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GENERAL STUDIES (TEST CODE : 1246)

Name of Candidate	Y. MEGHA SWAROOP		
Medium Eng./Hindi	ENGLISH	Registration Number	578108
Center	OLD RAJINDER NAGAR	Date	06/09/19.

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
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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 showcases
architectural marvel and skill the
architects of ancient times possessed.

Influence of various religions and
religious activities

BUDDHISM.

- chaityas and viharas which were
worship places and resthouses for
Buddhist monks were made out of
these rock cut structures.
- Sanchi Stupa ; made of stone and
bricks
- Ajanta and Ellora caves; had influence
of Buddhism. Ex:- Padmapani paintings
in Ajanta.

Ajeerika Sect

- Lomas Rishi caves

Hinduism

- Various rock cut temples during Gupta age.
- Had influence in Ellora caves, Elephanta caves, Ex:- Kailashnath temple in Ellora, Ravana Shaking Mt. Kailash
- Khajuraho temples in MP.

Jainism

→ also influenced in Ellora caves

Religion and Religious activities played a major role in these rich rock-cut structures which continue to inspire modern architects.

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 contested elections as per Govt. of India act 1935 and won 8 out of 11 provinces with majority and could form government.

Positives of congress rule

- In a limited manner, brought zamindari reforms
- Provided protection to the workers working in factories.
- Land reforms were initiated
- Raised issues in the assembly and acted as a voice of people
- National Planning Committee was formed.

Emergence of weaknesses in the congress

- Rift started between right wing zamindars supported by Gandhiji and Socialist

leaders like S.C. Bose.

- It led to the resignation of S.C. Bose in Tripuri Session of congress, 1939.
- Some of the legislations it passed went against the workers.
- Failure of implementation of zamindari reforms.
- Differences in whether to give support to Britishers in WW II
- Congress became organisationally weak.

And finally when Britishers made India party to the war without consulting congress ministries, it led to the resignation of congress ministries and ended 28 months rule under congress. Congress rule showcased people what it means to be truly independent and paved way for independence.

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।

Kamladevi Chattopadhyay played a major role pre and post independence

Pre - Independence

→ Salt Satyagraha; ~~was~~ women was laid by Kamladevi

→ Source of inspiration to women freedom fighters.

Post - Independence

→ Lady Hardinge medical college was established due to her efforts.

→ Advocated for women Empowerment.

→

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 was a dynamic leader who emerged as a response and reaction of French revolution.

Napoleon came up with continental Blockade policy to prevent England ships from using European ports, thus barring entry of Britishers products.

Limitations of continental Blockade

- It was enforced unilaterally without taking other countries into confidence.
- Napoleon highhandedness over the continent bred resentment
- British goods were in demand in the continent and blockade created price rises and resentment among people.

Thus several countries formed coalitions

against Napoleon which finally led
to his downfall and failure.

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 an institution of society playing certain role with certain responsibilities to ensure continuity and stability in the society.

Traditional aspects of Marriage

- Associated with purity and pollution, thus endogamous and intra caste marriages
- It was seen as confluence of two souls.

Aspects of change in recent times

- Increasing instances of inter-caste marriages,
- Dating culture
- Finding Bride and groom through online sites or matrimonial sites

- concept of live-in partners
- Increasing number of Dual-career families
- Marriage as confluence of two souls is finding less relevance, thus increasing divorces.

Elements of continuity

- Emotional bonds between husband and wife still persists.
- Ritual ties
- unity during child rearing.
- Marriages are celebrated with more vigour these days. Ex:- Lavish marriages have become a norm.

Though Marriage has seen lot of changes and some elements of continuity it still plays a major role in Indian society.

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 and with age comes multiple disabilities.

Physical Disability

Body's physical strength decreases and becomes more susceptible to diseases.

Mental

Stress and strain.
Emotional balance.

Social

After globalisation, we have seen increasing number of old age homes, which means declining values in society.
Resistance with new values, leading to frustration.

Economic

Lack of income source after retirement.
Increasing livelihood costs.

Technological

↳ less adaptability to technological changes.

Key Government Initiatives

- ↳ Rashtriya Vayoshrestha Vandana.
- ↳ High interest rates for deposits by Senior citizens
- ↳ National Social Assurance Scheme
- ↳ Annyodaya Yojana.
- ↳ Suganya Pustakalaya.
- ↳ DBT transfers
- ↳ concessions for Senior citizens in Railway tickets, public transportation.

Along with government initiatives it is imperative to provide value education to tackle the issues old age population faces.

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।

literacy rate among tribals is way below the national average (~80%).

