NEXT IAS

T-2 (11)

DELHI CENTRE: 27-B, Pusa Road, Metro Pillar no. 118, Near Karol Bagh Metro, New Delhi-110060

BHOPAL CENTRE: Plot No. 46 Zone - 2, M.P Nagar Bhopal - 462011

Ph: 8827664612,8081300200 | Web: www.nextias.com | E-mail : info@nextias.com

(To be filled by candidate)

Name of Candidate : VIKASH YADAV

Roll No. : MT22GERA001

Registration Number : ..... Date of Examination : 04-07-2022

Exam Centre : Old Rajinder Nagar ☑ Online ☐

CSE (Main) Test Series - 2022

Test-02	GEOGRAPHY OPTIONAL PAPER-I (HUMAN GEOGRAPHY)

Time Allowed : Three Hours | **Maximum Marks :** 250

QUESTION PAPER SPECIFIC INSTRUCTIONS

(Please read each of the following instructions carefully before attempting questions)

*There are **EIGHT** questions divided in **Two sections** and printed in **ENGLISH**.*

*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 authorized medium. No marks will be given for answers written in medium other than the authorized one.

Attempts of questions shall be counted in sequential 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 Question-cum-Answer Booklet must be clearly struck off.

(For filling by Examiners only)

Q. No.	Page No.	Max. Marks	Marks	Total	Signature
1.(a)	5	10			
1.(b)	5	10			
1.(c)	5	10			
1.(d)	5	10			
1.(e)	5	10			
2.(a)	15	20			
2.(b)	19	15			
2.(c)	22	15			
3.(a)	25	20			
3.(b)	29	15			
3.(c)	32	15			
4.(a)	35	20			
4.(b)	39	15			
4.(c)	42	15			
5.(a)	45	10			
5.(b)	45	10			
5.(c)	45	10			
5.(d)	45	10			
5.(e)	45	10			
6.(a)	55	20			
6.(b)	59	15			
6.(c)	62	15			
7.(a)	65	20			
7.(b)	69	15			
7.(c)	72	15			
8.(a)	75	20			
8.(b)	79	15			
8.(c)	82	15			
Grand Total					

EVALUATION INDICATORS		Remarks			
		Excellent	Good	Average	Needs Improvement
Content	Relevance				
	Economy of words				
	Examples/Current Linkages				
Presentation	Language				
	Structure				
	Sequencing				
	Novelty				

Observations:

IMPORTANT INSTRUCTIONS

CANDIDATES SHOULD READ THE UNDERMENTIONED INSTRUCTIONS CAREFULLY. VIOLATION OF ANY OF THE INSTRUCTIONS MAY LEAD TO PENALTY.

DONT'S

1. Do not write your name or registration no. anywhere inside this Question-cum-Answer Booklet.
2. Do not write anything other than the actual answers to the questions anywhere inside your QCA Booklet.
3. Do not tear off any leaves from your QCA Booklet, if you find any page missing do not fail to notify the supervisor/invigilator.
4. Do not leave behind your QCA Booklet on your table unattended, it should be handed over to the invigilator after conclusion of the exam.

DO'S

1. Read the Instructions on the cover page and strictly follow them.
2. Write your registration number and other particulars, in the space provided on the cover of QCA Booklet.
3. Write legibly and neatly. Do not write in bad/illegible handwritings.
4. For rough notes or calculation, the last two blank pages of this booklet should be used. The rough notes should be crossed through afterwards.
5. If you wish to cancel any work, draw your pen through it or write "Cancelled" across it, otherwise it may be evaluated.
6. Handover your QCA Booklet personally to the invigilator before leaving the examination hall.

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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 question, wherever specified, should be adhered to.

Attempts of questions shall be counted in sequential 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 Question-cum-Answer Booklet must be clearly struck off.

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SECTION-A

Q.1 **Answer the following in about 150 words each:** **[10 × 5 = 50 Marks]**

(a) Neo-determinism.

(b) Sustainable rural development.

(c) Rural tourism or eco-tourism is the solution to overtourism. Comment

(d) Distinguish between Administrative and cultural settlements.

(e) Regional imbalance.

(a) Neo-Determinism –

This is a concept which talks about nature gives us opportunities and it is upto us (humans) to make best use of them, but there are certain checks kept by it as well which results in nature as final referee to our limits of doing things.

