

GEOGRAPHY

Time Allowed: 3 hrs.

Max Marks: 250

141

All the best!

Instructions to Candidate

- There are Eight questions divided in two Sections.
- Candidate has to attempt FIVE questions in all.
- Question Nos. 1 and 5 are compulsory and out of the remaining. THREE are to be attempted choosing at least ONE question from each Section.
- The number of marks carried by a question/part is indicated against it.
- 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.
- Word limit in questions, wherever specified, should be adhered to.
- Illustrate your answers with suitable sketches/maps and diagrams, wherever considered necessary. These shall be drawn in the space provided for answering the question itself.
- Attempts of questions shall be counted in chronological order. Unless struck off, attempt of a question shall be counted even if attempted partly. Any page or portion of the page left blank in the answer book must be clearly struck off.

- v. good attempt
- Good presentation & structure
- Answers reflect conceptual clarity

Name Yasharth Shekhar

Mobile No. _____

Date 4/01/2022

Signature Y Shekhar

1. Invigilator's Signature _____

2. Invigilator's Signature _____

- Previous suggestions have been incorporated.
- Keep it up!

SECTION-A

Attempt all questions:

1. Answer the following questions in about 150 words each: (12.5 × 4 = 50)

- (a) Marine Heat waves.
 - (b) 'Modern day land forms bear more complexity than simplicity'. Elaborate.
 - (c) What Role climate plays in overall development of human health and comfort?
 - (d) Mass movements
 - (e) Chernozem Soil
- Short period of intense marine heating
→ Long term effects.

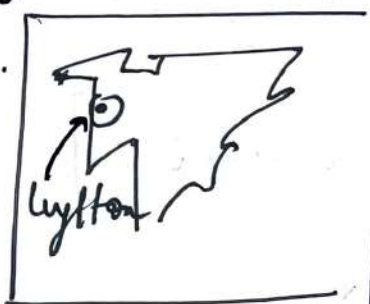
(a) Marine Heat Waves are higher average temperate experienced by :

coastal areas

icesheets

continental interior located close to coast

eg. Lytton located on the Pacific coast of North America experienced a heat waves in 2021.



Cause :

Natural

Anthropogenic

① Milankovitch cycle

② Gradual warming up of earth as part of natural process

① Climate change as per IPCC
90% of heat is absorbed by oceans → 1.1°C higher as compared to Pre industrial

Remarks _____

→ Focus more on impacts.

③ El-Nino also affect.

④ Role of Atlantic Meridional Overturning Circulation and heatwaves on the East coast of USA and west coast of Europe.

⑤ Volcanic fowage into ocean eg. La Palma (Spain) episode.

Solution

Adaptation

- ① coastal land zoning
- ② Better medical facilities

Mitigation

- ① ↓ climate change
- ② ↓ fossil fuels
- ③ sustainable development

time.

② Forest fire eg Dixie forest fire of California or Colorado fire of 2022



IMPACT

- coral bleaching
- phytoplankton growth.
- ↓ dissolved oxygen.
- ↓ fish catch.
- effects thermohaline circulations.

① Loss of lives eg of Lydon many people died

② changing marine ecology affecting food chains ⇒ ↓ food security

③ Positive feedback loop affecting climate change

④ causing loss of land area by expanding ocean

⑤ ↑ diseases

⑥ loss of environment

(b) The above statement is true. Since the beginning of formation of 1st order landforms, they have been subjected to endogenic and endogenic forces. Thus crustal stability has never been constant as Darwinian Cycle never completed.

Poly-cyclic Landforms
Palimpsest Topography

Thus, within a same relief, old relief may be found below new relief.

Also the same relief formed at the same time may be separated by distance.

We may use Denudation chronology to study these.

Darwin
- Structure
- Process
- Time

For eg. all surfaces may be seen erosional but only a close and specific examination reveals to us which one is EROSIONAL or DEPOSITIONAL.

Hutton
'Uniformitarianism'

However, the processes acting on landforms have remained the same since

part (Uniformitarianism of Hutton).

Similar is the case with the process of Rejuvenation and features found.

eg. Paired Terraces, Incised meanders etc.

~~old~~ ^{young} age features found at ~~for~~ ~~month~~ month makes it ~~difficult~~ to assess though process ~~can~~ have been the same since eons.

(c) Climate refers to the overall long term net effect of weather phenomena. eg. Monsoon climate, Mediterranean climate etc.

Role of climate

(+ve) development

① ^{Pleasant climate} Mediterranean climate provide good climate

↳ survive → why so many retirement home are there -

② Good climate → good food development →

World Map: Correlation b/w climate & development
- Temperature - HDI's.

good nutrition eg. Citrus-fruits

③ Good climate → good comfort → ↓ demand for AC or other equipment ⇒ ↓ climate change

④ Good climate ⇒ eg. Taiga ⇒ ↓ incidence of diseases like Malaria, Fibrosis, etc ⇒ good health + comfort

⑤ Good climate eg. Marine coast ⇒ good animal husbandry ⇒ food security eg. New Zealand → good health
(-ve)

① Oppressive heat + humidity of coastal guinea ⇒ poor health + ↓ comfort

② ↑ incidence of disease eg. Tse Tse fly, Yellow fever in Africa

③ ↓ productivity eg. Productivity levels in Kenya vs USA (Maine State) → Desert

④ Poor climate → poor productivity → poor health + poor comfort
↑
unustainable ← poverty ← ↓
practice

Thus climate affect health and comfort - Climate determines

Remarks Extreme climates

- Low economic dev & population density

- Population distribution

- Economic activity & development.

- Health outcomes (eg. Tropical Diseases)

- Downslope movt. of weathered material under the effect of gravity.
- May be slow or rapid.

- Water may or may not be present as a lubricant.

(d) Mass Movements refers to var
quantities of movement of landmass/soil
either under gravity or without.

eg. recent landslide in Japan when entire
section of a sector flew off with lives.

They are of many type :

- ① Soil Creep → imperceptible flow of soil →
can't be noticed by eyes -
- ② Rock fall → large boulders of rocks fall
eg recent rockfall in Himanchal Pradesh.
- ③ landslide → failure of slope on account
of ground liquefaction eg. ~~the~~ Kathgodam
landslide of 2019
- ④ Soil Solifluction happens in periglacial
areas where water seep in from below
and causes movement of mass in
Canada, Siberia etc.

Types of mass movement.

- Creep
 - Slide
 - Flow
 - Fall
 - Slump
- Rock
Earth
Mud
Debris

Remarks

⑤ Soil flow → massive amount of soil flowing like river under low friction caused by water.



- Impact
- ① Hurt ecology eg kill animals
 - ② destroys infra
 - ③ ↓ agricultural lands in Mountain areas.
 - ④ Soil erosion
 - ⑤ loss of life of humans

Solution ① Structural measure

- ① Afforestation
 - ② Mass moving containment
 - ③ Removal of soil manually periodically
- terraces and fences

Hazard Management ←

Non-Structural measures

- ① Mass Movement proofing
- ② Land zonation
- ③ Capacity building
- ④ IEC campaigns

Temperate grasslands.

