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GENERAL STUDIES (TEST CODE : 1246)

Name of Candidate	POOSA KUMAR		
Medium Eng./Hindi	ENGLISH	Registration Number	36343
Center	ORN	Date	12/09/19

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
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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।

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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 form one of the key architectural remains to reconstruct various religious activities:

1. Karnas fishi caves in Bihar which was given during the Mauryan rule to Ajivika sect.
2. Ajanta & Ellora caves though its various paintings has helped to trace back various Buddhist, Jain & Hindu features like Chaitya & Mahaa Lathi in Buddhism.
3. Elephanta caves in Maharashtra has provided a reflection on Jain tradition.
4. In Karnataka, various Jain caves have been present which

has provided insight into the
ascetic tradition

5. tribal animistic worship tradition
can be understood from several
canes in Central India.

Thus, these canes provide
critical elements to understand
various religious traditions in
India.

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 अट्ठाईस 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।

Congress ministries were formed
post its thumping victory in 1937
elections in most provinces

Legislative & administrative record

1. Victory of Congress in most provin-
ces enhanced the legitimacy of
Congress further.

2. Congress used this platform to
expose the vested British agenda
further

3. Attempted to reform the colonial
rule from legislative body itself.

Emergence of weakness in Congress

1. Inability of Congress to prevent India's
participation in WWII.

2. Further distancing of Muslim
elements from Congress by attempts
from Muslim League.

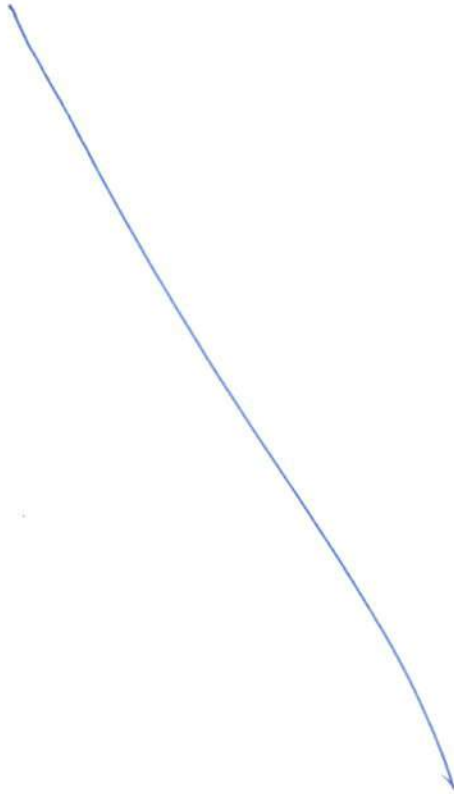
3. Confusion about future course of
action.

Nevertheless, under the leadership
of Gandhi, INC soon rebound in
action in the Quit India movement,
1942 although with limited base.

3. Kamladevi 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।



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 who was on the quest to completely conquer Europe adapted a policy of continental blockade based on which no country was allowed to trade with Britain.

This led to other European powers grouping together against France itself due to acute economic crisis.

The collective fight of European powers including Britain ultimately led to the historic defeat of Napoleon in the Battle of Waterloo.

This consequently led to the ~~battle of~~ Congress of Vienna 1814 and Concert of Europe.

Thus, Napoleon's continental
blockade proved to be a catalyst
in the very demise of Napoleon.

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 social institution which represents a bond between two people and in case of India, bond between two families.

- changes
- Living lone marriages & inter caste marriages including lone-cum arranged marriages
 - Decline in the sanctity of marriage with rising divorce rates, extra marital affairs
 - Informal associations instead of marriage for eg live in relationship
 - Rise in same sex marriage
 - Decline in child marriage; rise in the age of marriage
 - Democratic decision making within married couples.

Continuity

1. Endogamy that is same caste marriage still widely prevalent forming 96% of the marriage (2011 census)
2. Episodes of dowry
3. Women adapting husband's surname
4. Marriage still viewed as a sacrosanct institution.
5. Marriage still viewed as a ceremony of pomp & show.

Thus, marriage as an institution may have evolved in some way but its essence largely remains the same.

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।

India has 8.11% of elderly population (census 2011) which is rapidly ageing which is expected to rise to 20% by 2050.

This process adds to multiple disabilities

-ies

Social disabilities

1. Due to generation gap with the new generation
2. Neglected at home as there has been palpable decline in elderly respect
3. Abandoned by children in old age home.

