playing a major role in removing differences and unifying everyone. (Eg: one nation, one ration card)
8. Constitutional morality provides for unity & integrity as well as cultural rights for minority.

A fine balance is required in regionalism and nationalism so that both complement each other in development under federal model of semi-federal nature for Union of States (Article 1)

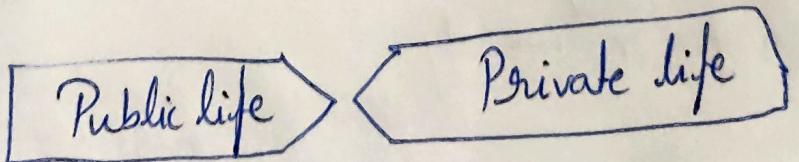
- Q.10 भारतीय समाज में विद्यमान सार्वजनिक और निजी जीवन में द्विभाजन जाति के उन्मूलन के लिए एक प्रमुख बाधा के रूप में कार्य करता है। औचित्यपूर्ण उत्तर लिखिए। (150 शब्दों में उत्तर दीजिए) 10 अंक

The dichotomy in public and private life in Indian society acts as a major barrier to the annihilation of caste. Justify.
(Answer in 150 words) 10 Marks

Caste refers to a system of social stratification based on prescriptive characters of occupational division of labour on basis on birth where mobility is theoretically restricted.

Though constitution envisages equality and social justice, yet caste seems to have been entrenched. consider NCRB data of more than 50,000 cases of violence against Dalits in 2021.

Some of barriers like secularization of caste, politicization of caste, dominant caste demands and dichotomies in public & private life are hindrance to annihilation.



- on legal & constitutional principles
- equal access for everyone



- emphasis on religious texts
- social gatherings within communities
- individual stereotypes & prejudices

Thus, there is a dichotomy, as given above.

Eg: Government institutions, private bodies
 public life } recruit on merit principles with
 no place for caste, public transport &
 other places like restaurants allow
 intermingling of all caste groups.

But in personal life, religious texts can reinforce caste based discrimination, like Yajnas must be done through Brahmins.
 Notions of purity & pollution have become intrinsic.

Even in social gatherings like weddings, family functions there is an auto-chamber of one's caste only.

Even today inter-caste marriage are looked down up. People vote for their caste members.

This calls for social behaviour change communication as B.R.Ambedkar said that nothing can be build on basis of caste - you cannot build morality, you cannot build a nation.

- Q.11 स्वतंत्रता के बाद भारत को कई युद्ध लड़ने के लिए विवश किया गया था। हमारे द्विपक्षीय संबंधों पर भारत-पाक और भारत-चीन युद्धों के कारणों और प्रभावों पर प्रकाश डालिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

India was forced into numerous wars post Independence. Highlight the causes and impact of the Indo-Pak and Indo-China wars on our bilateral relationships.

(Answer in 250 words) 15 Marks

Independent India adopted Article 51 in her constitution which puts a mandate on state to promote peace in international affairs.

However, adversarial neighbours like Pakistan and China pushed India into defensive positions and forced to get into numerous wars.

- ① 1948 India-Pakistan war was due to infiltration in Jammu & Kashmir from Pakistan side
- ② 1962 India-China war was due to aggression from Chinese side and forceful nature on changing unresolved borders in LAC and Arunachal Pradesh
- ③ 1965 India-Pakistan war, 1971 India-Pakistan war were again due to aggression on Pakistani side
- ④ Kargil war in 1999

Causes

1. Unsettled boundary issues
2. Presence of dictatorial regimes in both Pakistan & China
3. Differences over regional & Asian outlook
4. Misuse of war as tool to gain political scores within nations
5. Failure of diplomacy (Eg: India could not understand Chinese side ~~except~~
despite of Panchsheel)
6. Other specific issues like that of Tibet & Dalai Lama refugee (in context of China)

Impact on Indo-Pak relations

1. Forever created Pakistan as brother enemy (Shashi Tharoor description)
2. Pakistan's multiple defeats created obsession in the establishment + bleed India into thousand cuts which has only been ~~detected~~ detrimental for her
3. Shift to proxy wars like kashmirism and insurgency by Pakistan
4. Today, there is no bilateral trade with revocation of WTO status on both sides

