

# VISION IAS

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## GENERAL STUDIES (TEST CODE : 1513)

Name of Candidate	NAMAN GOYAL		
Medium Eng./Hindi	ENGLISH	Registration Number	933850
Center	ONLINE	Date	19-Nov-21

INDEX TABLE		
Q. No.	Maximum Marks	Marks Obtained
1	10	
2	10	
3	10	
4	10	
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15	15	
16	15	
17	15	
18	15	
19	15	
20	15	

Total Marks Obtained:

Remarks:

## INSTRUCTIONS

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

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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.

1. In the context of protection of monuments, explain the role of the Archaeological Survey of India (ASI). Also, comment on the challenges faced by ASI and measures taken to address these. **(150 words) 10**

स्मारकों के संरक्षण के संदर्भ में, भारतीय पुरातत्व सर्वेक्षण (ASI) की भूमिका की व्याख्या कीजिए। साथ ही, ASI द्वारा सामना की जाने वाली चुनौतियों और उनसे निपटने के लिए किए गए उपायों पर टिप्पणी कीजिए।

Ans) Archaeological Survey of India is one of the oldest Indian institutions working towards conservation of history.

Role of Archaeological Survey of India:

- ① Finding and unearthing the historically important monuments, artefacts or evidences
- ② Preservation of such finding
- ③ conduct research and development to understand the history.
- ④ Redevelopment of these evidences and reconstruction for display
- ⑤ Operational management and take care of the monuments for tourists

ASI runs many significant monuments across the country like Taj Mahal etc

## Challenges faced by ASI :

- ① Financial Constraint due to low devolution of money
- ② Lack of manpower to protect monuments
- ③ low tourist inflow  $\Rightarrow$  low revenue
- ④ Destruction of these monuments by tourists, disasters, environment pollution  
eg Taj Mahal - Thermal power plant,  
vehicle pollution
- ⑤ Regulatory backlog, bureaucratic processes & delays

## Measures taken : Ministry of Tourism

- ① Dekho Pradesh scheme aims to redevelop these monuments
- ② Incredible India campaign : Increase revenue
- ③ Adopt a monument / heritage site to development
- ④ UDAN scheme, PRASAD schemes

2. Tribal art has a huge potential for acting as an economic resource and a tool for socio-economic transformation of tribals in India. Elucidate. Also highlight the challenges in this context. (150 words) 10

जनजातीय कला में भारत में जनजातियों के सामाजिक-आर्थिक परिवर्तन के लिए एक आर्थिक संसाधन एवं एक उपकरण के रूप में कार्य करने की असीम क्षमता है। स्पष्ट कीजिए। साथ ही, इस संदर्भ में विद्यमान चुनौतियों को भी रेखांकित कीजिए।

Ans) Tribal Art has been in practise since palaeolithic age and continues till today in several parts.

Tribal Art as Economic resource:

Economic

Tourism ⇒ revenue generation

Eg. Bhimbetka, Warli Art

Export of these art to various countries

Eg. Thangka Art of Ladakh has demand in East Asia

Poverty alleviation through domestic usage in functions

Socio economic transformation

Increased outreach and awareness about tribes

Women empowerment as most of the art is made by women

Connect to the mainstream  
would improve health &  
education

Decrease untouchability (Art 17)  
and more opportunities

### Challenges:

- ① Lack of connectivity of tribes to  
mainstream
- ② Market inaccessibility
- ③ Shift of demand to modern &  
western art
- ④ High cost of tribal painting due  
to its handmade nature (not machine)
- ⑤ Poor quality of products
- ⑥ Government support and financial  
incentive is missing

Government can achieve its Panchsheel  
targets and empower tribes simult-  
aneously through encouraging their culture

3. Though the Government of India Act, 1919 proposed some radical administrative changes, it remained short of fulfilling aspirations of Indians. Elaborate. (150 words) 10

यद्यपि भारत सरकार अधिनियम, 1919 ने कुछ मौलिक प्रशासनिक परिवर्तनों का प्रस्ताव किया, तथापि यह भारतीयों की आकांक्षाओं को पूरा करने में असमर्थ रहा। यद्विस्तार वर्णन कीजिए।

Ans) Mantford reforms of 1919 were one such administrative reforms that tried to change politics and British control over India

Radical reforms :

- ① Devolution of powers to provinces  
Federal list & Provincial list
- ② Transferred subjects → legislative council would decide and enact  
Reserved subjects : Governor would legislate and enact
- ③ Increased communal representation to Sikhs, Anglo Indians, Muslims etc
- ④ Increased voting powers to more people

(4) Provincial Assembly - elected representatives would have the majority

(5) A commission would be constituted after 10 years to look into the matters

(7) Secretary of State to be paid by the British exchequer/treasury

Short of fulfilling aspirations:

(1) The division of subjects was inadequate and partial

(2) Immense veto powers to governors over budgets and bills.

(3) Limited voting franchise

(4) Communal representation ⇒ Divide & Rule the Indians

(5) High bureaucratic powers and low powers to elected representatives  
Simon Commission of 1927 to look into the Act was also severely oppressed

4. Often deemed as the 'forgotten conflict', the Korean War had far-reaching implications. Elucidate. (150 words) 10

प्रायः 'विस्मृत संघर्ष' के रूप में ज्ञान कोरियाई युद्ध के दूरगामी प्रभाव थे। स्पष्ट कीजिए।

Ans) Korean War was fought between 1950 - 1953 due to the Cold War between the USA and USSR.

