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GENERAL STUDIES (TEST CODE : 1834)

Name of Candidate	SHAH MARCI		
Medium Eng./Hindi	ENGLISH	Registration Number	141788
Center		Date	09/22

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

1. 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)।
2. There are TWENTY questions printed in ENGLISH & HINDI
इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
3. All questions are compulsory.
सभी प्रश्न अनिवार्य हैं।
4. The number of marks carried by a question/part is indicated against it.
प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
5. 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।
6. Word limit in questions, if specified, should be adhered to.
प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
7. 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.

VisionIAS

1. The Sunga dynasty contributed significantly to the cultural and social development in ancient India. Discuss. (150 words) 10
प्राचीन भारत में सांस्कृतिक और सामाजिक विकास में शुंग वंश का महत्वपूर्ण योगदान रहा है। चर्चा कीजिए।

Sunga dynasty replaced the last mauryan King Brihadashtha with the arrival of Pushyamitra Sunga.

• Contribution to social development :-

① Revival of Hinduism :- Against the rising tide of Buddhism & Jainism.

②. Performance of Vedic sacrifices like Ashwamedha & Rajayaga.

② Change in ruling dynasty :- Replaced Kshatriyas by Brahmins for the first time.

• Contribution to cultural development :-

① Architectural studies :- Renovation of

Sanchi & Bharhut stupa & its expansion during reign of Purjyamitra Shunga.

③ Literature :- They patronised Patanjali & Kalidasa eg. Malvikagnimitram play written during the period.

③ Sculpture :- Of Yakhas & Yakshinis built in regions of Gwalior to Mathura.

④ Pillar inscriptions :- At Vidisha in Brahmi script & Prakrit language.

Sunga sept dynasty thus contributed to art & architectural development, further being replaced by Vandav Karva (Karva dynasty).

2. Discuss the role of foreign nationals in the Indian freedom struggle during the Gandhian phase. (150 words) 10

भारतीय स्वतंत्रता संघर्ष के गांधीवादी चरण के दौरान विदेशी नागरिकों की भूमिका की विवेचना कीजिए।

Indian freedom struggle & the subsequent independence was the result of efforts of both Indians & foreigners.

• Role of foreign nationals during Gandhian phase :-

① Alternative forms of struggle :- Annie Besant formed Home Rule League (1916) on lines of Irish Home Rule League.

② Upliftment of women :- Margaret Elizabeth (Sister Nivedita) joined the Ramkrishna Mission & helped during Bengal famine.

③ Indian cause promotion abroad :- Bhikaji Cama unfurled the national flag on

the soil of Germany.

④ Advancement of social reforms :- Charles

Freer Andrews who worked to fight untouchability & given title 'Dinbandhu' by Gandhiji for his compassion towards poor.

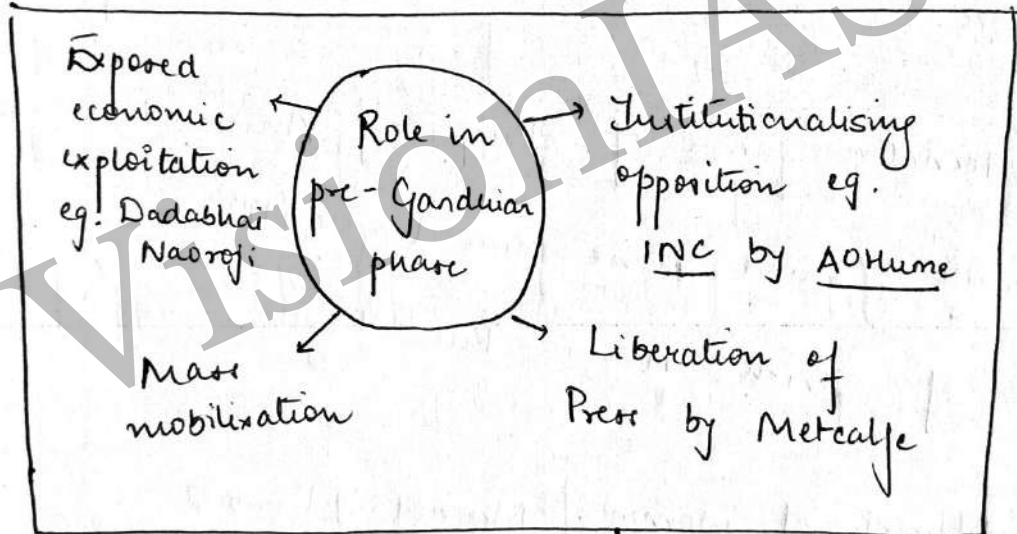


Fig 1.0

Thus, foreign nationals followed values of justice & equality to advance the Indian freedom struggle.

3. Provide an account of the contributions of Ram Manohar Lohia during the Indian freedom struggle and in post-independence India. (150 words) 10
भारतीय स्वतंत्रता संघर्ष के दौरान एवं स्वातंत्र्योत्तर भारत में राम मनोहर लोहिया के योगदान का विवरण प्रस्तुत कीजिए।

Ram Manohar Lohia was a prominent figure in socialist politics & the Indian independent movement.

• Contributions during freedom struggle :-

① Socialist Party :- Founded Congress Socialist Party in 1934 to promote 'socialism' as an ideology.

② World War II :- Opposed Indian participation on the side of Great Britain.

③ Quit India movement :- Was arrested for mobilising support for Quit India movement along with other CSP leaders.