5. India & Pakistan have refused to engage and it has led to stalemate in fora like SAAFC

Impact on India-China

1. India understood the sinister approach of Chinese by following unilateral transgression & attempt to change boundary
2. While economic trade is at historic high but it's due to our need for key equipments like lithium, API
3. India has pushed for 3 neutrals (sensitivity, relations, interests)
respect
4. Though we participate in BRICS, SCO, RIC yet we are wary of Chinese hegemonic trends

One more consequence is that of China & Pakistan becoming all weather ally. This calls for New Delhi to be more committed for adversaries on both fronts.

1.12

बंगाल के समेकन की प्रक्रिया, जो प्लासी के युद्ध के बाद सुरु हुई 14-08-2023 03:29 PM

लगता है कि अंग्रेजों के लिए प्लासी की तुलना में बक्सर का युद्ध में समाप्त हुई। क्या आपको

The process of consolidation of Bengal, which started after the Battle of Plassey culminated in the Battle of Buxar. Do you think the Battle of Buxar was more important for the British than Plassey?

(250 शब्दों में उत्तर दीजिए) 15 अंक

(Answer in 250 words) 15 Marks

Britishers had recognized the significance of Bengal both from economic and political standpoint. what started as trading centers in late seventeenth century culminated to first puppet government, then to dual control and finally imperial rule regulated by British Parliament.

Battle of Plassey

It was fought in 1757 and was essentially a military coup led by Robert Clive where on commands of Mir Zafar Bengal army refused to fight

Significance for Britishers

- 1) It raised their military might in single stroke and sole European contendee (especially against France)

- 2) It helped to establish a puppet government in form of Mir Zafar
- 3) Got financial resources after winning battle (war indemnity)
- 4) Got zamindari rights in 24 pasargana district
- 5) Provision for free trading for company

Battle of Buxar

Mohd. Siraj formed a coalition with Awadh ruler Shujauddullah and Mughal emperor, but they failed against British resulting in Treaty of Allahabad

↳ Establishment of dual government

↳ Even Mughal ruler was defeated & made a mere pensioner

↳ Awadh was created as buffer state

- ↳ forced Mughals to pay war indemnity
- ↳ Niramat functions were given to Bengal Nawabs without any actual power.

Thus, we find that Battle of Buxar strengthened British Stronghold over

Bengal and eventually over India.

After eliminating French in Battle of Wandiwash and major powers in North (Bengal, Awadh & nominal Mughal rule at Delhi), Britishers now turned towards south in Mysore, Marathwada and finally in Punjab & Sindh to create an all India empire.

- Q.13 संस्कृत साहित्य सामान्य रूप से और विशेषतः गुप्त काल में प्राचीन भारत के साहित्यिक इतिहास के लिए एक उच्च मानक स्थापित करता है। विवेचना कीजिए। (250 शब्दों में उत्तर दीजिए) 15 अंक

Sanskrit literature in general and particularly in the Guptan age set a high watermark for the literary history of ancient India. Discuss. (Answer in 250 words) 15 Marks

Gupta age is remarked as the golden age of ancient India with significant developments in art, architecture and literature.

Sanskrit was highly patronized by Gupta rulers which saw emergence of luminaries like Kalidas in Gupta court. Several religious texts were written in Sanskrit like Puranas.

Even secular texts like Narad Smriti on good governance, Vashu Shashtra, Shilpa Shashtra were all compiled during Gupta age.

This was merely following ancient literary traditions which get derived and reached its climax in gupta age.

Throughout age sanskrit literature has been important part of literary history of ancient India.

- from vedic times, sanskrit is the language of Shanti and Smriti and mode of education
- All vedas, Mahakavyas (Ramayana, Mahabharata), Upanishads were written in sanskrit
- Important texts like Panini, Sandhitas were compiled in sanskrit
- Even later Bhashyas, Sutras were written in sanskrit

Due to emphasis on inter disciplinary education, mathematicians like Aryabhata, Varahmihira gave their discoveries in Sanskrit language.

Recently, government has decided to promote Sanskrit language and has set up committee under Dr Charan Shastri which will provide details to promote the same.

