RECEIVED
08 AUG 2023

NEXT IAS

NEXT IAS (Head Office) : 27-B, Pusa Road, Metro Pillar no. 118, Near Karol Bagh Metro, New Delhi-110060
Bhopal Centre: Plot No. 46, ZONE-2, M.P. Nagar, Bhopal-462011
Ph: 8081300200, 8827664612 | E-mail : mts@nextias.com | Web: www.nextias.com

(To be filled by candidate)

Code : TC071

Name of Candidate : RAJIV AGARWAL

Roll No. :

Registration Number : Date of Examination : 06/08/2023

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

IMPORTANT INSTRUCTIONS

CANDIDATES SHOULD READ THE UNDERMENTIONED INSTRUCTIONS CAREFULLY. VIOLATION OF ANY OF THE INSTRUCTIONS MAY LEAD TO PENALTY.

DONT'S

1. Do not write your name or registration no. anywhere inside this Question-cum-Answer Booklet.
2. Do not write anything other than the actual answers to the questions anywhere inside your QCA Booklet.
3. Do not tear off any leaves from your QCA Booklet, if you find any page missing do not fail to notify the supervisor/invigilator.
4. Do not leave behind your QCA Booklet on your table unattended, it should be handed over to the invigilator after conclusion of the exam.

DO'S

1. Read the Instructions on the cover page and strictly follow them.
2. Write your registration number and other particulars, in the space provided on the cover of QCA Booklet.
3. Write legibly and neatly. Do not write in bad/illegible handwritings.
4. For rough notes or calculation, the last two blank pages of this booklet should be used. The rough notes should be crossed through afterwards.
5. If you wish to cancel any work, draw your pen through it or write "Cancelled" across it, otherwise it may be evaluated.
6. Handover your QCA Booklet personally to the invigilator before leaving the examination hall.

Candidates must not write on this margin

Q.1 भारतीय दार्शनिक चिंतन 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

India has rich philosophical history ranging across the geographies.

these include.

1. Nyaya
2. Vaisheshika / Meemaunka
3. Samkhya
4. Atomic

Apart from these several philosophical undercurrents were also there in India.

Philosophy from North

the sages like Kanada, Jaimini etc. provided philosophical foundations in India.

Late the Bhakti-saints propounded their own darshan / philosophy.

Ex. Kabir through Beejak etc.

South India

the highest cultural literature along with the philosophical base also drew route to

Candidates must not write on this margin

the south also.

↳ the thinkers like Thiruvalluvar, Ramanujacharya, Vallabhacharya, Jagadguru Shankaracharya added to this.

Other sects and their philosophies like Vaisavaism philosophy also enriched Indian philosophical pot.

Indian philosophy is melting pot of south & North Indian contributions.

Candidates must not write on this margin

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 continuous superiority shown by the colonial rules regarding the cultural practices and advances led to social reform movements in India.

These social reforms movement were the result of impulses against western rule:-

Social change

(1) the continuous denegration of the cultural practices like sati, widow, caste system

(2) the education system was laughed upon by british

(3) White men's burden theory.

(4) superiority of culture and education

(5) India - inferior people - hence needed to be governed.

All of these thoughts of Colonial rules were responded by social reformers which saw

Candidates must not write on this margin

India not a inferior but superior country in terms of religion & culture.

Efforts for social change

① Raja Ram mohan Roy [campaigned against Sati
1829 Act

② Ishwar chand vidyasagar [widow remarriage
child marriage

③ Jyotiba Phule — caste system & its issues

④ Vivekanand — Indian religion is great → humanism, reason

⑤ Gandhiji — Hari movement against caste
Harijan Sewak Sangh

⑥ Swami Dayanand Saraswati — Reforms/Revival
'Return to vedas'

All these social reformers tried to changed the derogatory practices of indigenous culture leading to the social changes in the society.

Candidates must not write on this margin

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 of 1917 was the result of various political, social, economic issues of Russia at the time.

Factors

① the Tzar's decision to participate in world war-I
② Economic Hardship
③ High Taxation
④ Resentment against monarchy
⑤ Issues of employment, Inflation
⑥ Protests by the revolutionaries like Mansheviks & Bolsheviks.

Consequences

① the overthrow of the monarchy → Republic
② the first communist sovreign → Communist model
③ the Leninism — state + socialism
④ Message to world against monarchy

Candidates must not write on this margin

Affect on India

(1) As Asian revolution, influenced Indian movement for Independence

(2) the socialism policy post Independence taken from / inspired from Russian model
   - Ex. Nehru – Mahalnobis model
   - 5 years plans.

(3) the equality principle was one of the major factor in Indian political thought of economy
   - Economic planning (1938 session)

(4) It provided support to Indian Independence movement through contacts.

Russian Revolution have drastically influenced the ideology of political thought in India.

Candidates must not write on this margin

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.