Forgotten conflict

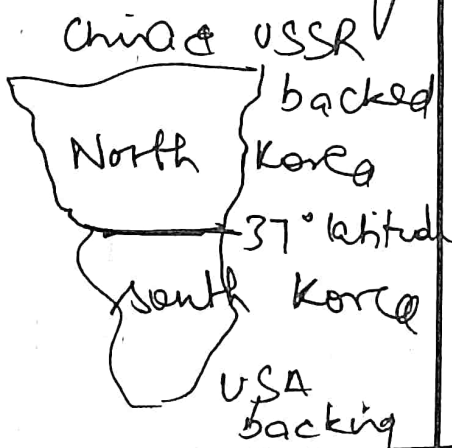
low violence & deaths

No more conflicts after 1953 unlike Indo Pakistan or Israel wars

Far reaching implications

① Beginning of the theatre of the USA vs USSR cold war rivalry

② Soviet armies attacked the North Korean in self defence of US army attack



over North Korea

- ③ USA - UN resolution of Chinese & USSR aggression despite 1<sup>st</sup> attack by USA itself.
- ④ North Korea - controlled by Communists  
South Korea - Capitalists & democrats
- ⑤ India had clear role to play in Korean war through diplomatic outreach, supported by abstaining US resolution
- ⑥ Further strengthened the west vs east war, manifested in Vietnam war (1960-1975), Afghan war, Cuban crisis etc

After effects of Korean war is still visible as dictatorial North Korea develops Nuclear weapons against South

5. Explaining the origin of earth's magnetism, discuss its significance with special reference to its interaction with solar particles. (150 words) 10

पृथ्वी के चुम्बकत्व की उत्पत्ति की व्याख्या करते हुए, सौर कणों के साथ इसकी अंतःक्रिया के विशेष संदर्भ में इसके महत्व पर चर्चा कीजिए।

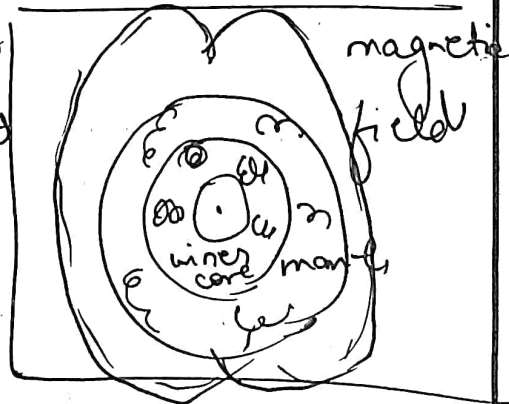
Ans) Earth Magnetism is the layer of magnetic field surrounding the earth which experiences changes spatially & temporally

### Origin of Magnetism

① The inner core has molten iron & other metallic particles

② These molten particles perform circular-spiral motion that result in generation of eddies/current

forming magnetic field



③ Supported by partially molten mantle and asthenosphere which have moving magma.

Significance:

Significance

Navigation  
eg historically compass used to find new world by Europeans

Navigation by migratory species like birds  
eg Siberian crane, Amur falcon

Also affects formation of geophysical features like palaeomagnetism & magnetic rocks

Affect the mantle plume.

Continental movements

Solar particles): Protection from solar particles and plasma originating from sun. Protect from overheating, Satellites system, communication channel.



India's Aditya L1 mission would study these

alpha particle

6. Discussing the challenges pertaining to dam safety in India, highlight the potential of Dam Rehabilitation and Improvement Project to address them.

(150 words) 10

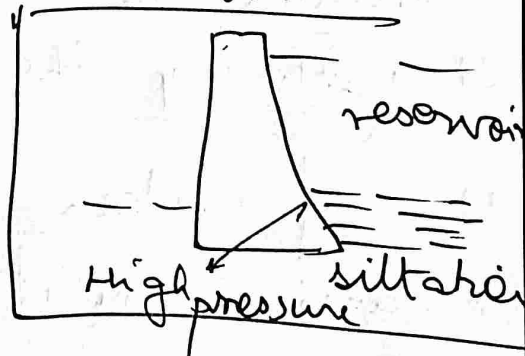
भारत में बांध सुरक्षा से संबंधित चुनौतियों पर चर्चा करते हुए, उन्हें दूर करने के लिए बांध पुनर्वास और सुधार परियोजना की क्षमता पर प्रकाश डालिए।

Ans Dams have been constructed for over 150 years and now face several problems arising out of environmental & human changes

### Challenges to dam safety

- ① siltation of dams reservoir

↓  
reduce water capacity and force increase on base of dam



- ② Older infrastructure like mortar, concrete have developed cracks.

- ③ Floods & earthquakes in several regions threaten dams by Koyana dam, Bhakra Nangal dam, Tehri dam

- ④ Change in river course with time  
 ↓  
 increase flow of waters in dams
- ⑤ Climate Change: Floods, cloud bursts  
 result in dams weakening  
 Eg Idukki dam of Kerala
- ⑥ Inter state dispute ⇒ low investment

### Potential of DRIP program

- ① Reconstruction, renovation and strengthening the dams
- ② Use of modern construction material
- ③ Financial mobilisation with World Bank to increase maintenance
- ④ Interstate resolution through Central Government and zonal council
- ⑤ Desiltation, construct canals
- ⑥ Biodiversity protection

DRIP programme with local participation and focus on small hydro

7. What is understood by Carbon Compensation Depth (CCD)? Discuss the implications of the rise in this depth due to anthropogenic warming as well.

(150 words) 10

कार्बनेट क्षतिपूर्ति गहराई या कार्बन कंपनसेशन डेपथ (CCD) से क्या अभिप्राय है? साथ ही, मानवजनित तापन (एंथ्रोपोजेनिक वार्मिंग) के कारण इस गहराई में हुई वृद्धि के निहितार्थों की भी विवेचना कीजिए।

Ans) With increasing Carbon emission the absorption of  $CO_2$  has increased in marine systems

Carbon Compensation depth

① Carbon compensation depth is the depth under a beyond which the

Calcium Carbonate  $CaCO_3$

dissolves

sea level

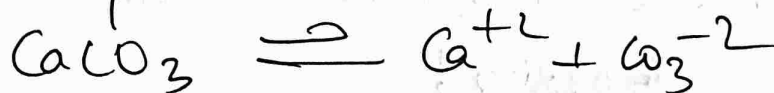
undissolve  $Ca$

CCD

dissolve  $Ca$

② Above the level the concentration of Carbon is high which prevents its dissolution

Carbon compensation



③ As ~~depth~~ warming increases and carbon concentration changes  $\Rightarrow$  CCD varies

## Changes due to Anthropogenic Warming

- ① Changes in CO<sub>2</sub> level would result  
↓  
Increase dissolution of corals  
and their extinction
- ② Fisheries & marine organism  
would be most impacted  
↓  
Require fix temperature to grow
- ③ Phytoplanktons might grow more  
↓  
More photosynthesis
- ④ However, zooplanktons would survive  
less ⇒ Eutrophication
- ⑤ Marine debris would increase  
as more nektons & lektans would  
be deposited

India's Deep Ocean Mission is an attempt to understand the ocean carbon changes and its mitigation

8. Explaining the concept of social mobility and its relationship with equality,  
mention the impediments in ensuring it. (150 words) 10

सामाजिक गतिशीलता की अवधारणा और समानता के साथ इसके संबंध की व्याख्या करने हुए,  
इसे सुनिश्चित करने में आने वाली बाधाओं का उल्लेख कीजिए।

Ans) Social Mobility refers to  
the indication where upcoming  
generation lives better life than  
the previous generation

Social Equality is achieved  
when social, economic, environ-  
mental & political development  
occurs.