14 महासागरीय नितल का विन्यास उन भूगर्भीय प्रक्रियाओं के बारे में आवश्यक जानकारी प्रदान करता है जिन्होंने पृथक् की सतह को आकार दिया है। महासागरीय नितल की प्रमुख विशेषताओं और समुद्र विज्ञान के अध्ययन में उनके महत्व की चर्चा कीजिए।

(250 शब्दों में उत्तर दीजिए) 15 अंक

The configuration of the ocean floor provides essential information about the geological processes that have shaped the Earth's surface. Discuss the major features of the ocean floor and their significance in the study of oceanography.

(Answer in 250 words) 15 Marks

Ocean floor mapping was the landmark study in understanding geological processes that shape earth surface

Features of ocean floor

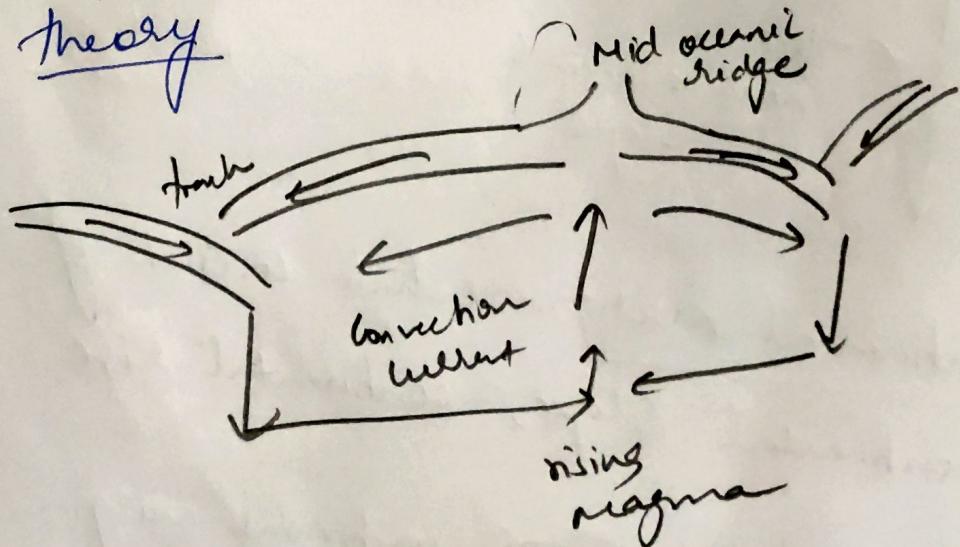


- ① Continental margin which consists of continental slope, continental rise
- ② Oceanic trench near continental margin

- ③ Vast sea floor under water spreading for hundreds of kilometers
- ④ Ridges, mountains (sea mounts) and guyots
- ⑤ Island when sea mount reaches ocean to surface
- ⑥ Mid-oceanic ridge which are active volcanoes
- ⑦ Mid water deep trenches

Significance

1. Helped to strengthen convection current theory



2. It found that sea floors are not over 200 mn years old as compared to upto 4 bn years old lithosphere
3. It found variation in age and magnetic orientation of rocks across the mid oceanic ridge, providing evidence of changing earth magnetism
4. It provided basis for major landforms within sea which was earlier considered to be plain surface
5. Helped in further studies and finally evolution to plate tectonic theory

Thus configuration provided important information on geological processes that shape our Earth.

Q.15

दुर्लभ पृथ्वी तत्त्वों (दुर्लभ मृदा धातुएँ) की बढ़ती माँग के साथ, उनका वितरण वैश्विक अर्थव्यवस्था का एक महत्वपूर्ण पहलू बन गया है। वैश्विक स्तर पर दुर्लभ पृथ्वी तत्त्वों के वितरण, उनके उपयोग और उनके निष्कर्षण के पर्यावरणीय प्रभावों पर चर्चा कीजिए।

