



VISION IAS

www.visionias.in

VISION IAS

04 SEP 2019

NO
03

RECEIVED

GENERAL STUDIES (TEST CODE : 1246)

Name of Candidate	MAYANK MISRA		
Medium Eng./Hindi	ENGLISH	Registration Number	487045
Center	ORN	Date	04/09/19

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
2	10	
3	10	
4	10	
5	10	
6	10	
7	10	
8	10	
9	10	
10	10	
11	15	
12	15	
13	15	
14	15	
15	15	
16	15	
17	15	
18	15	
19	15	
20	15	

Total Marks Obtained:

Remarks:

INSTRUCTIONS

- Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).
उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)।
- There are **TWENTY** questions printed in **ENGLISH & HINDI** इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
- All questions are compulsory.**
सभी प्रश्न अनिवार्य हैं।
- The number of marks carried by a question/part is indicated against it.
प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
- Answers must be written in the medium authorized in the Admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in medium other than the authorized one.
प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे।
- Word limit in questions, if specified, should be adhered to.
प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
- Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off.
उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।

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

Plot No. 857, 1st Floor, Banda Bahadur Marg (Opp Punjab & Sindh Bank), Dr. Mukherjee Nagar
Delhi- 110009

EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

1. Rock-cut structures were closely associated with various religions and religious activities. Discuss the statement giving relevant examples.

(150 words) 10

शैलोत्कीर्ण संरचनाएँ विभिन्न धर्मों और धार्मिक गतिविधियों से घनिष्ठता से संबंधित थीं। प्रासंगिक उदाहरण प्रस्तुत करते हुए इस कथन की विवेचना कीजिए।

Rock-cut structures in India have association with various religions and activities throughout history -

- i) Barabar Caves by Ashoka promoted for Ajivika sect of Hinduism
- ii) Udaygiri and Khandagiri Caves by King Kharavela in Odisha for Jain monks
- iii) Ajanta Caves for various dynasties for Buddhist residence and worship.
- iv) Viharas for Buddhist residents (monks) and Chaitya for prayer in Karle Caves and Karheri Caves in Maharashtra

v) Ellora Caves having mix of
Hindu, Buddhist and Jain caves.

Ex - Kailash Nath Temple is rock-cut.

vi) Elephanta Caves - Trimurti (Hinduism)

vii) Mamallapuram Architecture -

Arjuna's Penance and Descent
of Gange story in Hinduism.

many rock-cut structures
were made as idols for worship
in Hinduism and are still used in
religion. Statue of Bahubali (Gomatesh-
wara) is a world famous monolithic
rock cut Jain Architecture.

2. The legislative and administrative record of the Congress Ministries during their twenty-eight months rule under the Act of 1935 was positive, but the period also witnessed the emergence of serious weaknesses in the Congress. Discuss. **(150 words) 10**

1935 के अधिनियम के अंतर्गत अट्टाईस महीनों के शासनकाल के दौरान कांग्रेस मंत्रालयों का विधायी और प्रशासनिक रिकॉर्ड सकारात्मक रहा था, लेकिन यह अवधि कांग्रेस के भीतर गंभीर कमजोरियों के उभरने का भी साक्षी बनी। चर्चा कीजिए।

The congress contested the 1937 election in provinces based on Act of 1935 and formed governments in many provinces like UP, Odisha, Bihar, Maharashtra, etc.

Positives of Congress Rule -

- i) Civil liberties were restored
- ii) Arbitrary taxes were either eliminated or reduced.
- iii) Peasants got back their land rights.
- iv) Revenue collection was regulated.
- v) Political prisoners were released.
- vi) Developmental activities were initiated with setting up of planning committee

under S.C Bose.

However, though the ministry lasted for 28 months prior to resignation due to Second world war, certain weaknesses were realised —

i) Legislative weaknesses

- ↳ Viceroy's veto could not be countered
- ↳ The legislations remained "class" based as before.
- ↳ ~~Controversial~~ controversial subjects were avoided.

ii) Administrative weaknesses

- ↳ People of opposite ideology, like communists were arrested.
- ↳ The Governor exercised vast amount of influence in administration based on British interest.

Thus, the period was a success and failure of its own kind but gave masses a picture of self-governance.

3. Kamaladevi Chattopadhyay was a multifaceted personality with significant contributions both to pre and post independence India. Elucidate.

(150 words) 10

कमला देवी चट्टोपाध्याय का व्यक्तित्व बहुआयामी था। उनका स्वतंत्रता पूर्व और स्वातंत्र्योत्तर भारत में योगदान महत्वपूर्ण था। स्पष्ट कीजिए।

Kamaladevi Chattopadhyay contributed significantly to India -

a) Pre-Independence -

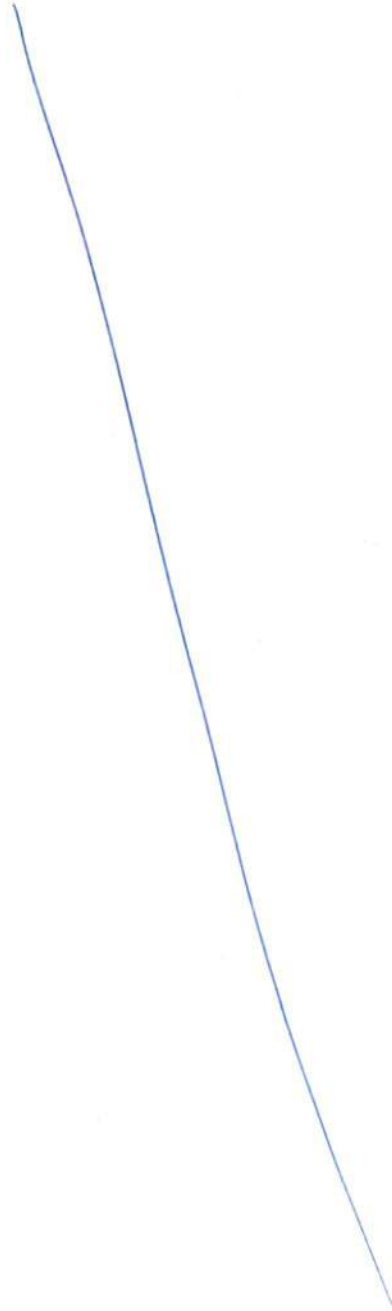
→ Establishment of All India Women's Association