• Contribution post-independence :-

① Praya Socialist Party :- Formed in 1952
alongwith members like Jayprakash Narayan.

② Socio-political reforms :- Advocated for
abolition of caste system, promotion of
Hindi as a national language, reservation
of 60% for women, SC & STs.

③ Approach to reforms :- Militant approach
by undertaking strikes, agitation, civil
disobedience, etc. for protection of civil
liberties.

However, later it adopted an
anti-Congress agenda narrowing its vision.

Thus, Ram Manohar Lohia actively
contributed in formation of a socialist
goals-driven economy, post-independence.

4. What do you understand by tsunamigenic zones? Giving an account of their global distribution, explain the propagation of tsunamis. (150 words) 10
सुनामी जनक क्षेत्रों से आप क्या समझते हैं? उनके वैश्विक वितरण का विवरण देते हुए, सुनामी के संचरण की व्याख्या कीजिए।

Tsunamigenic zones are danger
zones close to a convergent boundary
of an oceanic plate that has the
potential to bring tsunami earthquakes.

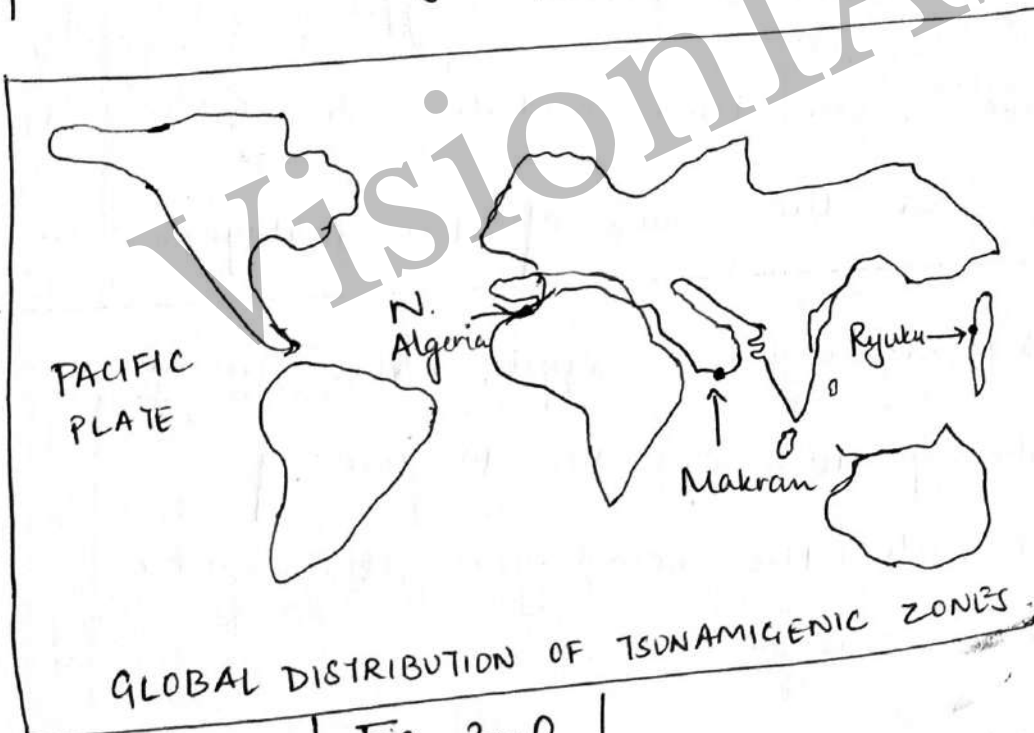


Fig 2.0

Recently, Makran subduction zone in the Indian ocean is threatened due to combination of two tsunamigenic zones.

• Propagation of tsunami:-

- ① Tsunami waves ^{are created} during an earthquake in the ocean due to movement of tectonic plates.
- ② This physical shift of place forces water above the average sea level which is then transferred into horizontal energy.
- ③ These waves then radiate outwards away from the focus of the earthquake.
- ④ On reaching the shore, their height dramatically increases due to loss of contact with the ocean floor that causes maximum damage.

Thus, efficient early warning systems like IFLows (Mumbai) should be developed to reduce loss of life & property.

5. What are atmospheric lakes? Highlight their characteristics.

(150 words) 10

वायुमंडलीय झीलें क्या हैं? उनकी विशेषताओं पर प्रकाश डालिए।

Atmospheric lakes are a unique kind of storm discovered by scientists, that is produced by dense water vapour concentration capable to produce rain.

• Characteristics :-

- ① Formed in an area of slow-moving winds or winds with negligible speed.
- ② Created majorly over Western Indian

Ocean.

- ③ Instead of being formed by a vortex, it contains dense water vapour concentration.
- ④ Found in equatorial locations. eg. 17 of the atmospheric lakes were within

10° of equator.

⑤ They turn into a tropical cyclone in tropical region.

⑥ They can direct rainfall towards the Eastern African coast, contemporarily a dry area.