Reasons for low literacy rate;

- Traditional belief, value, cultural norms of tribals
- Self-sufficient, closed nature of tribal economy. They are mostly dependent on forest produce for their sustenance. So, Education is not seen as necessity.
- Lack of awareness about their rights and entitlements.
- Lack of proper integration with the mainstream society.
- Failure of Bureaucracy to ensure education penetration in tribal areas.

→ Failure of local self government
and non-extension of Part IX
provision to 'schedule 6' areas.

Initiatives taken by government

- Eklavya model residential schools
in tribal areas to provide
primary and Secondary education.
- Reservation provided by constitution
to scheduled tribes in Educational
Institutions
- Sarva Shiksha Abhiyan and
mid day meal scheme.
- RTE act, 2009 - free and
compulsory education for all between
6-14 years.

It is imperative ~~that~~ to take
confidence of tribals and ensure
participatory approach to boost their
literacy.

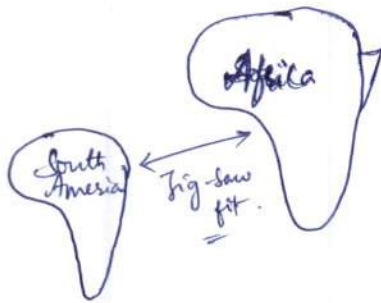
8. Explain how Continental Drift Theory describes the changing configuration of the continents. Discuss the prominent evidences given by Alfred Wegener to support his theory. (150 words) 10

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 was propounded by Alfred Wegener to explain the movement of the continents.

Evidences given by Alfred Wegener

→ Zig-saw fit of the continents.



→ Based on the fossil evidences. It was found that same type of fossils were found in boundaries to two distinct continents.

→ Marine origin fossils were found in Himalayas, and glacial origin fossils were found in interior of continents.

→ Same types of animals and plant species were found on continents which implies that they were together millions of years ago.

Continental Drift theory says that, the present continents were together as two landmasses separated by Tethys sea and they started spreading away thus leading to formation of present shape of continents.

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 featured with variety of landforms such as valleys, mountains, canyons, plateaus, ridges. This diversity is a result of both Internal and External factors.

Internal factors

- Earthquakes, change the landscape of the area (Ex:- Rift valleys, Narmada rift valley)
- Eruption of Volcanoes spread lava over vast area and ~~brings~~ brings changes in landform (Ex:- Deccan plateau).
- Mid-oceanic ridges change the oceanic relief
- Continental and oceanic plates (Ex:- Himalayas)

External

- Rivers cut down the mountains in their path to create beautiful valleys (Ex:- valleys in Himalayan region).

- Due to wave action, sea cliffs are formed
- Due to wind action, mountains are converted into gravel, soil.
- Due to various microbial activities, parent material is converted into soil ~~etc~~
- Due to meteorites, crater lakes are formed (Eg:- lunar lake, MH).
- Biotic life also plays a part in changing landscape.
- Anthropogenic causes
 - High rise buildings
 - Tunnels inside mountains
 - Mining activities.

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 with increase of altitude the pressure and temperature falls. with every 1km rise in altitude, the temperature decreases by 6°C .

Relationship with atmospheric stability.

→ Warm dry air being lighter rises and as it moves up in altitude it cools down due to adiabatic lapse rate and finally reaches a point where it gets stabilised. Rise in warm air creates low pressure on the ground.

→ Moist air when rises due to latent heat release when condensed, gets further heated up and raises more high and thus leading to formation of stratus and cumulo nimbus clouds which cause rainfall.

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।

Indian art and architecture has been influenced by several external forces such as Islam, Greek, Mughals and Britishers. colonial period had profound influence on Indian architecture.

- Chhatrapati Shivaji Terminus building, Mumbai is an example of Indo-Gothic style.
- Rashtrapati Bhavan, New Delhi has influenced by western architecture
- Lutyens Delhi - is an example of British influence
- church in Shimla and various Museums, buildings in Shimla have western influence.

→ Victoria building in west Bengal has colonial influence.

contribution of Europeans.

- Indo-Greek style
- Indo-Sarcenic style.
- Indo-Roman style.

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 in the Indian context has ~~been~~ referred as "Indian Renaissance" because of various changes and reforms it has brought in the Indian Society.

Struggle against backward Elements of Indian Society

- At the instance of Indian reformers, female infanticide which was prevalent was banned by a regulation.
- At the instance of Raja Ram Mohan Roy, Practice of Sati was abolished.
- By the efforts of Ishwar chandea VidyaSagar, Lord Dalhousie passed

"Widow Remarriage act"

→ Raja Ram Mohan Roy established

"Brahmo Samaj", for Emancipation of women, women education, religious reforms. It was based on the principles of "Upanishads", which preached Non - Duality.