Economic disabilities

1. Lack social security cover due to unorganised nature of workforce (over 90%).

2. Feminisation of ageing (1033 women/1000 males) have left female most vulnerable.

3. Decline in family financial support due to nuclear nature of family

Health disabilities

1. Regenerative diseases like Parkinson, stroke, dementia etc.

Government initiatives

1. Lashkariya Vayashree Yojana providing for assistance living devices -

2. PM Vaysha Vandana Yojana for financial security of the elderly.

3. Senior citizen & guardian maintenance act, 2007

4. National policy on elderly person

Way forward

need to adapt WHO concept of active ageing to capitalise on "longevity dividend"

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।

Tribals in an average have about 60% literacy rate as general all India literacy of 74%.

Reasons

1. Lack of schools in tribal regions which is located in remote areas.
2. Low awareness about importance of education among tribals.
3. High levels of poverty force the tribals out of school in order to work as breadwinners of the family.
4. Mainstream education not available in their mother tongue. Hence, tribals are unable to understand. Hence, forced to drop out.
5. Rote based learning techniques also disinterested tribals.

Government initiatives

1. Setting up Eklanya residential schools particularly for tribals. Recently, 464 of such schools were setup.
2. Adult tribal literacy under Badhe Bhaat, Badhe Bhaat
3. ~~to~~ lashri initiative to impart skills to tribals

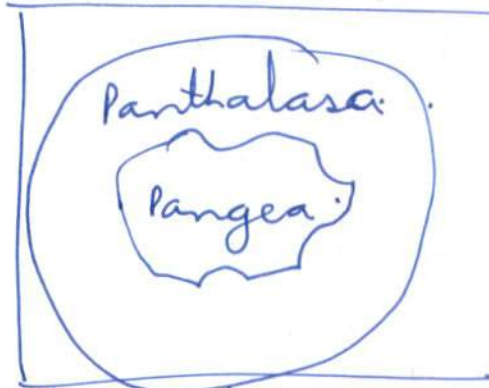
The above alongwith sustained behavioural change - "nudge approach" will go a long way in bridging tribal - overall population divide.

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 given by Alfred Wegener is one of the 1st theories regarding current configuration of the earth.

As per Wegener, initially the world was just one supercontinent - Pangea and one ocean Panthalassa.



Slowly, these drifted apart to form - Gondwana and Laurasia.

- Reasons
1. Gravitational force exerted by the sun & the moon.
 2. Frictional force due to rotation of the Earth.

Evidence

1. Zigzag shaped structure - for eg - ~~South~~ Africa and South America almost fit into each other.
2. Common fossils found all across the continent.
3. Various palaeo remains found in tropical region.

However, Wegener's theory was limited as it did not explain the creation of various continental & oceanic structure.

This was further clarified by plate tectonic theory.

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।

Earth's surface is extremely diverse with mountains, valley, trenches, canyon, plateau etc.

This has been a product of various forces:

1. Endogenic forces / Internal forces

→ Convergent plate boundaries - for formation of fold mountains for eg - Himalayas & Rockies

Similarly, various trenches found along these boundaries for eg - Mariana trench, Sunda trench.

→ Divergent plate boundaries found along plates which are moving away. These are constructive in nature as new crust is formed for eg, mid Atlantic ridge, Indian ocean ridge.

→ transform fault boundaries - when plates move past each other; crust is neither created nor destroyed

for eg - San Andreas fault, Anatolia fault.

2. Exogenic faces/external faces

→ fluvial forming various erosional & depositional features for eg - valleys, meanders, oxbow lakes, plunge pools, ~~etc~~ deltas, alluvial fans.

→ glacial - forming fjords.

→ wind forming loess plain like in China, sandbar etc.

Thus, these faces together form the mind earth structure.

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 refers to the average decline in temperature with the rise in height. In case of troposphere it is 1°C decline with every 167m increase in height.

This happens because closer to the earth, terrestrial features absorb & radiate the heat which makes it warmer.

Moreover, denser air at the surface leads to greater trapping of heat by the air molecules.

Relationship with atmospheric stability

Lapse rate results into the formation of clouds at the upper tropospheric level

→ Lapse rate reduces the atmospheric

stability found above in the atmosphere.

Thus, there is almost a direct correlation between atmosphere stability and lapse rate.

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 यूरोप वासियों के योगदान पर प्रकाश डालिए।

Colonial rule was not just limited to economy and politics but also culture including architectural form - with the influence of Victorian style and Roman style.