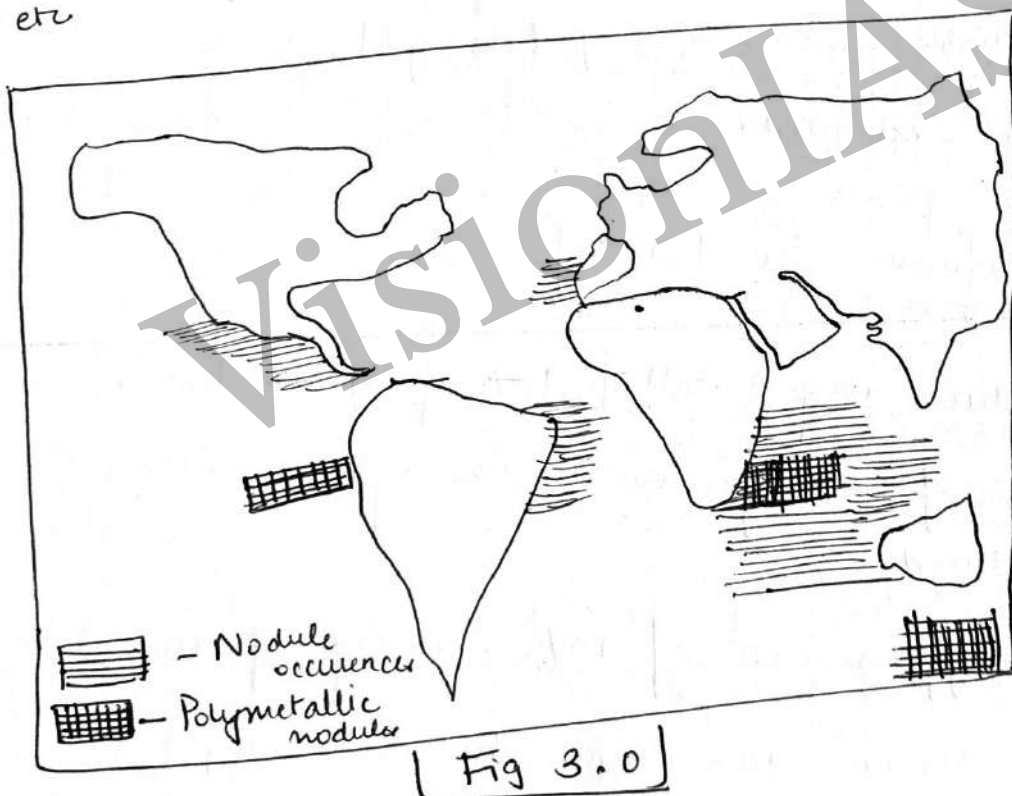
⑦ It can also be formed from atmospheric rivers (long bands of water vapour in atmosphere) in the Indo-Pacific region.

Thus, such lakes in the wake of climate change can prove helpful to bring rains to drought-prone areas & thus, greater research on it is required.

6. What are polymetallic nodules? Highlight their geographical distribution and state their significance. (150 words) 10

पॉलीमेटेलिक नोड्यूलस (बहुधात्विक ग्रंथियां) क्या हैं? उनके भौगोलिक वितरण पर प्रकाश डालिए और उनका महत्व बताइए।

Polymetallic nodules are potato-like rounded accretions found at deep ocean bottom, containing manganese, nickel, copper, cobalt, lead, molybdenum, cadmium, etc



• Significance of polymetallic nodules :-

- ① Rare Earth Elements :- Contained in it important for high-tech industries.
 - ② High copper content :- About 20% of the global land-based reserve.
 - ③ Valuable minerals :- Like gold, silver can be extracted.
- ## • Significance for India :-
- ① Reduce import bill :- 10% of ~~reserves~~ India's imports of strategic metals like copper, cobalt can be reduced.
 - ② Energy generation :- 10% recovery of that large reserve can fulfill India's energy requirement for next 100 years.

Thus, India's launch of Samudrayaan under Deep Ocean Mission will allow full development of 'Blue Economy.'

7. What are technical textiles? In view of their significance, discuss the steps taken by the government to promote them in India. (150 words) 10

तकनीकी वस्त्र क्या होते हैं? उनके महत्व को देखते हुए भारत में उन्हें बढ़ावा देने के लिए सरकार द्वारा उठाए गए कदमों पर चर्चा कीजिए।

Technical Textiles refer to functional fabrics that can be used in automobiles, space, healthcare, agriculture, etc. eg. Mobitech - airplane seats, airbags, etc.

• Significance of technical textiles:-

① Doubling farmers' income :- Use of agrotech textiles like in horticulture, fishery to improve plant growth, maintain soil fertility, etc.

② Economic growth :- India currently has 6% of global share in technical textiles which can be improved.

③ Exports :- It can improve India's share in textile exports overtaking Bangladesh & Vietnam.

• Steps taken by government :-

- ① National Technical Textiles Mission :- To make India the 'global leader' in technical textiles & improving its market share.

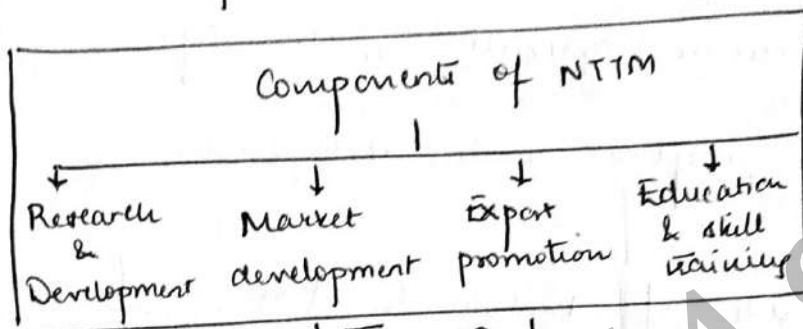


Fig. 0

- ② Production Linked Incentive for Textiles sector
- ③ 100% FDI under automatic route allowed bringing companies like Johnson & Johnson, etc
- ④ Amended Technology Upgradation Fund scheme to promote investments.