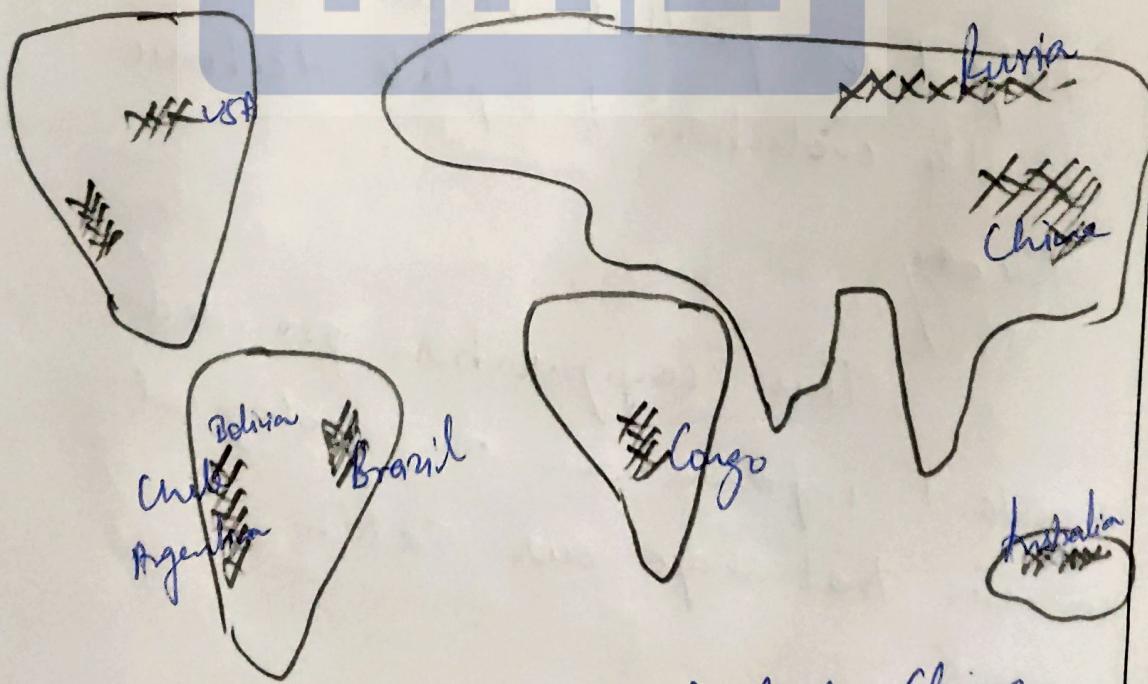
(250 शब्दों में उत्तर दीजिए) 15 अंक

With the growing demand for rare earth elements, their distribution has become a critical aspect of the global economy. Discuss the distribution of rare earth elements across the world, their uses, and the environmental impact of their extraction.

(Answer in 250 words) 15 Marks

Rare earth elements (REE) refer to 17 elements which lanthanide series and scandium and yttrium. Their demand has been increasing significantly given their multiple uses, but constrained supply.

Global distribution



Major countries include China, Russia, Australia, African countries like

Congo, countries in South America like Chile, Bolivia, Argentina and some parts of North America.

Uses

- 1) Used in making automobiles, factory equipments, (part of IFU-O)
- 2) Significant in telecom and digital revolution with uses in computers, mobiles, sophisticated chip design etc.
- 3) Defence manufacturing also uses PEE
- 4) Useful in medicine sector (e.g.: useful in MRI, X-Ray machines)
- 5) Its magnetic, electrical, thermal properties make them very useful for use across sectors

Environmental impact

- 1) They are present in small traces in limited quantity, hence their

- extraction requires deep drilling technology causing instability on surface especially in fragile geography
- 2) Pollution is created as high energy is required
 - 3) Huge water resources required thus stresses on groundwater availability
 - 4) Since they are present in trace quantity, their extraction also leads to exposure to toxic elements
 - 5) Improper waste disposal and water treatment could lead to eutrophication.

India today depends on almost 100% of imports for REE. Recently we have recognized 3D critical minerals which include 17REE and joined MSP (mineral security partnership). Given importance of REE we should now invest in exploration methods & R&D keeping in mind these environmental challenges.

पहाड़ी राज्यों में पर्यटन, इस क्षेत्र की पारिस्थितिक वहन क्षमता से अधिक हो जाने का खतरा है। इस प्रवृत्ति के लिए योगदान करने वाले कारकों का विश्लेषण कीजिए और इस घटना के संभावित पर्यावरणीय प्रभावों का मूल्यांकन कीजिए। इन राज्यों में धारणीय पर्यटन को सुनिश्चित करने के लिए क्या उपाय किए जा सकते हैं?