→ Leadership for women's right movement.

b) Post-Independence -

→ Revival of Indian culture and art forms

→ Classical dance and heritage conservation.



4. The inherent limitations of Napoleon's policy of Continental Blockade ultimately resulted in its failure. Analyze. **(150 words) 10**

नेपोलियन की महाद्वीपीय नाकेबंदी की नीति की अन्तर्निहित कमियां अंततः इसकी विफलता का कारण बनीं। विश्लेषण कीजिए।

Napoleon's Continental Policy
led to isolation of Britain as source
of French manufacturing industries and
as a market.

Limitations -

- ▷ French industries were dependent
on Britain made goods whose sudden
withdrawal was catastrophic.
- ▷ Dependency on America increased,
leading to worsening financial situation.

5. Despite changes in the institution of marriage in recent times, there have been elements of continuity as well. Discuss in the context of India.

(150 words) 10

हाल के समय में विवाह नामक संस्था में परिवर्तनों के बावजूद, इसमें निरंतरता के तत्व बने हुए हैं। भारत के संदर्भ में चर्चा कीजिए।

Marriage is a largely universal institution in India with recent data showing more than 98% women marrying at least once in their lifetime.

Changes in Institution of marriage in India

- ▷ Rise of same-sex marriage.
- ▷ Increase in marriage age, divorce rate.
- ▷ Hypergamy rules no more dictate marriage rules but equal status does.
- ▷ Increase in conjugal (married) affinity over consanguinal (family of birth).
- ▷ Inter-caste marriages are getting more acceptable. Similarly for inter-religious marriage.
- ▷ Family without marriage is an emerging trend. Ex - live in relationships.

However, as an institution, marriage retains elements of continuity such as -

- i) Caste dynamics are still a major guide in partner selection [95% same caste marriage: Govt. marriage record data]
- ii) Exogamy rules of sapinda are followed.
- iii) Marriage rituals like 'Kanyadaan', 'Saat-phere' etc are performed even today.
- iv) Divorce rates is still lower than western countries.
- v) Patriarchy still influences marital relationship.

Thus, marriage in India is a blend of change and continuity.

6. There are multiple disabilities that a person experiences in the course of ageing. Elaborate. Also identify key government initiatives taken for addressing them. **(150 words) 10**

कई अक्षमताएँ हैं जिनका एक व्यक्ति उम्र बढ़ने के दौरान अनुभव करता है। सविस्तार वर्णन कीजिए। साथ ही, इन्हें दूर करने के लिए सरकार द्वारा की गई प्रमुख पहलों की भी पहचान कीजिए।

Ageing is a natural process in humans. But the disabilities attached is due to it being considered as a liability by the younger population.

Nearly 8% of India's population (Census 2011) is over 60 years.

Disabilities experienced with ageing -

- i) Health conditions deteriorate.
- ii) Social isolation leading to psychological illness.
- iii) Person is unable to do his/her own daily work leading to frustration.
- iv) Apathy of other family members and mistreatment.
- v) Poor response of sensory organs like eyes and ears.

- vi) Cultural / Generation Gap with other members of family, intensifying poor treatment of the aged.
- vii) Lack of age-specific job and financial security.

The government has taken the following steps in this regard -

- i) Rashtriya Vayoshri Yojana - to provide hearing aid and other physical assistance like artificial limb to aged BPL families
- ii) Old-Age Centres have been established
- iii) Savings scheme at higher interest rate has been launched.
- iv) The aged are being utilised in experienced economic activities like consulting, tribunals, etc.

India's population of aged will be approx. 20% by 2050 (Economic survey) and thus, greater efforts are required.

7. Highlight the reasons behind prevalence of low literacy rate among tribals. Also, mention some initiatives taken by the government in this regard.

(150 words) 10

जनजातियों के मध्य व्याप्त निम्न साक्षरता दर हेतु उत्तरदायी कारणों को रेखांकित कीजिए। साथ ही, इस संबंध में सरकार द्वारा की गई कुछ पहलों का भी उल्लेख कीजिए।

The tribals have nearly 15% lower literacy figures from national average, the women among them being even worse.

Reasons for low literacy -

- i) Lack of desire to study - As they do not find any immediate benefit due to lower awareness.
- ii) Lack of education facilities in tribal areas due to often remote locations.
- iii) Lack of Tribal specific Curriculum which makes the modern western education less useful for them.
- iv) Lack of coordination between Ministry of Tribal Affairs and MHRD to implement converging schemes.
- v) Lack of literate role models.

