VAJIRAM & RAVI
SURE SHOT TEST SERIES FLT 2024

GENERAL STUDIES
Full Length Test
Test - 1 (GS1 CT)

Time allowed: Three Hours		Maximum Marks: 250

ADMIN. NO.: `2` `4` `v` `R` `8` `1` `7` `9` `7`

NAME: SANJAY KUMAR

MOBILE NO.:

EMAIL.:

SUBMISSION DATE:

UPSE CSE 2025
AIR – 502

7.00 - 9.54

QUESTION PAPER SPECIFIC INSTRUCTIONS

Please read each of the following instructions carefully before attempting questions:

There are **TWENTY** questions printed in **ENGLISH**. All the questions are compulsory.

The number of marks carried by a question/ part is indicated against it. Word limit in questions, wherever specified, should be adhered to. Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.

Q No.	Marks	Q No.	Marks	Q No.	Marks
Q1	/10	Q8	/10	Q15	/15
Q2	/10	Q9	/10	Q16	/15
Q3	/10	Q10	/10	Q17	/15
Q4	/10	Q11	/15	Q18	/15
Q5	/10	Q12	/15	Q19	/15
Q6	/10	Q13	/15	Q20	/15
Q7	/10	Q14	/15	Total	/250

Follow these steps to avail the facility of mentoring –

1. Go through the soft copy of your evaluated answer sheet and analyse all the comments and suggestions given.
2. Call **9717565805** between 11:00 am to 5:00 pm to fix your mentoring slot.
3. Please follow the mentoring appointment timings properly.

Parameters	Excellent	Very Good	Good	Average	Poor	Very Poor
Language and Articulation						
Structure and Presentation						
Conceptual clarity and Content						
Number of Attempted questions						

Evaluator/Reviewer Suggestions
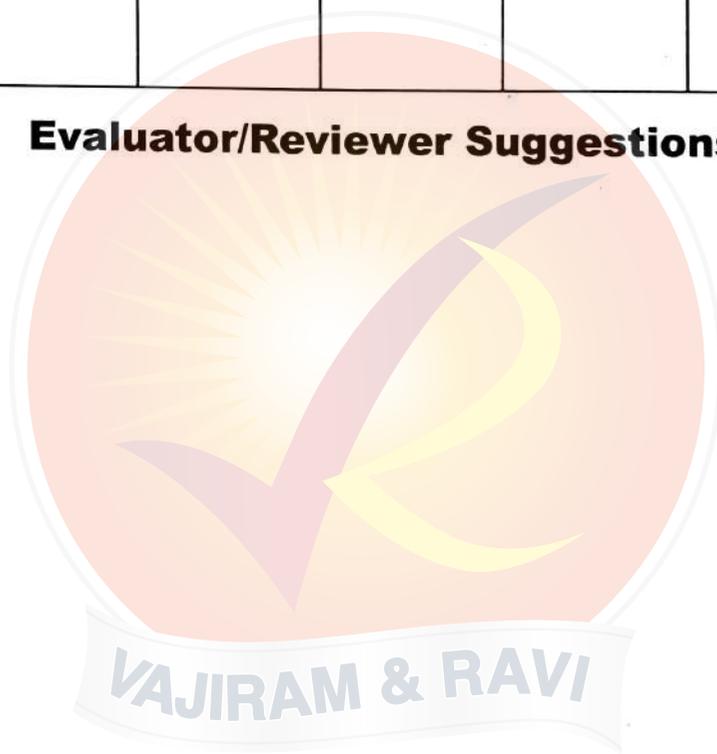
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(Answer questions in NOT MORE than the word limit specified for each in the parenthesis. Content of the answer is more important than its length.)

1. 'Cave paintings are the window into the aesthetic sensitivity and creativeness of ancient humans.' Discuss the statement with reference to ancient Indian cave paintings. **(10 marks, 150 words)**

Cave paintings in India evolved with society, which showed the daily life, Religion etc of the past lifes (eg) Bhimjeka Caves. (hunting)

Cave painting window to Ashetic Sensivity

① Different type of scene depicted with different Colors.
(eg) Bhimteka — Red clr

② Appeded to different religion clues
(eg) Ellora Caves — 3 Religion Hindu, Buddhism Jainism depicted →

③ Design & geometry figures & floral designs (eg) Bagh Cave painting

④ Motifs & designery with help of funds from Traders (eg) Jojimara Caves
4 Udayagiri cave Painthys.

Cave painting show creativeness of human

① diff type of technology was used in
  ↳ fresco paintings → with help of wet plaster
  ↳ Petroglyphs (stone paintings in ancient time also shown
  ↳ Mural paintings → diff types designs on walls

② different type of forms } human Representation
  ↳ geometric figures
  ↳ fat humans

③ use of Floral design, intricate carving shows level of Technology used.

    Ancient art & architecture shows

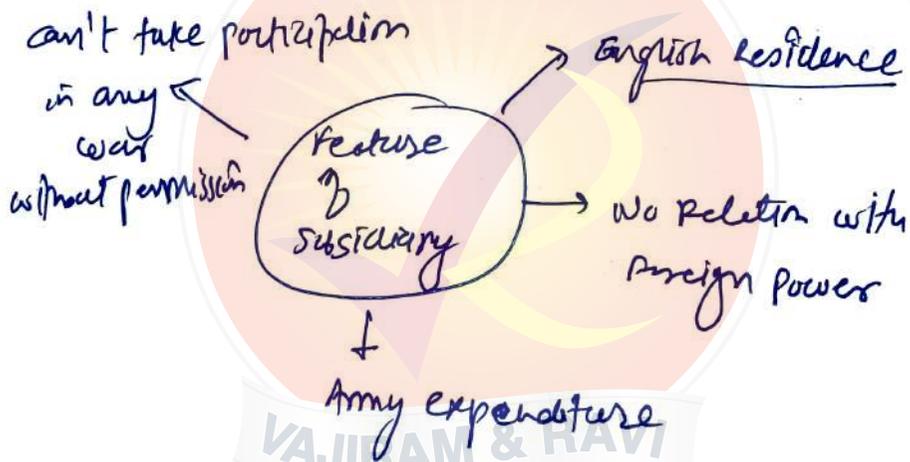the creativity of ancient people depicting their day of life

	Suggestions:
Introduction	
Body	
Conclusion	
Presentation	
Marks :	

2

2. Evaluate the role of subsidiary alliance policy in turning 'the British Empire in India' into 'the British Empire of India'. **(10 marks, 150 words)**

Subsidiary Alliance is policy started by Lord Wellesley in 1798. It helped India being a trade partner + fully a colony of British empire.