Technical textiles can play a significant role in increasing textile contribution to GDP from 2% to over 5% & achieve \$ 5 tr economy by 2024.

8. Discuss the challenges that internal migration creates for urban governance in India. Also, suggest measures to address the same. (150 words) 10

भारत में आंतरिक प्रवासन द्वारा शहरी शासन के समक्ष उत्पन्न चुनौतियों की विवेचना कीजिए। साथ ही, इससे निपटने के उपायों का भी सुझाव दीजिए।

Internal migration in India is highest from rural-to-rural, followed by rural-urban with the most migrations for marriage. (Census 2011)

Challenges due to internal migration :-

① Resource crunch :- On limited resources like water, housing, etc. resulting into resource conflict.

② Traffic congestion :- Due to high population hampering urban connectivity.

③ High pollution :- The high population also bring create greater plastic pollution.

water pollution (through incessant use of urban lakes) & air pollution (use of private transport).

④ Urban heat islands :- Created due to excessive concretisation & climate change-induced global warming.

• Measures to address this :-

① Rural-urban connectivity :- Should be enhanced. eg. RURBAN Mission

② Creation of basic facilities :- Water availability, 24x7 electricity, quality school education to reduce push factors. eg. River interlinking to reduce water stress, Smart classes for quality education.

③ Diversification of economic opportunities :-

Fillip to rural MSMEs, development of livestock & animal husbandry, etc.

Thus, these challenges should be aply addressed to achieve sustainable cities (SDG 11).

9. Discuss the various opportunities and challenges posed by globalization on working women in India. (150 words) 10

भारत में कामकाजी महिलाओं के लिए वैश्वीकरण द्वारा उत्पन्न विभिन्न अवसरों और चुनौतियों पर चर्चा कीजिए।

'Time to Care' Report by Oxfam International indicates that women spend 38% more time than men in household & care work.

• Opportunities by globalization :-

① Financial autonomy :- Due to availability of job opportunities.

② Decision-making :- Working women now play a significant role in decision-making regarding their reproductive rights, financial transactions, etc.

③ Commodification of housework :- Has allowed division of work between husband & wife.

• Challenges by globalization :-

① Dual burden :- Rise of 'Work From Home'

has put dual burden on women of both home & work.

② Dual violence :- Working women may ~~also~~ face abuse at both public & private places.
eg. Sexual harassment at workplace & domestic violence at home

③ Glass ceiling :- Women face limited growth opportunities and recently, 'glass cliff' is seen where women are raised to leadership positions during crisis & the later failure blamed upon them.

④ Pink collarisation of jobs :- Restricting women to secondary labor market (Karuna Ahmed) & low paying jobs like nursing, receptionist, etc.

Globalisation has been a 'double-edged sword' on working women allowing them to break patriarchal chains which practising patriarchal bargain

10. Discuss the rationale behind anti-conversion laws in India. Also, state the concerns that have been raised with regard to these laws.

(150 words) 10

भारत में धर्मांतरण विरोधी कानूनों के पीछे निहित तर्कों पर चर्चा कीजिए। साथ ही, इन कानूनों के संबंध में व्यक्त चिंताओं का भी उल्लेख कीजिए।

Uttar Pradesh recently passed an anti-conversion law to curb the rising instances of 'Love jihad' where a certain community aims to forcefully convert others to their religion.

• Rationale behind the laws :-

① Curb forced conversions :- As it goes against Article 25 of the Constitution.

② Problem of inducement or allurement :- Via money, education, healthcare facilities, etc.

• Concerns raised against the laws :-

① Article 21 :- SC conferred the 'Right to Marry' according to one's own choice as (Hadiya case) a fundamental right.

② Uncertain & Vague terms :- Like the words 'fraud', 'allurement', presents serious avenue for misuse.

③ Antithetical to Secularism :- May pose a threat to India's secular fabric & international perception of India's legal system.

④ Ag Doctrine of Chilling Effect :- Such laws must restrict exercise of freedom due to fear of punishment.

⑤ Against Supreme Court judgement :- SC said that individual has autonomy to take vital decisions.

Thus, such laws must strike a balance between fundamental rights & malafide conversions to protect the secular fabric of India.

11. Central Asian contacts had a profound political and cultural impact on India in ancient times. Discuss. (250 words) 15

प्राचीन काल में मध्य एशियाई संपर्कों का भारत पर गहरा राजनीतिक और सांस्कृतिक प्रभाव पड़ा है। विवेचना कीजिए।

A series of invasions beginning since 200 BCE led to the arrival of Bactrians, and later Scythians, Parthians, ~~Seleucids~~ & Hunas into Indian land.

• Impact on political system :-

① Mainstreamed coin :- Indo-Greeks were the first to issue coins of gold, silver, copper, nickel.

② Administration :- Indo-Greeks introduced military governorship & called governors as 'Satrapas'. eg. Kushanas 'Satrap System'

③ Introduction of horses :- Shakas & Hunas popularised the use of riding horses & introduced better cavalry.

② Divine kingship :- They propagated the idea of kings having divine origin.
eg. Kushanas - 'son of God'

③ Cultural impact on India :-

① Society :- The arrival of foreign rulers led to the inclusion of multiple castes & subcastes.

↳ Rulers acclaimed themselves to be "Kshatriyas" & were completely Indianised.

② Religion :- Rulers from Central Asia converted to Vaishnavism, Buddhism, etc.
eg. Images of Shiva & Buddha on Kushana coins.