## Social Mobility to EQUALITY:

① Increased social mobility

↓  
Increased equality ⇒ reduce inequality  
as to development

② Vulnerable sections like SC, ST,  
women, disabled, poor, old age  
are most benefited through  
social equality & mobility

## Impediments in ensuring social mobility

- ① Economic inequality rising
- ② Inadequate government intervention
- ③ Lack of education, health, skills
- ④ Discrimination is rooted in society
- ⑤ Strengthening of dominant classes

Way forward: Value education of all,  
use of community & NGO, change  
minded administrators, better  
Socialisation, affirmative action etc.

9. In view of demographic changes in recent decades, do you think India needs a two-child policy? Discuss in light of various strands of the debate surrounding this issue. (150 words) 10

हाल के दशकों में जनसांख्यिकीय परिवर्तनों को देखते हुए, क्या आपको लगता है कि भारत में दो-बच्चों की नीति (टू चाइल्ड पॉलिसी) की आवश्यकता है? इस मुद्दे से संबंधित बहस के विभिन्न पहलुओं के आलोक में चर्चा कीजिए।

Ans) India's demography has witnessed rapid changes in the recent years.

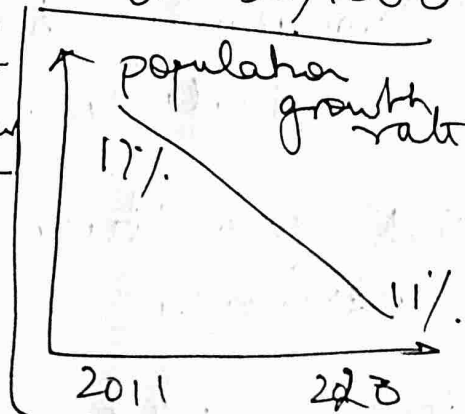
### Demographic changes

- Fertility -  $\sim 2.4$  (2011)
- Death rate -  $\sim 26/1000$  people
- Birth rate -  $\sim 10/1000$  people
- life expectancy - 67 years
- Urbanisation - 31%
- Sex ratio - 943/1000 females
- Infant mortality rate - 35/1000

### Need of 2 child policy

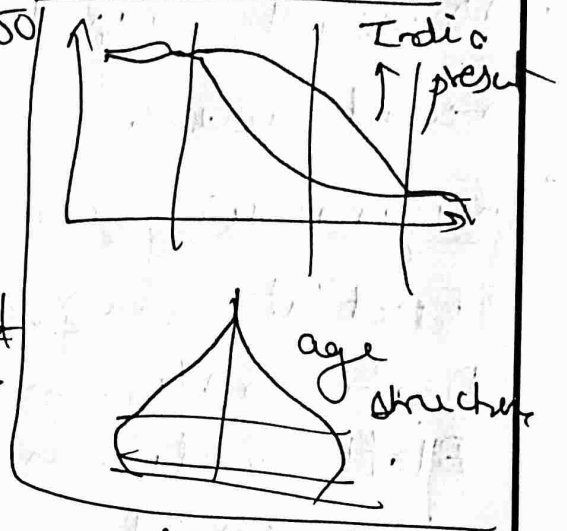
① The fertility has already reduced to 2.2 (2020)

NFHS V  $\Rightarrow$  no need of 2 child



② The development rate is high to cater to slow population growth of 1% / year

③ Ageing population - large ageing population in 2050 would reduce workforce



④ demographic dividend would last long

⑤ Political & social AGAINST freedom would be taking away

① Some regions like UP, Bihar, Jharkhand, West Bengal - Fertility rate > 2.8

② Demographic trap or disaster possibility

③ High expenditure on children upbringing

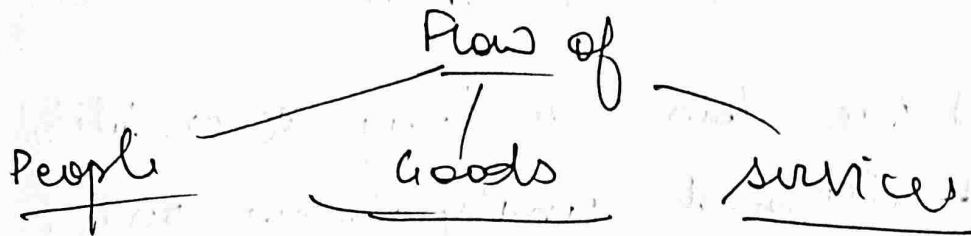
Therefore, no need of 2 child policy as is evident from China. Focus on population empowerment like women

10. Globalization is incredibly efficient but has so far been incredibly unjust. Examine the statement in the context of developing countries like India.

(150 words) 10

वैश्वीकरण अद्वितीय रूप से दक्ष है परन्तु अब तक अत्यधिक अन्यायपूर्ण रहा है। भारत जैसे विकासशील देशों के संदर्भ में इस कथन का परीक्षण कीजिए।

Ans) Globalisation is the process by which the global economies are interconnected



Globalisation is the result of capitalism & colonialism that has resulted in rapid growth

### Benefits of Globalisation



## Unjust to India

### ① SOCIAL

- Women - Increasing cyber crimes,  
reduced employment opportunities
- low skill development
- migration of men
- Old Age - low technology accessibility  
traditional family system eroded
- Education - traditional learning  
missing, internationalisation,  
commercialisation of education, Eng

- ### ② Economic
- Reducing skilled opportunities due to automation
  - Outflow of precious foreign reserves
  - Dependence on China, economic shocks, high consumerism

COVID-19 has proved that globalisation has its limitations and also results in large environmental costs

11. "It would not be completely wrong to state that in India, art is religion and religion is art." In light of the statement, discuss the impact of various religions on art in India, citing relevant examples. (250 words) 15