Role of subsidiary Alliance in turning British empire in India to British empire of India

can't take participation in any war without permission → Feature of subsidiary → English Residence → No Relation with foreign power ↓ Army expenditure

① The <u>very feature</u> of subsidiary alliance lead to [lose of Autonomy]

② Mysore 1798.

② Most state lost their right to rule independently & losing foreign Relation

3

③ Led to expansion throughout India

     (eg) Maratha (1803, 1818)

④ Military expenditure → state had to pay for the security & state

     (eg) Ruled on their own fund Basis

⑤ Trade relationship snapped → Ruler can sell commodity to British if these are demanded.

Although |Dupleix| started the policy, subsidiary alliance under |welleraly| led to undermining of India's sovereignity & led to COLONISATION.
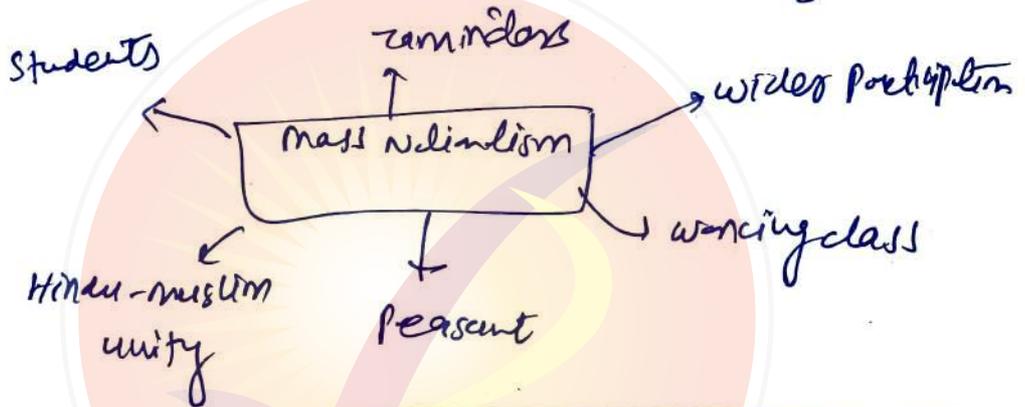
3. Mass nationalism was a watershed in the Indian freedom struggle towards independence. How did the Indian Business community react to it? Discuss.

(10 marks, 150 words)

Mass Nationlism is process of uniting various stratas toward a common goal & directing energy in defeating single enemy.

(Eg) Post Gandhian phase specially

Students

zamindars

wider Participation

Mass Nationlism

Hindu-muslim unity

Peasant

working class

Mass Nationlism was watershed in freedom

① led to Nationl Unity conciousness among mass.

② Awakening toward real cause of their poverty & exploitation (Eg) Drain theory (RC Dutt)

③ United by common enemy (Eg) Peasnt, Tribal, civilian → all British enemy

(4) decline in fear & Almight after <u>gandhi?</u>

Reason) Buisness Community towards mass Nationlism

① Earlier Before swadeshi — They did not support movement fully because, depended on (British Capital & technology).

② During swadeshi → Economic Byott Benefitted small Industries, so support from small Buisnessman came.

③ During Gaudrian phase — Buisneman community helped in <u>Funding</u>, and supported because they need <u>favorable</u> Policy (Post world war I) from Indian government

④ 1942 movement → divided support

~~Post~~ <u>Buisness Community</u> support deepended upon their interest throughout struggle.

Introduction	Suggestions:
Body	
Conclusion	
Presentation	
Marks:	

4. Do you agree that non-alignment adopted after independence formed the bed-rock of Indian Foreign policy. Substantiate. **(10 marks, 150 words)**

Non-Alignment was policy adopted under Nehru to guide India during Cold war to avoid joining any block & practicing Independent foreign Policy.

(eg) Decision on korean war.

| NAM policy helped Indian foreign policy |

① Navigating through Cold war politics → It helped India to get best, maintaing good relationship with both west & east.

② NAM helped to neutralize | western hegemony
    ↳ USSR helped India Post dependence from defence technology to crucial support in wars.

③ NAM also helped in Independent foreign policy
    (eg) → criticized Vietnam war

④ <u>Decolonization Process</u> — Under NAM policy, India was 1st to criticize and boycott **South Africa** white government
↳ ultimately freedom in 1992.

⑤ Today **Voice of global south** → mainly because of Cold war leadership & NAM

However NAM <u>Relevance can be questioned</u> →

(1) <u>End of Cold war</u> occured after USSR decline in 1990s.

② <u>Idealistic policy</u> no more work today, (Multialignment) is key today.

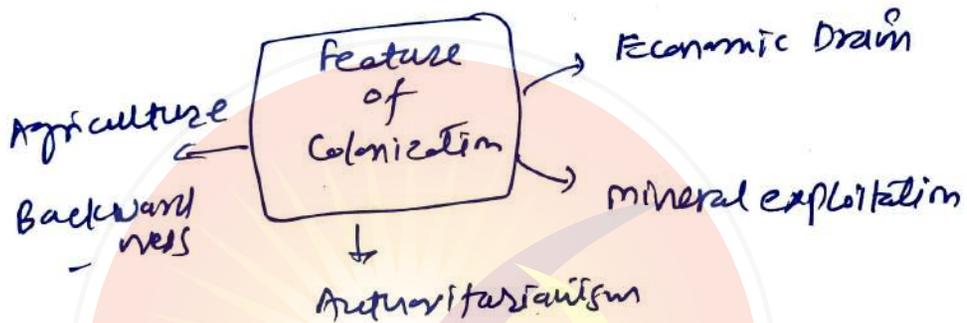③ Being voice of <u>global south</u>, interest of vulnerable nation should be put

NAM as a policy helped navigation throughout last 75 years, still it is helpful to avoid the <u>confrontation</u> b/w west & East

Introduction	Suggestions:
Body	
Conclusion	
Presentation	
Marks:	

5. Colonial legacy is the primary source of political instability in the African Continent. Examine. **(10 marks, 150 words)**

Colonisation of world led to various issues in diff continents → Be it political instability, war, famine, hunger.