Evolution of this – The concept evolved after Determinism & possibilism debate as the former talked about nature rules humanity while latter about humanity/mankind rules nature. But both these concepts do have their drawbacks which resulted in Neo-Determinism school of thought.

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Neo - Determinism -

(a) Human technological interventions can result in more opportunities to exploit nature but then nature itself stops it beyond a point i.e. Green Revolution in India increased production due to high-yielding varieties, fertilizers etc. but now the productivity is decreasing and soil is getting saline is a check kept by nature.

(b) excessive industrialisation, development is driving climate change and now the world is facing its worth in form of fires in Siberia, Australian bushfires, Polar vortex getting weakened, earth's heat budget getting altered is a warning sent to us by it resulting in focus over renewable sources of energy, Paris climate agreement etc.

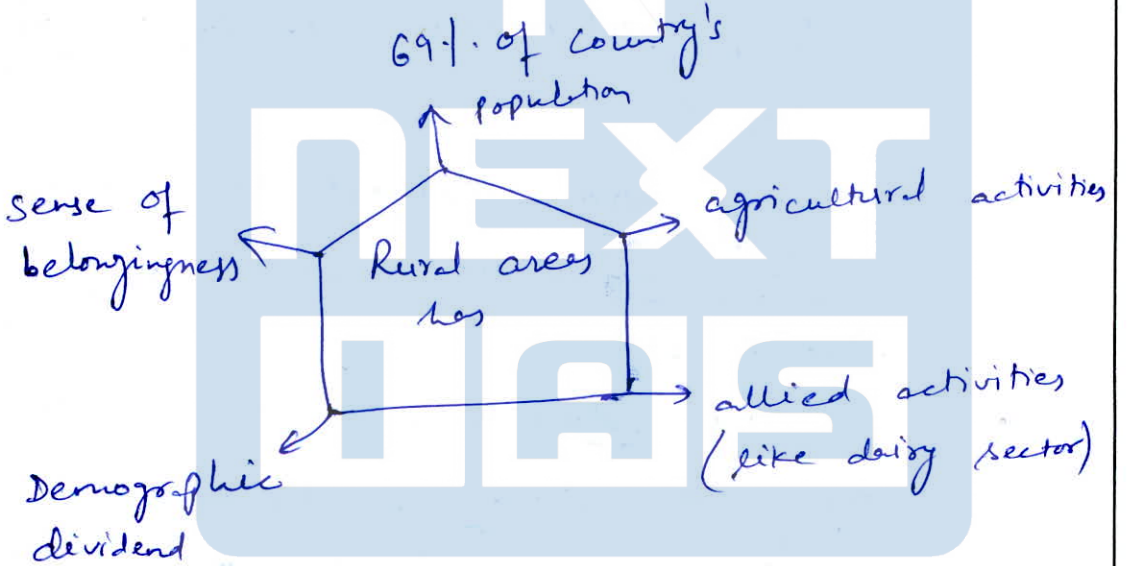
It's ultimately the nature who have final say in terms of what the mankind do or what it can't do on earth, he is 'umpire' of our game.

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1: (b) Sustainable rural development

As per census 2011, 69% of India's population lives in rural areas prompts us to work towards development of rural areas in sustainable manner.

Importance of rural areas for India —



Rural areas are key to the foodsecurity of the country, promotes dairy industry, provides labour (skilled as well as unskilled) for organised as well unorganised sector, balanced regional development to counter migration etc.

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Sustainable development by promoting —

- community, social agroforestry
- creating forward-backward linkage between market & farmers.
- giving them 'extension services' like prediction of monsoon, rainfall, amount of pesticide to be used etc.
- creating logistics facility like cold storage, value chain to double their incomes
- promoting agri-allied activities like dairying, apiculture, sericulture, fisheries etc.
- providing education & health facilities along with skills at block level to utilise demographic dividend
- analyse potential of industries which can be placed there like food processing industry to create 'growth poles'.

'Rural India is real India' and government need to take all possible steps for their sustainable development.