→ Keshab chandra Sen fought against the child marriages prevalent in the society

→ Jyotibha Phule established Satyashodak Samaj for upliftment of weaker sections of the society.

→ Hithakarni Sabha was established by Veeresalingam Pantulu for social reforms

→ Daya Nand Saraswati has established Arya Samaj, which preached equality

of all and gave slogans like Swaraj, and Swadeshi which inspired freedom struggle.

Positives of reforms

- women were liberated from their shackles and found empowerment
- It gave a voice for lower caste people in highly caste conscious society
- Derogatory practices were abolished.

Socio-religious reform movement played an important role in leap forwarding Indian society into a progressive one and gave a push to the freedom struggle.

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 in 1906 by Lord Curzon was a significant landmark in Indian freedom struggle.

Reasons behind partition of Bengal.

Official Reasons

- Administrative convenience, thus dividing region into west and East Bengal.
- Inadequate representation of Muslims in administration.

Actual Reasons

- To Divide Hindu and Muslims on communal lines.
- It was so divided that Bengali speaking population and Hindu population was made minority in East Bengal.
- To curb rising nationalism.

↳ To curb revolutionary activities.

Successes of Swadeshi movement

- ↳ Spirit of Swarajya and Swadeshi was awakened.
- ↳ Native Education got a boost.
 - ↳ National Council of Education was formed
 - ↳ Many Native Schools and colleges were opened. E.g. Shantiniketan by Rabindranath Tagore, Dawn Society
- ↳ Native art by Abhinidranath Tagore,
- ↳ Native companies were opened up such as Swadeshi Navigation company by Chidambaram Pillai.
- ↳ Raksha Bandhans, Atma Shakti songs all brought unity in the masses
- ↳ Women participated in large numbers

Limitations

- ↳ Element of communalism got introduced in the form of "All India Muslim League" (1906)

- Split in the congress (Surat split) (1907)
among moderates and Extremists
- Movement was a failure as Britishers annulled partition in 1911 and could successfully divide people on communal lines
- Morley-Minto Reforms were not as per (1909)
the demands.

Though it had certain limitations it was a significant landmark as it raised Atma Shakti among masses and principles like Swadeshi and Swaraj found way into Indian freedom struggle which were used in NCM, CDM.
(1920) (1930)

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।

Post - Independence, India has seen a debate on re-organisation of states and demands for linguistic reorganisation of states were raised.

→ Though pre-independence 'Proadesh congress committees' were organised on linguistic lines, leaders were opposed to that idea post independence as;

- It would threaten National Integrity
- India is at Nascent stage of democracy
- It would raise acute regional consciousness
- Partition inflicted marks.

→ Re-organisation on linguistic basis was rejected by JVP committee, Dhar commission. But due to efforts of Potti Sreeramulu for division of Telugu

speaking region from Madras province,
1st State reorganisation commission was
established ~~which~~ under Fazl Ali, H.N. Kunzru
which has advocated linguistic based reorga-
nisation.

Distinct contributing factors

- Mass Education could be better provided in mother tongue
- Real participation of people in administration is possible if administration is in their language.
- Relative deprivation and to strengthen their culture (Ex:- Telangana state formation).
- To protect and assert their identity (Demand for greater Nagaland, Bodoland territory)
- Due to lack of development and administrative convenience (UK separated from UP, CH from MP).

Many reorganisations of states has happened post-independence upto now such as formation of PB, HR, accession of Sikkim, conversion of Himachal, Tripura from UTs to states. And though there is relative deprivation and lack of balanced development, demand for separate state seems more of a political demand ~~and~~ rather than genuine peoples demand.

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 signed
to ensure peace after WWI.

→ Germany was divided into several
parts and were taken over by UK,
France,

→ It was a humiliation to Germany, due
to the way the peace was dictated
over it.

→ The process was more of a "winner takes
all phenomena" rather than reconciliation.

It bred resentment among the people
in Germany, as Jews who were
financially sound didn't help Germany at
that time and worked for protecting their

interests

Finally this resentment took the form of Hitler, who with his oratory skills could fan the sentiments against Jews and finally with the ambition to restore Germany attacked Poland, thus breaking out WWII.

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 against women according to NCRB data is ~45% of crimes against women which shows the gravity of the issue.