(250 शब्दों में उत्तर दीजिए) 15 अंक

Tourism in the hilly states is threatening to exceed the ecological carrying capacity of the region. Analyze the factors contributing to this trend and evaluate the potential Environmental impacts of this phenomenon. What measures can be taken to ensure sustainable tourism in these states?

(Answer in 250 words) 15 Marks

Recent subsidence in Toshimath has highlighted the fragile condition in hilly states. Tourism has significantly impacted carrying capacity which is indicative of how much can area be the ecologically sustained.

Factors

1. Promotion of tourism economy by state government
2. Presence of important religious pilgrimages across religions in hilly areas (Eg: Uttarakhand as Dev Bhoomi)
3. People from nearby plain region want to visit hilly stations during extreme summers & heat wave conditions

4. Technology and social media has helped to advertise tourism places like Manali, Shimla, Kausani
5. Better infrastructure development like roads, highways has improved accessibility
6. Power projects, construction of hostels, tourist hotspots have all contributed to more tourists coming in

Environmental impact

1. Increase in pollution, global warming
2. Rise in disasters like landslides, cloud bursts, glacial lake outburst flood
3. Impact on biodiversity
4. Decrease in glacier cover (UNOD report)
5. erratic monsoons
6. New issues like land subsidence

Sustainable tourism measures

① Government

- Landslide zoning to provide areas which are more prone to landslide be left untouched
- Monitoring tourist inflow & banning plastics, ensure proper waste management
- follow NDMA guidelines
- Shift to green energy & reduce carbon emissions
- EIA assessment for infra projects

② Private sector

- Tourism industry should develop governance mechanisms that promote eco-tourism

③ Civil society

- raise awareness about the issue and transition to LIFE

With whole of society approach we should work towards sustainable development in Himalayas.

- Q.17 भारतीय मानसून विभिन्न जलवायिक कारकों से प्रभावित एक जटिल परिघटना है। भारत में मानसूनी वर्षा की तीव्रता और वितरण के निर्धारण में महासागरीय और वायुमंडलीय कारकों की भूमिका का आलोचनात्मक परीक्षण कीजिए।
(250 शब्दों में उत्तर दीजिए) 15 अंक

The Indian monsoon is a complex phenomenon influenced by various climatic factors. Critically examine the role of oceanic and atmospheric factors in determining the intensity and distribution of monsoon rainfall in India.
(Answer in 250 words) 15 Marks

Indian monsoon have intrigued explorers since ancient ages. Even today with sophisticated tools like dynamic forecasting tools we are unable to accurately predict monsoon.

Consider for example different inputs used by IMD for forecast including temperature & pressures in North Atlantic ocean and Pacific ocean highlighting the complex monsoon phenomena.

Role of oceanic factors

- ▷ Oceans contribute to moisture availability. South west monsoon which travels across Indian oceans lead to rainfall as per Arabian or Bengal Branch

2) ocean currents and circulations like ENSO, Indian ocean Dipole, Madden Julian oscillation have far reaching impact on monsoon.

↳ As per Indian Express Report, more than 50% droughts in recent 100 years were due to El-Nino

↳ Recent reports highlight positive IOD in nullifying impact of El-Nino

↳ south equatorial counter currents, peruvian currents influence warming of oceans in Pacific impacting monsoons

3) warming of oceans & low pressure creation creates tropical cyclone formation

i) In winters, North east winds carrying moisture cause rainfall in Tamil nadu & Andhra Pradesh

Role of atmospheric factors

i) IPLZ setup influence the monsoon

intensity in north India

- Next IAS ID: PTTF20127 TC071, 14-08-2023 03:29 PM
- 2) upper atmospheric circulation like sub-tropical jet stream withdrawal create favourable monsoon condition
 - 3) Somali jet stream, tropical easterly jet stream positively influence monsoon
 - 4) low pressure & depression formation on ocean impact monsoon intensity

Hence these factors play a role in monsoon. with climate change impact on atmospheric temperature and oceans (rising levels, warming up), we need to work to factor in these changes in our forecast methods to climate smart agriculture.