↳ Origin of Mahayana Buddhism owed to 4th Buddhist Council under Kanishka.

③ Art & Literature :-

↳ Development of Gandhara school of Art under Kushana patronage.

↳ Earliest specimen of Kavya style found in Shaka ruler Rudradaman's inscription.

④ Architecture :-

↳ It was marked by construction of brick walls & use of burnt bricks for both roofing & flooring.

⑤ Trade :-

↳ They promoted trade between India & Central Asia with huge imports of gold.

↳ Silk Route controlled by Kushanas.

↳ Filter to irrigation in agricultural practices by Kushanas.

Thus, this age was a period of large scale assimilation of foreign rulers in Indian society along with some significant contributions. eg. Shaka - Samvat system.

12. Governance, during the British rule, was a means of exploitation of India rather than a vehicle of public welfare. Discuss. (250 words) 15

ब्रिटिश राज के दौरान शासन (गवर्नेंस), लोक कल्याण के एक माध्यम के बजाय भारत के शोषण का एक साधन था। विवेचना कीजिए।

British arrival in India & its consequent political rule from merely trading functions, led to a series of governance policies that inhibited India's development.

• Governance - means of exploitation :-

① Curbing freedom :- British Acts like Vernacular Press Act, 1878 differentially targeted Indians' freedom of speech & press.

② Economic Exploitation :- The economic policies of British such as duty free imports & free one-way trade led to 'Drain of Wealth.'

③ Industrial Growth :- Was limited due to excessive restrictions on Indian industries.
eg. Factory Acts, 1851 & 1891 only applied to Indian industries.

- ④ Development of communication tools :- Was more to enhance the connectivity with hinterland, for seamless trade.
- ⑤ Education policy :- The literacy ^{rate} of India during British rule was 13%, showing the poor state & access to education.
- ⑥ Healthcare :- Famines of Bengal indicate the poor healthcare system.
- ⑦ Social structure :- After 1857 revolt, British stopped interference in Indian social structure via any reforms & thus stagnated the Indian society.
- ⑧ Commercialisation of Agriculture :- Focus on cash crops from food crops led to impoverishment of farmers & made them prey to moneylenders. eg. Compulsory Indigo cultivation.

- Governance - led to public welfare :-
- ① Connectivity measures: Like telegraph, post, railways, etc. helped the exchange of nationalist ideas. eg. Messages sent via telegraph about any exploitation.
- ② Education :- Western Education helped create an intellectual middle class who fought for the values of liberty & equality.
- ③ Economic policies :- Were used by leaders like Dadabhai Naoroji, R.C. Dutt to expose the true exploitative nature of British rule.
- ④ Land laws & agriculture :- It helped channelise the tenants' & farmers' anger towards the freedom struggle. eg. Indigo Revolt, 1850

Thus, despite the rationale behind governance was to exploit India, it also contributed to greater awakening & provided a stimulus for the freedom struggle.

13. Discuss how India successfully dealt with the sensitive issue of language, which had the potential of threatening national unity in the post-independence period. (250 words) 15

चर्चा कीजिए कि भारत ने भाषा के संवेदनशील मुद्दे का, जिसमें स्वातंत्र्योत्तर अवधि में राष्ट्रीय एकता के समक्ष खतरा उत्पन्न करने की क्षमता थी, किस प्रकार सफलतापूर्वक समाधान किया।

India has 4th highest number of languages globally with over 50 languages and more than 500 dialects, however this did not divide but rather united India.

• Successful dealing of language issue :-

① One language, one state :- was not allowed by our leaders like Jawaharlal Nehru, Sardar Patel & it would fragment India.

② Freedom for state language :- States were given the autonomy to choose any language to be state's official language, given it must be spoken by significant

number of people.

- ③ Eighth Schedule :- Formally recognised 22 languages which provided them the recognition & pride to its speakers.
- ④ Use of English :- Allowed in multiple states like Assam, Pradesh, Nagaland, despite being out of 8th schedule.
- ⑤ No imposition of Hindi :- Southern States' opinion was considered and thus, Hindi was not made compulsory nor made a national language.
- ⑥ Union of India :- Free movement & residence (Article 19) allowed for development of a multilingual population due to migration related to work, education, etc.

⑦ All-India services :- Created under Article 312 also provided for greater intermingling of people from diverse linguistic background.

• Persisting challenges :-

① 3-language formula :- National Education Policy, 2020 ^{was} vehemently opposed by Southern States for provision of 'Hindi, state language & English' to be taught in schools.

② Article 350 :- Call for development of Hindi language & making it a lingua franca.

Despite these issues, India being a multicultural & multilinguistic state has found its true representation of 'Unity in Diversity'.

14. Bring out the factors, which led to decolonisation after the Second World War. Also, discuss the role played by India in this regard. (250 words) 15

उन कारकों का उल्लेख कीजिए, जिनके चलते द्वितीय विश्व युद्ध के बाद विउपनिवेशीकरण हुआ। साथ ही, इस संबंध में भारत द्वारा निभाई गई भूमिका की भी विवेचना कीजिए।

The end of World War II in 1942 ushered in a wave of decolonisation after the enough destruction & loss of life & property.

• Factors for decolonisation :-

① Economic losses :- The colonial countries like Britain, France faced heavy economic losses with no ability to maintain control over their colonies. eg. Britain paid off its final debt to USA in 2010.

② New superpowers :- USA & USSR emerged as two new superpowers & forced the erstwhile colonizers to retire.