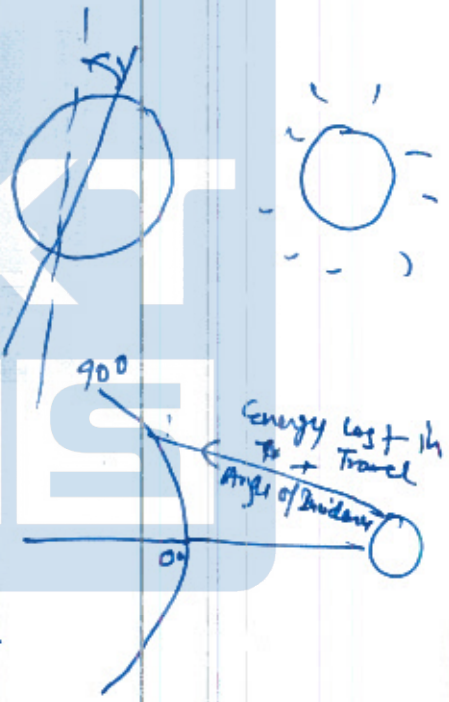
(Answer in 150 words) 10 Marks

The source of all energy on the earth is the Sun. however the energy distribution of sun is not same all over the earth due to shape & Axis of earth wrt. Sun's position.

spatial distribution

the Earth's - tilting on Axis

① the earth's tilt on it's axis $23\frac{1}{2}^0$ leads to inequal Distribution of sun rays due to increased length of light travel & Angle of Incidence → Energy is lost



② the rotation of Earth: around the sun leads to change in seasons which affects the temperature distribution over the year.

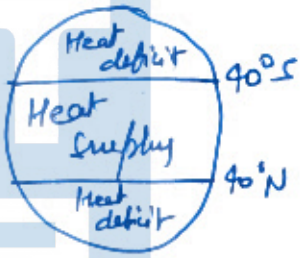
Ex. 6 months day & night on poles

Candidates must not write on this margin

(3) Diurnal distribution

↳ the Earth's rotation on it's axis leads to Day & Night → affecting the distribution of different temperature in day and night.

(4) Heat budget: this temperature difference across the latitudes is due to continuous insolation & distribution of Heat across latitudes.





Candidates must not write on this margin

Q.5 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

The rapid change in climate change is leading to fast melting of glaciers across, Antarctica, Arctic & Himalayan - Alpine areas.

↳ the rapid melting is threatening the ecological and human society.

Effects

Ecology

→ melting leads to Albedo decrease reinforcing climate change

→ fear of Bacterial & virus unearthing

Ex 46000 old virus active

↳ Ecological flow of Rivers will increase, later decrease

↳ Sea level Rise → affecting ecosystems

Ex Corals

↳ changes in Sea Salinity - change in ocean chemistry → pH decrease → ecosystem affect

Ex Calcareous organism

↳ Density reduction in polar area may affect thermo-haline circulation

Candidates must not write on this margin

Heemen

① Sea level rise – livelihood & life of coss

② Land Erosion → housing

③ further reinforce climate change – vicious cycle

④ lack of water for future generations

⑤ the hydrological drought – effect on economy and society – Big cities Along Rivers

Measures to address the issue

① Efforts to contain temperature Rise by 1.5° (IPCC, COP-15)

② Mitigation & Adaption mechanisms

③ Sustainable lifestyle & economy.

④ International collaboration to minimise the effect.

the global warming is one of the greatest threat to ecology & humanity.

Candidates must not write on this margin

Q.6 श्वेत क्रांति भारत के पश्चिमी भाग में सर्वाधिक सफल रही। श्वेत क्रांति की इस क्षेत्रीय सफलता के कारकों की विवेचना 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

The Vargheese kurien led White revolution had made India the largest producer of milk today.

The revolution started in the Anand district area of Western state of Gujarat & reached to other parts of county but most successful in Western India.

Succes of White Revolution

1. high milk production in county
2. Ameliorated farmer conditions & increased income
3. regional disparity ended / reduced
4. Rural economy strengthened / women empowerment