Agriculture ← Feature of Colonization → Economic Drain

Backward-ness

→ mineral exploitation

↓ Authoritarianism

Colonial legacy Cause of Political Instability

① Paper partition → This led behind an endless war, because most partition of Africa took place an Conference table. (No Clear Boundaries)

② Resource exploitation → It led to under-development of African nation, Raw material extracted, but no investment in civilians, (Eg) Angola war

9

③ Authoritarianism tendency led to lack of democracy in most countries.

④ [Arms struggle] British in exchange of resouce minerals & land, gave arms to local warlords → factionalism & civil war (eg) RSF in sudan

⑤ Agriculture progressive Backwardness → led to hunger & famine in South Africa.

⑥ Legacy of corruption (eg) Zimbawe president (Robert Mugabe).

However, after 1992, slow in some African nation democracy can be seen due to effect of Nelson Mandela's legacy (eg) Tanaznia.

6. Sustainable urban development needs mindful reassessment of land use patterns. Discuss. **(10 marks, 150 words)**

Sustainable urban development means the urbanisation taking into account the long term sustainability in mind without exploiting the resources.

As per [UN study], India will have 60% urbanized by 2050.

[Issue with current urbanization & land use]

① Large scale deforestation → It is leading to Urban Island effect.

② Destruction of Natural wet land (Eg) Banglore city

③ unplanned infrastructure leading to lack of air circulation which further leads to [Air pollution] (Eg) Delhi

④ water stress due to inadequate drainage

keeping in mind, we need reassement
of land use pattern for sustainability

① Green space and forest cover need
to be increased Eg Nagar Van Yojana

② wetland need to be preserved for
filtration & toxic water & natural asthetics

③ Planned city infrastructure to use
spaces properly. with proper drainage

④ Agriculture land needs to be used
properly for urbanisation keeping in mind
food security.

⑤ manufacturing → should be away from
urban spaces for sustainability.

sustainability & urban cities need proper
city-wise planning & proper landuse pattern.

Tier-2 & Tier 3 city should keep in mind.

Introduction	Suggestions:
Body	
Conclusion	
Presentation	
Marks:	

7. Socio-cultural factors more than economic factors influence women migration patterns in India. Discuss.   **(10 marks, 150 words)**

migration pattern in India are mostly from Rural to urban generally. It is process of moving away from one place & settling at another. (Eg) 40% population migrated (inter & intra state)

Economic factor of migration
→ Jobs
→ Better lifestyle
→ Health prospects
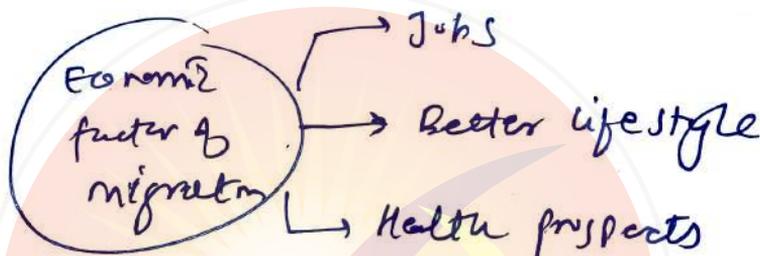
however for women, Economic factor like job are not Primary cause of migration.

Socio cultural factors for women Migration

① Highest migration between districts (intra-state)
→ caused by Marriage
→ husbands movement

(2) Women migration due to mobility of husband to city → most time due to marriage women follow husband to new jobs.

(3) Patriarchal values → in society leads to lack of Economic mobility (Eg) Education & job purpose.

(4) Lack of Education and skill lead to low level jobs (Eg) Construction work, cook

(5) Dalit women move toward city due to socio-cultural factors like ⌐→ lack of land
├ Exploitation
└→ casteism

Government should take into account migration pattern for proper registration & rehabilitation in cities.

8. Discuss the significance of the IT industries in promoting regional development in India. **(10 marks, 150 words)**

IT industry today contributes to 8% of GDP of India & contain major part of service sector jobs, so they promote regional development

(eg) TCS (Tata Consultancy services)

Significance of IT in Regional development

① software / IT jobs leading to jobs & better amenities

(eg) Bengluru city (silicon valley of India) → amazon office → samsung → microsoft

② Ancillary Activity Promotion like food outlets, gig jobs, housing and accomodation.

③ Buisness processing industry leading to development (eg) Gurugram

(4) IT Industry promote better [FDI] in local area & CSR expenditure in building community goods.

(eg) Schools in Jharkhand → For Tribl children

(5) Emergence of Tier 2 and Tie-3 cities due to IT jobs

(eg) software & Technology park of India (mostly in new cities)

(6) Demand of Raw material (vegetables, milk) → development of local Agriculture

(eg) Noida city → peripheral farmer.

Due to IT industry significian Government is trying to promote more IT sector using smart city mission and digital india mission.

9. Explain the formation of islands in the Indian Ocean Region with suitable examples. **(10 marks, 150 words)**

Islands are formed by many geological phenomenon like volcano etc. There are many Island in Indian Ocean Region (IOR) (eg) Indonesian Archipeglo.

> Formation of Island in IOR

(1) volcanic origin
↳
Due to volcano on oceanic plates

(eg) Indonesian small Islands.

maldives ○
○ seychelles
chicago
madagascar garcia
Indonesia

Island of IOR
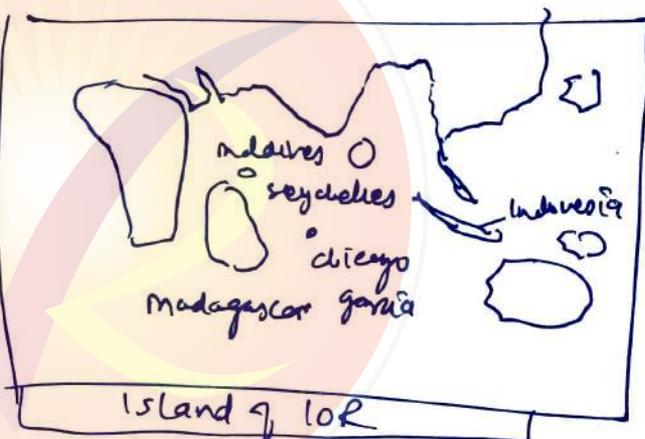
(2) Continental originated Island → Due to Fracture on Continental plate

(eg) madagascar Island breaking away from Africa (Rift)

③ [Coral origin] many Island are formed by coral formation due to <u>Carbonate</u> formation ⑨ <u>Lakshdeep Island</u>.