③ Democratic rule :- Values of democracy, equality & liberty had been mainstreamed

due to multiple freedom struggles globally.
eg. French Revolution

④ Debunking white supremacy:- The loss of Britain against Japan, an Asian power debunked the myth of the white supremacy & provided confidence to colonized states.

⑤ Freedom struggles over the world:- Struggles in Egypt, Italy, etc. motivated multiple other nations to overthrow the colonial rule.

• Role played by India:-

① Supported cause of Independence:- In multiple African colonies of Britain, by publishing about their cause, promoting discussions, etc.

② Non-Alignment policy :- India's NAM allowed countries to retain their sovereignty & form a new bloc i.e. the 3rd World countries.

③ Adoption of mixed economy :- Provided a new alternative to newly independent countries for not being sucked into another power struggle like Cold War.

Thus, Second World War exposed the fact that absolute control over other country was impossible to sustain & the rule by democracy is beneficial to the world.

15. What are Marine Heat Waves (MHW)? Identify the causes of their formation and discuss their consequences for India. (250 words) 15

समुद्री ग्रीष्म लहरें (MHW) क्या हैं? उनके निर्माण के कारणों की पहचान कीजिए और भारत के लिए उनके परिणामों की विवेचना कीजिए।

Western Indian Ocean has seen a four-fold rise while the Bay of Bengal has seen a 2-3 fold rise in events of marine heatwaves.

Marine heatwaves are excessive rise in sea temperature over a varying threshold for 5 consecutive days.

◦ Features of MHW:-

↳ They can occur in both summer & winter.

↳ They are formed across all latitudes & in all the oceans.

↳ They may affect small areas of coastline or span multiple consecutive areas.

• Causes of formation:-

① Ocean warming:- About 90% of the warming due to GHG emissions is absorbed by oceans.

② Sea temperature rise:- 0.6°C rise in sea surface temperature.

③ Climate change:- Has caused unusual weather patterns & change in rainfall frequency.

④ Ocean currents:- Can build up areas of warm water & create air-sea heat flux.

• Causes of formation over Indian ocean:-

① El-Nino events & warming of Indian ocean.

② Locally, rise in solar radiation & decline

in evaporation cooling.

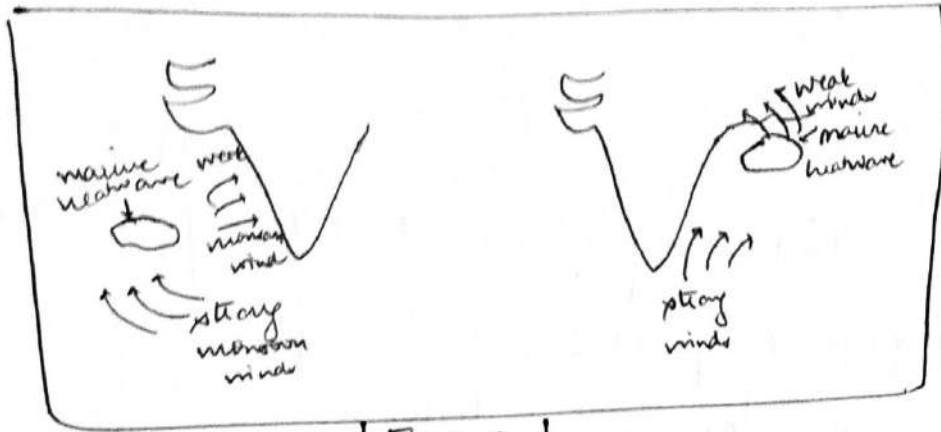


Fig 4.0

• Consequences for India :-

① Extreme weather events :- Cyclones & Tropical storms in Bay of Bengal & Arabian sea may increase.

② Threat to aquatic biodiversity :- The ones with low thermal tolerance.

③ Increased ocean stresses :- Like acidification, deoxygenation, etc., also threatening water stress.

Thus, immediate climate action (SDG 13) for adaptation & mitigation is the need of the hour.

16. What are the geo-climatic conditions required for oil palm cultivation? Do you agree with the view that India should promote its large-scale cultivation to reduce import dependency? (250 words) 15

ऑयल पाम (ताड़ के तेल) की खेती के लिए आवश्यक भू-जलवायविक दशाएं क्या हैं? क्या आप इस विचार से सहमत हैं कि आयात निर्भरता कम करने के लिए भारत को इसकी बड़े पैमाने पर खेती को बढ़ावा देना चाहिए?

India imports around 70% of its oilseeds & palm oil needs from countries like Malaysia, Indonesia leading to huge import bills of over \$10 bn.

• Geoclimatic conditions for oilpalm :-

- ① Temperature :- Around 21° - 32° C
- ② Rainfall :- 200 cm - 400 cm
- ③ Humidity :- 75 - 100% relative humidity
- ④ Altitude :- 400 - 900 metres
- ⑤ Soil :- Moist & loamy soil with good water permeability.
- ⑥ Irrigation :- It needs around 150 litres

of water / day.

Indian oil palm imports cover 73% of the total edible oil imports making it imperative to improve domestic cultivation.

• Should India to promote large scale cultivation:-

① Reduce import bill :- India spends \$10 bn every year for oil palm imports.

② Achieve self-reliance :- To shield itself from faults in supply chain due to labor crisis of Malaysia, etc.

③ Cater to rising demand:- Shift in diets of middle class with high demand of palm oil from earlier groundnut / mustard oil.