हमारे समाज में परंपराएँ परिवर्तन को क्यों बाधित करती हैं? प्राचीन रीति-रिवाज़ों पर आधारित मूल्य-मान्यताओं के विरुद्ध सामाजिक विधान किस सीमा तक सहायक हो सकते हैं?

(250 शब्दों में उत्तर दीजिए) 15 अंक

Why do traditions in our society impede change? To what extent can social legislation be instrumental against old customary practices?

(Answer in 250 words) 15 Marks

Traditions refers to customs, practises which are transmitted from one generation to another.

Hence, one can argue that by definition the role of tradition is to ensure continuity and following of age old practices even if society demands change.

They impede change because traditions are not customized with changing social realities. Example a patriarchal tradition of women as house owner was maybe fine earlier with hunting & gathering roles but today they are not compatible.

Further there is limited effort to adapt the tradition as per society's need. While some traditions and modern

technologies can co-exist but it would need a balanced approach & readjustment. Example following vedic practices is not against science but incorporating upper caste hegemony is against principles of equality & unity.

Social legislation \Rightarrow positive change

- ↳ They leverage law as enforcement tool to check the change brought in society (Eg: abolition of untouchability)
- ↳ They have been successful in slowly reducing social ills like child marriage, Sati practices (ref NPHS-5 data)
- ↳ They provide an authoritative backing and legal mandate thus an effective way to ensure state supported reforms (Eg: Dowry Prohibition, Female Infanticide Act, Domestic violence Act)
- ↳ a necessary tool to enforce changes in constitutional democracy

Social legislation \Rightarrow not sufficient

- ↳ A top down reform needs to be complemented with bottom-up demand to bring necessary changes
- ↳ without awareness about law, it would be useless
- ↳ Andee Bete says that it's the culture which defines where society moves & not the laws
- ↳ without support of religious communities, any change will not be successful

Consider demand for VLC, for some child marriage age laws or rising violence against women & dalits (NCRB data).

These illustrate that state can bring in reforms but without debate, discussion and social behavioural change communication it will be half-hearted

- Q.19 मलिन बस्तियाँ ऐसी 'समस्याएँ' नहीं हैं जिनका 'समाधान' किया जाना है – बल्कि वास्तव में, ये बुनियादी ढाँचे के प्राक्षण और सामाजिक-आर्थिक मुद्दों को शामिल करने वाली असंतुलित और स्वार्थपरक नगरीय नीतियों का एक परिणाम हैं। विश्लेषण कीजिए।
(250 शब्दों में उत्तर दीजिए) 15 अंक

Slums are not 'problems' that have to be 'solved' – but are indeed a result of lopsided and vested urban policies covering infrastructure provision and socio-economic issues. Analyse.

(Answer in 250 words) 15 Marks

Beneath the facade of towering sky-scrappers lie a complex net of urban challenges. Slums are characterized with unorganized urban dwelling with poor sanitation and health conditions.

Slums are not cause of urban issues
rather its effect:

Slums are often characterized by high crime rates, violence against women, high incidence of diseases and a breeding ground of violence.

This lead to ghettoization of slums by upper class city dwellers inside gated communities.

Both development of urban

Infrastructure and its growth is perceived to be result of slums with inhabitable conditions. But its wrong assessment.

In reality slums form when although urban labour demands increase but not its infrastructure capacity to absorb them. People in slums work for so called upper class urban dwellers in their homes & factories but don't find a life of dignity for their own.

Fractured urban policies

- ↳ Lack of long-term planning
- ↳ Development needs catered to upper sections (e.g.: road construction, drainage cleaning as per city profile & posh areas)
- ↳ Lack of public transportation
- ↳ Inadequate healthcare & education services

Invested interests promote high rise buildings, encroachments without concern for equitable development needs

Docio-economic issues

1. Lack of social security nets among slum workers
2. High unorganized sector employing slum population
3. Son of soil policies that ostracize communities within slums
4. Limited earnings for healthcare & education services
5. Violence, crimes reinforce slum conditions

Government through PM AWAS aims for in-situ slum rehabilitation. It's a welcome step but there is need for holistic reforms in urban planning.