The government, in order to better tackle the problem has taken the following steps -

- i) Eklavya Model School - on lines of Jawahar vidyalayas. For every block with Tribal concentration > 50% and at least 20,000 tribals, one Eklavya school will be established by 2022.
- ii) Curriculum in these schools will integrate Tribal customs and knowledge.
- iii) Reservation of seats in educational institutions

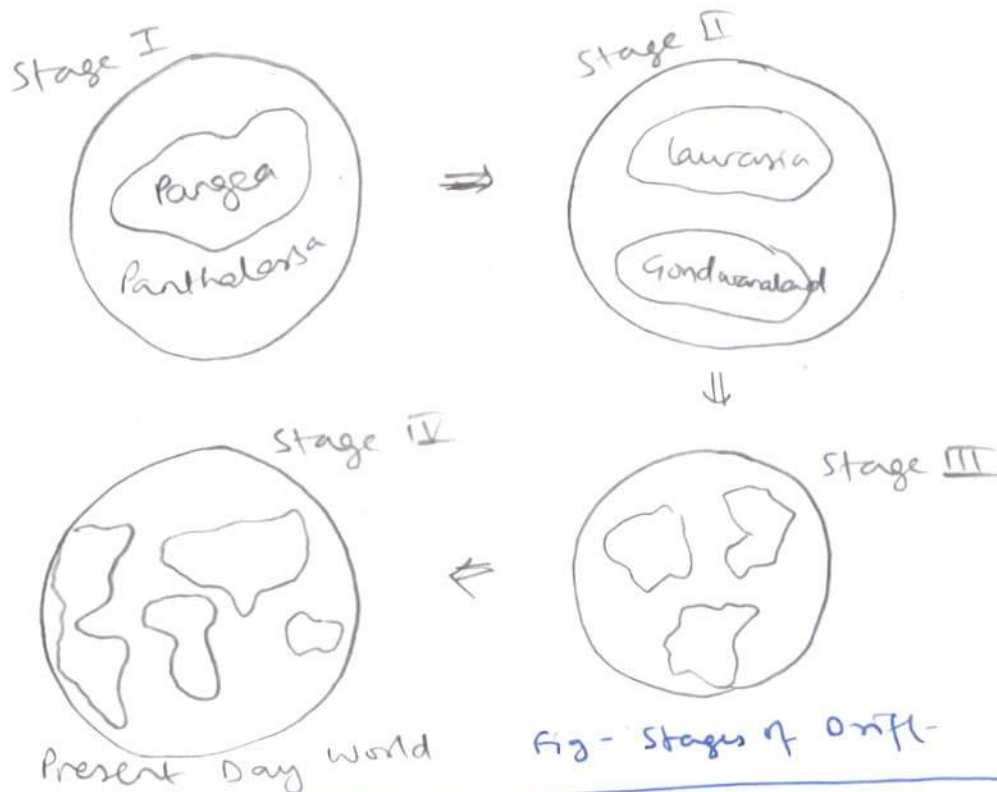
The Tribal literacy programmes needs greater vigour and dynamism for faster mobility.

8. Explain how Continental Drift Theory describes the changing configuration of the continents. Discuss the prominent evidences given by Alfred Wegener to support his theory. **(150 words) 10**

स्पष्ट कीजिए कि किस प्रकार महाद्वीपीय विस्थापन का सिद्धांत महाद्वीपों के परिवर्तित होते अभिविन्यास का वर्णन करता है। अपने सिद्धांत का समर्थन करने के लिए अल्फ्रेड वेगनर द्वारा दिए गए प्रमुख साक्ष्यों की विवेचना कीजिए।

Continental Drift Theory proposes that the continental land masses have been "dripping" or moving away from each other throughout the history of earth

Changing Configuration of Continents



The theory traces the evolution of continental landmass from a united

"Pangea" to separation into "Laurasia" and "Gondwanaland" after millions of years. Millions of years later, after repeated breaking up and joining of landmasses, modern shape of continents emerged.

Evidences -

- i) Jig-saw fit of coasts such as eastern South America and western Africa.
- ii) Presence of tillite rocks (glacial) without any such source in Africa.
- iii) Fossils of ancient animals like lemurs across S. America, Africa and Asia.
- iv) Gold deposits in Ghana coast without source rock (rock in Brazilian coast).

The theory enabled a trigger to later theory of Plate Tectonics and remains significant.

9. The variety of landforms on the earth's surface is the result of internal and external forces. Discuss. **(150 words) 10**
 पृथ्वी की सतह पर विभिन्न प्रकार की भू-आकृतियाँ आंतरिक और बाह्य बलों का परिणाम हैं। चर्चा कीजिए।

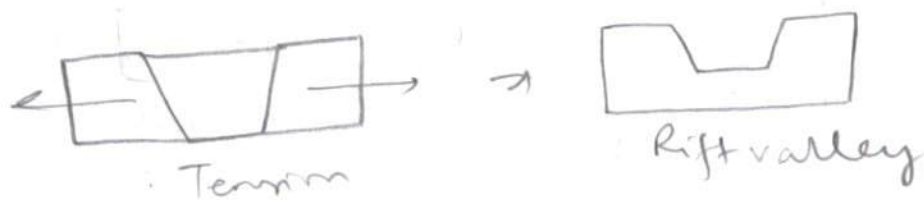
The earth has diverse landforms due to endogenetic (internal) and exogenetic (external) factors.

i) Internal factors and landforms -

a) Volcanism leads to formation of volcanic cones. Ex- Mt. St. Helens, Etna.

b) Earthquake leads to development and intensification of faults.

c) Compression and tension leads to folding and faulting landforms like Block mountains, Rift valleys, etc



d) Plutonic and crustal rock formation takes place due to cooling of magma (igneous rocks)

i) External factors and landforms -

a) Erosion by agents leads to various landforms like -

1) By water - Beaches, Bay, etc

2) By wind - Desert, Mushroom rocks, etc

b) River water and glacial lakes ~~are~~ formed leads to various topography like alluvial fan, glacial valley, etc

c) Karst topography is a result of limestone dissolution in water.