Challenges in promoting cultivation :-

- ① Large land tracts required while average landholding size is 1.09 hectares (Agri. census 2015-16).
- ② Limited temperature range making it unsuitable for India's sunny weather.
- ③ High water demand increasing the water stress and depleting groundwater table.
- ④ Rainfall as high as 250 cm is only restricted to a few areas making its cultivation difficult.

However, the need of the hour is to reduce imports & balance it with domestic cultivation by initiatives like National Edible Oil & Oil Palm Mission.

17. In view of the changes witnessed in the state of Himalayan cryosphere, discuss the implications for India's water security. (250 words) 15

हिमालयी क्रायोस्फीयर (हिमांक-मंडल) की स्थिति में देखे गए परिवर्तनों को ध्यान में रखते हुए, भारत की जल सुरक्षा के लिए इसके निहितार्थों की विवेचना कीजिए।

IPCC 6th Assessment Report showed a 12% decrease in the glaciers of Hindukush Himalayas due to rising temperature & climate change.

• Importance of Himalayan cryosphere:

① Source of water :- To major river systems like Ganga, Brahmaputra, Indus, Yellow & Yangtze.

② Himalayan topography :- It is source of perennial Himalayan rivers helping to maintain the stability in Himalayan slopes.

③ Source of freshwater :- Himalayan glaciers provide a source of freshwater to the people in Himalayan states of Uttarakhand, Himachal Pradesh, etc

• Implications for India's water security :-

① Dried rivers :- Himalayan rivers provide a continuous water source for sustenance even during summer while peninsular rivers dry up. eg. Zaskar, Indus, Satluj, etc.

② Freshwater scarcity :- Sea level rise due to melting glaciers shall create a scarcity of freshwater due to mixing with the ocean.

③ Major river systems :- Like Ganga & Brahmaputra on which 73% of the Northern population depends may dry up.

④ Threat to economy :- It shall be a threat to fishing industry.

⑤ Irrigation potential :- The melting of glaciers may disturb the irrigation network created, making Indian agriculture overdependent on monsoon.

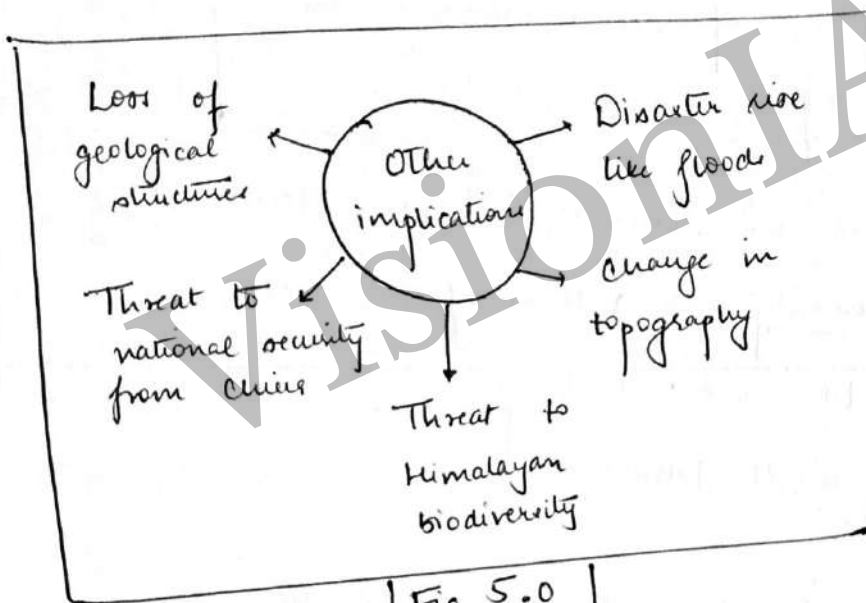


Fig 5.0

Thus, the conservation of Himalayan cryosphere is necessary via necessary steps under National Mission for Sustainable Himalayan Ecosystem.

18. Ocean warming, ocean acidification and ocean deoxygenation are often referred to as the 'deadly trio' for marine life. Discuss. (250 words) 15

महासागरीय तापन, महासागरीय अम्लीकरण और महासागरीय विऑक्सीकरण को प्रायः समुद्री जीवन के लिए 'घातक त्रयी' के रूप में संदर्भित किया जाता है। विवेचना कीजिए।

0.6°C rise in sea surface

temperature has been recorded by IPCC

6th Assessment Report showing ocean warming.

• Implications of ocean warming on marine life :-

① Increase in temperature may threaten the biodiversity at bottom of the oceans adjusted to a low temperature having a ~~short~~ small tolerance.

② Growth of algae that may reduce oxygen availability for other aquatic life.

③ Ocean warming creates high biological oxygen demand (BOD) reducing oxygen availability & creating anoxic zones.