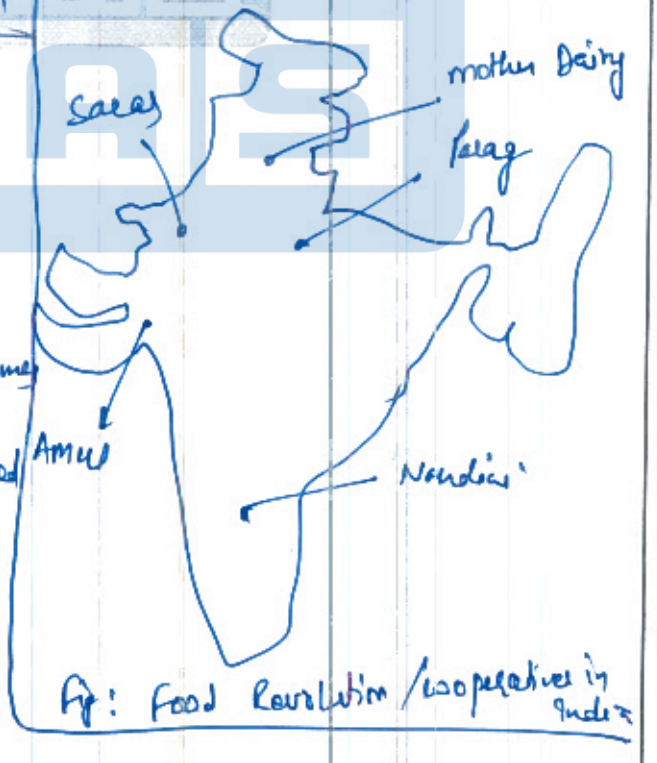


Fig: Food Revolution / cooperatives in India

Candidates must not write on this margin

Reason — success in West

(1) The cooperative culture in Western states is more organised and Robust — PACS
Ex. Gujarat & Maharashtra

(2) the Western India comes under rainfed agriculture conditions — viable Employment/wages

(3) concerted policy support from government.

(4) leadership of Varghese kurien

(5) Indigenous breeds of cattle
Ex. Kherkhrajar, Junagadh, Kankrej
Sindh

The Ministry of cooperation & strengthening of PACS is going to further transform this industry and make white Revolution ubiquitous success throughout India.

Candidates must not write on this margin

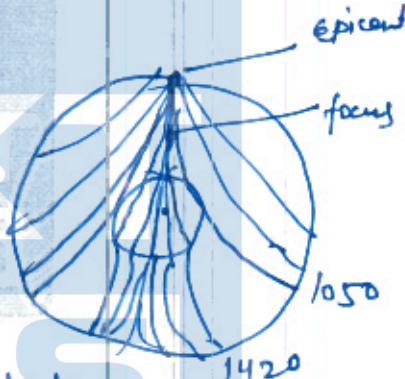
Q.7 पृथ्वी की आंतरिक संरचना की हमारी समझ में भूकंपीय अनुसंधान किस हद तक योगदान करता है? इसके महत्त्व का विस्तार से विश्लेषण कीजिए।
(150 शब्दों में उत्तर दीजिए) 10 अंक

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

Due to limited opportunities of Earth internal structure & experience, Indirect methods like seismic investigation helps in understanding the internal structures of Earth – like density, the position of matter and it's characteristics.

Through seismic waves

① As any earthquake happens, the seismic energy propogates from the focus in all direction. the waves in the body of Earth P and S waves and their character tells about the structure of the earth.



Candidates must not write on this margin

Candidates must not write on this margin

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

India has been declared as the county with highest population on Earth - 142.2 crore by UN population fund in 2023.

However, the demographic transition in the State is not uniform.

Regional variations in Demographic Transition

↳ the demographic transition as the result of the socio-economic process along with the stage of county's demographic transition.

High population growth States

these are mostly northern states like Bihar, Uttar Pradesh, Madhya-Pradesh which are likely to have the most increase in population over coming years.

Total fertility Rate - UP (2.7)
(SRS 2020) → Bihar (3.0)
Mizoram (2.1)



Candidates must not write on this margin

• Delhi due to high internal migration is seeing high growth.

In last census 2011, the growth of all above state have been above 17.64% the national average decadal population growth.

Low population increase

the developed states like Kerala, Goa and union territories have reduced their TFRs. below 10%

Middle Demographic momentum

↳ All other states like Tamilnadu, Karnataka, Maharashtra, UP K falls into this category.

The total TFR of India has come below the replacement rate of 2.1. It is demographic momentum which is driving the population increase.

Through various measures, National population policy 2000 envisages to stabilise population by 2070.

—#—

Candidates must not write on this margin

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

India is a very diverse country with the high ethnic & cultural diversity still a bouque of flowers beautifully living together.

the factors for cultural unity

(1) Geographical unity : With the Indian subcontinent being single geo-economic and geo-graphical unit, unity is historical.



(2) Indian independence movement
↳ It brought people of cultures together and tied the thread of unity.

(3) Administration set up
↳ the same Administration, police and judicial codes have brought modern unity.

(4) Indian philosophy
↳ the 'sarv dharma sambhav' brings tolerance and mutual coherence

Candidates must not write on this margin

(5) the asymmetric federalism: the constitution protects the various disadvantged groups like 5th & 6th schedules protection for STs.

(6) the federal policy assures the regional aspirations are fulfilled.
↳ Ex: Reorganisation of states on linguistic lines.

India is the model of ~~diversity~~ unity in diversity but it needs to check the communalism, regionalism to keep this unity ~~intact~~ intact.

Candidates must not write on this margin

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 is a social structure in which the person is and that position is tied to his birth.

The constitution of India (Art 7) and various legislations like protection of Civil Right Act, 1955, SC/ST Act, 1989 have worked together towards elimination of caste-consciousness but it's manifestation in public & private life perpetuates it.