Thus, external and internal factors play a great role in 'carving' the landforms of earth.

10. Explaining the concept of Lapse Rate, examine its relationship with atmospheric stability. (150 words) 10

हास दर की अवधारणा की व्याख्या करते हुए, वायुमंडलीय स्थिरता के साथ इसके संबंधों का परीक्षण कीजिए।

Lapse Rate means the rate of change of temperature with height.

Lapse rate is of two kinds -

- a) Environmental lapse Rate or the Normal lapse Rate is nearly about $6.5^{\circ}\text{C}/\text{km}$ ascend due to decrease in tropospheric temperature with increase in height and vice versa.



Fig - Lapse Rate Diagram

- b) Adiabatic lapse Rate is observed when the atmospheric condition is unstable and the heat loss is rapid.

11. The colonial period brought the influence of Western architectural forms to India. In this context, giving examples, highlight the contribution of Europeans to Indian architecture. **(250 words) 15**

औपनिवेशिक काल में भारत पर पश्चिमी स्थापत्य शैलियों का प्रभाव पड़ा। इस संदर्भ में, उदाहरण देते हुए, भारतीय स्थापत्य कला में यूरोपवासियों के योगदान पर प्रकाश डालिए।

Indian Architecture is influenced by a variety of cultures and colonial influence is one among them. The long period of British rule brought elements of Victorian, Gothic and Roman style along with its hybridisation.

Contributions of Europeans to Indian Architecture :-

- a) Victorian style of Architecture - characterised by grand halls and symmetrical design. Ex - Victoria Memorial (Kolkata), Raj Bhawan (Kolkata, etc)

- b) Gothic style of Architecture - with presence of cathedral like spires.
Ex - Indo-Gothic Architecture in Queen's necklace area of Mumbai.
- c) Lutyen Architecture - In the name of its architect, prominent in areas of Central Delhi. Ex - Parliament Building, Supreme Court, etc
- d) Use of grand halls, domes on buildings, galleries and symmetrical design became the key elements of British Architecture.

Apart from the British, other Europeans like French, Portuguese, etc also significantly contributed to Indian Architecture.

▷ The French Architecture in areas of Pondicherry, Chandernagar, etc. is a living remnant of French culture. Also, elements of synthesis can be observed with traditional Indian style.
Ex - Presence of dome (Mughals had it too).

▷ Portuguese primarily established their architectural style in areas in and around Goa which has various historical monuments like Se Cathedral, Church of Bom Jesus, etc.

Thus, India has witnessed an amalgamation of various architectural style, making it the second largest UNESCO world heritage site in Asia.

12. The nineteenth century witnessed a struggle against the backward elements of traditional culture. Discuss in the context of socio-religious reform movements. (250 words) 15

उन्नीसवीं सदी वस्तुतः पारंपरिक संस्कृति के पश्चगामी तत्वों के विरुद्ध संघर्ष की साक्षी बनी। सामाजिक-धार्मिक सुधार आंदोलनों के संदर्भ में चर्चा कीजिए।

The Nineteenth Century India was characterised by growing period of enlightenment of the rising middle class who challenged the existing backward elements of the great tradition and demanding reform or revival of ancient wisdom.

Socio-religious reform movements were launched to fight against the existing vices. Some prominent ones included -

(a) Brahmo Samaj Movement ^{for} against

Abolition of Sati - Pioneered by Raja Ram Mohan Roy, the movement led to mass campaign

and government pressure to support eradication of sati practice from Hindu culture which was derogatory to women.

b) Struggle Against Widow-Remarriage Prohibition - led by Ishwar Chandra Vidyasagar. The Prohibition denied equal position to women.

c) Sir Syed Ahmed Khan led a movement against orthodox elements in contemporary Islamic practices and called for adoption of western scientific learning.

d) Arya Samaj Movement by Swami Dayanand Saraswati called for going "back to the Vedas" which did not have backward elements like Caste system, religious disabilities, etc

e) Deoband Movement - was a conservative movement among the

Muslims ~~who~~ which promoted for adopting original practices of Quran and discarding the vices that have crept in over the years.

There were many more reforms during this period against evils like child marriage, caste oppression, etc.

However, the movement still retained certain elements like taking holy dip in river, appeal from scriptures, etc which ~~it~~ could not enable a wider participation and emancipation of masses. Nevertheless, its contribution is significant.

13. Explaining the reasons behind partition of Bengal, discuss the successes and limitations of the Swadeshi movement launched in its wake.

(250 words) 15

बंगाल विभाजन के लिए उत्तरदायी कारणों की व्याख्या करते हुए, इसके आलोक में आरंभ किए गए स्वदेशी आंदोलन की सफलताओं और कमियों की विवेचना कीजिए।

The British Administration in India headed by Lord Curzon, the then Governor General announced Partition of Bengal in 1905 as a measure to "better administer" the large province. However, the real reasons were different.