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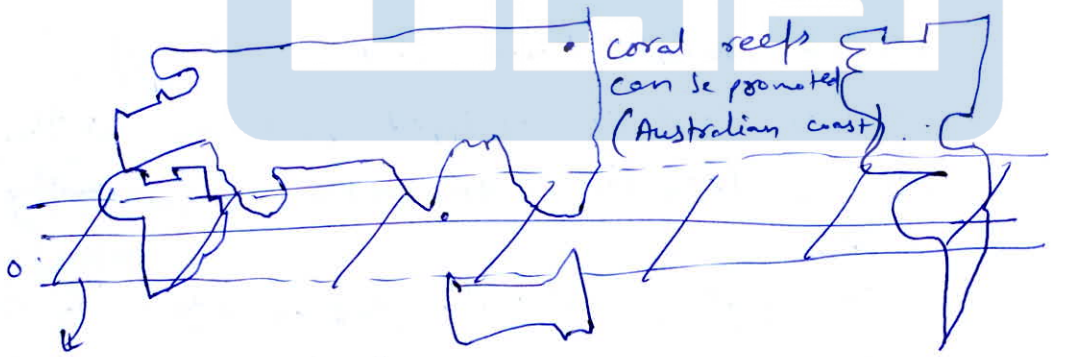
1(c) Overtourism is basically exploitative tourism by way of pollution, harming natural resources etc. & its solution lies in eco-tourism (particularly in tropical areas possessing huge biodiversity).

Issues of overtourism –

- over-exploitation
- creating pollution
- changes in geomorphology of the place
- loss to biodiversity
- invitation to disasters
- deaths of people.

Ecotourism –

- islands must be explored like Andaman & Nicobar, Mauritius etc.
- coral reefs can be promoted (Australian coast).



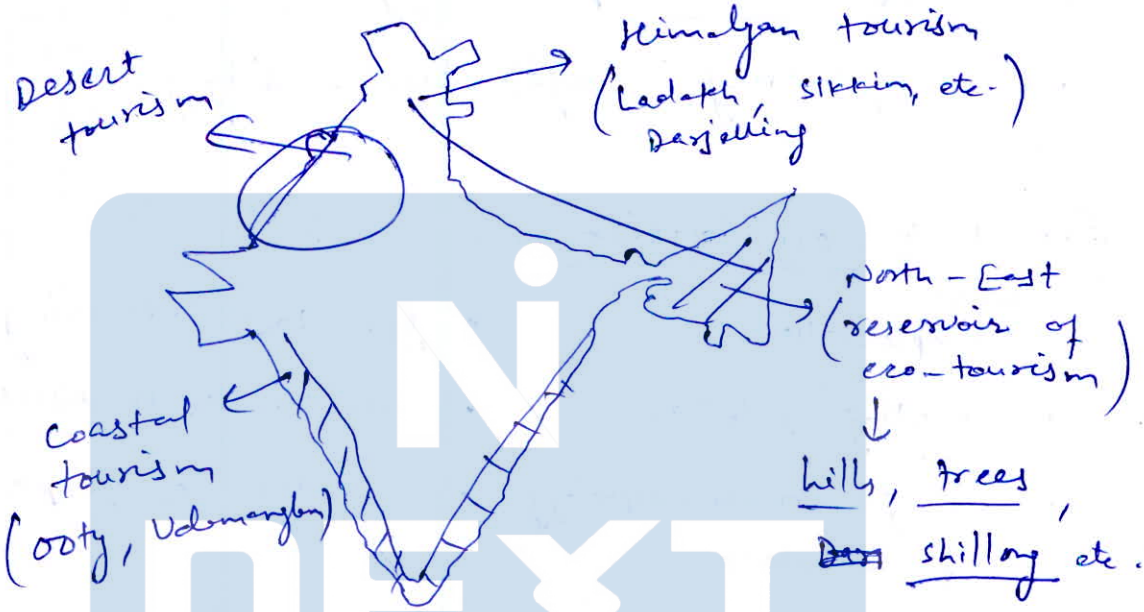
Zone of mega-biodiverse countries (17 countries) World map

(i) World level – ecotourism must be promoted in mega biodiverse countries of world due to species richness & diversity,

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in zoological, national parks of world.

(ii) India —



Map of India

Needs to do —

- training to tourists (environment sensitivity)
- local guides must se equipped ecotourism skills.
- promotion & incentives to tourists for promoting eco-tourism
- need to create sustainable infrastructure in the region etc.