(c) Chernozem Soils



- found in continental interiors of Pampas of South America, Downs of Australia, Veldts of South Africa, Prairies of USA and Steppes
- used for animal rearing meat (Argentina), wheat (USA) or Sheep farming (Australia)
- ideal parent material is Loess
- Humus content is not more than 10% → dark due to basal element rich matrix
- soil structure is CRUMB, predominantly it is a clayey soil
- Flora → rich alfalfa grass, fauna → Saigon ~~deer~~ deer, Parakeets etc.
- Characterised under Mollisol as part of American classification.
- in drone age, transition to chestnut soil

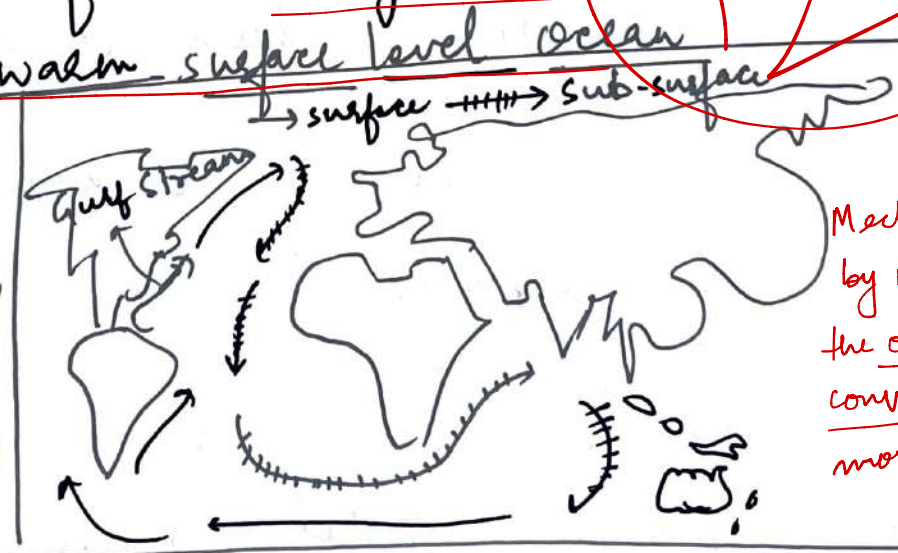
Remarks - Zonal
 - Incomplete leaching
 - Inherently fertile.

Wetter - prairie

3. Answer the following questions:

- (a) What do you understand by Atlantic meridional overturning circulation (AMOC)? How is climate change impacting this circulation and what is the impact of Indian Ocean warming on this circulation? (250 Words) (20)
- (b) How Plate tectonic theory is still not satisfying the modern geologists despite being a major theory explaining the geological formations on earth? Discuss in the light of criticism associated with the theory. (200 Words) (15)
- (c) Covid 19 disrupted the normalcy all around the world. Explain how did Covid 19 amplified the effects of other disasters around the globe? Also elaborate the lessons that can be learnt for future preparedness? (200 Words) (15)

(a) Atlantic Meridional Overturning Circulation refers to large scale movement of warm surface level ocean water from equatorial/Tropical (eg Mexican Gulf → Gulf-Stream) to the higher



Mechanisms by which the ocean conveyor belt moves.

latitudes which gets cold as it reaches high latitudes and sinks and move as subsurface current throughout the world.

It starts from Mexican Gulf as North Equatorial current, Gulf Stream, Florida current then moves to North Pole where it sinks and moves as cold subsurface current.

• Why does it sink - explain the role of temp & salinity.

• Upwelling zones should be identified.

Importance

- ① keep east coast of US warm
- ② keep west coast of Europe → warm → ports of Norway (Troms) stay open
- ③ creates fishing ground at "Grand Banks" meeting cold Labrador Current
- ④ Also affects Indian Monsoon
- ⑤ Global climate temperatures affected by it

Impact of Climate change

As temperature increase due to climate change → leads to melting of glaciers at poles eg at Greenland ^{+ rainfall} → fresh water available →

↓ salinity level → ↓ density of sea water

→ ↓ sinking of current at poles →

thus it weakens the surface flow and hence the ~~rest~~ whole AMOC system slows down

Impact of AMOC slowdown

- ① ~~↓~~ warming up of east coast of USA
- ② ~~changing~~ in ocean surface biology affecting food security
- ③ ~~↓~~ reduced warming up of Western coast
→ ↑ cold of port → hurting port economically
- ④ ~~Disturb~~ thermohaline distribution of sea water.
- ⑤ ~~Affects~~ marine life adversely

Impact of Indian Ocean Warming

~~Warming of Indian ocean~~ → air rises over

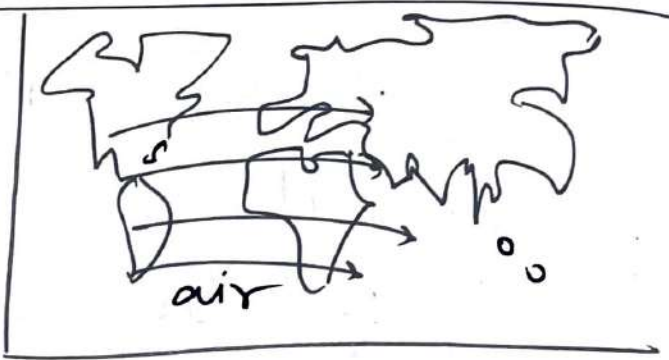
Indian ocean → attracts air from Atlantic

ocean (Westerly air) → strengthen AMOC

Further

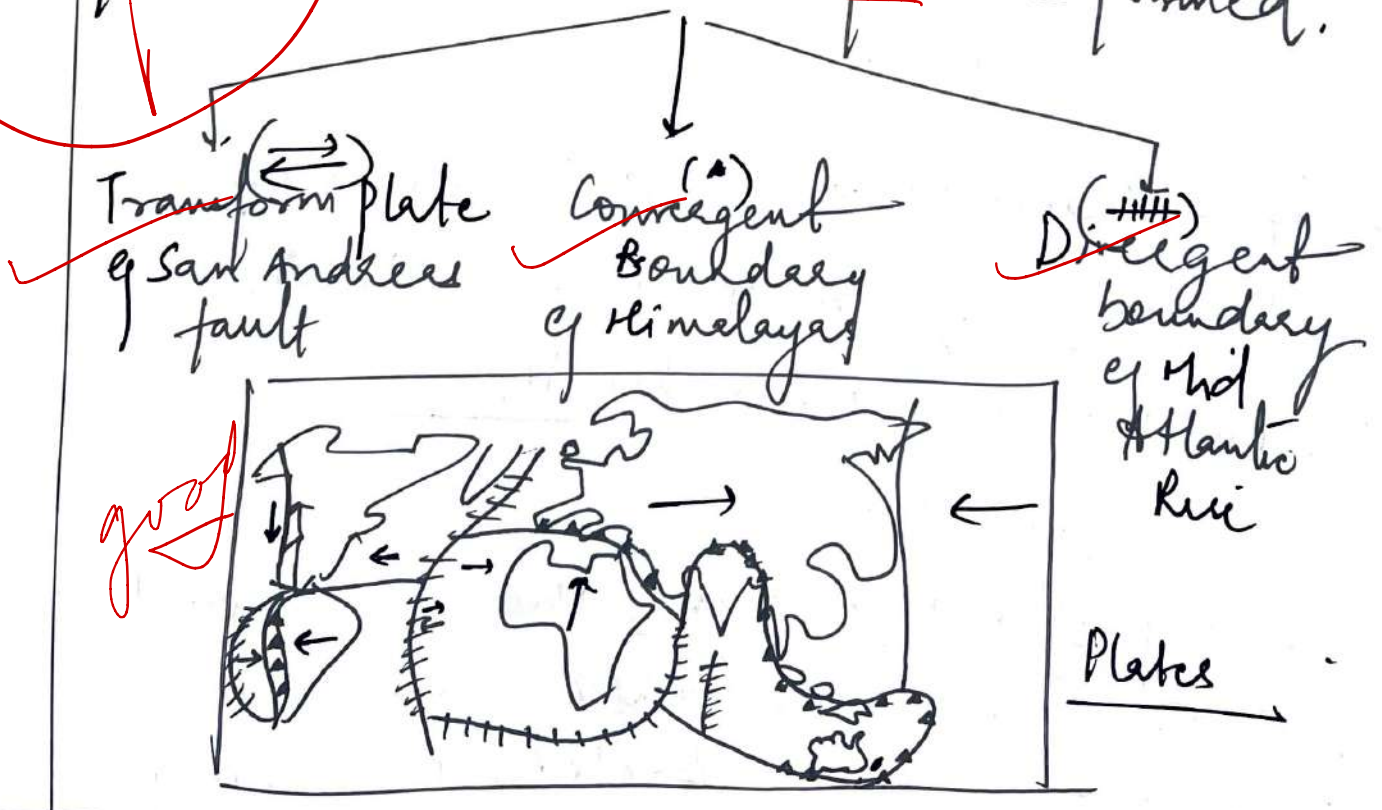
~~Warming of Indian ocean~~ → westerly movement of air from Atlantic → ↓ rainfall from Atlantic
→ ↑ salinity which is adverted to Northen Polar

gwp located at/near Greenland \Rightarrow AMOC becomes strong.