Reasons for Partition of Bengal -

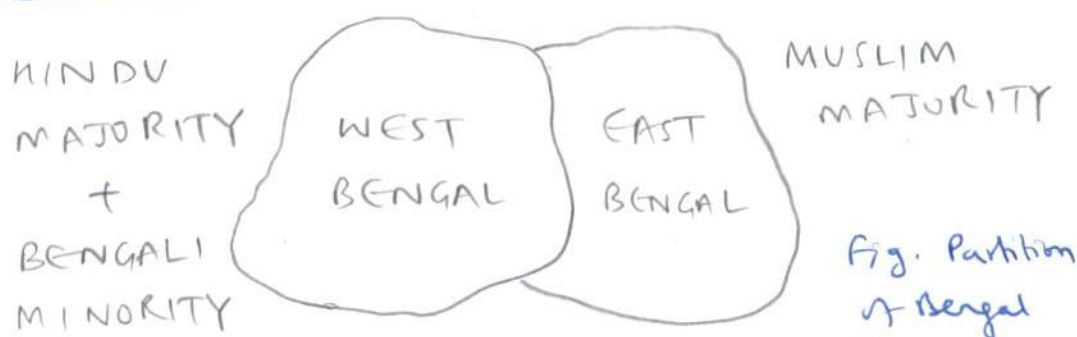
a) Official Reason - Population of the Bengal Province was around 78 million and the area was too large to effectively provide good services by the Government.

b) Actual Reasons -

i) The British wanted to divide

the nationalistic unity of Hindus and Muslims in Bengal against colonialism.

ii) It wanted to make the Bengali speaking population a minority in the new area comprising of current day Bengal, Bihar, Jharkhand and odisha regions.



In the wake of such an act by the British, Swadeshi Movement was launched in 1905 session of Indian National Congress and formally adopted in 1906 session. The movement called for boycott of western goods and adoption of domestically manufactured

products and admission to domestically run institutions.

Success of Swadeshi Movement

- many Indian schools and colleges opened up.
- Usage of khadi and traditional Indian products grew.
- People began to participate in a mass movement.

However, there were certain limitations too —

- * It failed to sustain the energy.
- * People's loyalty to traditional products declined due to high cost.
- * The movement led to ideological differences in Congress leading to Swad split
- * The British followed extreme suppressive attitude and policy of 'carrot and stick' to curb the movement

Nevertheless, the episode is a golden chapter in India's history.

14. The reorganisation of states in India post-independence has been an ongoing process with distinct contributing factors. Analyse. (250 words) 15
स्वातंत्र्योत्तर भारत में राज्यों का पुनर्गठन अलग-अलग सहायक कारकों के साथ एक सतत प्रक्रिया रही है। विश्लेषण कीजिए।

The reorganisation of states on the basis of linguistic identities was proposed by Congress on various occasions before Independence. Post Independence, the movement for linguistic reorganisation intensified.

Historical Journey -

* 1947-1950 :- Committees like Dhar Commission, JVP Commission, etc opposed linguistic reorganisation but only on the basis of administrative convenience

* 1953 - The death of Potti Sriramulu ~~led to~~ after prolonged fast for a separate "Andhra" state led to birth of Andhra Pradesh from then

Madras Province.

* 1956 - The Seventh Constitutional Amendment, 1956 and the States Reorganisation Act, 1956 led to creation of 14 states and 6 Union Territories after Fazl

Ali Commission supported linguistic reorganisation but said clear no to One state one language formula.

The organisation of states have been a continuous process since then and various factors leading to birth of different states are summarised below -

States	Factors
Gujrat and Maharashtra	- Separated from Bombay Province due to language and cultural diversity in 1960
Nagaland (1963)	- Due to <u>prolonged demand for separatism</u> , Nagaland was made a

	state from Assam.
Haryana and Punjab + Himachal Pradesh	- Due to difference in <u>language and culture</u>
Sikkim (1975)	- <u>self-integrated</u> with India after <u>popular support</u>
Manipur, Tripura and Meghalaya	- Carved out of Assam province due to different <u>Tribal ethnicity</u>
Mizoram, Arunachal Pradesh, Goa	- Promoted from VT to state
Chhattisgarh, Jharkhand and Uttarakhand (2000)	- As these regions earlier <u>lagged</u> <u>behind in development</u>
Telangana (2014)	- low development while in Andhra

There is ongoing demand for various states like Bodoland, etc due to feeling of being left out in development. Thus the reorganisation of state is ongoing process.

15. The Treaty of Versailles was not a peace agreement based on reconciliation but was 'dictated peace' forced on Germany, which eventually triggered the Second World War. Examine. **(250 words) 15**

वर्साय की संधि सुलह पर आधारित शांति समझौता नहीं थी, बल्कि जर्मनी पर थोपी गई 'आदेशित शांति' थी, जिसने अंततः द्वितीय विश्व युद्ध का मार्ग प्रशस्त किया। परीक्षण कीजिए।

The Treaty of Versailles,
signed in 1919 post World War-I
between the Victorious Powers (England,
France, Russia, etc) and Germany to
finalise the conditions for settlement.

Though it established itself
as a "peace treaty", it was in
reality a "forced" peace treaty on Germany.

▷ Germany was held responsible
for the war and asked to pay
millions of money as compensation.

▷ German Army was drastically
reduced in size.

▷ Global trade of Germany was
curtailed.

▷ Germany's economy got dependent on aid from victorious powers, primarily US which invested billions in reconstruction.

▷ Germany was divided in East and West and administered by different powers (protection).

The humiliating treaty impacted the national sentiment in Germany. The economy witnessed severe shock after Great Depression of 1929. The debt started to mount.

This led to rise of Nazi Party in Germany, led by Adolf Hitler who vowed to dishonour every single provision of the treaty of Versailles.

Hitler then took to rapid development of German Industries

using domestically available coal and iron resources. He also strengthened the number of soldiers in German Army and arranged for their rigorous training.

Over the years, with German Development threatening the world order dominated by Britain and France, envy grew. Fuelled by these events, World War II began on September 1, 1939 which brought destruction to the world.