"यह कहना पूर्णतः गलत नहीं होगा कि भारत में कला ही धर्म है और धर्म ही कला है।" इस कथन के आलोक में, प्रासंगिक उदाहरण देते हुए भारत में कला पर विभिन्न धर्मों के प्रभाव पर चर्चा कीजिए।

Ans) Since ancient times most of the arts and architecture in India has developed centric around the art and due to ruler's patronage

Art  $\xleftrightarrow{\text{affected}}$  Religion

Impact of Religions on Art:

① Mahajanapadas phase: several literary work written in Hindu  
eg Vedas, Puranas, Aranyakas,  
Brahmanas etc

② Mauryan phase

① Ashoka - Ajivikas were granted caves eg Lomas Rishi caves, Nagarjuni caves

- (b) Ashoka also built Yakshas & Yakshis sculptures in Didarganj, Patna, Vidisha etc
- (c) After converting to Buddhism:  
Ashoka built caves and stupas  
eg Hathigumpha caves and  
Sanchi, Patna, Rajgir, Patliputra  
stupas
- (d) King Karavela also inscribed Jaina texts on edicts and pillars
- (e) Pillars, capitals and edicts by Ashoka on Buddhist ideals  
eg Major pillar - 13
- (3) Post Mauryan Phase : 1BC-3AD
- (a) sculptors - Sarnath, Mathura, Gandhara and Amravati of Buddha
- (b) Stupas were constructed  
eg Amravati, Sanchi, Ramayana
- (c) Viharas & Chaityas for Buddhist monks

eg Ajanta, Ellora, Pandan Leni, Karla  
Kanhari, Bhaja etc

④ Gupta phase : 3<sup>rd</sup> AD - 7<sup>th</sup> AD

(a) Hinduism - Earliest Hindu temple  
in Deogarh (UP), etc

(b) West India - Paintings on Buddha  
& Hinduism eg Ajanta, Ellora, Bagh

(c) Kailash temple by Rashtrakutas

(d) South - Dravidian temple  
eg Aihole, Badami, Pattadakal, etc

⑤ Later period - Chola - Thanjavur,  
Gangaikondacholapuram etc

Palas - Buddhist universities eg Nalanda

Himalayas - Pandrethan, Kangra temples

Modera, Lingaraj, Shravanbelagola  
etc

Continued in modern period as  
visible in Indo-Gothic Christian art

12. Despite organizational apathy from the Indian National Congress in its initial years, the working class in various parts of the country subsequently participated overwhelmingly in the nationalist movement. Discuss.

(250 words) 15

भारतीय राष्ट्रीय कांग्रेस के प्रारंभिक वर्षों में संगठनात्मक रूप से दूरी रहने के बावजूद, देश के विभिन्न हिस्सों में मजदूर वर्ग ने बाद में राष्ट्रवादी आंदोलन में प्रभावशाली रूप में भाग लिया। चर्चा कीजिए।

Ans) The first instance of working class participation was visible in the 1857 revolt although at the small scale, which continued to grow with time.

Organisational Apathy with Indian National Congress

- ① INC was 'moderates' dominated who had little connect to the masses
- ② INC was concentrated to the urban areas of the countries while most of the labourers were in swal regions
- ③ little understanding of working classes of the constitutional

means of the INC which led to their non-participation

- (4) Working classes were engaged in self employed artisanal work with little interaction to British government.

### Participation by Working Classes:

(1) First participation observed in the 1870s-1880s

- Great famine of 1876-77
- Delhi Durbar led revolt
- Trade bill - 1881 due to exploitation of the working classes
- Industrialisation  $\Rightarrow$  high demand of labours

Can't go back to artisanal industry  $\Rightarrow$  Revolt

$\downarrow$

$\leftarrow$  low wages

- ② Trade unions began to emerge  
eg Bombay Millhands Association  
was among the first in 1890s.
- ③ World War I and Swadeshi Move-  
ment ⇒ large scale indigenous  
production of goods
- ④ Non Cooperation Movement  
witnessed participation from worker  
class in 1920
- ⑤ Various trade unions like AITUC  
emerged - Lala Lajpat Rai President  
in 1920. Later NTUC and  
Congress Socialist Party followed
- ⑥ Large scale participation in  
Ahmedabad Mill workers strike (Gandhiji)  
civil disobedience movement, Quit  
India movement

Communist Parties further led to  
their consolidation and increase in

13. Though some of his early measures restored faith among the Indians in the liberal tradition of England, Lord Ripon's tenure did not bring about significant changes in the conservative mindset of the colonial bureaucracy.  
Comment.

(250 words) 15

यद्यपि लॉर्ड रिपन द्वारा किए गए कुछ शुरुआती उपायों ने इंग्लैंड की उदार परंपरा में भारतीयों के विश्वास को पुनर्बहाल किया, तथापि उसके कार्यकाल में औपनिवेशिक नौकरशाही की रूढ़िवादी मानसिकता में महत्वपूर्ण बदलाव नहीं हुए। टिप्पणी कीजिए।

Ans) Lord Ripon tenure began in 1879 and continued till 1884.

Lytton → Ripon → Puffrin.

He amended and repealed some of the policies of conservative Lytton

early measures:

- ① Repealed Vernacular Press Act of 1878 which reduced the powers of vernacular press
- ② Repealed arms Act.
- ③ Ilbert Bill was introduced  
 Allowed Britishers to be tried by Indian Jury
- ④ Municipal commissions were

introduced in some regions

⑤ Tried to undo injustices of Bengal  
Famine and Delhi Durbar of

1876-1877

⑥ Inland emigration Act was  
passed

⇓  
Advantageous to people and  
bonded labour

⑦ Factories Act, 1881 - reduced age  
of work  
Negatives of Lord Rippon tenure

① Repression to various association  
continued

eg The Indian League, The  
Indian Association, Madras  
Mahajan Sabha, Poona Sarvaj-  
anik Sabha

② education was not supported  
enough → Hunter Commission of

1882 didn't assume responsibility of mass education

③ Labourers were repressed in industries

④ Ilbert Bill controversy: Among increasing pressure from English, Ilbert Bill was scrapped.

⑤ Some anti-people provisions in Trade Act, Inland Emigration Act.

⑥ Political representation in Ripon executive council and civil service continued to remain low.

Following conservative mindset of British administration, Indian National Congress was setup (1885) to increase political awareness, build leaders, solve problems etc.