- legal measures like Domestic Violence (Prevention) act, Dowry prohibition act proved ineffective.
- Domestic violence happens in between the four walls, where law has limited access and thus making laws ineffective.
- According to traditions and customs, patriarchy, women is seen as a property by husband thus causing violence on women.
- The issue gets perpetuated due to

perpetuation of patriarchy in family (Ex:-
Mother-in-law ~~is~~ inflicting violence on Bride)
and lack of awareness among women

→ Violence is not only physical, it can
be mental, Economic. But law mostly
deals with physical aspect.

Thus, it is imperative to intervene at
Societal level.

→ Bring awareness about the unethical
practice of Domestic violence by intervening
in Education system. Our textbooks still
show women as housewife and father as
breadwinner, this should change.

→ Self-subjugating attitude of women
needs to be changed, they need to be
economically empowered. SHGs are a
right step in this direction.

→ Role models of the society needs to
persuade the society to change their

attitudes. we need eccentrics like R.R. Roy,
T.C. Nityasagar to change the norms of
society.

Domestic violence is a crude
manifestation of Patriarchy, and thus
need interventions both at legal and
societal level.

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 is undergoing demographic transition at an unprecedented level and it is expected that India's average age by 2020 will be 29 years.

Implications

- North Indian states are relatively younger than South Indian states, thus it can lead to continuous supply of workforce for the country.
- largest youngest population in the world, which means that largest consumer base which can spur economic growth of the country and help India achieve its target of \$4 trillion economy by 2022.
- largest English speaking population in the world, which has huge potential for

Services export

→ Young generation is politically and Environmentally assertive thus has potential to transform representative democracy to participative democracy and ensure sustainable development

Ex: Rally for rivers campaign

→ High risk appetite, which can boost Entrepreneurship and thus Employment generation

→ By 2020 average age of US will be 40, Japan - 49, thus huge potential to harness demographic dividend and ensure soft diplomacy.

→ They are at the cusp of transition between modern values, Individualism vs traditional values. one of the effects is declining morals among youth thus increasing instances of Drug abuse.

- child sex ratio is decreasing (currently at 918), whereas sex ratio is improving (940), thus leading to phenomena of "Missing women".
- Increasing dependent population, causing pressure on the workforce.
- Due to low sex ratio, instances like Bride purchasing etc. are occurring.

It is assumed that India's demography dividend will last till 2040 and thus it is need of the hour to upskill the population (which is currently at 74%) to harness the demographic potential and mitigate the negative implications.

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 is an holistic development of river basins, along with catchment areas to ensure Sustainable development.

Significance

- It arrests soil erosion and increases the organic matter in the soil
- It increases percolation of water and thus increasing GW (ground water) table.
- It decreases the soil runoff into the rivers and water bodies, thus maintaining the river's ecological flow.

→ It helps in mitigating floods.

Reasons for limited success

Though several initiatives like Command Area development, Integrated water-shed management, Accelerated Irrigation Benefit scheme, Desert area development program were launched still there was limited success.

→ command area development failed due to lack of community participation. No micro channels, tertiary irrigation works took up leading to failure of optimal use of water.

→ lack of funds available to the schemes and awareness among people. Interventions are episodic rather than pro-active.

→ Sand mining, corruption, encroachments

→ lack of flood plain zoning, land management practices.

Some measures

- Afforestation along the river banks
- construction of micro channels, on-field channels, underground irrigation practices.
- CAMPA funds could be directed towards watershed development
- MGNREGA could be extended for watershed development.
- Small run-off channels connecting water bodies to prevent flooding.

Need of the hour is holistic stakeholder participation, water user associations can be setup to ensure participation of people which can go a long way in ensuring sustainable development.

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?

Raw materials form 50-60% costs for an industry, thus they play a major role in location of industries.