साम्प्रदायिकता आर्थिक अभाव से बल प्राप्त करती है, और सामाजिक बहिष्कार के वातावरण में फलती-फूलती है, जिससे असंतोष और विभाजन के लिए उर्वर भूमि तैयार होती है। टिप्पणी कीजिए।

(250 शब्दों में उत्तर दीजिए) 15 अंक

Communalism gains strength from economic deprivation, and thrives in environments of social exclusion, creating fertile ground for discontent and division. Comment.

(Answer in 250 words) 15 Marks

Communalism is the politics of spreading regional hatred with chauvinistic & over-glorification of one's own religion & blaming other side for all issues.

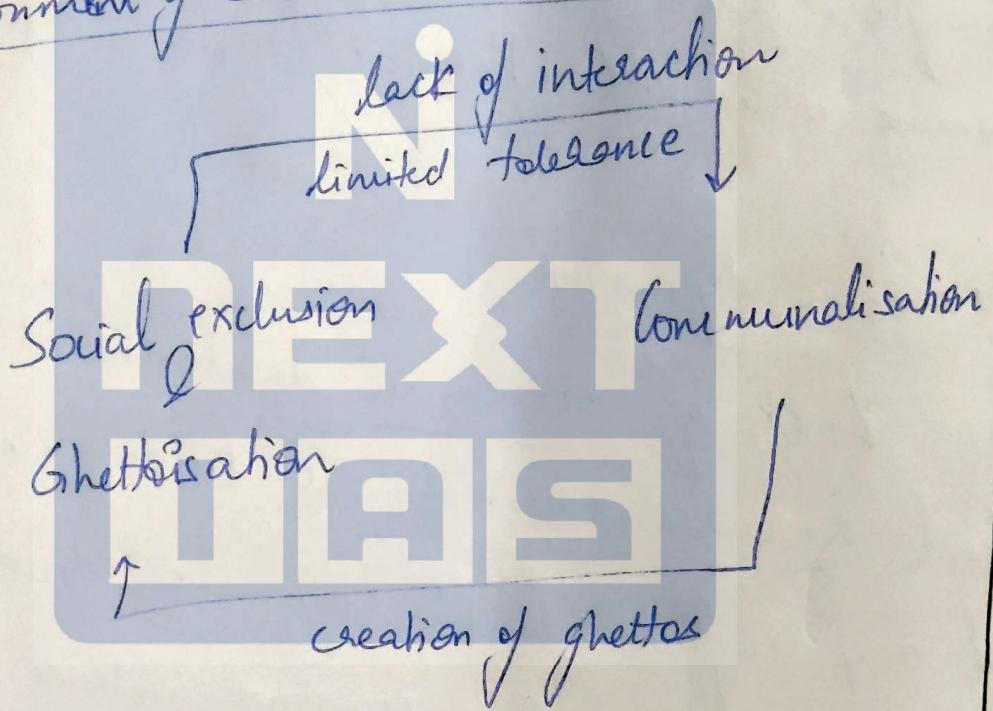
Economic deprivation

Lack of economic development and resource crunch is leading cause of any conflict be it ethnic or tribal or communal (consider Manipur violence for demand of ST status & tranching land in valley).

Hitler blamed Jews for the poor economic condition in Germany after global recession. A zero-sum game and fight for resources breeds communalism.

Quintessential example is deliberate British policy to ignore Muslim's interests after 1857 war leading to a generational gap in their development conditions.

Environment of social exclusion



thus social exclusion creates a positive reinforcement cycle of communalism

Discontent & division creation

Both the above factors contribute

towards economic and social
grievance development that gets deeply
entrenched.

This fertile ground is used for
cheap politics and vote-bank gathering
to ignite fire. Consider cases in
Haryana, Rajasthan, Maharashtra.

Way Ahead

↓ Short term

- ↳ sensitization training

- ↳ Implement Raghunath Mishra report

- ↳ more interactions

- ↳ inclusive growth
with targeted measures
for backward sections

↓ long-term

- ↳ value based education

- ↳ create mohalla
committees

- ↳ community
interaction excercises

- ↳ Implement
Tahseen Poornwalla
guidelines