14. The New Social Movements in post-independence period made an important beginning in awakening the society against injustices and deepened the very notion of democracy in India. Discuss. (250 words) 15
- स्वातंत्र्योत्तर अवधि में नए सामाजिक आंदोलनों ने अन्याय के विरुद्ध समाज को जागरूक बनाने में एक महत्वपूर्ण शुरुआत की और भारत में लोकतंत्र की धारणा को सुदृढ़ किया। चर्चा कीजिए।

Ans) Post independence several groups fought for justice marking changes in the Indian society and reduction of injustice

Women :

- ① Various groups like Tebhaga Movement, Communist in Telangana ⇒ Agricultural growth
- ② Economic - SEWA movement, Bhopal Gas Tragedy, Pedit Sangathan, AMUL, Lijjat cooperatives strengthen women
- ③ Environmental - Narmada Bachao Andolan (Medha Patkar)

Chipko Andolan to protect the  
ecology

- ④ Modern feminist movements against  
# ME TOO, sexual harassments etc

All this increased political (Parlayat)  
and socio economic growth of  
women

Labourers & Agrarian workers

- ① Green revolution
- ② Agrarian movements led by  
Mahendra Tikait in North  
West
- ③ Sugarcane Cooperatives movement
- ④ labour movements through  
unions, strikes  
Eg Tuticorin, POSCO, Wayanaad
- ⑤ Account farm bill protest

TRIBAL

- ① Tribal movement in Niyangiri hills to protect their habitation
- ② Protests in Thakhard, Chattisgarh against coal & iron pollution
- ③ Nilgiri - Inulas, Sholapur are protesting against development

CIVIL movement :-

- ① Backward classes, dominant class's  
eg DICCI, NSCFDC, SP, B.S.D.  
HSS, Bhairu Sena
- ② Struggle for reservation ⇒ MANDAL
- ③ Emergency movement strengthened democracy (1975)

④

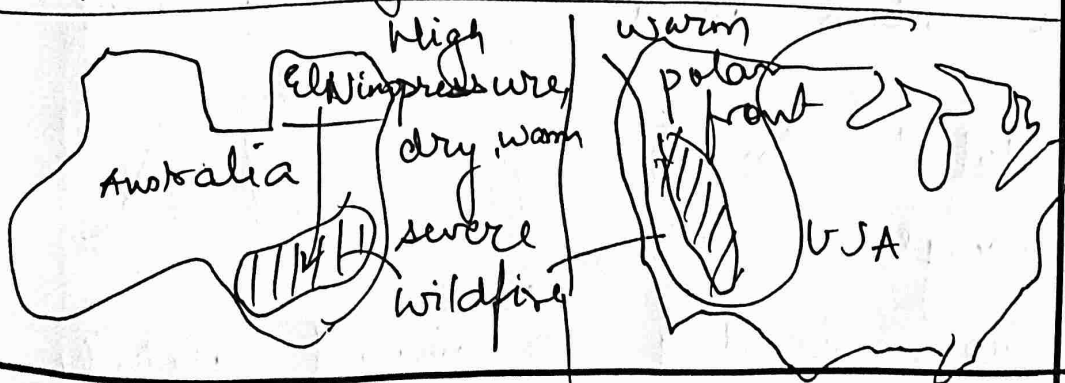
Such movements have strengthened the fragmented polity of India to robust, secular, sovereign, strong polity (welfare society)

15. What are the reasons for recurrent and often catastrophic wildfires in places like Australia and the United States? Are there any lessons to be learnt from these events by India? Explain adequately. (250 words) 15  
ऑस्ट्रेलिया और संयुक्त राज्य अमेरिका जैसे देशों में बार-बार और प्रायः विनाशकारी वनाग्नि के क्या कारण हैं? क्या भारत को इन घटनाओं से कोई सीख लेनी चाहिए? विस्तारपूर्वक व्याख्या कीजिए।

Ans) Australia and United States witnessed catastrophic wildfires in 2020 which led to severe damage to forest, biodiversity, human settlements etc

Reasons for the wildfires

- ① Increasing heatwaves and drought like conditions due to frequency rise of El-Niño
- ② In Americas, warm polar fronts ingress towards the



subtropical latitudes leading to formation of heat dome effect

High pressure, heat can't escape

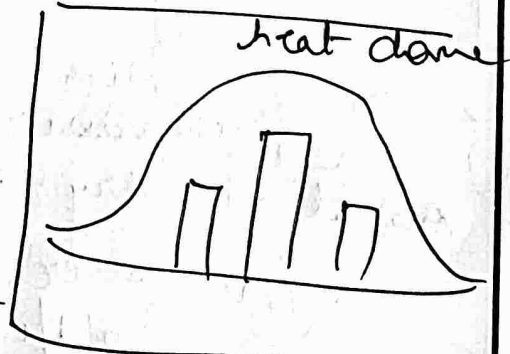
large temporal stability for 6-8 days

③ Increased local hot winds which blow over South East Australia and Rockies

④ Deforestation: Leads to increased warm climate due to low evaporation, low rains and humidity

⑤ Urbanisation: Heat Island effect  
Traps heat over the urban area

⑥ Global climate change → Teleconnection leading to impact globally

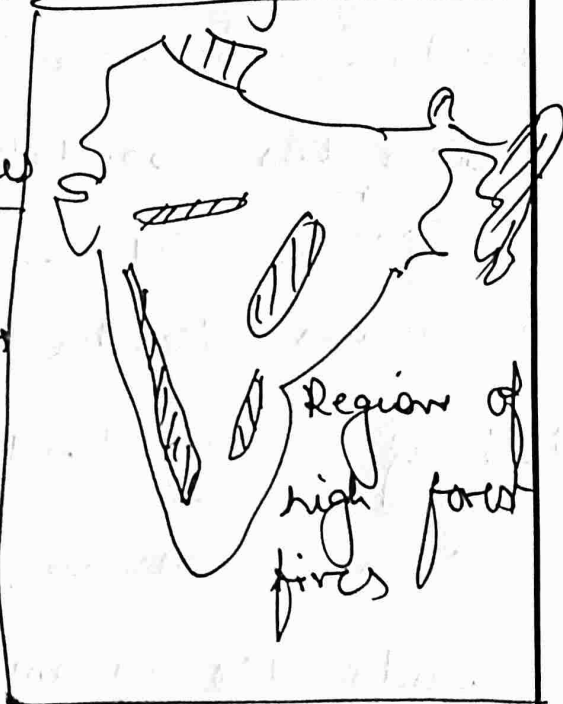


-1.1°C rise in temperature since industrial revolution 1750s.