④ <u>Artificial Island</u> are new feature which are created to increase EEZ

⑤ Formation of <u>maldives</u> using lava & magma formation

Islands are important for various Biodiversity, however their survival is threatned due to climate change

⑤ Australia — Great Barrier Reef

Introduction	Suggestions:
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Marks:	

10. Mention the global occurrences of major tropical cyclones in 2023 and 2024. Also, explain their impacts on local communities. **(10 marks, 150 words)**

Tropical cyclone are low pressure cyclone which occure due to high temperature (>27°C) in ocean & mostly formed on sea (Eg) Bay of Bengal cyclone.

Global occurances of major tropical cyclones

Figure → Major tropical cyclones (world)

① Cyclones → Biparjoy (Arbiun sea origin)
            → Mocha (west Bengle)
            (origin — Bay of Bengle)

② Hurricane → Storm Denial in mediterrean sea

③ Typhoon → (Eg) Japan Island destruction 2023.
↳ china flooding

Impact of Tropical cyclone on Local communities
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① Destruction of Infrastructure → houses, bridge, communication, light cables etc.

② Human lives destruction due to high intensity

③ Economic impact (Eg) Cyclone ~~Biporoy~~
(Biporjoy)
UN study → 14 $ B Loss in all affected nations

④ Biodiversity destruction → (Eg) Flora & fauna

⑤ displacement & migration (Eg) Refugee crisis.

cyclone require early warning robustness & advance preparedness.

odisha model helped in (0) causalty in feni cyclone (2019)

Introduction	Suggestions:
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Marks :	

11. Mahatma Gandhi described himself as a 'true disciple' of Balgangadhar Tilak despite having political differences. In this context, analyse the similarities and differences between Gandhian methods and extremism. **(15 marks, 250 words)**

Gandhi & Tilak b.g. led main freedom struggle with their capacity & charismatic aura ultimately leading to freedom.

Gandhi said he learned a lot from Tilak despite differences. Similar views & respect was showered by Tilak.

Difference b/w Gandhian method & extremism

Elements	Gandhian method	Extremism
① Tools	Gandhian method used Tool → Satyagraha → Non-violence → Boycott → Non-cooperation	Tools: - passive Resistance - Economic Boycott - violence in mild form
② Nature	secular nature	Use of festivals

	(Eg) particulim? all (Hindu-muslim) worker, peasant	(Eg) Ganesha festival for awakening
(3) leaders	led by leader like Gopalkrishna Gokhle S. Banerjee	(Eg) [Bipinchadra pal Aurobindo Ghosh.
(4) strategy	→ signing petition & pleading to British goverment for concessions	→ use q passive resistance & desiving fear in British govermel
	(Eg) → Truce-struggle —Truce strategy	(Eg) Nasik murder Activities & Anushilan smiti's
(5) Participation	wide masses (involvement q all)	→ mass participation
(6) use & media	Less	→ most propagandia using periodicals

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Similarities b/w Gandhism & extremism

① Both led to awakening among masses against common struggle.

② Both supported Economic Boycott & British goods & use of swadeshi.

③ Aim of Both was same → ultimately Indian freedom, Although means varied.

④ Both expanded Rapidly among masses.

Indian freedom struggle due to various Ideological strands — Gandhism, Socialism, Extremism, Communists had support in various form.

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	Suggestions:
Introduction	
Body	
Conclusion	
Presentation	
Marks:	

12. 'Partition was a necessary evil to get rid of British rule and prevent a complete breakdown of law and order.' Analyse. **(15 marks, 250 words)**

Partition of India happened after Atlee's announcement & Mountbatten 3rd June Plan & led to Division of India under Bristian into 2 major nation.

Partition was necessary evil

① Communalism at Peak → Due to Admant of Jinnah, every talks were breaking, leading to non-conclusion Eg Shimla Talks (1946)

② Violent & Turbulent times showed that no going back on without partition Eg Direct Action day violence in Bihar & West Bengal (1946)

③ Partition → ultimate peaceful trasfor of power tool. Any other

option coould have led to fight among two communities in various level → Administration (Bureaucracy), Army etc.

④ British after WWII did not wanted more time in India specially after Royal mutiny of 1946 (Bombay)
   ↳ no interest in law & order from British side.

⑤ Animosity between hindu & muslim due to virulent form of Communalism
   ↳ Both saw each other as a threat

⑥ ~~Even~~ threat of destruction of property, civilian life, administrative concern ultimately led to acceptance of partition.

⑦ However UNITY of India was maintained

as shown in integrity) Princely state
and state like Junagarh, hyderabad &
                                        kashmir.

Partition could have been avoided as
per critics

① critics said that <u>Elite political circle</u>
wanted power at <u>Earliest</u>.

② No healing steps was taken by Congress
except <u>Gandhiji</u> during <u>Bengal violence</u>

③ It led to division of <u>Army</u>, <u>Bureaucracy</u>
& Population

④ Even <u>Partition resulted in violence</u>
due to <u>abruptness</u> & movement.

          Partition became necessary evil,
however better advance planning &
preparedness could have avoided the
mass <u>bloodshed</u> & widespread confusion

Introduction	Suggestions:
Body	
Conclusion	
Presentation	
Marks:	

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13. To what extent urbanisation has influenced the social hierarchy in Indian society? Explain. **(15 marks, 250 words)**

Urbanisation in India today is around (35%) which is leading to both equality & marginalization, being a dual-edged sword.

Urbanisation reducing social hierarchy

① Urbanisation led to decrease in ascriptive identities like Caste etc.

eg. Formal jobs required merit

② It provides values of equality, opportunity to migrated population

③ Urbanisation led to proliferation of job for landless Dalit, & Backward section eg. shops, gig economy

④ Avenue of social mobility for women → jobs & education in cities

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art)

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anything in
this part)

(5) **Rational values** like achievement based society, Brotherhood → Reducing in social hierarchy.