Dichotomy in ~~Factories~~ Public & private life

The legislation with increased social changes have led to reduction in the caste factors visible in public life.

Ex. No direct mention of caste
Less untouchability

However this is aided by new economic structures in the era of Globalisation rather than private belief in the caste system.

Candidates must not write on this margin

Personal spell

(1) still sub-consciousness of caste-system.
Ex. Atrocities in villages
NO mass-riding for dalits during marriage procession.

(2) the endo-gamy still exist at large level

(3) the cultural exchanges still very low

(4) Residential areas segregated / gated societies

(5) the merit / Reservation issues ~~[illegible]~~ but forward by the higher caste people.

the Annihilation of caste is still a Aim to achieve. social legislations & social awareness is key along with social democracy in country.

Candidates must not write on this margin

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

After Independence, India had to respond to many wars like with Pakistan – 1948 (over Kashmir, 1965, 1971, 1999 (Kargil war) and with china in 1962.

these wars have been the result of many historical and immediate factors which affected the economic development and bilateral relations of India with both countries

Wars and Bilateral Relations with Pakistan

↳ the dispute over Kashmir has been the bone of perpetual contention between the India and Pakistan.

→ the bilateral relations with Pakistan has gone through several ups and down since Independence.

→ 1948, 1965, 1971 Wars – won by India and 1971 War led to disintegration of Pakistan — high animosity in relations

↳ 93000 soldier captured by India.

Candidates must not write on this margin

→ the realised views of Pakistan that it can not wage a direct war has led to Proxy wars in Kashmir else where.

→ then slow normalising of Relations was stopped by Kargil war.

↳ several efforts to improve bilateral relations but Parliament Attack & 2008 Mumbai Attack has further broke bi-lateral relations

② No political dialogue as EAM S. Jaychankar said "victims of Terrorism and perpetrators of Terrorism can not sit together."

③ Economic Integration of both countries halted.

④ the cultural exchanges are halted

↳ however some progress: Kartarpur Corridor

⑤ Isolation efforts at world level by India of Pakistan.

the relations between India and Pakistan are at it's nadir with no official channel of India with pakistan except humanitarian aids during floods.

Candidates must not write on this margin

Bilateral relations with china

↳ With 1962 war, the slogan of 'Hindi chini Bhai Bhai' took backseat — no relations

↳ 1988 — PM Rajiv Gandhi visit to china.

→ Agreements and mechanisms to address border dispute formed. → Economic integration increased.

↳ 2020 — Galwan Attack

↳ the economic relationship is still strong with ≈ $100 Bn Trade.

② Less political dialogue.

③ India's demand of Border dispute — Bilateral relationship hyphenation w.r.t. china's approach of Border dispute & relationship as separate issues.

④ Border transgression on Eastern sector.

⑤ Competition of India-china at Indo-Pacific & global forums like WTO, BRICS.

India need to economically and military strengthen it as they are the basis of Bilateral relationship at core.

Candidates must not write on this margin

Q.12 बंगाल के समेकन की प्रक्रिया, जो प्लासी के युद्ध के बाद शुरू हुई तथा बक्सर के युद्ध में समाप्त हुई। क्या आपको लगता है कि अंग्रेज़ों के लिए प्लासी की तुलना में बक्सर का युद्ध अधिक महत्त्वपूर्ण था?

(250 शब्दों में उत्तर दीजिए) 15 अंक

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?

(Answer in 250 words) 15 Marks

In 1757, the Battle of Plassey was fought between the Nawab of Bengal Mir Qasim, French Troops and the British. the Battle of Plassey led to defeat of the Nawab of Bengal and exposed the weaknesses of the one of the most important states of India.

Gains of British in Plassey — Start of consolidation

(1) Army superiority of British established.

(2) Weaknesses of native military like low skilled soldiers & arms and ammunition came to fore.

(3) Strong diplomacy weakened Bengal — Ex. Mir Jafar, Jagat Seth etc.

(4) the notion that small forces could win → basis of British conquest in India.

Candidates must not write on this margin

the Battle of Plassey allowed the British to start their consolidation as it provided reparations to British, trading rights to company and stooge Nawab in the form of Mir Jafar.

↳ they demanded exhorbitant revenue and interfered in the routine Administration,

↓

which led to Battle of Buxor (1764)

Battle of Buxor (1964)

(1) ↳ It was the battle of Buxor which consolidated and finalised the gains which started from Battle of Plassey.

(2) here the Mir Jafar, Nawab of Audh, and the Mughal emperor Shah-Alam-II were (sovereign authority of India) were defeated.

↳ It was a political win for British East India company.

Candidates must not write on this margin

(2) Company got the rights of Diwani & Nizamat in Bengal.

↳ huge revenue to fund its other efforts in India.

(3) the complete control over the richest state of India.