Thus in this way AMOC is affected.

(b) Plate tectonic, given by two Wilson and Morgan assumed World is divided into lithospheric plate and it is the interaction between these lithospheric plate that various landform are formed.



Remarks

It has been criticised on many points:

① If the forces responsible is accepted is thermal convectional current then discontinuity like Moho, Repiti etc should exist but they do.

② force is thermal current can't be that strong

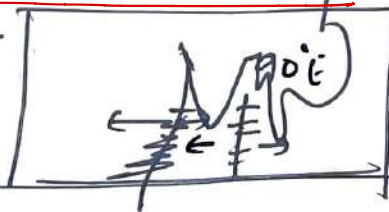
③ Can't explain features like

Drakensburg (South Africa), Great Dividing Range etc which are NOT at plate margins (GDR)



④ Divergent movement of 1 plate
e.g. Indo-Australia

is moving east at Cragas-Lakshadweep ridge
but 90° E is moving west

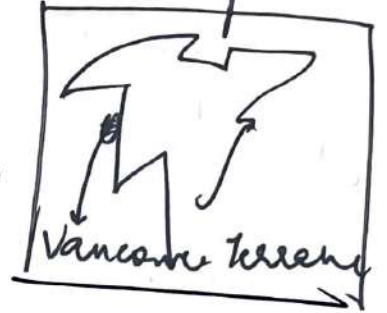


⑤ Concept of TERRANES like

- Most plates appear to be theoretical
→ Intra plate earthquakes.

Vancouver Terranes could not be explained
but it

⑥ It did include/explain the
concept of Hotspots e.g.
Hawaiian Hotspot or Reunion Hotspot



⑦ It could not why displacement
started at Carboniferous period and not
before or after that.

However it did help:

① In explaining how the mountains are formed
e.g. Alps

② How ocean ridges work e.g. Mid Atlantic
Rise

③ Distributional belts of earthquakes
and volcanoes.

④ Cause of Tsunami.

However work needs to be
done to understand the force behind it

(1) Covid 19 was caused by an RNA virus called Coronavirus. Right ~~transmission~~ variant is affecting us

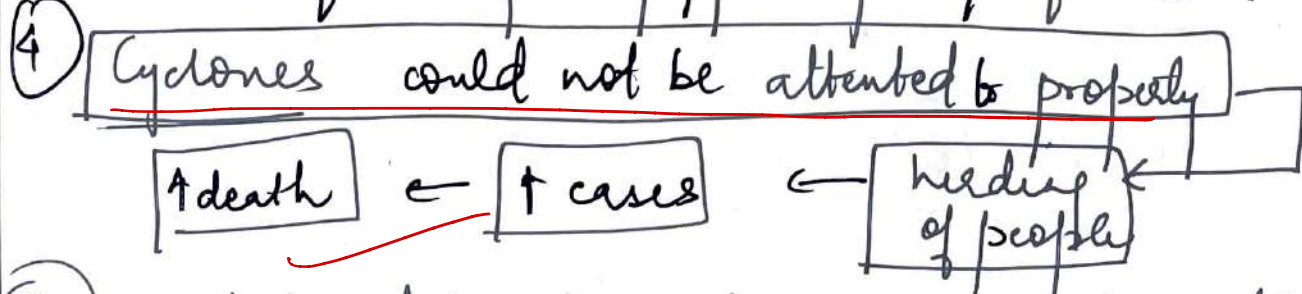
good

How it amplified the effects of other disaster:

① It shifted all emergency workforce to pandemic exposing other outbreaks e.g. recent malaria outbreak could not be attended due to shortage of workforce.
 + masks + PPE kits + packaging material

② covid spongers → clogging basins/drainage → ↑ intensity of woman flood e.g. Nainital/Chennai

③ Food insecurity ↑ ⇒ cargo shipment are getting delayed due to container shortage ⇒ disaster of inequality/poverty ↑ / inflation ↑.



⑤ ↓ funding for preparedness for other disasters.

Remarks → lockdowns + forced migrations — ↓ Economic Activity & Income → ↑ Vulnerability

⑥ ↓ municipal workers → ↓ cleaning ⇒ ↑ clogging → urban floods.

Lesson to be learnt

① Creating a specific task force to effectively deal with pandemic so that workforce are not directly affected. ~~workforce are not~~

② Creating "Pandemic disaster Preparedness Fund" to reduce diversion of funding.

③ Controlling pandemic has to be done with reduce climate change as envisaged at COP 26.

④ Following "One Health" approach where animal health is also protected.

⑤ Regular training, capacity building and proper IEC campaign to educate people on how to behave during such times.

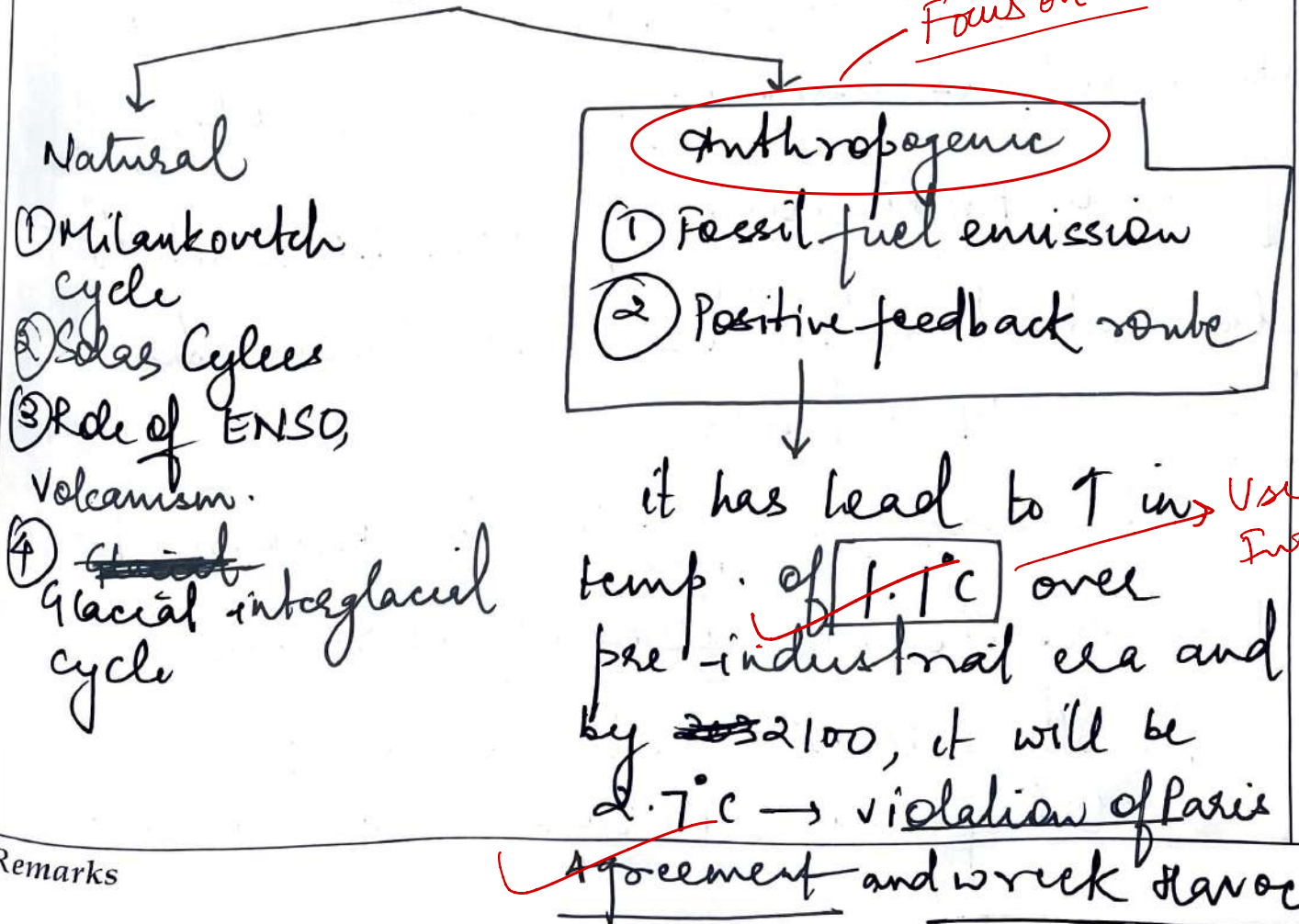
⑥ Presently, PM CARES fund is a good case study on solution.