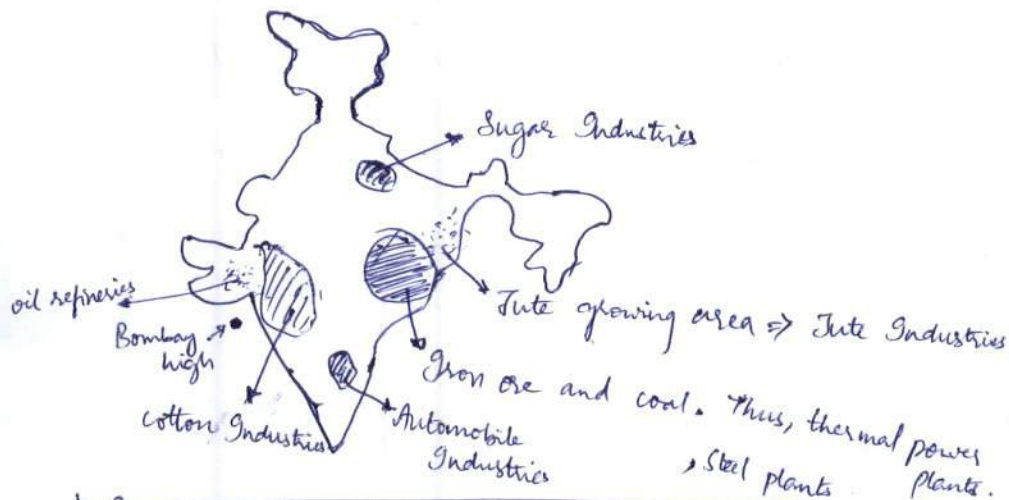


Fig: Raw Materials and Industries

Relationship between Raw materials and location of Industries

→ Industries using bulky raw materials and weight loosing such as coal, Iron-ore tend to be concentrated near to source of raw materials Ex: Steel Industry

in Bokaro, near Dhanbad, JH.

- Industries catering to local markets and using non-weight losing are tend to be concentrated near to the market location. Ex:- cotton industries in Kanpur
- Junction points of transportation lines such as Rail, road, airways. tend to be crowded with industries as efficient transportation reduces cost of transportation of raw materials.
- Industries requiring continuous electricity supply tend to be concentrated near coal mines as they provide thermal power.
- Sugar producing industries concentrate near sugarcane producing areas such as TN, MH, UP.

Impact of Globalisation and technology

- Improved transportation facilities, decreasing logistics costs, thus dispersal of industries to near the ports, market areas.
- Industrial clusters, Export Zones have developed. closeness to rawmaterial is no more a concern
- cheaper availability of loans, capital.
- Use of ICT in assembly lines, thus leading to outsourcing of tasks. for eg: R & D is done in US, Manufacturing in china, Assembly in India and sale worldwide.

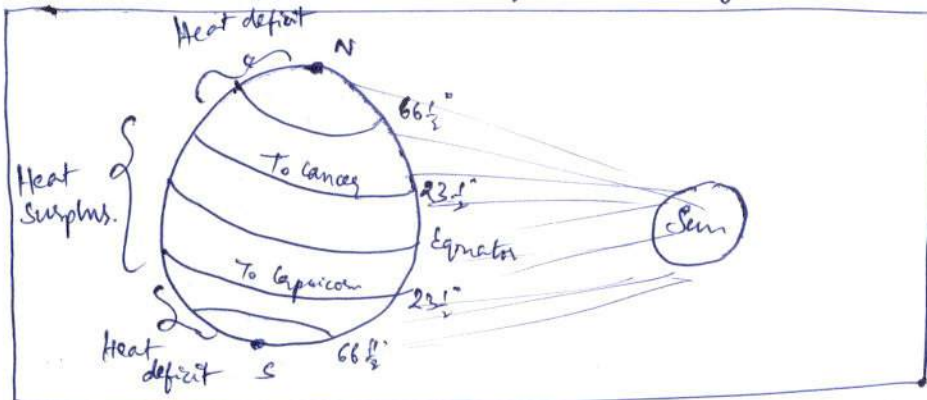
Raw material though forms a major part due to recent advancements in infrastructure, technology its role in determining location of Industry has decreased.

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?

Earth's heat budget means distribution of temperature around the Earth, it leads to balancing out the temperature differences, transfer of heat from surplus to deficit region.



→ Earth's atmosphere is transparent to insolation but absorbs the long wave radiation emitted by the Earth, thus trapping some of the heat

- This trapping of outgoing radiation leads to natural greenhouse effect. It is trapped by greenhouse gases such as CO_2 , H_2O , etc.
- It helps in regulating Earth's atmosphere from not becoming extremely hot and extremely cold. without natural greenhouse effect Earth would see 150°C during day and -200°C during night. life would not have been possible.
- Heat is transferred from Heat surplus zone to the Heat deficit polar areas, thus maintaining optimum temperature.

Implications of rising concentration of GHGs

- Earth's average temperature will increase leading to excess heat absorption which will have adverse implications on natural processes.

- Melting of glaciers, ice sheets will occur and thus decreasing albedo of Earth further.
- Increasing acidification of oceans, affecting marine organisms and especially shell forming organisms
- Increasing sea level rise, leading to submergence of many islands.
- Increase in extreme weather events
- weakening of Rossby waves, causing events like cold wave shocks in tropical areas such as Florida.

It is imperative to take collective action to limit GHGs to a sustainable point. India's push towards Renewable Energy, INDC targets reflect the same and India's commitment towards SDG 13 (climate action).