It was the battle of Plassey which led to Battle of Buxor. Both Battles were important in consolidation of India by British – plassey in strategic sense and Buxor in Political sense.

Candidates must not write on this margin

Q.13 संस्कृत साहित्य सामान्य रूप से और विशेषत: 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

Since Rigvedic times, Indian literature has been the rich repository of literary history of India.

Rig vedic & later period

↳ vedas

- Rigveda
- Samved
- Yajurveda
- Atharveda

↳ In the form of 'shruti' (hearing) not written.

Advances in Grammar: Panini's Ashtadhyayi

↳ the grammar of sanskrit
↳ served as syntax for the language

there have been literary developments in sanskrit literature but it reached its zenith during Gupta times.

Candidates must not write on this margin

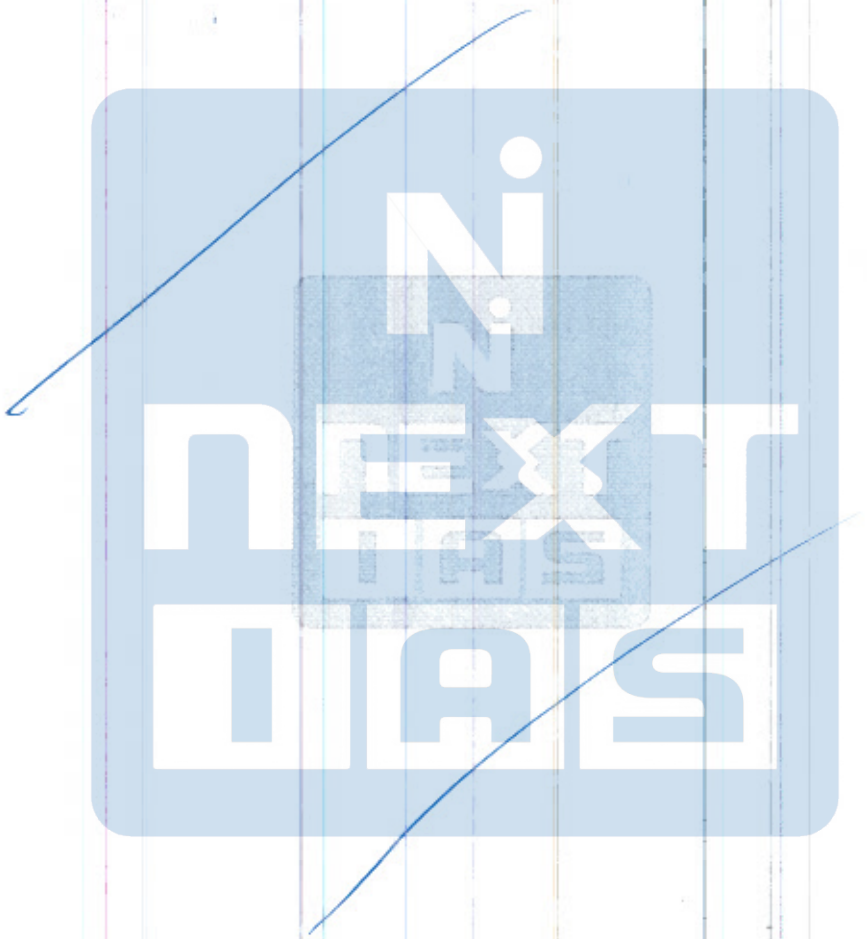
Gupta Times

Kalidasa : the Greatest Sanskrit poet & writer
- Abhijnana Shakuntalam
- Meghdutam
- Shakuntalam

Books / novels like Mudra – Rakshasa

it was later followed by Rajtarangini (Kalhan) etc.

Candidates must not write on this margin



Candidates must not write on this margin

Q.14 महासागरीय नितल का विन्यास उन भूगर्भीय प्रक्रियाओं के बारे में आवश्यक जानकारी प्रदान करता है जिन्होंने पृथ्वी की सतह को आकार दिया है। महासागरीय नितल की प्रमुख विशेषताओं और समुद्र विज्ञान के अध्ययन में उनके महत्त्व 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

the ocean floor is vast area which encompasses various features like seamounts, mid-Oceanic Ridges (MORs), Trenches, Guyots etc. which provide the extremely important information about the geo-logical processes that shaped the earth's surface.

Major features and their significance

Trenches – These are the very deep phenomena where in the oceanic slab (high density) goes into subduction under continental slab/oceanic slab (high density) and the melting of the slab leads to magma generation which leads to formation of structures like mountains, Archipelagos and Island Arcs.



Ex. Andes mountain at Peru Trench
Archipelagos in the pacific ocean

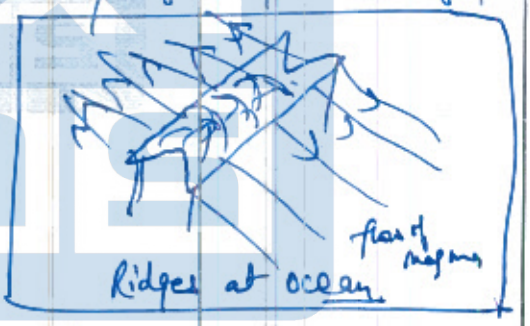
Candidates must not write on this margin

Mid Oceanic Ridge (MOR) - these are the largest structure on the earth up to 60000 km in length along the ~~all~~ divergent convergent boundaries of plates.