Contribution

1. Building various cathedrals by missionaries like St Paul's Cathedral in Kolkata.
2. ~~Iconic~~ Iconic structure like Victoria Terminus in Mumbai which now serves as a railway office depicts Victorian architecture.
3. Victoria memorial exists as a marble maerel in the streets of Kolkata.
4. Unique portugese style houses in Goa. French style houses in French

enclaves of Pondicherry.

5. Various European architects contributed to the beautiful synergy between Indian & European style for eg - Herbert Baker who designed the Parthasarathi Bhawan and small Lutyens zone in Leith which has nautilus arches of the Mediterranean sea as well as Indian minarets.

6. Establishing a planned city like Chandigarh due to European efforts like Le Corbusier.

These European buildings exist all throughout India reminding us not only about our colonial legacy but also about the remarkable freedom struggle against a mightier and more powerful colonial power.

The synergy between Indian & Euro-
-pear styles depicts another chapter
in the rich cultural & architectural
history of India.

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।

19th century ~~so~~ saw socio religious movements which can be considered akin to the Indian Renaissance beginning with the attempt by Raja Ram Mohan Roy in Bengal.

Reformist movement

1. Brahmo Samaj & Atmaja Sabha movement by Raja Ram Mohan Roy which fought against child marriage, sati, polygamy etc.

Ram Mohan Roy through his works like Minat-ul-Abbas held that sati lacked any religious backing.

Owing to his efforts, Sati was abolished in 1829.

2. Rshunee Chandra Vidya sagar, worked relentlessly for the upliftment of women

and against caste system.

He had taken the landmark step to open the gates of Sanskrit college to the backward sections.

He alongwith Ranid Hare opened several girls school alongwith Bethune college for girls.

During his efforts, widow remarriage act, 1856 was passed by Lord Dalhousie.

3. Satyasodak Samaj by Syotika Phule worked for the upliftment of the dauntless and marginalised.

He alongwith his wife opened a school for girls as well as shelter for distressed women.

4. Kattana Samaj which was opened for social service.

5. Parsi reforms was undertaken by Radakhai Narseji.

6. Sir Syed Ahmed Khan undertook modernisation.

reforms in Islam. He opened Mohammedan Anglo Oriental college, Scientific society at Ghazipur.

Revivalist movement

1. Shuddhi movement against Hindu conversion
2. Wahabism among Muslims.

Impact

Positive

1. Brought back the lost confidence among Indians ~~ab~~ about their culture
2. Encouraged lacking reforms which built the groundwork for further national movement.
3. Reducing the domination of orthodox sections to an extent

Negative

1. Revivalist movement brought communal colour
2. Limited mostly to urban areas.

Thus, these reforms were largely a mixed bag.

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।

Partition of Bengal was announced by Lord Curzon which was to divide Bengal into East & West.

Reason

As per British - stated reason

British held that Bengal had become too large to be governed. Hence, partition was announced for "administrative convenience".

As per Nationalists - real reason.

Partition was being done to divide Bengal on communal lines based on British policy of "Divide & Rule" as Bengal had emerged as the nerve center of Indian nationalism.

Hence, the partition move was widely perceived as an unpopular

move. In order to object to this movement, Swadeshi movement was launched in the Calcutta townhall

Success

1. Brought masses into the fold of the national movement
2. First large scale attempt at passive resistance
3. Attack at the very root of British imperialism - by boycotting & picketing foreign liquor & cloth
4. Boasting Atma shakti / self confidence through faith in indigenous culture.
5. Cultural fervour was witnessed with various patriotic songs being sung; Rabindranath Tagore had sung "Amar Sonar Bangla" on this ~~occasion~~ occasion

Limitation

1. Partition of Bengal still took place

despite Swadeshi resistance

2. Swat split, 1906 took place between moderates & extremists due to argument about the scope and spread of Swadeshi movement. This resulted in the freedom struggle entering the passive phase.
3. Muslim aristocratic elements were not part of the struggle as the demands of Bengal were getting political autonomy.
4. Religious symbols used like Bharatmata, dipping the Ganga brought communal colour to the issue.
5. ~~Less~~ Reform limited to the urban areas.

Despite the limitations, Swadeshi struggle marks itself as a watershed movement in the history of freedom struggle.

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।

Independence of India brought the challenge of integration of over 565 princely states along with reorganisation demand because:

- i) Boundaries of states were unnatural based on British interests of administrative convenience.
- ii) Congress had on several occasions like 1928 called for linguistic reorganisation.