Answer the following questions:

- (a) "Climate change is no longer some far-off problem; it is happening here; it is happening now". Elaborate the statement using suitable examples. (250 Words) (20)
- (b) Most scientists agree that climate change is making events driven by the jet stream worse. Explaining the phenomenon of jet streams, discuss how climate change affects the jet streams? (200 Words) (15)
- (c) Based on the specific physical conditions prevailing and the physical, chemical or biological activities involved, discuss some of the processes involved in soil formation. (200 Words) (15)

(a) IPCC in its 6th Assessment Report defines "Climate change as the long term change in average climatic conditions of the earth".

Causes



Remarks

ELABORATION

① It will lead to rise in sea levels. Between

Rising sea levels

2013-2021	2003-2012
2.1mm/yr	4.3mm/p.a.

eg. ~~square~~ ⇒ leading to submergence of islands like ~~Fiji~~, Tuvalu → signed an agreement in Fiji to shift population

② Increased intensity of disaster → floods at Germany eg.

droughts

Intensity / Number of tropical cyclones over Arabian Sea has increased eg. Cyclone Tauktae

③ Loss of Biodiversity eg. 2019 IPBES report

Talking about extinction of 1 million species between 2019 and 2050

④ Heat waves eg. Lytton in Canada

⑤ Geomorphological disaster as rainfall

⇒ ↑ slope failure eg. landslide of Malappuram, Kerala 2019 due to

Remarks

- changing cropping patterns due to climate change
- expanding province of tropical diseases / pests.

unpredictably strong South-West Monsoon.

⑥ Sinking of place of Shifting of Capital from Jakarta to Borneo of Indonesia

⑦ Cold Waves of Polar Vortex induced cold waves of Chicago in 2019

Solution

① ↓ fossil fuel consumption as agreed at COP26

② Electric Vehicles

③ Afforestation pact signed at COP26

④ Lifestyle change

Accelerated weathering

⑤ Using Geo-engineering (i) Marine sky brightening

⑥ Technology like Bioenergy Carbon Capture and Storage (BECCS) etc

(ii) Installing Space Mirrors

(iii) ☉ Cosmic cloud

Thinning

Thus the world needs to reach the goal of Net zero by 2050 to tackle

(15) Climate change as been estimated to have ↑ average temperature of earth ~~from~~ by 1.1°C and by 2100 → 2.7°C. Even with ^{all} the pledges at COP26, it is still 2.4°C. Thus it affect Jet Streams which are fast moving, westerly, wide in the upper troposphere affecting earth's climate.

- meandering
- circumpolar
- geostrophic

Causes of Jet streams:

① Temperature gradient at tropospheric level between equator and pole

Jet Streams

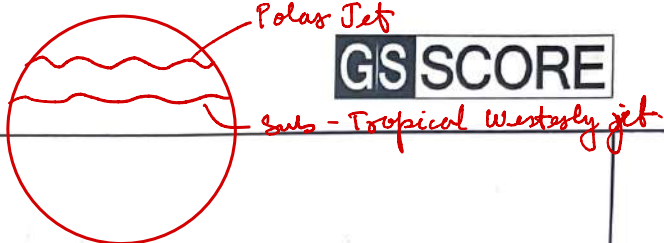


② Rotation of earth ③ Coriolis force → causing westward movement

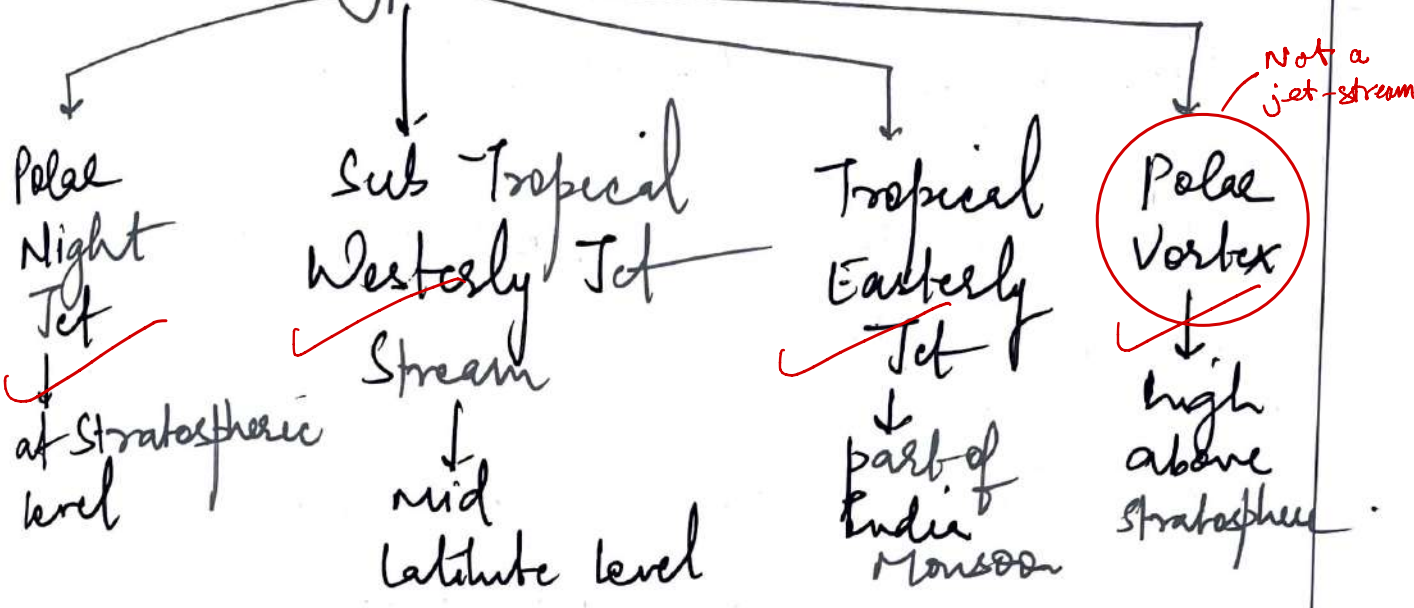
④ conservation of angular momentum causing sub tropical & western jet stream

⑤ warm core eq cyclone leading to Tropical Easterly Jet (Indic Monsoon)

Remarks



Types



Climate change effect on them

- ① Climate change has led to polar vortex breaching the envelope of Polar front jet and bring cold wave to USA e.g. Chicago.
 - ↳ weakening of the jet-stream due to ↓ of temp gradient.
- ② Sudden Stratospheric Warming → enhanced by Climate change has affected Tet Stream adversely.
- ③ Climate change → excess snowfall over Tibetan Plateau → no formation of Tropical Easterly Jet affect India Monsoon.

(4) Affects Subtropical Jet Stream
 ⇒ thus affecting Western Disturbance

(5) It reduces the tropospheric pressure gradient between equator and poles thus reducing the intensity of Jet Stream ⇒ causing them stuck at places ⇒ causing disaster like cloudburst — or droughts.

blocking is usually caused by the presence of a high pressure system (anti-cyclone)

Thus climate pledge need to reach us to net 0 by 2050 to restore the role of Jet Stream.