↳ the divergence & rupture of the earth/ ocean floor leads to the formation of new magma at the boundaries on either side.

↳ this magma is very fluid and takes the magnetic properties of prevailing magnetic field of area

↳ this tells about the sea-floor spread and the age of oceans through study of magnetism of ocean floor



Guyots : these are the sub aerial denuded mountains which have been eroded by aerial agents during past.

↳ they get ~~merge~~ under water due to

↳ sea level rise

↳ subsidence of land etc.

↳ ~~etc~~

Candidates must not write on this margin

Mountains in sea : there are two structures which are due to magma eruption on the ocean floor.

Fractures – these are the transform faults which tell about the transform / ~~tangent~~ lateral slipping of lithospheric plates.

Ex. Vema fracture
Romanche fracture.

The bottom of ocean is full of the numerous structures and a lot of it is still unexplored. The ocean of bottom has more to tell about the geological process than the earth itself.

NEXT IAS

Candidates must not write on this margin

Q.15 दुर्लभ पृथ्वी तत्त्वों (दुर्लभ मृदा धातुएँ) की बढ़ती माँग के साथ, उनका वितरण वैश्विक अर्थव्यवस्था का एक महत्त्वपूर्ण 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 metals are the metals of extreme importance but found in small quantities or their extraction is not economical.

↳ their use in strategic sectors, automation and computer chip industry and others make them critical aspect of global economy.

these metals include → Lithium, cobalt, titanium Zermanium etc.

→ the chip shortage after Covid-19 and the supply chain disruption shows its criticality.

Distribution of critical metals

(1) the most of the critical / rare earth metals are highly distributed but have some pockets

Ex Lithium — China, Australia
— Lithium triangle — Argentina Bolivia etc.

(2) Cobalt & copper are found in countries of south Africa like Congo etc.

Candidates must not write on this margin



fig: distribution of Rare earth metals.

Oceanic regions: the earth/ocean surface has poly-metallic nodules (PMNs) which have high concentration of Rare earth metals as shown in above zone in diagram.

Uses

1. the chip industry — they are the basic building block of chips which is essential for electronic products and product using embeded products ex. Mobile, car
2. strategic: Military hardware eg. missiles high thrust fighter plain
3. space shuttles
4. important for industry 4.0

Candidates must not write on this margin

Rare earth metals are basis of future technology hence have critical use.

Environmental Impact

(1) They are mostly in high forested areas
   - Ex. Amazon basin
     - deforestation
       - ecological disturbance

(2) Mining pollution

(3) The e-waste problem due to less circular use.

(4) Fragmentation of habitats due to mining.

(5) Displacement of Tribals

(6) Marine pollution when extracting metals from the ocean floor.

Rare earth metals are backbone of future hence efforts should be on sustainable and regulated mining with circular use / refurbishment

×

Candidates must not write on this margin

Q.16 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

The increased incidence of landslides, floods and cloud burst has put the lives in dangers at affecting the geological structure of mountain regions. The increasing Tourism is one of the most important reasons for this. Eg. Joshimath Crisis

Factors leading to increasing Tourism

1. Increased connectivity to the areas.
2. Income level of people have increased.
3. Pent-up demand after covid
4. Concepts like staycation & work from mountains
5. Increased government focus of hill government to improve tourism income.
6. The rising spending habits of Indian people & rising middle class

Candidates must not write on this margin

the high footfall of the tourists in already geologically fragile area is leading to devastating ecological impacts.

Ecological impacts

(1) the high footfall beyond carrying capability leading to pressure on unstable Himalayas due to increased vehicle movement

(2) the increased construction leading to slope instability

(3) the pristine areas are littered by plastic pollution & pet bottles → affect on ecology.

(4) the increased tourism pushes the Animals to upper area.

(5) Man - Animal conflicts.
Ex Yaguar attack / Bear attacks on Tourists & natives

(6) sustainability of ecosystem is threatened.

(7) the commercial tourism with plain area facility like extravagant infra put pressure on limited resource threatening carrying capacity.

Candidates must not write on this margin

Measures to be taken

(1) Mapping of the areas of ecological fishery

(2) Regulation of the tourism activity in sustainable manner.

(3) Sustainable practices should be promoted
Ex. Eco-Tourism

(4) Building codes & Bye-laws - strict implementation

(5) Infrastructure should be developed after through studies

(6) Awareness among locals towards sustainability along with Tourism
Ex. 'No Plastic Pollution'

Tourism is the main economic activity of hill areas. Sustainable Tourism with ecological balance is the need of hour.