Government & all other stakeholders need to promote ecotourism to save mother earth from overtourism.

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1(d) There are various types of towns & settlements on the basis of activities going their like administrative town, cultural town, transport town etc.

Administrative settlement	cultural settlement
• for administrative reasons like New York in U.S. which is a hub of international headquaters	• for religious, faith & cultural reasons like Varansi showing historical heritage & legacy.
• keeps in mind factors like safety, accessibility etc. and can be changed anytime by altering factors required them.	• they are mainly due to historical cultural factors & can't be changed overnight
• They help in better administration and governance of people by way of facilitation, e-governance	• they helps government in better governance by way of religious appeals, appeal for peace & calm etc.
• Examples like - Tokyo, Geneva, New York, Paris etc.	• Examples - Lumbini, Varansi, Mecca - Medina etc.

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These town helps in diversifying the diversity of the settlements and acts as complimentary to each other by supporting in each other functions.

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1.(e) Regional Imbalance – It is defined as lopsided-development of a region which results in inequality, lack of opportunities, poverty for many people.

Regional imbalances due to –

(i) Natural factors → tough terrain
→ lack of natural resources
→ difficult climatic conditions

(ii) Human factors → lack of technological development
→ lack of industrial development
→ lack of trade opportunities etc.

⇓

- This shows why countries in African continent are poor as they lack nature's bless as well as human interventions to great extent

- South Asia as a region – is mainly due to human factors like terrorism, boundary conflicts, rivalries resulting in less focus on balanced regional development.

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- Latin American countries showing tendency of primate cities shows the regional imbalances in their development.

Regional development better in — Europe where climate is suited for human development and technological interventions further improves it.

Ways to reduce imbalances —

- sharing technologies with other countries
- addressing conflicts, political rivalries need to be on backseat to prioritise the development process.
- 'regional forums' to be formed to oversee balanced regional development.
- Africa & Asia need to give technical as well as financial assistance for better development.

Regional balance development is key to removing imbalances & this can be done by realising inter-connectedness of people, as well as coordination - cooperation - collaboration by countries on different aspects.

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Q.2 (a) "The land regulates the destinies of peoples with a blind brutality" (Ratzel). Discuss fully the arguments in favour and against this view. **[20 Marks]**

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(b) What is Quantitative Revolution? Outline its merits and demerits. **[15 Marks]**

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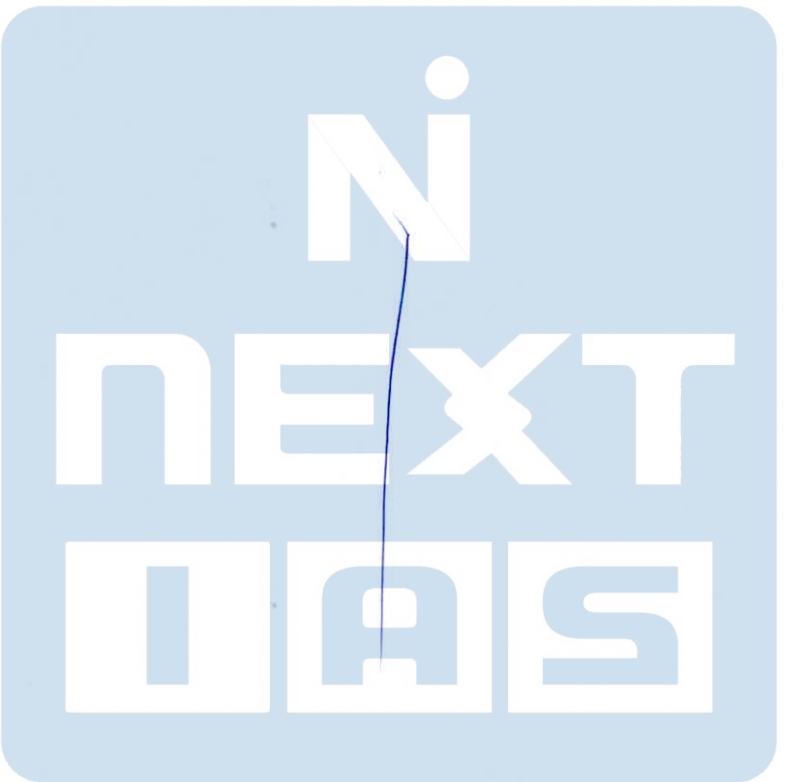
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(c) Examine the inter-relation between gender parity and development. **[15 Marks]**

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Q.3 (a) Asses the nature of the 'food problem' of India, both qualitatively and quantitatively at the present time. What practical suggestions can you offer towards its solutions?