(c) Soil formation or pedogenesis refers to the formation of soil by breaking down of rocks, decompos of organic matter over thousand of ea years. Dokuchaiev identified

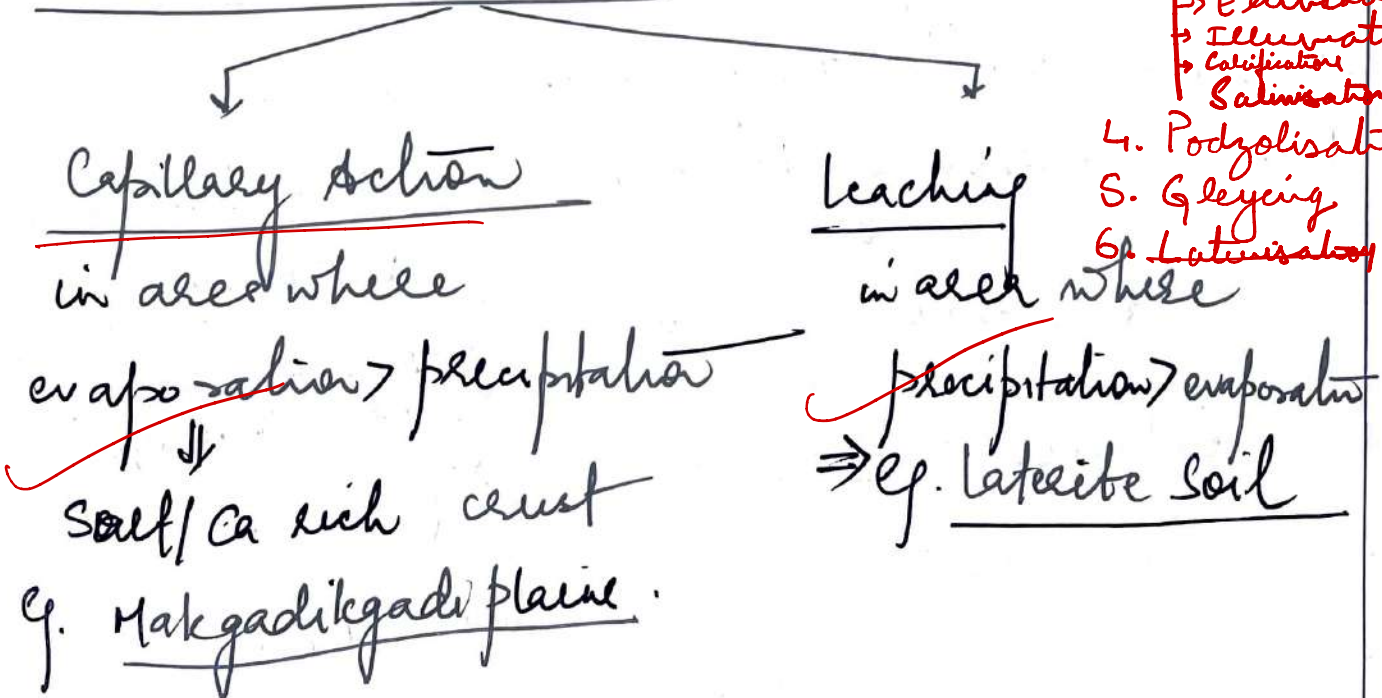
many processes of soil formation:

① Podsolisation occurs at High latitude (Taiga) regions ~~is~~ by the work of Chelating agents lead to ash-grey Podsol soil which has leached Iron, Aluminium, and Calcium, leaving behind Si.

② Desilication occurs in Equatorial / High rainfall areas where ~~heavy rainfall~~ causing leaching of silica, along with Ca → soil e.g. laterite soil

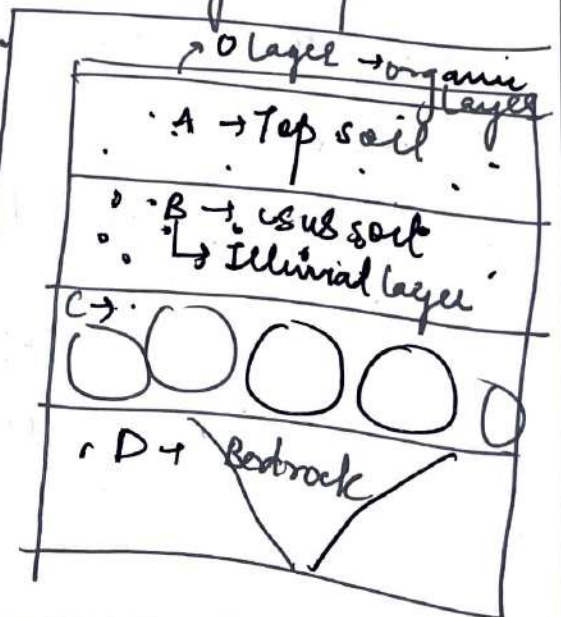
1. Weathering
2. Organic enrichment
3. Translocation
 - ↳ Leaching
 - ↳ Eluviation
 - ↳ Illuviation
 - ↳ Calcification
 - ↳ Salinisation
4. Podzolisation
5. Gleying
6. Laterisation

③ Vertical Movement



- ④ Humification is the process of formation of Humus which is a dark, amorphous decomposed organic layer found in soil of Chernozems are rich in Humus.
- ⑤ Mineralisation in soil where extensive bacterial action reduce humus to mineral form like O_2 , N_2 , H_2 etc ~~later~~ later in hot and humid conditions.
- ⑥ Eluviation is physical downward washing of soil particles which are not soluble in soil water, forming Illuvial layer of Illuvial Horizon of Chernozem.

All these processes help explain different nature of soil all over the world.



SECTION-B

Attempt all questions:

5. Comment on the following into 150 words:

(10 × 5 = 50)

- (a) Food Security
- (b) Urban Spheres of Influence on Population
- (c) Religion and settlement have long been closely interconnected
- (d) Changing pattern of the world trade.
- (e) Cultural landscape

as per FAO - 690 mn people suffer from hunger

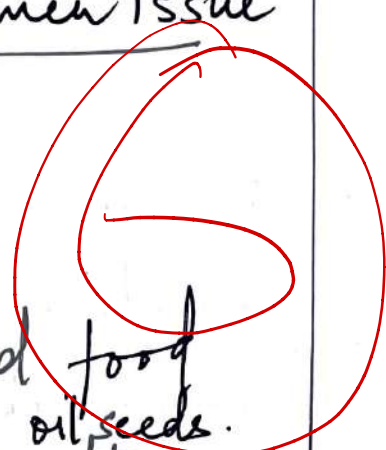
(a) Food security refers to the availability, accessibility, safety, stability of food along with proper nutritional level.

absence of absence food security leads to food crisis eg Hodeida port of Yemen issue (2018)

Threats of food security :

① Climate change as it destroyed food crops eg. destruction of crops of ~~cotton~~ oil seeds in ~~Indonesia~~ Indonesia → price ↑

② Pandemic induced inequality as highlighted in World Inequality Report → ↓ ability of people to access food.



Remarks

India - GHI 2021 - 101st / 116

- More a problem of distribution & management, rather than production.

③ Conflict eg. Houthi - Saudi conflict since 2016 has caused food security crisis in Yemen, or Somalia.

④ Lack of awareness / poor diversification of diet
→ High child wasting (19% in India - NFHS V) + poor weight (32%) or Anemia (67% 0-5 age)

⑤ Lack of storage / warehousing

⑥ Perverse Incentive structure eg. MSP which se reduce diversification.