Candidates must not write on this margin

Q.17 भारतीय मानसून विभिन्न जलवायविक 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

The Indian monsoon is a complex phenomena which is influenced by climatic factors like differences in temperatures and pressures at continents and sea surface, Atmospheric phenomena like Walker cell, Rossby waves / Jet streams etc.

The Indian monsoon is mostly concentrated in the Months of July - September.

Role of climatic & oceanic factors in Distribution

the presence of sub tropical westerly Jetstream (STWJ) south of Tibbet hampers the monsoon over subcontinents during the september to May months despite low Pressure at Tibbetan plateau and High pressure at Mascarene Highs

↳ the disappearance of this STWJ with northward movement of Inter-Tropical convergence zone (ITCZ) leads to sudden onset of Monsoon over the Maldive coast and Andaman - Nikobar Islands.

Candidates must not write on this margin

→ this period of STWJ prominence leads to temporal distribution during May/June - September.

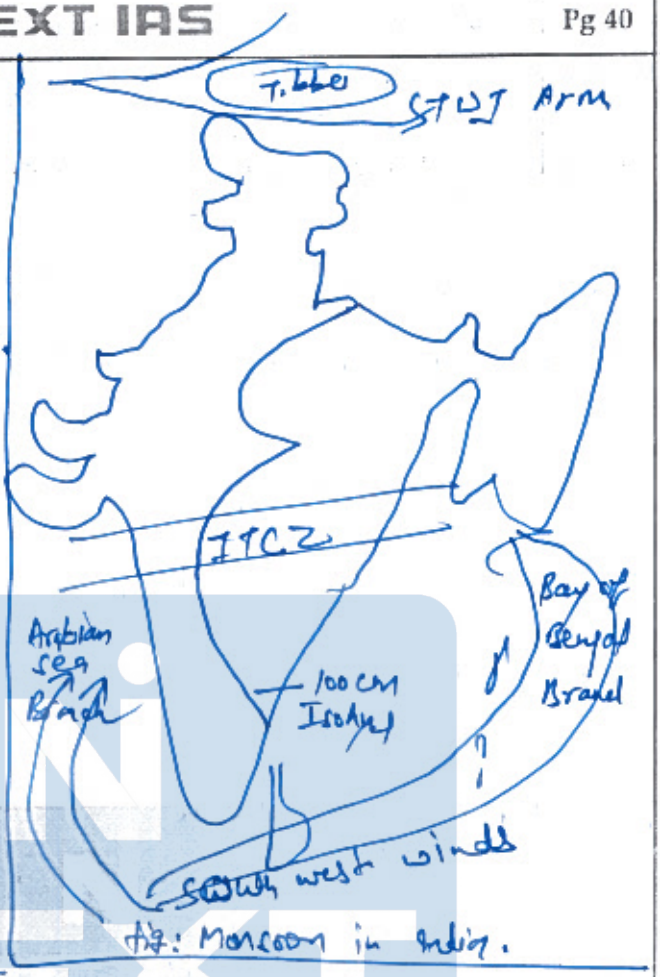


fig: Monsoon in India.

Regional distribution

↳ Regional distribution of monsoon is decided by Arabia Sea Branch & Bay of Bengal branch of South-west monsoon.

Wherein - general distribution reduces towards western India from ~~North~~ Eastern India due to more effect of Bay of Bengal Branch.

↳ Coromandal coast gets rainfall during retreating North East Monsoon.

Intensity of Rainfall

↳ the monsoon in normal circumstances is dictated by Indian ocean dipole, ENSO phenomena, Julian - Madden oscillation etc.

ENSO phenomena In normal times, the Peru current (Humboldt) current at eastern pacific flows which powers walker cell.

Candidates must not write on this margin

during El-Nino phase, this cold current is weaked by the warm El-Nino current reducing the pressure at eastern pacific which leads to weakening of walker cell affecting reducing Indian monsoon intensity

↳ the reversal of this phenomena is called La-Nina wherein this cold peru current get strengthened leading to high rainfall in India.

Indian Dipole → the less temperature at Arabian Sea and high temperature at western pacific leads to high rainfall in India - called positive Indian Dipole.

↳ Reverse of this is Negative Indian Dipole

↓

Less Rains.

Julian-Madden Oscillation → there are the low pressure systems which circle the earth with 30-60 days frequency.

↳ these leads to normal rainfall during El-Nino (drought years) too.

↳ these supplements the rains in Rabi.

Indian monsoon is very complex phenomena. the effect of climate change are further going to enhance it's negative impact.

Candidates must not write on this margin

Q.18 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 are old practices which get imbibed in the social - cultural practices of the society. they originate due to religio - cultural beliefs and get permanent in societies.

the fact that traditions are rooted in the old practices or conditions of the previous times, they resist change. the fact that change leads to destruction / modification of societal structures, the cultural norms having pristine ideals and also the equilibrium in the society, the traditions seeks to maintain the status quo.