• Implications of ocean acidification :-

① Coral bleaching :- Excessive H^+ ions lead to dissolution of calcium & thus dissolving the protection to zooxanthellae.
eg. Great Barrier Reef

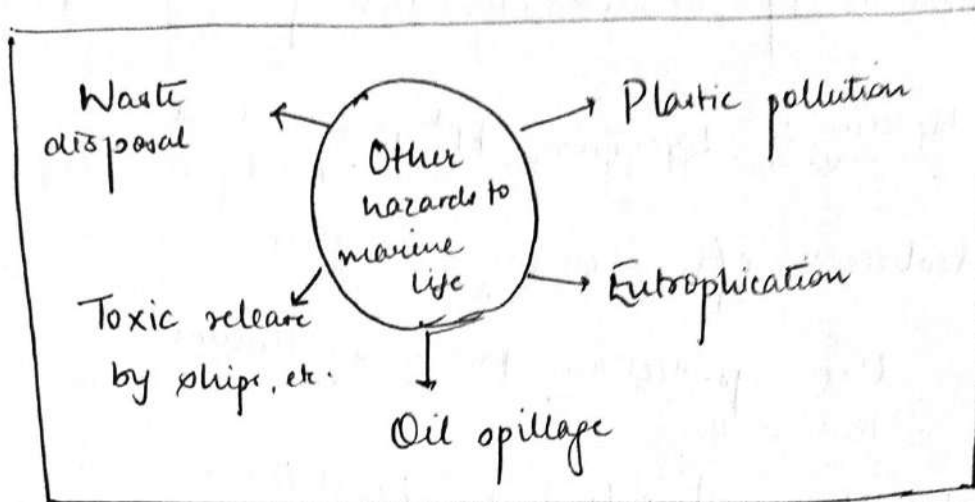
② Imbalanced pH :- Of water creates higher salts making it difficult & inhabitable for certain marine life with low tolerance for salinity.

③ Implications of ocean deoxygenation :-

① Survival of biodiversity :- Threatened to low oxygen availability.

② Habitat loss :- Due to creation of anoxic zones.

③ Food web disruption :- Due to species extinction.



[Fig 6.0]

Thus, all the three process that is ocean deoxygenation, ocean warming & acidification are a threat to life below water (SDG 14) & measures for ocean restoration must thus be put in place.

19. Tribals in India continue to face myriad challenges with regard to healthcare. Discuss the issues faced by them in this context and suggest remedial measures.

(250 words) 15

भारत में आदिवासियों को स्वास्थ्य देखभाल के संबंध में निरंतर अनगिनत चुनौतियों का सामना करना पड़ रहा है। इस संदर्भ में, उनके द्वारा सामना किए जाने वाले मुद्दों की विवेचना कीजिए एवं उपचारात्मक उपायों का सुझाव दीजिए।

The tribals have been facing differential access to healthcare systems & out-of-pocket expenditure of 67% aggravates these issues.

• Issues faced by tribals :-

① Lack of information :- Delayed ~~data~~ diagnosis of diseases due to lackadaisical approach towards health.

② High levels of malnourishment :- Stunting & wasting is high among tribal children due to 'hidden hunger' & malnourished diets.

③ Low literacy :- Literacy rate among tribals is only 54% compared to

74% of national average.

④ Access to infrastructure: Public health infrastructure is inaccessible & sometimes unavailable in remote areas. eg. Chambal ravines

⑤ Poor maternal health :- Due to early pregnancies, low rate of institutional deliveries, high maternal mortality rate.

Remedial measures :-

① Telemedicine :- Can overcome the issue of inadequate health infrastructure by providing care for basic illnesses like diarrhoea, etc. preventing early deaths.

② Traditional knowledge :- Traditional medicine knowledge of Unani, Naturopathy, etc. should be spread among tribals.

- ③ Greater nourishment :- Through proper availability of food via Poshan Abhiyan.
- ④ Improve maternal health :- By improving the rate of institutional deliveries (Orissa 100%), delayed pregnancies & late marriages.
- ⑤ Attitude towards healthcare :- Greater awareness about preventive healthcare & home remedies for frequent sicknesses. ~~should be~~
- Tribals should thus be adequately integrated into the healthcare system to achieve SDG 3 (good health & wellbeing).

20. Reservation for women perpetuates a "proxy culture" as seen in the phenomenon of "sarpanch patis". In this context, discuss whether reservation can address the issue of poor participation of women in Indian politics. (250 words) 15

महिलाओं के लिए आरक्षण एक "प्रॉक्सी कल्चर" को बनाए रखता है जैसा कि "सरपंच पति" की परिघटना में देखा जाता है। इस संदर्भ में, चर्चा कीजिए कि क्या आरक्षण भारतीय राजनीति में महिलाओं की निम्न भागीदारी के मुद्दे का समाधान कर सकता है।

Bill for 33% reservation for women in Parliament has been pending in Parliament since years despite India's poor ranking of 135/146 on the Global Gender Gap Index, showing negligible political empowerment.

• Reservation - the answer to women's participation in politics :-

① Opportunities for entry :- The initial push needed for entry shall be given by reservation.

② Level playing field :- Reduced influence of money & muscle power for entry into politics.

③ Policy-based politics :- Reservation shall allow women to independently raise women's issues escaping panel discussion (panels exclusively of men).

• Reservation not enough :-

① Attitudinal problems :- Women still considered "weaker sex" with limited abilities to compete with men, specially in rural areas.

② Tools for power usurpation :- They can be used by their husbands / brothers for gaining political power with no independence.
eg. PanchPati syndrome

③ No significant empowerment :- Women in politics may still face abuse. eg. A video of an AAP MLA publicly assaulted by husband.

④ Glass Cliff :- Women may be given leadership during difficult times & shall be blamed later for failure, labelling them 'incompetent.'

• Measures to improve political participation :-

Apart from reservation, other measures can be taken :-

① Access to political education :- Women should be given examples of successful women political leaders to motivate them. eg. Indira Gandhi, Margaret Thatcher.

② Level playing field :- Politics should be made a level playing field and a safe space for women to improve their participation.

Thus, reservation can stimulate women's entry into politics, however exercise of their political independence shall require an attitudinal shift among both women & society.