Solution

① Per capita universal basic income to ↑ affordability

② controlling climate change as was discussed in COP 26 (Panchayat of India)

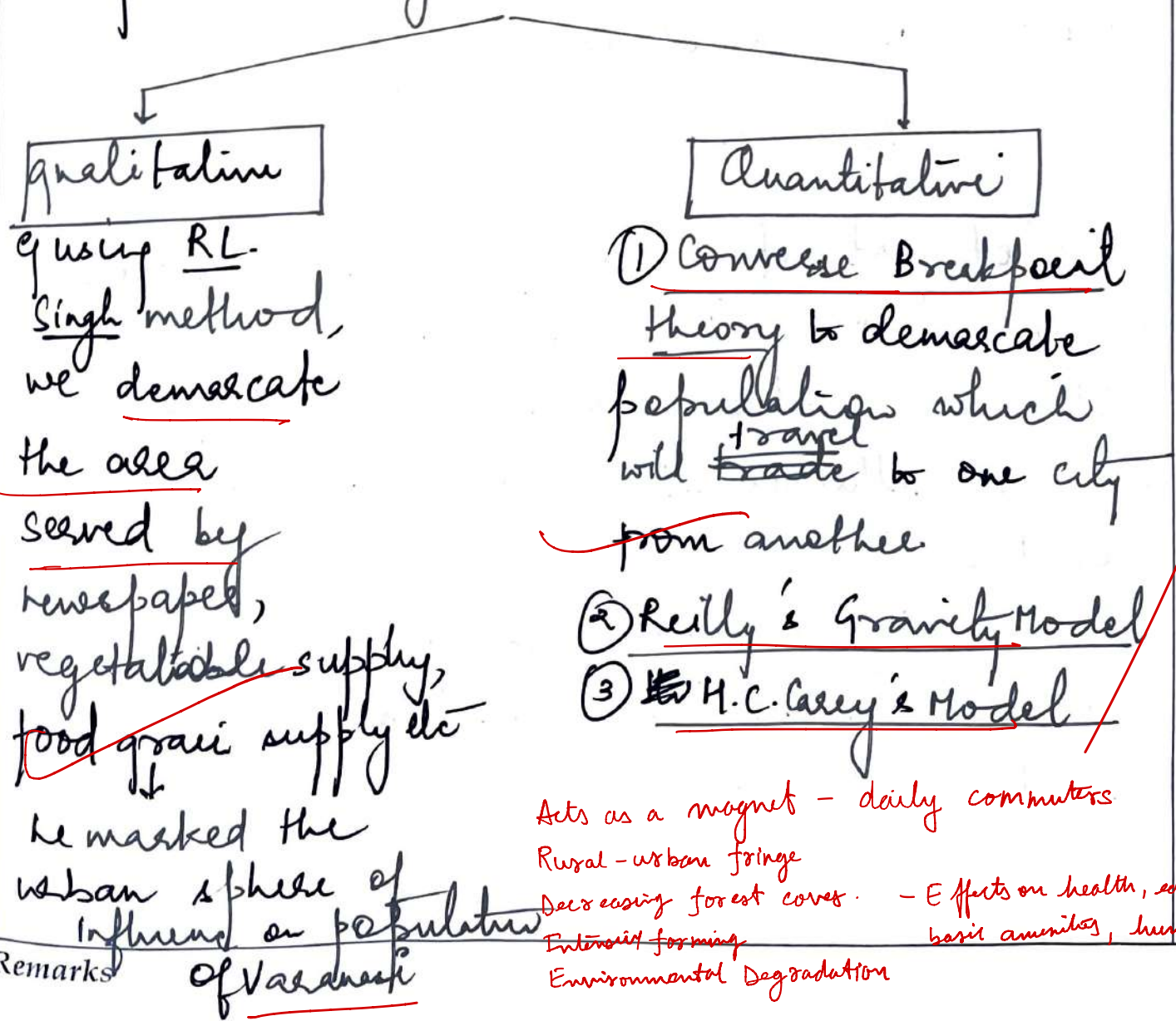
③ Tackling "Hidden Hunger" through diversification of diet, bio-fortification of food.

④ ↓ conflict using SUN
⑤ education and awareness.

- Territory outside a city which has an interconnected relationship with the city.

(b) Urban sphere of influences refers to the area under dependence of urban centre or urban area being dependent on the tributary area. It is usually determined in term of population.

It is usually determined for population using 2 strategies:



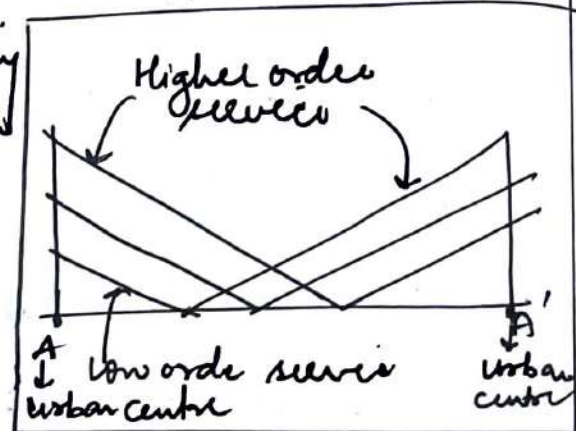
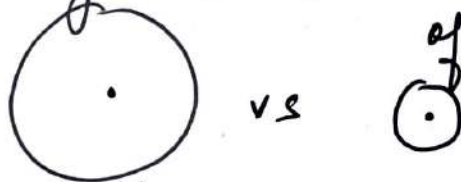
Remarks

of Varanasi

q. It also depend on a nature of ~~so~~
Factor affecting Urban Sphere of influence

① Level of development

q. Connaught Place vs Hazratganj
of Lucknow



② Nature of town:

Commercial vs industrial

q. Mumbai vs Jamshedpur



③ Development of infra e.g. roads or railway
usually enhance it on population

④ If more urban places are close by, the
sphere of influence size reduce due to
competition

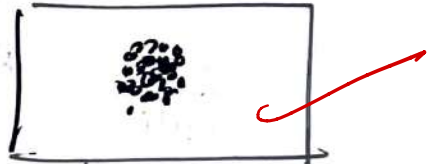
It has been dealt with by
scholars like Philbrick, Dickinson,
Christaller etc ✓

5

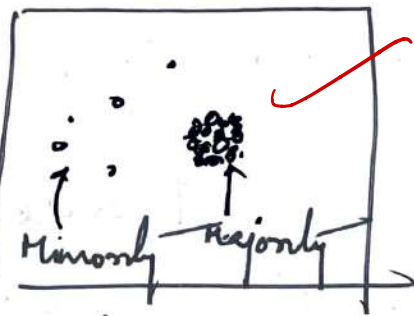
(1) Settlement system refers to nature or manner in which individual dwelling units have been arranged.

It has been affected by religion as:

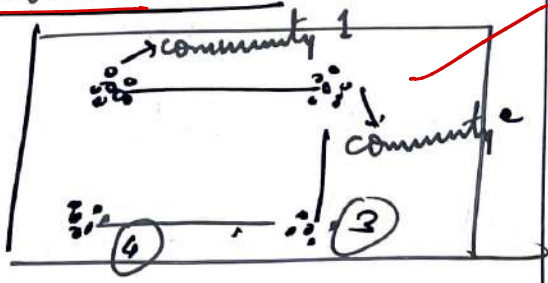
(1) Homogeneity in religion lead to same religious community to end up in nucleated settlements
eg. Vatican in Vatican city



(2) Minority religion in a more or less homogenous present majority nation leads to minority occupying outlying settlement



(3) Different religious groupings often form their own settlements cluster forming Hamletted settlements

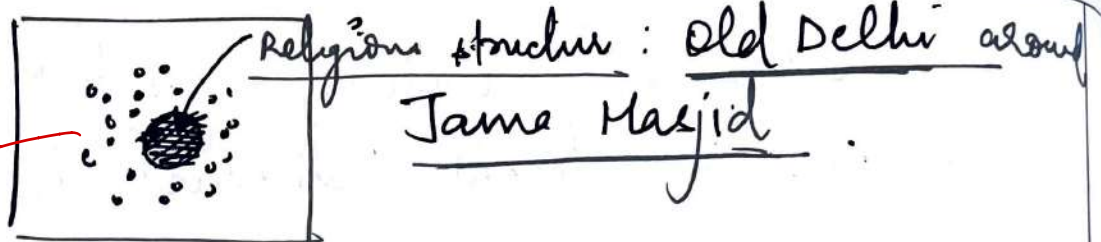


(4) Other religious structures have provided a basis for nodal settlements

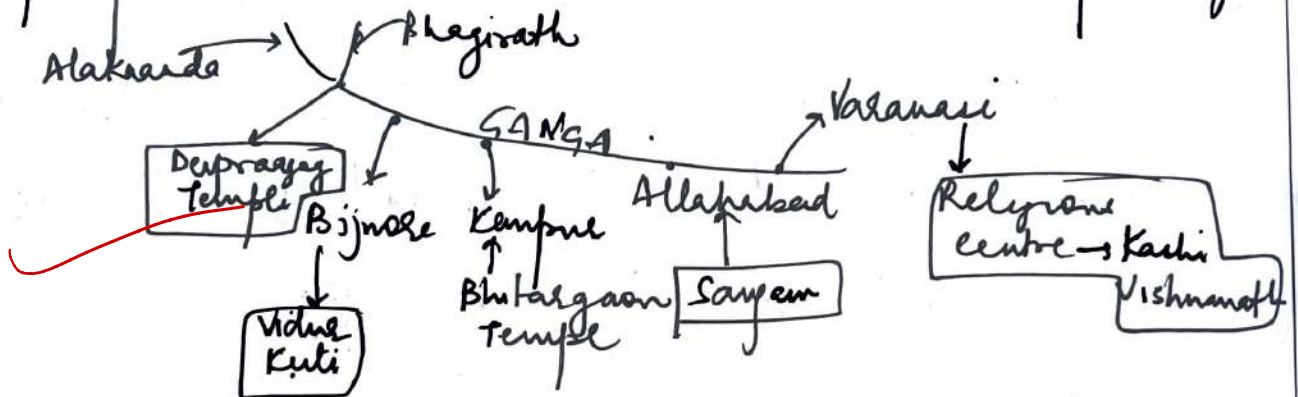
eg. churches in Shimla, Temples in rural

Remarks - Apart from focussing only on urban morphology, analyse the relationship on a global & regional scale also.