### Lessons for India

① El-Nino is also affecting large parts of India ⇒ Droughts & forest fires

Eg 30000 instances of forest fires in last 5 years



② Increased global warming → rising temperature in forest ⇒ Reducing humidity ⇒ Forest fires. Eg Uttarakhand in 2021

③ Urbanisation & deforestation (23%)- forest cover ⇒ loss of trees, tribal habitat, biodiversity and economic losses

Several steps like Forest Fires Action Plans, Satellite imagery are taken

16. Discuss why India needs a cross border flood management mechanism. Also, state the major issues in cross border flood management and suggest remedial measures in this context. (250 words) 15

चर्चा कीजिए कि भारत को सीमा-पार बाढ़ प्रबंधन तंत्र की आवश्यकता क्यों है। साथ ही, सीमा-पार बाढ़ प्रबंधन से जुड़े प्रमुख मुद्दों को वर्णित करते हुए इस संदर्भ में उपचारात्मक उपायों का सुझाव दीजिए।

Ans 16) India has many cross border rivers originating in China, Nepal, Bhutan, etc. Recent floods in Bihar, Ghaghra, Kosi, Gandak coming from Nepal has led to increased focus on cross border floods.

Need of cross border flood management

① Chinese rivers: Brahmaputra floods the Assam every year

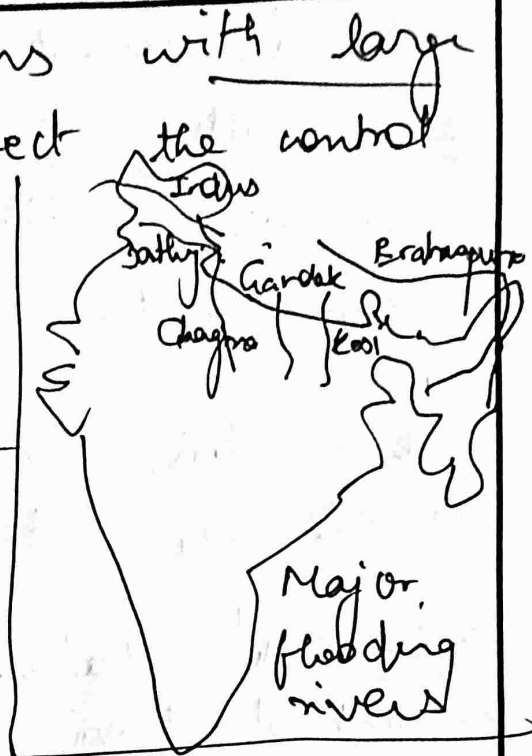
↓  
Lack of adequate data on hydrological flow of water

② Nepal River - Kosi, Ghaghra, Gandak floods UP & Bihar, West Bengal

↓  
Factors like absence of reservoir

and heavy rains with large  
flood plains affect the control

- ③ China - Pakistan  
river - Indus Basin  
also cause floods  
in Jammu-Kashmir,  
Himachal Pradesh,  
Uttarakhand and  
further in Pakistan



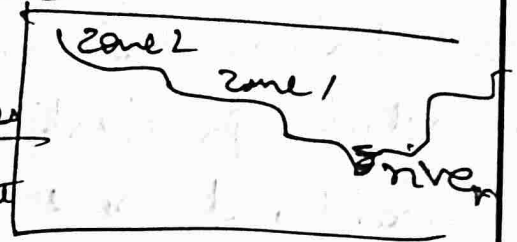
Issues in Cross Border flood management

- ① Lack of geopolitical cooperation  
with neighbours  
eg China didn't share Brahmaputra  
water data in 2020 summer
- ② Improper & inadequate mechanism  
to measure water flow  
eg satellite imagery is not  
done

③ Lack of investment  
eg in sitting of rivers, construct  
reservoirs, artificial levees &  
embankments

④ Flood plain zoning is not  
completely adhered to

⑤ Financial challenges  
to control & mitigate  
floods



### Remedial measures:

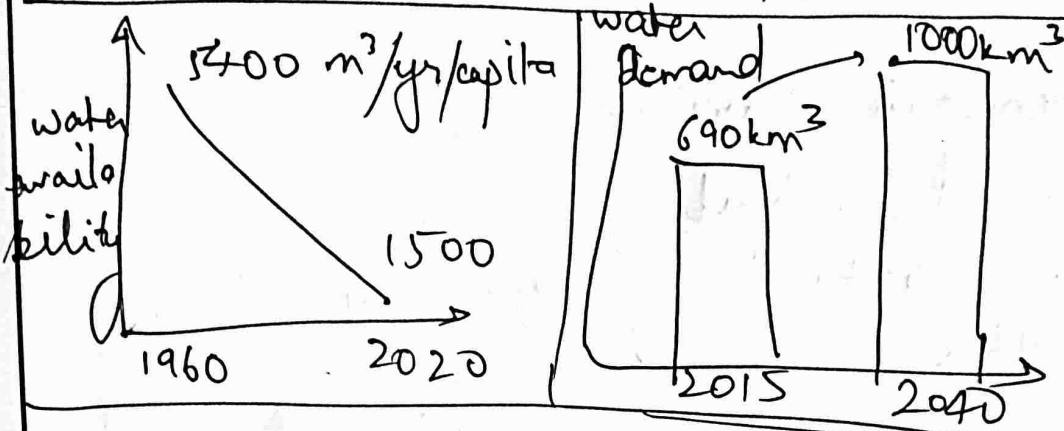
- ① Complete treaties to include  
flood management  
eg Testa river treaty, Indus Water  
treaty
- ② Global Cooperation to solve  
river disputes
- ③ Sharing data, augment finances
- ④ Ministerial level talks to displace  
flood affected people, reconstru-  
ction and adaptation

17. Depletion of water resources in India is both a geo-climatic phenomenon as well as a result some short-sighted government policies. Discuss.

(250 words) 15

भारत में जल संसाधनों का ह्रास एक भू-जलवायु (जियो-क्लाइमेटिक) घटना के साथ-साथ कुछ अदूरदर्शी सरकारी नीतियों का परिणाम है। चर्चा कीजिए।

Ans) India faces water scarcity as the current available water is less than 1500 km<sup>3</sup>/person/year



Depletion of water as a geo-climatic phenomena

① monsoonal changes

erratic, delayed, short period of monsoon results in high water availability inequality

eg El Nino, La Nina, Indian Ocean dipole, Madden Julian Oscillation, Modoki El Nino affect the

monsoonal pattern.