(6) **Attack on Patriarchal values** → Urbanization gave flexibility to women at work and home

      (eg) Joint Conjugal Role
          (Urban families)

> However, on other side it have (ed) to further marginalization

(1) **Slum habitats** → Proliferation of slum shows poor way of living, with dilapidated Conditions

      (eg) 27% Urban population lives in slum with no basic amenities

(2) **Ghettoisation**, → Poor & marginalised living in separted colonys.

      (eg) valmiki colony (Delhi)
          Jat Residence hostel etc

(3) <u>Gated society</u> slows hierarchy present in Urban city eg <u>Noida Posh areas.</u>

(4) <u>Gentrification</u> → led to rise of prices for land → marganisation & non-affordable for poor.

(5) (Feminisation of Agriculture) → migration mostly happen for men.

(6) Women still doing <u>informal jobs</u> (>95% working women) in Agriculture

(7) Patriarchal attitude is seen in many cases of <u>honour killing</u>, Caste based <u>violence</u>, <u>Gender Based violence</u>.

Further steps like enforcement of legislation like (DV 2005, Prevention of atrocities Act 1989), and awareness about exclusion needed for True <u>realization of Justice envisaged by Ambedkar</u>

Introduction	Suggestions:
Body	
Conclusion	
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Marks :	

14. Globalisation expanded the market opportunities for goods and services beyond domestic territories. Discuss the effects of globalisation on the Indian craft industry with examples.

(15 marks, 250 words)

Globalisation is process of interconnectedness and integration of global societies using help of information, communication technologies (ICT).

```
                    ┌─→ Trade possibilities
                    │        (Eg) WTO
┌─────────────┐     │
│ Globalisation│    ├─→ Connectivity (air, Rail, Land)
│      +      │─────┤
│ market oppn │     ├─→ Communication (Eg) Telecom
└─────────────┘     │                        Internet
                    │
                    ├─→ migration & mobility
                    │
                    └─→ Expansion of service industry
                             (Eg) IT services
```

Effect of globalisation of indian handicraft industries

① Positive effect

  └─→ Globe market due to

availability of internet platforms

(eg) Amazon selling craft painting online

→ Exchange of _technology_ leading to modernization of handicraft industries

→ Better monetary values due to demand

→ Recognition _of Talented_ artisans

(eg) PM giving handicraft as memento ⟹ Kalamkari paintings

→ GI tags → marketing & Branding

(eg) Kashmiri shawls.

→ [Top Destination] → Gems cutting & diamond

(eg) Surat & Jaipur

↳ Woven clothing

(eg) Bandhej.

→ Craft like (eg) Sojat Mehndi

however Globalization had | negative impact |
too →

- → decline in local culture due
  to Glocalization.

- → copy right issue (Eg) Companies
  putting patent on local traditional
  knowledge

- → uneven development of Art & Craft
  (Eg) paintings of kalmari recognition,
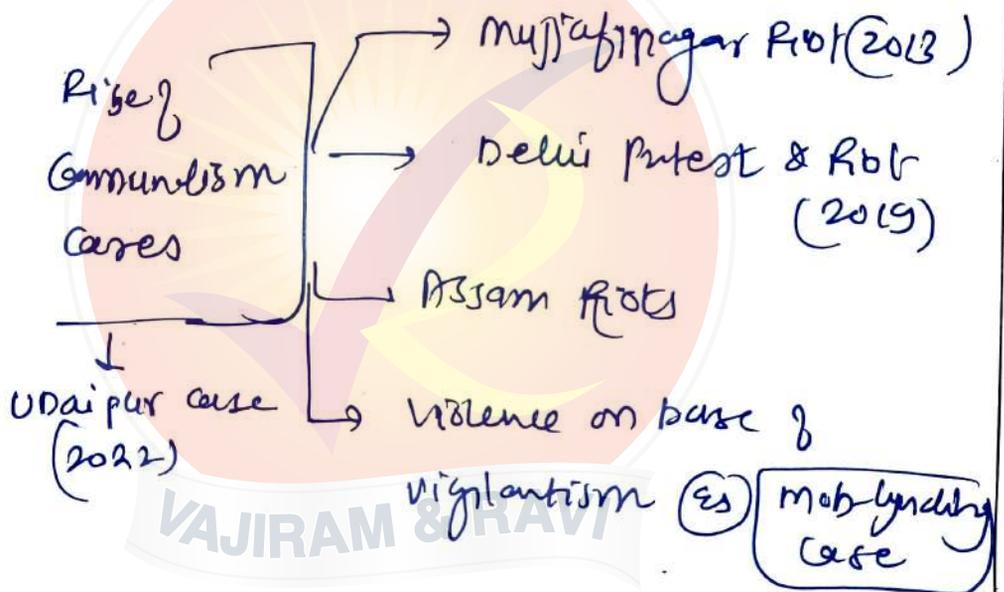 but not of Longer paintings at
  global level

Globalisation has provided an good
opportunity for development of Indian
handicrafts. | ONDC | will help to
democratisation of Online selling, further
steps like ODOP (one district one products)
and GI are should be taken at
large scale

Introduction	Suggestions:
Body	
Conclusion	
Presentation	
Marks:	

15. Rise of communalism in secular India threatens the social fabric and public order. Discuss the measures to contain the spread of communalism. **(15 marks, 250 words)**

Ram Ahuja defines Communalism as having a antagnistic feelings for other community, whose interest are not only seen different but seen as against the community.

Rise of Communalism Cases → Muzrafinagar Riot (2013)

→ Delhi Protest & Riot (2019)

→ Assam Riots

Udaipur case (2022) ↳ Violence on base of Vigilantism (ε) mob-lynching case

Rise of Communidism threates social fabric

① Attack of diversity → Communism bases on primacy of one community over another

② Attack on <u>Secular character</u> of society

↳ Communalism leads to feeling of hate toward other Community.

③ Public order with peaceful living is disrupted by Communal violence.

⑤ mob lynching → Riots in (UP).

④ <u>Proliferation of hate</u> by Communalism leads to decrease in values of <u>Tolerance & Brotherhood</u>.