India.



⑤ Importance of river as in religion lead people to settlement around them of Ganga

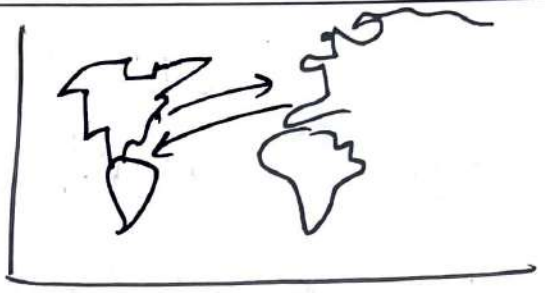


In this way religious and settlements are connected. However, this has been becoming less and less apparent now.

⑥ Trade has witnessed a shift over the past decades.

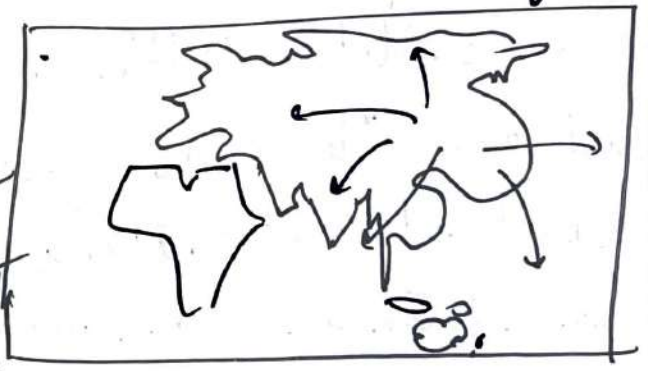
Initially post WWII, it developed strongly between Western Europe and USA on the back of Marshall Plan. This cross-Atlantic trade strengthened in face of growth of EU as a block.

II Later in the 1960s, the growth of Japan shift this locus to Japan.



However the rise of China and shifting of global value, manufacturing at scale, exploiting WTO rules → China has ended

up coming 30% of trade trade. The Role of USA has diminished



III Pandemic and the associated vulnerability ~~and~~ is depending on China

too along with related geopolitical risk associated with have led USA, Japan, India and Australia to form Supply Chain Resilience

Initiative to shift trade locus from China to other cheap manufacturing locus like India. In fact the locus of trade has been shifting to East especially after 2008 global crisis

Remarks
Unit 3
decades

- Regionalisation → N-S Trade → N-N Trade → S-S Trade
- Specialisation → Trade in intermediate goods → Intra Industry Trade
- MNCs → Intra-Regional Trade → Role of WTO, IMF, WB.

(e) Concept of landscape was introduced by Winner in his "Historische Landschaftskunde"

Many scholars have dealt with it differently:

(1) "Morphology of landscape" supporter Carl O Sauer refers to it as "study of things associated in an area on earth's surface and difference in nature of areal aggregation". Thus geography must study how man changed natural landscape to cultural landscape.

(2) Scholars like Whittlesey gave concept of "Sequential Occupance" to study historical change of landscape and imprints left behind by different cultures of Mexico: Inca → Spanish Conquest → Post Independence

(3) Scholars like Hettner and Harkness tried to study cultural landscape as "unique" to understand the phenomena of "association of diverse origins existing together" that create such uniqueness.

(4) Schubert like to study only visible features and form superimposed on cultural landscape. In this way, cultural landscape has been approached.

8. Answer the following questions:

- (a) Discuss Weber's theory of Industrial location and its contemporary relevance. (250 Words) (20)
- (b) Write a short note on the Cumulative causation theory. Also discuss the various reasons for these regional imbalances. (200 Words) (15)
- (c) The degree of urban development and mortality are intimately related at different stages of urban development. (200 Words) (15)

(a) Weber gave his theory of Industrial location in his book "Theory of Industrial location". It is the cost based theory.

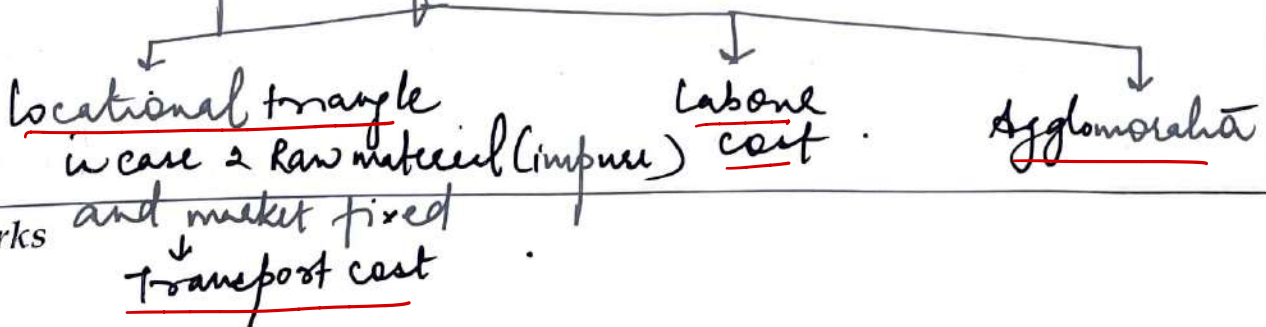
Assumptions

- ① Same demand everywhere so Price is constant and cost minimisation is attempted.
- ② Economic rationality
- ③ Workers/Labour are Not mobile
- ④ Perfect competition
- ⑤ Cost ↑ with distance

13
V. good

Least Cost Location Theory

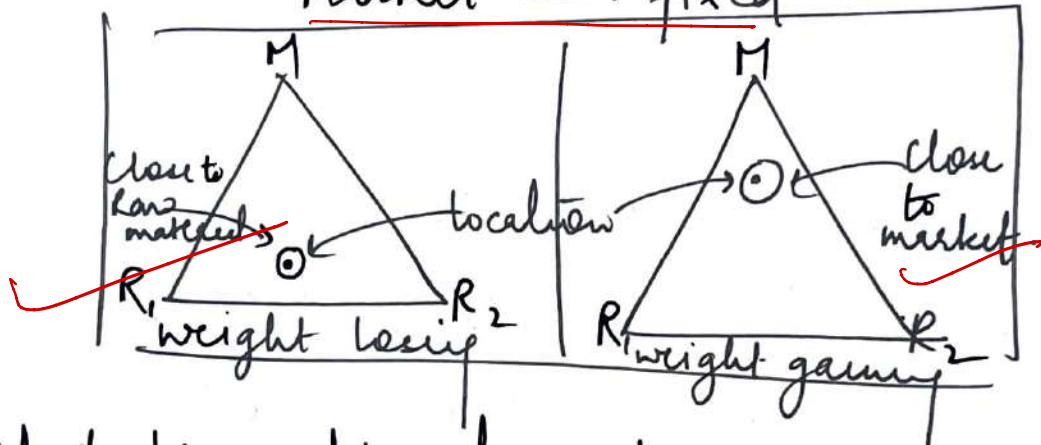
He explained his ^{industrial} location using 3 concepts of :



Remarks

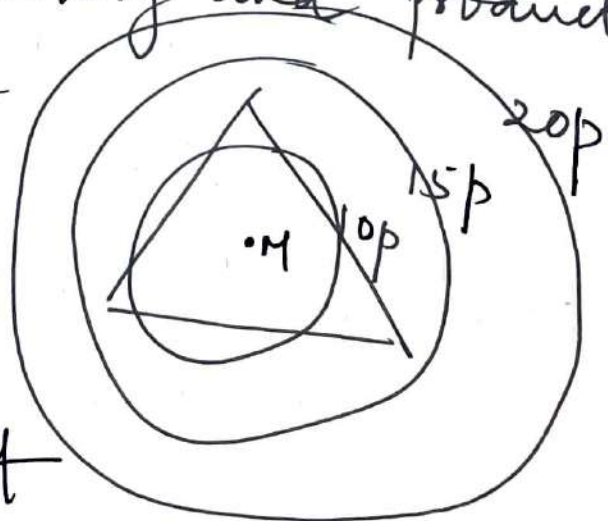
1 Raw Material - Linear Model.