② Cyclones and flash floods, droughts

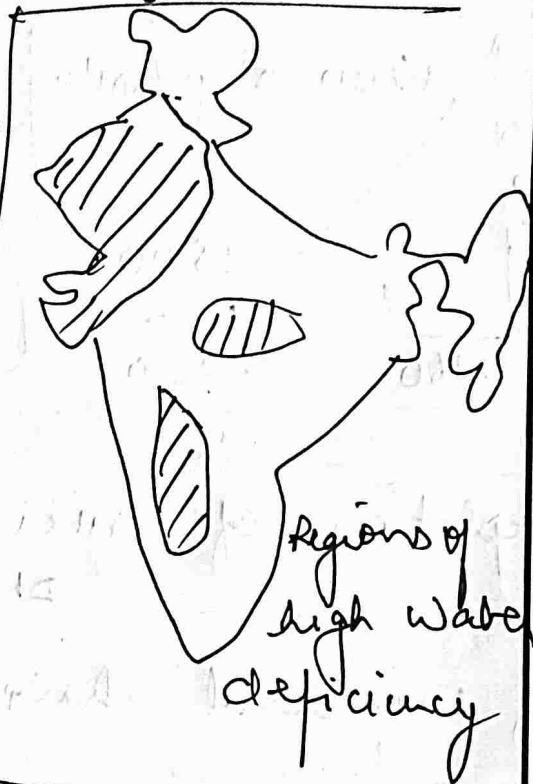
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Result in increase in water availability at a few places while its depletion elsewhere

③ Mountain barriers

prevent rainfall in certain regions

eg leeward side of Himalayas & Western Ghats



④ Climatic change

↓

Increased evaporation of groundwater and river water, increased flash droughts causing water scarcity

Government policies causing water scarcity:

① Agricultural policies - Green revolution and intensification of irrigation through groundwater ⇒ water scarcity

Eg Punjab: average groundwater availability drop from 10m → 25m

② Industries: Pollution, water usage in thermal plants, industries like textile use immense water without treatment

③ Urbanisation policies: 31/(2011) → 55/(2011)  
↳ large usage of water & pollution  
Eg Yamuna (Delhi), Mithi river (Mumbai) Polluted.

④ High population rises: low focus on control

Way Forward: Integrated watershed management, Minor irrigation Conservation, irrigation, PM Kishu Sanchayee,

18. What are the major lithospheric plates? How and why do these plates move? (250 words) 15

प्रमुख स्थलमंडलीय प्लेटें कौन-सी हैं? ये प्लेटें कैसे और क्यों गति करती हैं?

Ans) Plate Tectonic theory provided for the theory of presence of lithospheric plates on which the oceans & continents are situated.

Lithospheric Plates:

① Characteristics —

Oceanic:  
Unstable & moving,  
high density,  
basaltic  
relatively new

Continental:  
more stable & moving  
lower density,  
siliceous,  
old & higher  
altitude



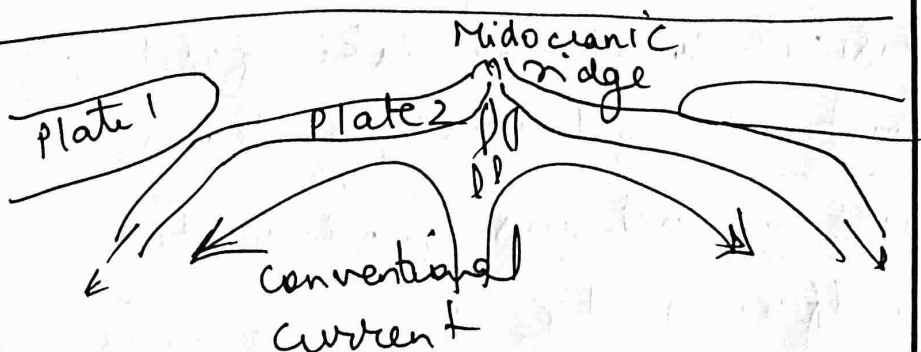
Major  
lithospheric  
plates  
(7)

- Pacific plate
- American Plate (North & South America)
- Eurasian Plate (Europe & Asia)
- Indo-Australian Plate
- African Plate
- Antarctic Plate

Minor plates like Nazca, Juan De Fuca, Arabian, Phillipine, Caribbean etc

Movement of these plates

① Conventional current & Plate tectonics theory say that the mantle current (magma plumes) move these currents



- ② These currents originate through thermal & magnetic gradient in the mantle and core
- ③ The current exert force on the oceanic & lithospheric plates which slide due to friction
- ④ Magma also rise to the surface through volcano and mid oceanic ridges  $\Rightarrow$  forming new plates
- ⑤ Shear stress and torsional force leads to formation of faults  
 $\Downarrow$   
 New plates are formed

Movement of these plates leads to formation of various geo-physical landforms like fold mountains, volcanoes, plateaus, fault mountains, underwater landforms etc

19. There exists a wide gap between the constitutionally professed secularism and its practice in India. Do you agree? Substantiate with relevant arguments. (250 words) 15

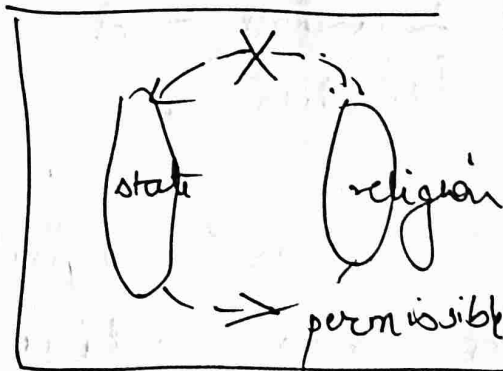
संवैधानिक रूप से घोषित पंथनिरपेक्षता और भारत में इसे व्यवहार में लाने के बीच एक व्यापक अंतर मौजूद है। क्या आप इससे सहमत हैं? प्रासंगिक तर्कों के साथ पुष्टि कीजिए।

Ans) Secularism is a basic feature of the Constitution, visible through Article 23, 24, 25, 26, 29, 30 + preamble. India follows a soft secularism different from western secularism.