16. Legal measures alone are not sufficient for addressing the issue of domestic violence against women, rather it requires intervention at societal level. Discuss. (250 words) 15

महिलाओं के विरुद्ध घरेलू हिंसा की समस्या को दूर करने हेतु केवल कानूनी उपाय ही पर्याप्त नहीं हैं, बल्कि इसके लिए सामाजिक स्तर पर भी हस्तक्षेप की आवश्यकता है। चर्चा कीजिए।

Law is considered as an effective agent of social change as it carries the 'force of coercion'. However, unless the society develops a moral force to stop domestic violence against women, law would be ineffective.

Violence Against Women is manifested in various stages of her life in different ways.

Fig: violence in different forms against women at different stage of life

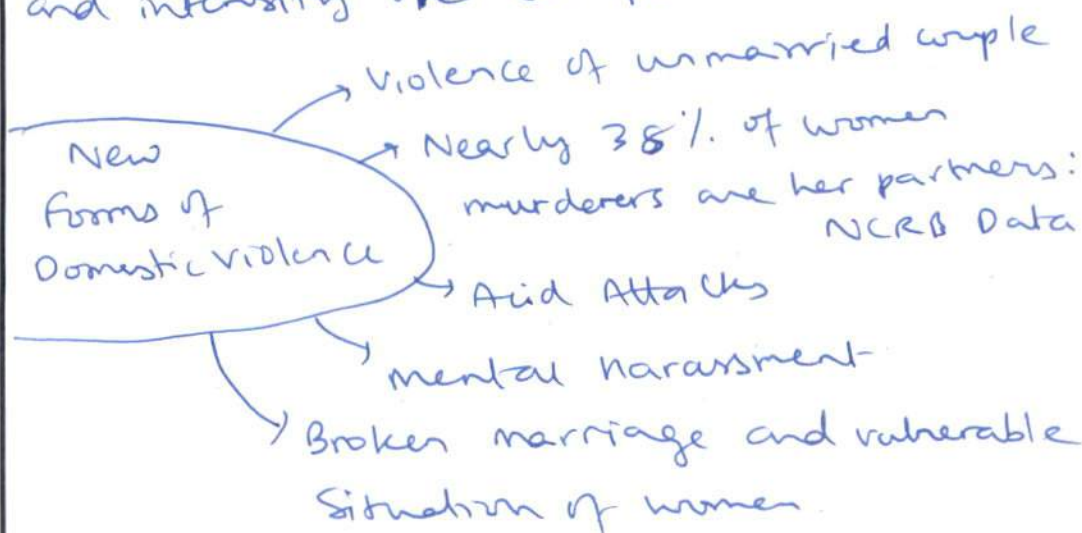


Current legal provisions against Domestic violence - The Domestic Violence Act is the primary legal arrangement. It is also supplemented by Dowry Prohibition Act in cases of Dowry.

Success of Current legal Provisions

- ↳ Cases of reported abuse have declined as per women ministry.
- ↳ The guilty are booked and it acts as deterrence in society.

However, the current provisions are often seen as ineffective because the violence has transformed in nature and intensity over the period -



Therefore, for the root eradication of the problem, societal intervention is imperative in following manner -

- i) Better child socialisation practices with gender sensitivity.
- ii) "Bell Bajao Campaign" to ring a bell when anyone hears of a violence in neighbourhood. It has proved effective and can be strengthened.
- iii) Women vigilance group like Qulabi Gang who proactively look for abusers and teach them lesson.
- iv) Better political representation of women.
- v) Non-discrimination against women at workplace.

Domestic violence against women is counter to SDG 5 which promotes gender equality and needs multi-stakeholder eradication approach for elimination.

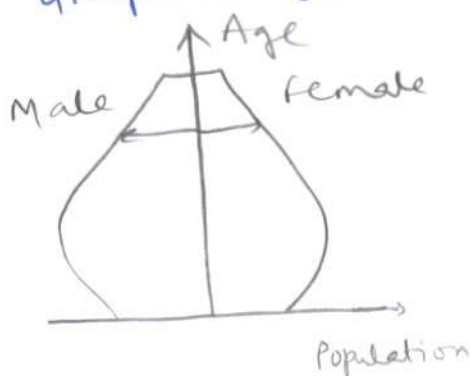
17. India is undergoing a demographic transition the implications of which are multipronged. Analyze. (250 words) 15

भारत जनसांख्यिकीय संक्रमण से गुजर रहा है जिसके निहितार्थ बहुआयामी हैं। विश्लेषण कीजिए।

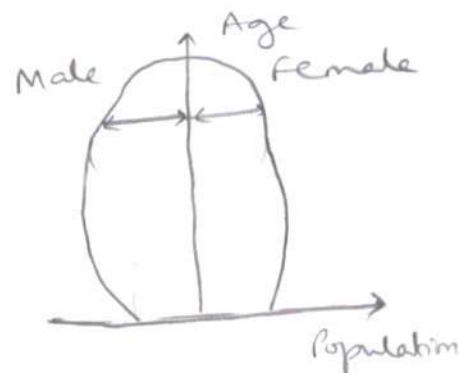
The recent Economic Survey (2018-19) gives the following demographic trend for India -

- a) fall in Total Fertility Rate (TFR) - 2.3 in (2011-16) period as compared to 3.4 in 1991.
- b) Peaking of Demographic Dividend by 2041
- c) Decrease in young age population in the next 30 year horizon and simultaneous increase in old age, dependent population from current 8% to 20% by 2050.

Graphically, it can be visualised as -



Present scenario



Projected by 2050

With increasing dependent population, deteriorating child sex ratio and lower fertility, India is witnessing a demographic transition. By 2020, average Indian will be 29 years compared to 42 years for average Japanese.