⑤ Care of safety for <u>women & children</u> in any violence

┌─────────────────────────────────────┐
│ measure to Contain spread of Communalism) │
└─────────────────────────────────────┘

① [Legislative measure]

   ↳ <u>mob lynching Act</u> on basis of learning from USA

   ↳ <u>RPA 1951</u> Act proper reinforcement

to increase accountability of politician during election

(2) criminal justice system → under (BNS) communalism should be defined properly which should contain any form of prejudices. & hate.

(3) Role model of Gandhi, Ambedakar, Maulana Abdul azad etc should be shown to awaken masses.

(4) Judiciary protecting constitution values of secularism, equality & Brotherhood
(eg) SC guidelines in mob lynching.

(5) use of common festival celebration for increasing presence

(6) (Even & Balanced development)

solution lies in our values given by constitution, they should be respected by all.

Introduction	Suggestions:
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Conclusion	
Presentation	
Marks:	

16. Describe the distribution of major palm oil producing countries. Also, indicate the major environmental issues faced by them.   **(15 marks, 250 words)**

Palm oil producing countries majorly lies in equitorial region with better Rainfall. Due to lack of domestic palm oil, recently government focus on palm oil is increasing (80% imported).
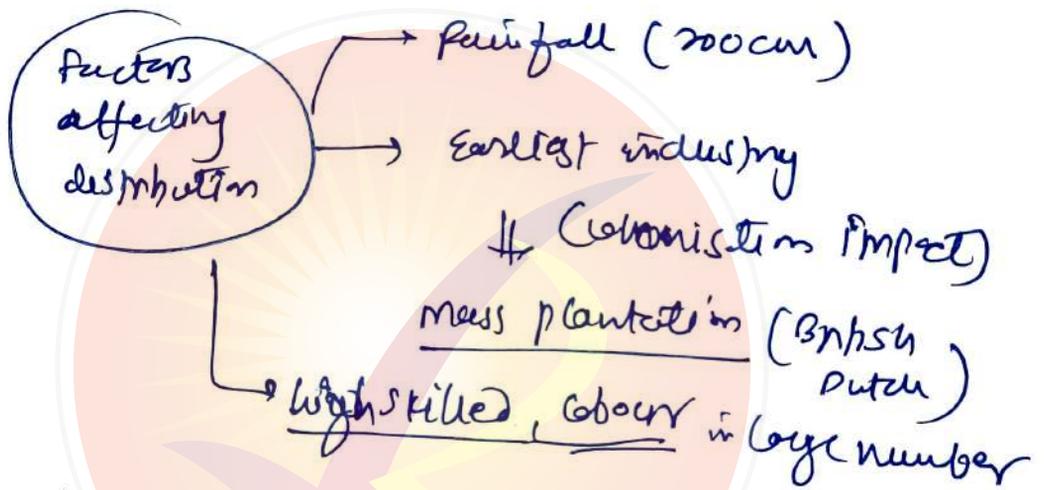
Distribution of Palm oil Countries

Mexico
Colombia
Nigeria
Brazil
Myanmar
Thailand
Malaysia
Indonesia
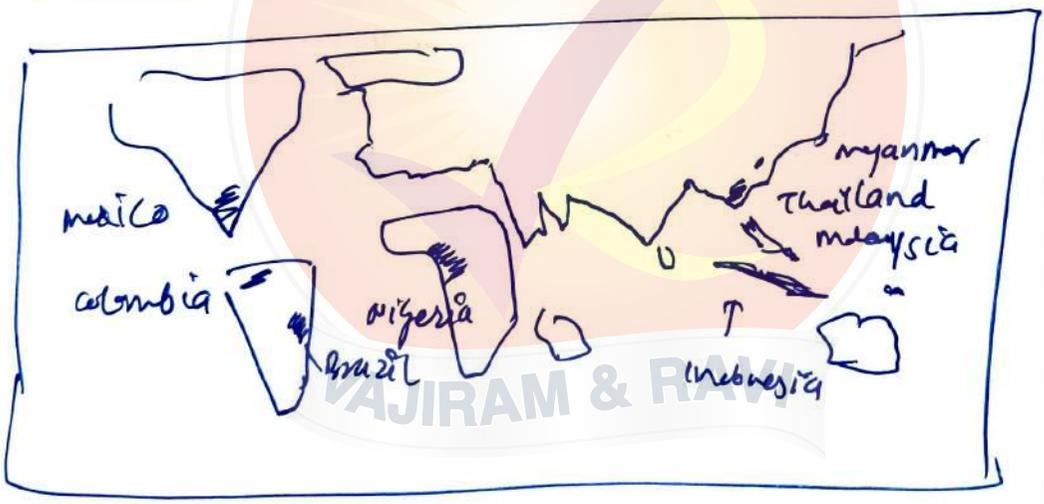
(1) South East Asia

⤷ Indonesia → one of largest exporter

⤷ Malaysia → highest palm oil production due to better Agrotechnologies

⤷ Thailand

② <u>Africa</u> — Nigeria have good production of palm oil.

③ <u>Latin America</u> like Colombia & Brazil

④ <u>North America</u> — southern side of mexico

Factors affecting distribution
- → rainfall (200cm)
- → Earliest industry
  ↳ Colonisation impact
    <u>mass plantation</u> (British, Dutch)
  ↳ <u>High skilled</u>, labour in large number

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major environmental issue faced by palm oil producing nations

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① <u>Deforestation & Biodiversity destruction</u> due to large scale agricultural plantation

② <u>lack of soil productivity</u> & crop

productivity → Due to impact of palm
oil in soil → not sustainable in long term

③ water stress on areas due to
requirement in palm oil Industry

④ Pollution due to palm oil industry
└ environmental hazards like climate
change etc

Due to high import, India has
taken steps like NMEO-OP for oil
palm promotion in north eastern area,
however environmental concern should
be kept in mind

Students should not write anything inside the box

Introduction	Suggestions:
Body	
Conclusion	
Presentation	
Marks :	

17.Discuss the importance of water as the chief architect of the earth surface.

(15 marks, 250 words)

Water in ocean area cover more from 1/3rd of area of earth, and it is hub of large scale biodiversity, making it a chief architect of earth surface.