Ex. khap panchayats against love - marriage
Endogamy in other gotras

The traditions are in nature, beneficial to some members of the society and make them able to control the choices and behaviours of people who otherwise may endanger the social balance. Ex. Traditions support patriarchy.

Candidates must not write on this margin

there have been the concerted efforts since Social Reform movements in colonial India, to the transformative constitution to parliamentary legislations to change the tradition and make a egalitarian society.

however the practices of Khap Panchayat, caste system, Manual scavenging, endogamy (ethic) are still prevalent.

here there is need of social legislations to fight against old & detrimental cultural practices.

Social legislations Role

social legislations are the mutually consented evolved guidelines agreed upon by society to make into a law.

these are very instrumental in eradicating the harmful old practices.

(1) they have social awareness & efforts to solve old problems.

Ex. Sanjal Movie- earlier females did not use to

Candidates must not write on this margin

take part in wrestling - Now winning Olympic medals.

(2) Social legislations will have approval of society there less opposition from the society.

(7) It will lead to egalitarian and modern society rooted in the humanism and rationality.

(4) modern outlook the polity & society of nation

(5) development :- inclusive → women, sc/ST, the LGBTQA+, disabled/Divyang people

(6) the distributive justice in the society.

the social legislations are the holy grails of inclusive societies.

Candidates must not write on this margin

Q.19 मलिन बस्तियाँ ऐसी 'समस्याएँ' नहीं हैं जिनका 'समाधान' किया जाना है – बल्कि वास्तव में, ये बुनियादी ढाँचे के प्रावधान 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

Slums are the urban human habitations of more than 20 households who live in unhuman conditions with high congestion, no shelter and lack of basic amenities.

↳ In India, 17.5% (1.37 crore) urban household live in the slums. (1/6 urban Indian)

↳ It shows the dichotomy of slum & highrise in India.

Slums are result of unaffordable housing for the natives, increased migration from rural areas wherein migrants are not able to afford the housing. this is not a problem but Outcome of lopsided planning & vested interests

Outcome of lopsided planning

① the skewed urban policies which see the cities in isolation, not in regional framework, lead

Candidates must not write on this margin

to stepped migration to metro cities.

↳ hence the congestion is in metro

↓

High land prices → no capacity to purchase land



Lack of Affordable Housing by GOVT → forced to live in shanties in slums

(2) the urban policies do not integrate the needs of the poor and are more focussed on high capacity areas

(3) the urban policy framing is an reactive process in India → which lead to 'problem' of slums.

(4) less investment in poor areas, lack of distributing of govt schemes.

↳ due to lack of identity cards

(5) the SOCIO-economic issues further entrench the issue

↳ ex. Juvenile delinquency due to education opportunity not available

↳ crime & drug abuse

Candidates must not write on this margin

'culture of poverty'.

→ basic facilities like toilets, health facilities are not available.

↳ the vector borne diseases in these areas further make the health out of pocket expenditure cause of poverty.

Way forward

① sustainable city policies with care for lower section of poor.

② Affordable rental housing for poor migrants.
Ex. 'Apna Ghar' scheme of Kerala

③ Slum Redevelopment.
Ex. Dharavi project

④ Proactive urban governance & urban planning policies

⑤ Transport oriented development of Infrastructure.

⑥ the economic opportunities in slum areas
↳ skilling & ↑ productivity

⑥ Education, health & career counselling.
there is need to provide ~~humanity~~ dignity back to slum dwellers by providing basic facilities.

Candidates must not write on this margin

Q.20 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 refers to the religious consciousness in public affairs of person and the belief of taking own religion better than others. India despite having unity of diversity is seeking under problem of communalism.

Ex. 2020 Delhi Riots
1984 Sikh Riots
2023 Nuh Riots

The basic factor behind the rising communalism is the relative economic deprivation, which is exploited by the religious elites to to mobilise the people; bringing fault lines to the fore.

Ex. the relative deprivation / less representation of jobs lead to rise of communalism / 2 Nation theory in British India.

↳ which was further accentuated by the

Candidates must not write on this margin

British for their political gains in Divide and Rule policy.

↳ the extreme beliefs that secular interests like economic are not only mutually exclusive but are totally antagonistic to each other leads to intolerance and environment of social exclusion of communities.

↳ this social exclusion further entrenches the economic deprivation, the talks and dialogue platforms get closed and insecurities develop among people.

↳ these rising distance leads to discontent on basis of livelihood & development opportunities and division in the society wherein the communal groups try to assert their religious hegemony.

↳ the escalated division and social exclusion results into the hatred

Candidates must not write on this margin

and violence towards each other.

↳ mostly women & children are the main victims of these violence.

Hence communalism is a threat to Unity in diversity of India, hence it is needed to be proactively tackled.

Sustainable and equitable development is the key to achieve the aim.



Candidates must not write on this margin

Space for Rough Work