Implications for India -

a) Opportunities -

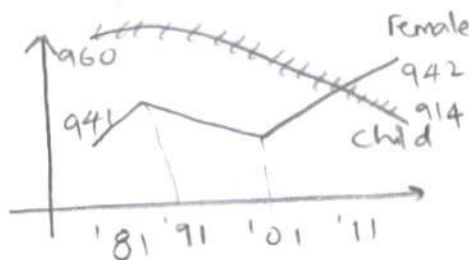
- More young population, more contribution to economy till demographic dividend peaks.
- Population stability by lower TFR will enable better distribution of resources.

b) Challenges -

- Ageing population dependency.

→ Lower Child Sex Ratio and gender imbalance will fuel inequality for women

==== Falling
Child Sex
Ratio Trend ⇒ Sex
Ratio



→ Young population if not skilled will become a greater liability in future with low capacity to earn independent living and higher chances of poverty.

Way Forward

→ Skillings of current population
Investment in human capital like education, health, etc to all
Better management and distribution of resources.

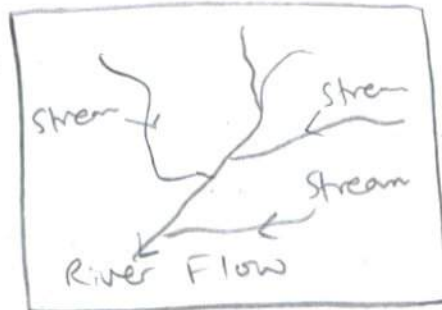
By 2027, India is likely to overtake China as the most populous country. We must take advantage of our Demography than letting it become a threat.

18. Highlight the significance of watershed development in India. Give reasons for the limited success of initiatives directed towards watershed management in India. Also, suggest some measures to improve the design of watershed programs. **(250 words) 15**

भारत में जल संभर (वाटरशेड) विकास के महत्व पर प्रकाश डालिए। भारत में जल संभर प्रबंधन की दिशा में की गई पहलों की सीमित सफलता के पीछे निहित कारण प्रस्तुत कीजिए। साथ ही, जल संभर कार्यक्रमों की अभिकल्पना में सुधार लाने हेतु कुछ उपायों का भी सुझाव दीजिए।

A watershed is a basin level area to manage the water from various channels. Watershed development refers to various interventions for better management. It also means

Fig- A river watershed



better management of water sources like roof, irrigation, etc.

Significance of watershed Development -

- ▷ The ~~best~~ natural water cycle is undisturbed and water can be successfully replenished
- ▷ The local cultivation gets better

access to water, ensuring food security.

- ▷ The recharge of groundwater can mitigate the water crisis looming over the country [per capita availability of only $1543 \text{ m}^3/\text{year}$, $<1700 \text{ m}^3/\text{yr} = \text{water stress}$]

Several ~~initiatives~~ initiatives have been taken in this regard in the past — Command Area Development Programme, Drought Development Programme, Irrigation management scheme, Flood Area Programme, etc. However, they saw limited success.

Reasons for limited success of schemes —

- ▷ Low community involvement in water resource management.
- ▷ Top-down bureaucratic approach using one-size fits all model.
- ▷ Disregard to traditional wisdom of water conservation like bunds, nadas, etc.

▷ Populist measures like free groundwater access for agriculture from tubewells, canals, etc

Some measures to improve the design of watershed programs -

- i) formation of water user Association and boosting community participation
- ii) Boosting irrigation efficiency with modern techniques like sprinkler, drip irrigation, etc
- iii) Crop diversification and agro-climatic cultivation. ex- Pulses in drylands and not rice.
- iv) Traditional structures like stepped farming, contour bunding, etc can be encouraged.

Water management is essential to India's commitment to SDG 6 and providing social justice.

19. Explain the relationship between raw materials and location of industries. How are globalisation and technological advancements changing this relationship? (250 words) 15

कच्चे माल और उद्योगों की अवस्थिति के मध्य संबंध स्पष्ट कीजिए। वैश्वीकरण और तकनीकी प्रगति इस संबंध को कैसे परिवर्तित कर रहे हैं?

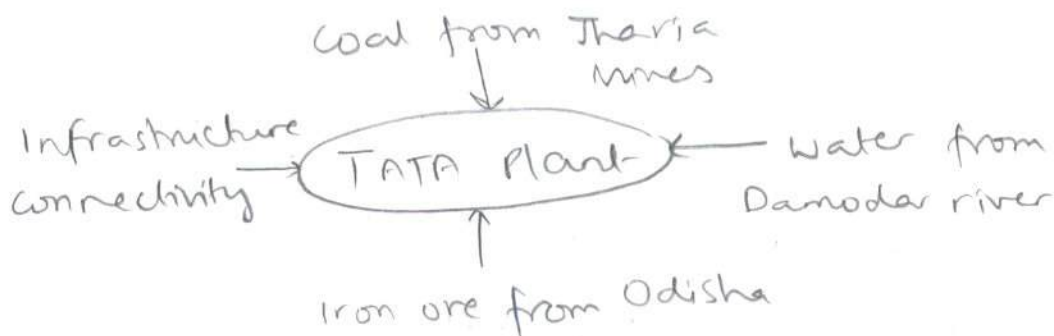
The relationship between raw materials and industrial location depends upon the type of raw material —

a) Weight - losing raw material - like sugarcane, perishable products, etc need immediate processing after raw material is harvested. Thus, industries are located close to raw material source.

b) Non-weight losing raw material - In such items like coal, cotton, etc, the industrial location is independent of raw material location but depends on certain crucial factors like -

- i) Availability of economical labour
- ii) Infrastructure and Power supply
- iii) Transportation Network, Port facility, etc.