Importance of Water as chief Architect

① formation of Sandbar Island & Coral Island require water & inhibited coral phytoplanktons & zoo plankton

② Castal erosion & Coastal formation
└ water is major architect (Eg) Tombaloo
└ (Eg) India — 12th Blue certified Beaches) by FEB denmark.

③ Ocean current → chief architect of Fish Industry → mixing of cold & warm
└ (Eg) Japan (Oyashio & Kuroshyo)

(4) [melting of glacier] → warm Atlantic Current of water changing landscape.

(Eg) himalaya

(5) [River Topography]

↳ formation of deltas, valleys,
↳ Rapid falls & waterfalls.
↳ creation of meandar & alluvial plains.

(6) [water → Erosion]

↳ chambal Badlands & ravines

(7) creation of beautiful landscape like [Fjord formation] in Norway

(8) karst Topography → water act as major agent in formation of Earth.

(Eg) stalactite & stagmite formation in caves. (limestone)
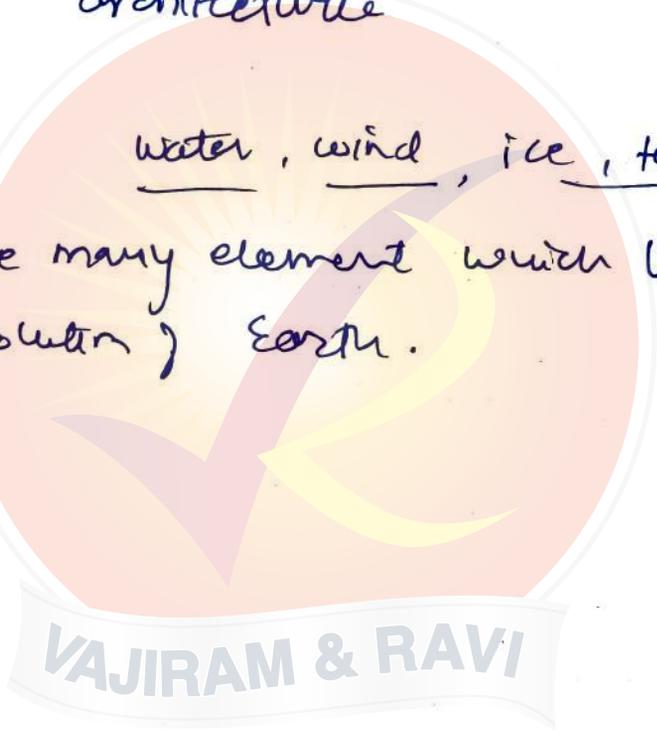
Reason of water being a biggest Agent

① Force of Abrasion due to water friction during flow

② Sedimentary flow & deposition

③ Erosive power of water leading to architecture

water, wind, ice, temperature
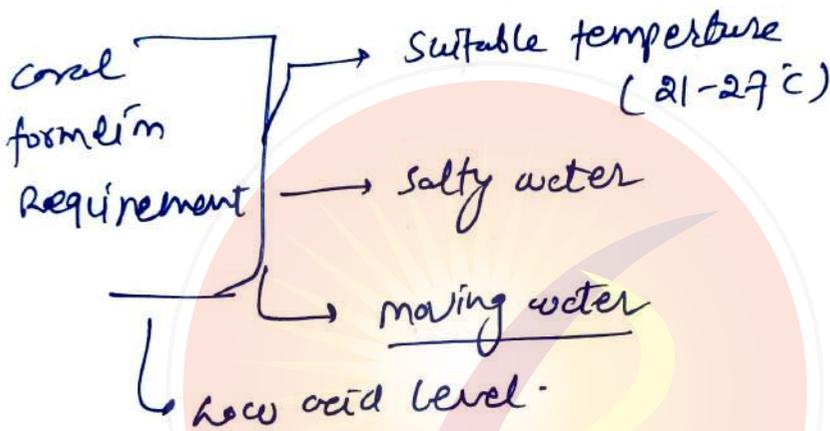
are many element which helps in evolution of Earth.

Students should not write anything inside the box

Introduction	Suggestions:
Body	
Conclusion	
Presentation	
Marks:	

18. 'Tropical rainforests of the ocean are under serious threat of existence.' Discuss. Also suggest measures to rejuvenate these critical ecosystems.

(15 marks, 250 words)

Tropical Rainforest of ocean kuwon mostly as coral are serious threat due to climate change & various phenomenon.

coral formation Requirement
→ Suitable temperature (21-27°C)
→ Salty water
→ moving water
→ Low acid level.

Threats to Tropical Rainforest of Ocean

① increase in temperature (SST) → leading to major coral Bleaching event
(Eg) 4 till now ⟹ Great Barrier Reef (Australia)

② marine heat waves occurrence leading to increased deposition

③ Increased flow of <u>melted freshwater</u> leads to <u>sedimentation increase</u>

④ <u>Human as threat</u> → destroying coral for <u>food & subsistence purpose</u>

⑤ <u>River & water pollution</u> → due to industrial non-point sources

     (eg) Release of Acid

⑥ <u>Ocean Acidification</u> increased by 30% ($8.2 \rightarrow 8.1$) during industrialization period

⑦ <u>Agricultural</u> pesticide use → leads to increase of <u>Nitrogen & phosphate Runoff</u>

     ⤷ Eutrophication + Algae Bloom → ↓O_2

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[Measures to Rejuvinate entire Ecosystem]

① <u>Use of technology to Regenerate</u>

     (eg) <u>Biorock technology in Gujarat</u>

② <u>International collaboration</u>

   (E) <u>ICRI</u> (International Coral Reef Initiative)
putting efforts to save <u>Great Barrier Reef</u>

③ <u>Control on climate temperature increase</u>

④ Reducing <u>sediments (dredging)</u> &
use of fertilizer in Agriculture
   (E) organic farming

⑤ Fulfillment of intentionally determined
Contribution under ⟨ PARIS CLIMATE DEAL ⟩

⑥ <u>Local communities</u> knowledge & collaboration
   ↳ Agent for Rejuvenation.