Constitutionally professed secularism

- ① No state religion
- ② state would consider religion as equal and provide equal protection

- ③ No interference of religion in the state



- ④ However, to protect minority religion, state can provide additional safeguards through

protection mechanism

eg Art 29, 30 - minority religion

⑤ Government can change religious laws which are unorthodox or unequal

eg Art 25, 26 - reforms to Sabarimala, Triple Taluk

Actual practice of secularism

① Despite no state religion, some protection given to certain dominant religions

eg ~~#~~ alleged in Citizenship Amendment Act, 2019 that Hindus are favoured

② Sometimes unequal protection to some religion over other  
eg Hindu Marriage Act and Uniform Laws of Hindus while no such laws of Muslims

③ Minorities are not adequately protected

eg dispute over Sikhs & Hindus in 1970-80s and Hindu-Muslims in 1990s. eg Babri Masjid

④ Reforms in religions tend to encroach the religious practices

eg Supreme Court ruling on Sabamala, and others like Haji Ali, Shani Shringapur temple

⑤ Even management of temples are adjudicated eg recent Padmarash swamy temple verdict

⑥ Minority educational institutions repressed eg Madrasas, Syrian Catholics

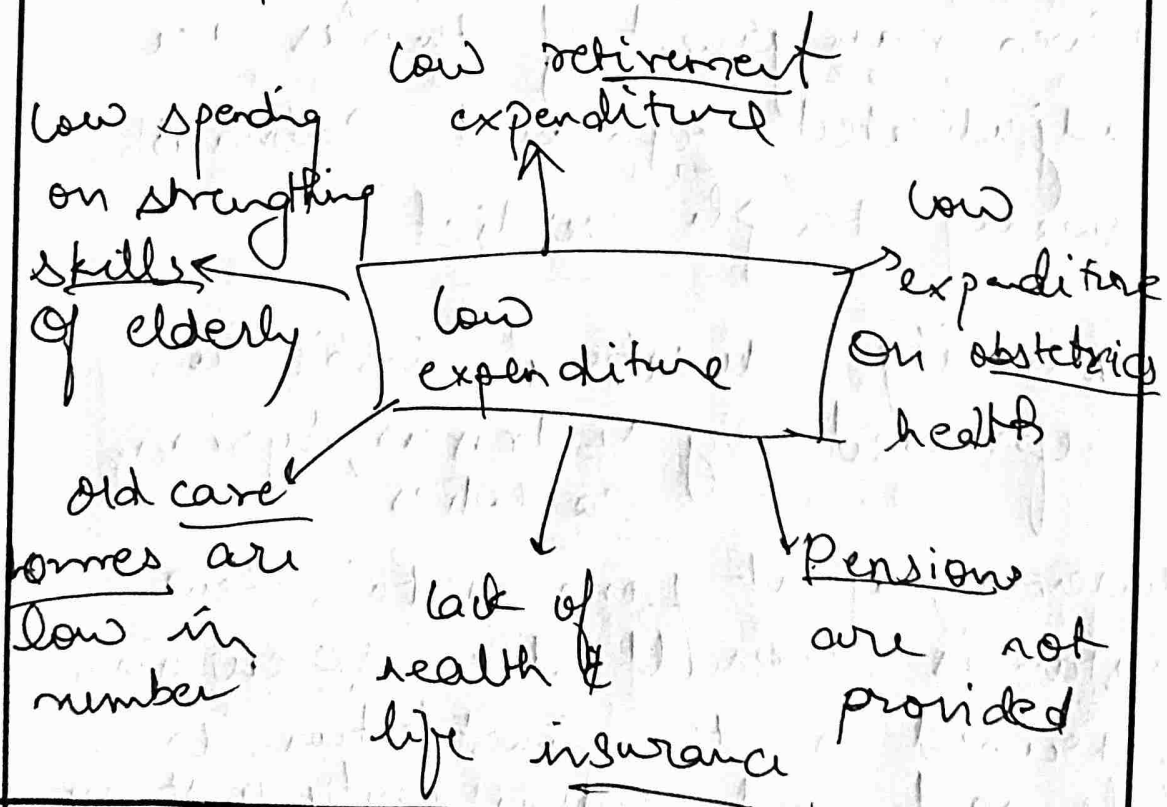
However, apart from certain few instances, overall the secularism enshrined in the Constitution is followed and Indian unity is strong

20. India spends less than one per cent of GDP on care work infrastructure and services. In view of the statement, explain how increased public investment in care economy infrastructure can be instrumental in meeting multiple policy objectives. (250 words) 15

भारत द्वारा देखभाल में संबंधित अवसंरचना और सेवाओं पर जी.डी.पी. के एक प्रतिशत से भी कम व्यय किया जाता है। इस कथन के आलोक में, स्पष्ट कीजिए कि देखभाल अर्थव्यवस्था अवसंरचना (केयर इकोनॉमी इंफ्रास्ट्रक्चर) पर सार्वजनिक निवेश में वृद्धि कई नीतिगत उद्देश्यों को पूरा करने में कैसे सहायक हो सकती है।

Ans) Care economy refers to the expenditure on the well being of the elderly / old age vulnerable sections. It is also termed as Silver Economy

low expenditure



Increased expenditure  $\Rightarrow$  improve  
policy objectives

① Currently 8% of <sup>population</sup> elderly are  
over 60%  $\Rightarrow$  increase to 12%  
by 2035  $\Rightarrow$  large old age popul-  
ation

② These elderly are capable of  
contributing to society through  
their skills.  
 $\hookrightarrow$  Demographic dividend

③ Increased income of the elderly  
would reduce care expenditure  
by government  
 $\downarrow$   
Spend on Health, Education,  
infrastructure

④ Strengthening of old age  $\&$  would  
reduce instances of violence,  
abuse, crime against elderly

⑤ Elderly would be able to accommodate  
in the globalised world

↓  
digitisation, better health care

⑥ Elders would act as socialising  
agents of families, social cohesion  
and agency of social control

→ eg youth → prevent drug

⑦ Self dependence of the elderly  
would increase their movements

several schemes like PM Vaya  
Vandana Yojana, National Pension  
Scheme, Vayashri Yojana, provision  
of disability aids, healthcare to  
elderly would ensure that  
the old age would contribute to  
the economic & societal growth