I In case of transport cost, he concluded in 2 cases: Raw material \rightarrow fixed and impure
Market \rightarrow fixed



II Next he supposed that supposed moving to a location where saving in labour cost \rightarrow \uparrow in transportation \Rightarrow gave concept of Isodapane \Rightarrow total cost of transporting raw material to factory and product to market is same

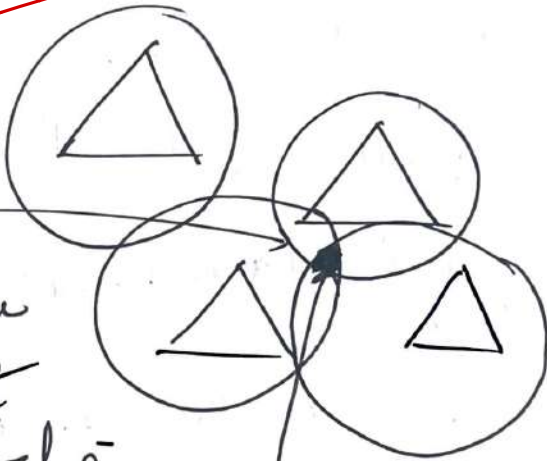
Then, he gave concept of critical Isodapane where additional transport



\Rightarrow \downarrow labour cost \Rightarrow beyond isodapane
loss is incurred, he calculated isodapane

using Isotimes (cost contours)

(3) Then he used the concept of Agglomeration where the within the zone of intersection of critical isobars, factories will be location cost will be least.



Factories
move here here
as cost is least
due to Agglomeration

Agglomeration & critical
isobars

Criticism

- (1) Demand and endowment are not same everywhere
- (2) It questioned the basis of economic rationality
- (3) labour is always mobile, factories aren't
- (4) No perfect competition
- (5) Even agglomeration dis-economies due to congestion exist

Remarks

Relevance

① least labour cost led to rise of China as Global Manufacturing Hub or Vietnam in Motor or Bangladesh in Cotton Textiles

② Transport cost is importance \Rightarrow which is reduced by most international trade using shipping containers. Role of sea lanes

③ Agglomeration is responsible for the rise of Silicon Valley or concept of Industrial clusters or Special Economic Zones

④ Concept of Maquiladoras on Mexican side Side of US - Mexico Border

Thus it is a very relevant Theory

(b) Cumulative Causation Theory

was given by Gunnar Myrdal.

He argued that because of some natural advantage, some areas attract

and grow while others don't. This leads to

attraction of capital and labour from surrounding region to this area. This

area develops and surrounding region stay underdeveloped. This is called Cumulative

Causation where accumulation of and development of one region happen at cost of other → By BACKWASH EFFECT

However, slowly, this core region beginning to transmit growth impulses by

SPREAD EFFECT which leads to development

of surrounding region

Stage 1 - Equilibrium - uniformly underdeveloped

Stage 2 - Regional imbalance

↳ due to cumulative causation
↳ due to backwash effect

Stage 3 - Spread effects | trickle down effects.

Causes of these regional imbalances

- ① ~~Due to~~ Regional underdevelopment as a result of development of some area which deprives it of capital/labour e.g. dev. of Delhi deprived Baghat of capital and labour.
- ② Conflict lead underdevelopment e.g. Somalia
- ③ Poor Health and education level as identified by A. Mountjoy and C. Kindleberger
- ④ Political corruption → distort decision making → underdevelopment → regional imbalance
- ⑤ Par Physiography, climate and soil → lead regional imbalances e.g. Ladakh, Mechnakete
- ⑥ Backwash effect may also work due to good govt policies like PLI, subsidies, tax holiday etc.
- ⑦ spread effect may hamper e.g. global outflow of capital may not come for These & These efforts are needed development to reduce it under underdevelopment

Remarks

(i) Urban development refer to the process of urbanisation from pre-urbanisation phase to post urbanisation.
eg. New York as a village to 21st century New York

Stage I : Newly Settled Urban area

[Eoopolis]

→ Mortality is high as (1) No proper health infra

eg. ~~Bahia~~ Belem in Brazil

- (2) Poor infra/roads etc.
- (3) Backwardness in social milieu

V. good

Stage II : Moderately developed Urban area

[Polis]

eg. Gorakhpur : mortality reduce due to

- (1) good awareness
- (2) good hospital as infra was built
- (3) ↑ education levels.
- (4) connectivity ↑
- (5) ↓ corruption

Stage III : Full developed Urban area

[Tyranopolis]

→ No Mortality least as

eg New York

- ① Everyone is employed
- ② Best health care, best education level
- ③ Highest level of social awareness

Stage III : Post Urban Development

eg. Jakarta

↓ (Necropolis) (~~Urban of~~)

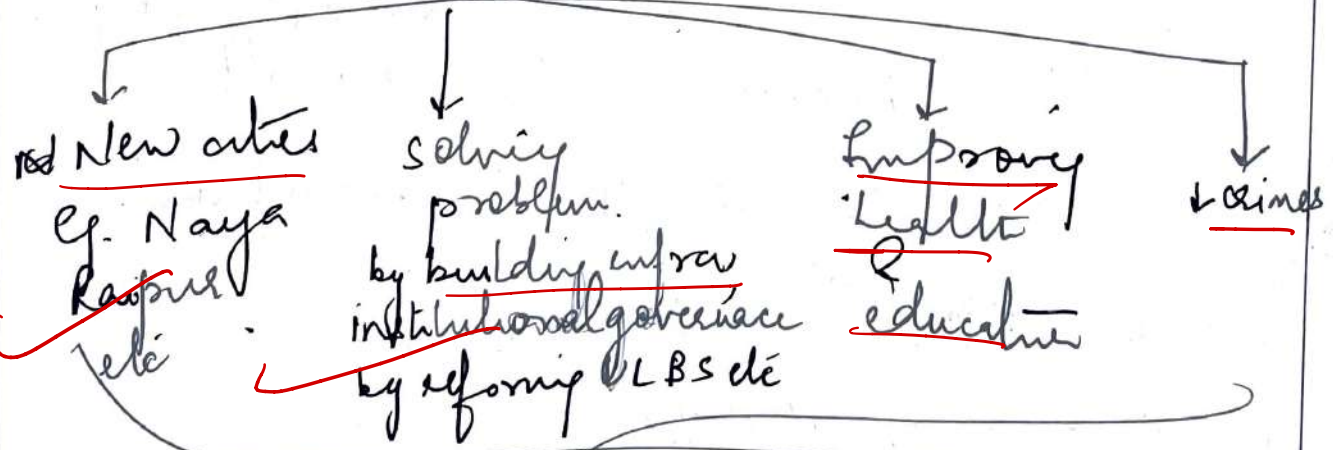
Mortality increase

as there is ① pollution

~~exon~~
exemplified
in Pandemic

- ④ poor quality of housing, slums etc
- ⑤ climate change
- ③ congestion
- ⑤ open sewerage
- ⑥ crumbling infra

Solution



Remarks

New Urban Agenda