[20 Marks]

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As per World Hunger Report, India was ranked at 94th position out of 107 countries in 2020 & at 101st position out of 116 countries in 2021 shows the issue of hunger and food problem in the country.

Nature of food problem –

(1) Quantitatively –

- dependence on imports of pulses
- loss of crops due to erratic nature of weather patterns reducing productivity
- loopsided availability of foodgrains like wheat is easily available while oil-producing seeds & pulses are not
- logistics issue in keeping excessive foodgrains results in wastage of grains
- lack of value addition chains (in numbers) to provide packed food items.

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(ii) Qualitatively –

- lot of wheat & rice is getting rotten on railway platforms & mandis due to lack of storage facilities
- food-processing industry not well developed in the country reducing value-addition to the foodgrains.
- bad quality foodgrains being distributed in public distribution system (PDS)
- recently, Turkey sent back Indian wheat shipment on pretext of bad quality of foodgrains.



Map of India

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Practical solutions –

(a) there is an urgent need to diversification of our agriculture by promoting dryland agriculture like pulses, Dal, Chana etc.

(b) need to create High-yielding varieties of pulses, flood-resistant seeds, drought-resistant seeds, etc. to ensure production and productivity levels in era of climate change.

(c) government need to utilize the potential of marine-resources to fulfil protein requirement of people by way of promoting fisheries & other agri-allied activities as a complement to land-based food.

(d) creating better transportation & logistics facility like cold storage (for potatoes, tomatoes & other perishable items) to ensure minimum wastage of food

(e) need to focus on potential of food-processing industry in local regions

Candidates must not write on this margin

like locally grown crops to be used will help in creating forward-backward linkage & consequently 'growth pole'.

Government must also do better targetting under PDS system to ensure that no person in India remain hungry and we achieve Sustainable development goal of "zero Hunger".

(b) Discuss the concept of social well being and quality of life. Highlights the indicators of social well- being in India. [15 Marks]

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The concept of social well being and quality of life has basis in availability of basic sources of living like food, shelter etc., along with this the opportunities of growth & development, freedom to express etc.

Social well-being - is a concept which talks about qualitative thing available to people in the society, opportunities a person getting in the society in terms of peace, tolerance, education, health etc. A healthy human-being with proper education opportunities along with a conducive atmosphere to live is basically social well-being of humans.

Quality of life - This is ensured by providing health facilities, educational opportunities, pollution free air & water, availability of most resources required by

Candidates must not write on this margin

men to live, from 'basic needs to fulfiling desires', skills for employment, recreation and leisure time in life etc. are parts of it.

Indicators of social well being in India —

(i) people binded by their cultures like Punjabi culture, Bengali culture, Dravidian culture etc. shows the 'unity in diversity' among the society.

(ii) Increasing opportunities in education through National Education policy (2020) and health facilities (Ayushman Bharat scheme) will help in better social well being of people by way of improving their socio-economic & socio-educational status.

(iii) increasing urbanization & acceptance of different types of cultures in urban areas shows the evolution of Indian society from 'conflict to harmony'

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(iv) providing services to people through e-governance by government i.e. Direct benefit transfer (DBT), use of aadhaar to provide services are minimising corruption as well as inequalities in the society, thereby promoting social well being of society.

Social well being & quality of life are two key indicators of looking at the development status of country.

(c) Define Agroforestry. Identify its types and benefits. [15 Marks]

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Agroforestry, is basically forestry done on farmers land, community land in a bid to promote afforestation as well as utilization of resources given by it.

Types & Benefits –

(i) Community forestry – trees are being planted on community lands like Panchayat Bhavan, graging area etc. to provide benefits to the whole society.

In this people are responsible for taking care of trees, as well as they are going to be its beneficiaries as well. In a way it promotes societal well being by way of increased availability of resources for living.

(ii) Commercial forestry – farmers used to plant trees on their agricultural land in bid to take profits from the

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planted trees.