   ⟨ IPCC-6 Report ⟩ says 1·5°C increase
will lead to destruction of CORALS &
<u>seaweeds</u> at large scale - It needs proactive
participation from all stakeholder

Introduction	Suggestions:
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Marks :	

19. Explain the reasons for geographical concentration of ozone holes. What are the remedial measures to ozone depletion? **(15 marks, 250 words)**

(Ozone hole) is destruction of ozone in stratosphere which helps the earth from harmful UV Rays & warming of earth.

(Eg) Arctic hole

Reason for geographical concentration

① Polar stratospheric cloud formation on Arctic pole leads to destruction in winter (Eg) chlorine element) due to Industrialization in Northern hemisphere

② Antarctica hole is mainly due to warm ocean current → melting & Carbon release → warming

③ Due to Pollution, formation of ozone at Tropospheric level

(Eg) Bad ozone . (PAN) + Poly methyl Nitrate

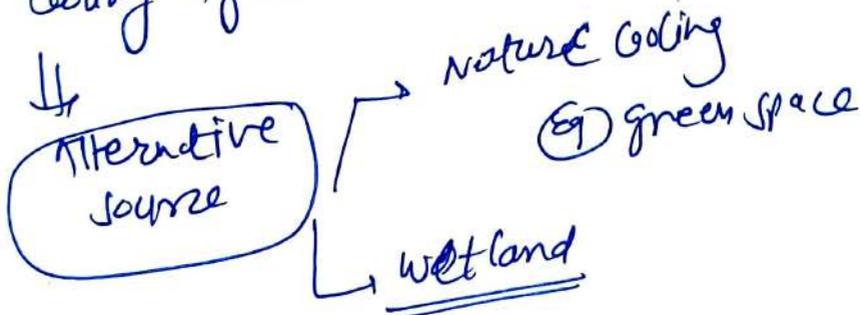(4) warming in Tropospheric leading to variation of ozone depletion w.r.t. Altitude

→ Low depletion
→ highest concentration
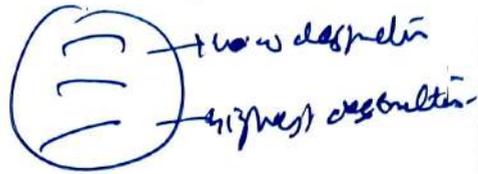
Remedial measures to ozone depletion

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① Internationel Collaboration

- kyoto Protocol
- montreal Protocol

→ Reducing the ozone depleting substance

(Eg) HFCS, HCFCS

② Reducing of CFC released by cooling Agents like AC & Refrigerators

↳ Alternative Source

→ Nature Cooling
   (Eg) green space

↳ Wetland

③ Heat Action plan at level of city for better formulation
(eg) 2019 Ahemdabad heat Action plans

④ Geoengineering
— Stratospheric Aerosol injection (SAI)
— Mirror clouds to reduce warming

⑤ Artifical ozone creation using technology

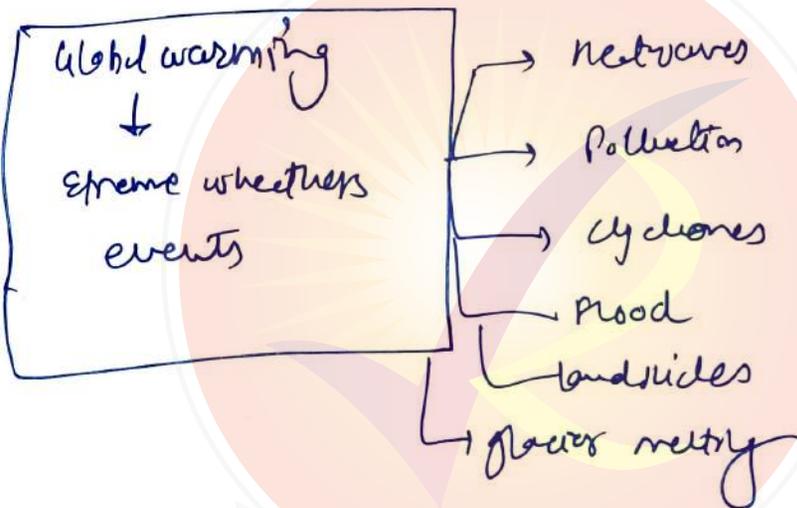⑥ kunming-montreal protocol to reduce human induced pollution.

ozone being a lifesaver layer for Earth's heat balance needs the protection. Every element with global warming potential (high) needs to be eradicated.

Introduction	Suggestions:
Body	
Conclusion	
Presentation	
Marks :	

20. 'Global warming increasingly contributes to extreme weather events.' Examine the statement with special focus on recent events of natural hazards in the Indian subcontinent.

(15 marks, 250 words)

Global warming defined as warming of Earth temperature. IPCC Rep-A 6 says today Earth is 1.09°C warmer than in pre-industrial times (1800 C)

Global warming
↓
Extreme wheathers events
→ Heatwaves
→ Pollution
→ Cyclones
→ Flood
→ landslides
→ glacier melting

Cause of global warming

① vehicular pollution → Release of SO_2
        ↳ warming of urban area

② Agricultural → Release of N, P.
        ↳ Methane Release
              (livestock)

③ Human Activity & tools (Eg) AC,
              (white goods)

① Natural → volcanoes

⑤ Energy & Industrial → imgrity due to back/suptability

Natural hazards in Indian subcontinent

① Increased frequency & cyclones

↳ Arc + Reepast, cyclone intensity increased by 80% in Arabian sea (2001-2019)

(Eg) Cyclone Biparjoy etc.

② Flood occurrence due to sea level rise & temperature → expansion water

(Eg) Kerala, Assam floods

③ Heatwaves → Due to variation in rainfall & amoun → frequent occurrence in Indian subcontinent

(Eg) UP — deaths due to heatwave (2024 summer)

(4) <u>Landslides</u> due to increased intensity of water flow

(eg) Chamoli destruction; western ghats.

(5) frequent <u>flash floods</u> & <u>Cloudburst</u>

(eg) Uttrakhand disaster & <u>Amarnath Yatra</u>.

way ahead → Disaster preparedness (mitigation)

→ Technology Development (Early warning system)

↓

Training & Community Resilience Building

India being one of most vulnerable countries need to collaborate at Global forum. steps like [CDRI], [International Solar Alliance] are in right direction to reduce Impact of extreme weathers

Introduction	Suggestions:
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