Inclusion of reorganisation process

1. Dhar committee & VP committee for state reorganisation had rejected reorganisation of state on linguistic line because it would've led to balkanisation of India as well as attack ~~on~~ on Indian ethos of "unity in diversity".

~~2. Fazl Ali committee~~

2. Post the death of Potti Sreeramulu, alongwith intensification of protests for separate telugu state → government was forced to form Andhra as the 1st linguistic state in 1953

3. To cater to increasing demand for reorganisation, Fazl Ali committee was formed which accepted language as a criteria for state formation but rejected the principle of "one language, one state"

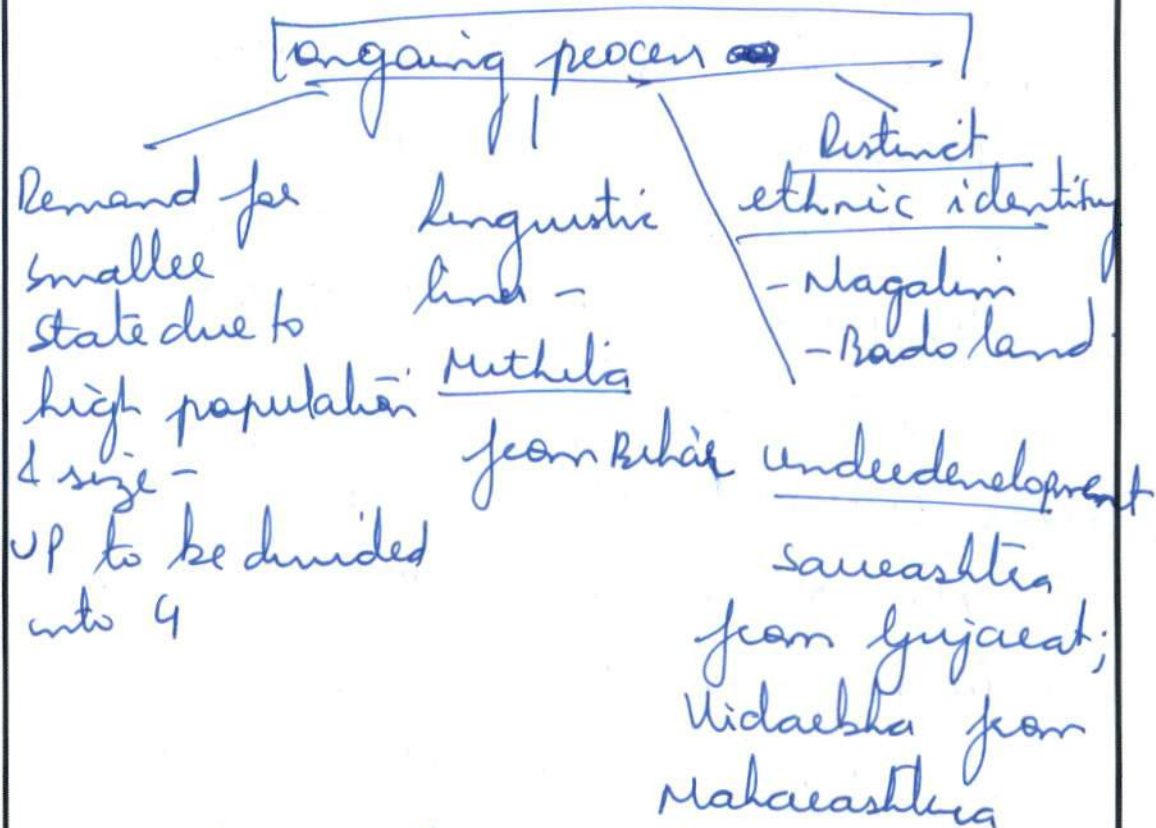
4. other states formed on linguistic lines - Maharashtra & Gujarat in 1960s and Punjab in Haryana 1966

5. formation of various North East states has been on ethnic lines

6. 2000 marked the creation of 3 states - Uttarakhand, Jharkhand & Chhattisgarh on basis of distinct geography

and administrative neglect. Chattisgarh & Jharkhand was also formed due to distinct tribal identity

7. Telangana was carved out of Andhra Pradesh in 2013 on account of lack of development



Hence, the carving out of the final map of India is still an unfinished agenda

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।

Treaty of Versailles was one of the peace treaties post WWI. As per several historians, the seed of the WWII was sown by treaty of Versailles.