However, even in such cases, most of the industries are located closer to raw material sources for seamless operation. Ex - TATA Iron and steel Plant in Jamshedpur.



Globalisation and Technological

Advancement has integrated the international supply-demand of resources and products.

The changing relationship between raw material and industrial location are —

i) sourcing of raw materials from around the world —

Ex - Petrochemical industry at Haldia (West Bengal) and oil

import from middle East.

ii) market availability of manufactured products prioritised over raw material source — Ex- Food Processing units in Uttar Pradesh exporting to East Asian Economies while raw materials procured from Eastern India and North East.

iii) Technological advancement has enhanced shelf life of raw materials which has enabled distant location of industrial plants too, even for hitherto perishables. Ex- Cold Chain Wagons.

iv) Assemblage and exports oriented industries have greater concentration in areas of cheap, skilled labour than raw materials. Ex- Kolkata and electronic exports.

Thus, the relationship between raw material and industrial location has become more dynamic.

20. Explain how natural greenhouse effect helps in maintaining Earth's heat budget. What are the possible implications of rising concentration of greenhouse gases (GHGs) in atmosphere on Earth's heat budget?

(250 words) 15

स्पष्ट कीजिए कि किस प्रकार प्राकृतिक ग्रीनहाउस प्रभाव पृथ्वी का उष्मा बजट बनाए रखने में सहायता करता है। पृथ्वी के उष्मा बजट पर वायुमंडल में ग्रीनहाउस गैसों (GHGs) की बढ़ती सांद्रता के संभावित निहितार्थ क्या हैं?

Greenhouse effect is a ^{with name} phenomena, inspired from the "greenhouses" in cold areas. It enables the earth to trap the long-wave radiations emitted by it.

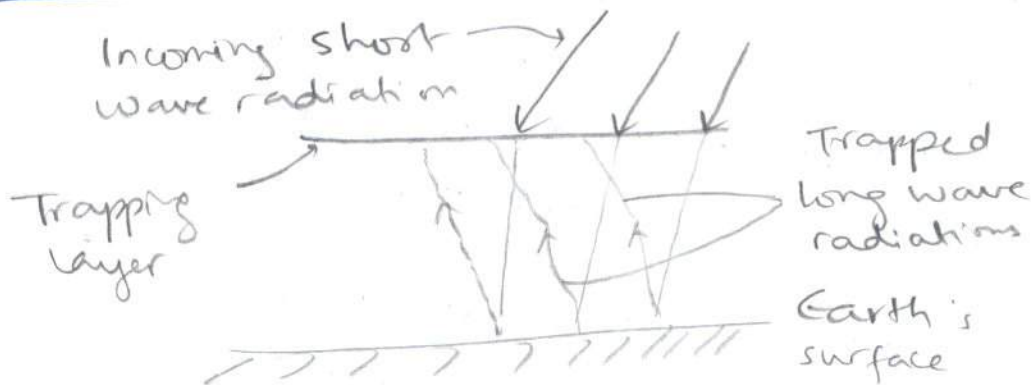


Fig. Greenhouse Effect

Greenhouse effect in nature helps in maintaining Earth's heat budget by—

- i) Redistributing the surplus heat after reflection and entrapment

by the atmospheric layer.

ii) Preventing earth's heat from escaping to space.

iii) Enabling suitable conditions for local fauna and flora to thrive which have a significant role in heat budget management

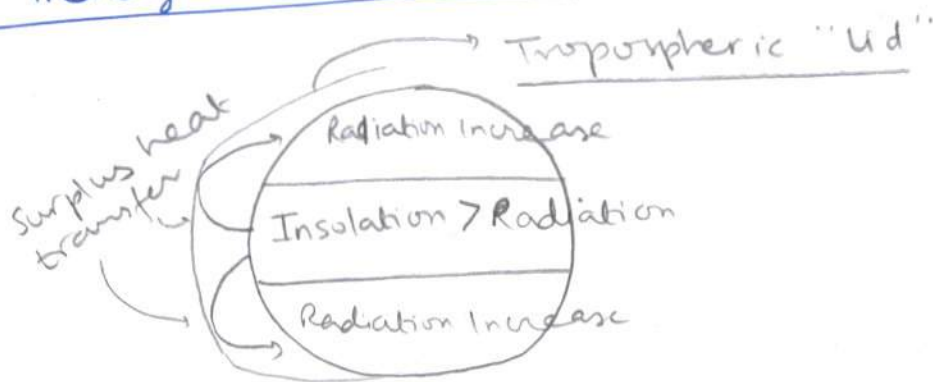


Fig. Greenhouse Gas (GHG) and Heat Balance

Recently, IPCC reported that Earth's concentration of Carbon dioxide (a GHG) has exceeded 400 ppm for the first time in 2016. Other GHGs like methane, nitrous oxides, etc have greater warming potential and can lead to serious implications.

Implications of Rising GHG concentration on Earth's heat budget -

i) Decreased release of Earth's radiation

due to thicker atmospheric layer can cause heat accumulation, disturbing the heat budget.

ii) GHG will lead to rise in temperature

followed by melting of glaciers

which will lead to reduced albedo of reflection, leading to further rise in temperature.

iii) Fluctuations in heat-budget can significantly increase.

Thus, it is necessary to control the increasing concentration of Greenhouse Gases through measures like Pans Deal, better tech upgradation of conventional plants, etc for a sustainable future (SDG 13).