Reason for being a dictated peace

1. Allied powers were termed as the victors who unilaterally imposed the terms of the treaty without any discussion with the losing side.
2. Germany was solely blamed for WWI.
3. Italy which was ~~on~~ on the side of the victors did not get its due share which left Italy humiliated.
4. ~~Disputed~~ Harsh terms of settlement.

was imposed on Germany like it was forced to pay heavy war indemnity

5. Germany was also banned from having an airforce as well as limitation in terms of manpower placed on the army.

6. Various territories of Germany was taken away like Alsace & Lorraine, Ruhr region & Sudetenland.

Consequence

1. Italy was left disoriented which provided a fertile ground for rise of Mussolini

2. Germany was left frustrated. Instead of integrating back Germany, Germany was left alienated.

3. Heavy war indemnity led to financial crisis in Germany with

compant currency denvaluation. This further led to disenchantment among German people fearing may be the rise of Hitler.

The humiliation suffered by ~~the~~ Germany in Versailles led to Germany re-building itself at a pace before to get back its lost glory.

Thus, the above alongwith other situational factors led to the outbreak of WWII in 1939, which was far more catastrophic than WWI.

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।

Domestic violence as per NCRB has been rising since the years. This is despite several legal measures to prevent it - Domestic violence act, 2005, section 498 of IPC.

Legal measures are not sufficient - as:

1. Social stigma attached to women speaking up.
2. Lack of awareness among women particularly from the vulnerable sections regarding various support systems.
3. General insensitivity of the police.
4. Delays in domestic violence cases also dissuades women.
5. Financial dependence of women on

their husband also hinders their ability to speak up as they would be left helpless.

6. Patriarchal structure which creates a ~~sex~~ culture of violence by men and women being the silent-sufferers.

7. Distressed women not only lack support from their society but also from their households. They are often recommended to "compromise" and continue living with a violent husband.

Hence, domestic violence needs a social solution more than a legal solution as it is a social issue for eg:

1. Providing distressed women shelter through schemes like suadhaa yojna.
2. Providing economic empowerment

to women through various livelihood
mission - Kudumshree (Kerala), SEWA &
Jeevika (Bihar)

3. Encouraging women victims to
complaint by creating a support
system for eg - Mahila Police volunteers,
Haaryana.

4. Providing timely compensation as well
as safe custody of their children

5. Ensuring affordable legal help to
women.

Thus, addressing domestic violence
requires societal & behavioural change
solutions over preventive & punitive
solutions

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।

India's demographic transition is towards a young demography with low dependency ratio (low number of children & elderly)

As per estimates, India by 2020 will be the youngest country with a median age of 29 years; already 65% of India's population is below 35 years of age.

Implications of this transition

1. Demographic dividend which if capitalised may:
 - Fuel various labour intensive industrial growth
 - Fill the void of ageing world population

However, if not skilled then it may become a "demographic disaster" with frustrated youth engaging in crime, riots and other destructive activities.

2. Lower government burden due to lower dependency ratio and higher government revenue due to higher tax collection.

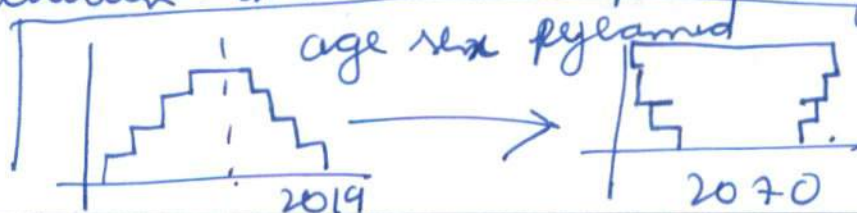
3. Various innovation as youth serve as agents of change.

4. Rise of internal migration -

i) From rural areas to cities.

ii) From young northern India to ageing southern India.

5. Future in 50 years, rise in elderly population. This will exponentially



government burden in future
including need for changed health
-care to geriatric care & palliative
care.

There is need for timely interven-
-ion to capitalise on this demographic
-hic dividend through synergy
between Make in India, Skill India
and healthy India before it is
too late.

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।

Watershed development refers to the overall sustainable planning of area in and around water bodies.

Significance of watershed development
Ecological

1. Increasing groundwater recharge
2. Reducing soil erosion thereby maintaining soil fertility.
3. Improving overall groundwater quality by reducing water pollution.
4. Carbon sequestration through afforestation.
5. Conservation of overall biodiversity - flora & fauna.

Social & Economic

1. Improved health outcomes due to reduced pollution
2. Increased employment opportunities through agro forestry & social forestry
3. Better quality of life due to access to clean water
4. Promotion of sustainable development

Reasons for limited success

1. Lack of awareness about the virtues of watershed development
2. Parochial interests of private players which has resulted in encroachment of industries on flood plain as highlighted by CAG report ~~on~~ Uttarakhand disaster, 2013
3. Lack of proper flood plain zoning
4. Weak coordination between various

departments as well as centre, state & local bodies

- Measures
- Clearly delineating - flood plain zoning & flood proofing
 - Learning from best practices like Kalegaon Siddhi and Naganadhi restoration, Haryana
 - Integrated programme for eg Sal Shakti Abhyasan
 - Community participation by adopting a bottom up approach.

These measures need to be undertaken as a matter of urgency as the water crisis is looming as highlighted by Composite water management index (N272 Aayag)

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?

Location of industries is guided by several factors including raw materials.

Relationship

1. Industries with "weight losing" raw materials like sugarcane, iron ore, is usually located close to raw material sites for eg - sugarcane industries in Maharashtra.

2. Some industries like petroleum industries which only require small quantity of raw materials - need not be located near raw material sites.

Globalisation & technological advancement

1. Industries need not be located

near raw material sites because of communication facilities like railways, airways & ships. Thus, Nishakapattanam steel plant is located on the coast to import coking coal from far off places.

Similarly, India has one of the largest refineries despite importing crude oil from abroad ~~for~~ for 70% of its needs.

2. Rise of fast loss industries like IT industries and electronics industry also with the rise of globalisation which is not heavily dependent on the constant supply of raw materials. Hence, these industries are also not located near raw material sites.

Hence, globalisation and technological advancements has

radically transformed industrial
location which is now more depen-
dent on connectivity facilities
available.

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?

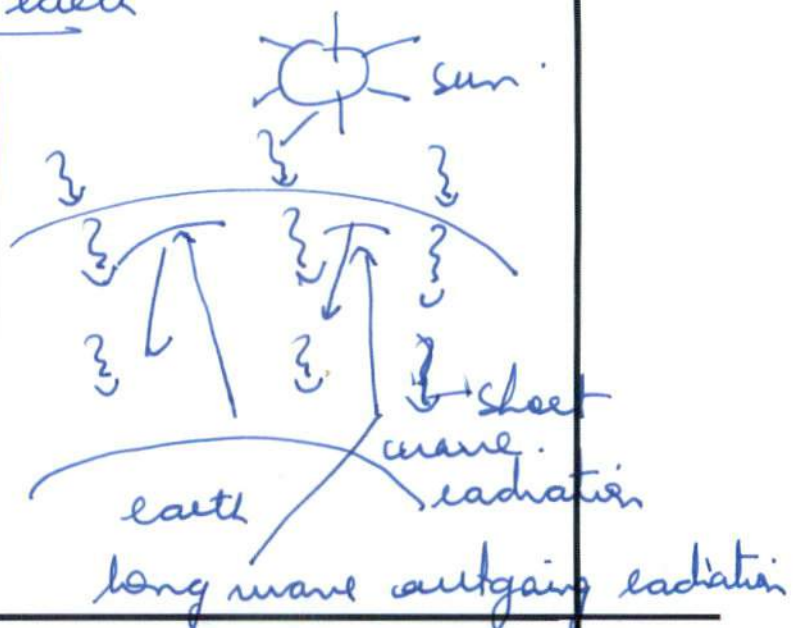
(250 words) 15

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?

India has a natural greenhouse effect which is responsible for making earth habitable - that is not very cold, nor very warm.

This natural greenhouse effect absorbs the short wave solar insolation but does not allow the radiated long wave radiation from escaping the earth.

This ensures that heat remains trapped thereby preventing the earth from getting too cold.



Rising concentration of GHG impact on heat budget

1. Increase the heat energy trapped thereby increase the average earth temperature.
2. Adversely impact the delicate heat balance which in the past had made earth habitable.
3. Intensify GHG effect further by melting polar ice caps which would reduce the "albedo effect" thereby reducing the reflection of solar rays and increasing solar energy absorption.

Already, due to anthropogenic activities, the average earth temperature has risen by 1°C compared to pre-industrial

levels as per IPCC 5th assessment
report.

If pathbreaking reforms are not
taken in a timely fashion then the
climate change would be irreversible