This helps in increasing income of the farmer, but this is a individual centric rather than community centric.

(iii) social forestry - plants / trees grown by farmers on their agriculture land to promote judicious use of resources. In this forestry, farmer uses the products for himself & not for commercial purposes

This contributes to reducing carbon in the atmosphere as well as fulfiling needs of the farmer.

Cultural wastelands can be used for commercial forestry in a bid to revive the land as well as gains from the forests

- directly to all those who will be doing it
- indirectly to society by way of acting as carbon sponge.

social forestry must be promoted here to address climate change, as these are fertile plains

Community forestry can be promoted in tribal areas

Map of India

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Steps to be taken — Government must promote forestry across the country by way of providing :

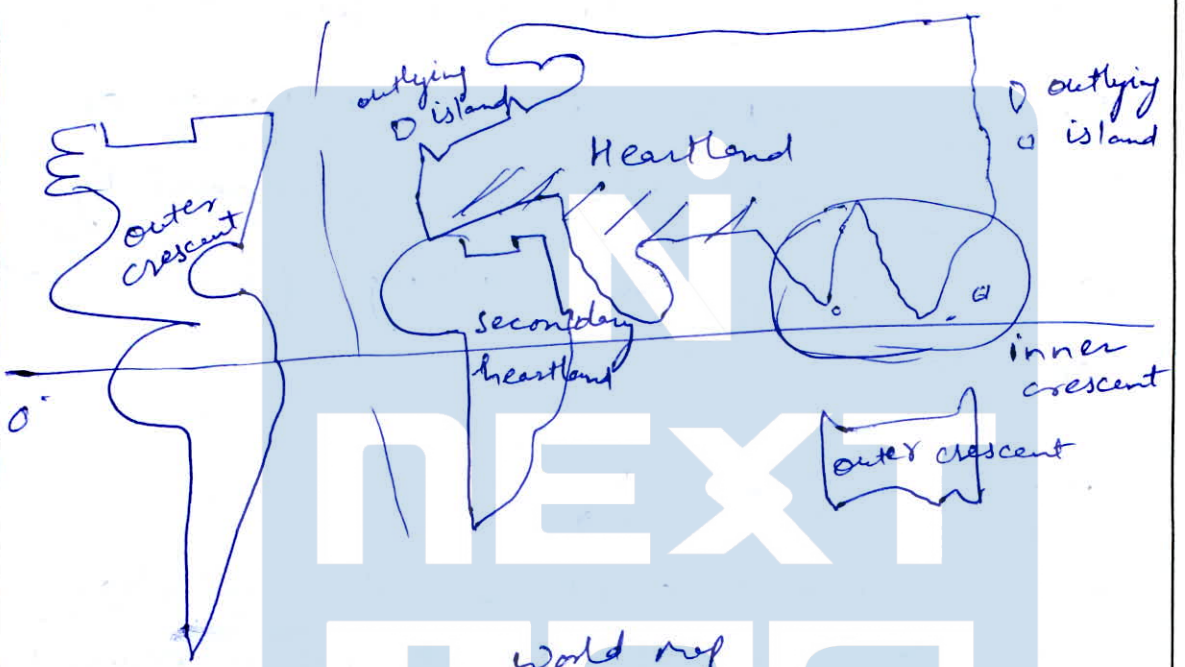
- free plants to people for sowing.
- technical advice on soil texture & other parameters for better plantation
- awaring people about benefit of trees directly as well as indirectly.
- focusing on community rights in backward areas to provide extra resources to people for making their living.
- utilising barren lands, culturable wastelands etc. for planting trees will help in reviving soil fertility.
- promotion to mix-farming

Since forests acts as reservoir of nutrients, helps in rainfall, acts as sponges of carbon needs to be promoted by way of different forestries as well as mega plantation drives like U.P. government 'Van Amrit Mahotsav' of planting trees.

Q.4 (a) Discuss the concept of Heartland and Rimland and examine their present- day validity. [20 Marks]

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The concept of Heartland was given by Spykman which talked about powerbalance among the heartland



World map

→ The theory talked about –

- Heartland – the region of Europe & Eurasia
- Inner crescent – India, China & South-East Asia
- Outlying island – U.K. and Japan
- outer crescent – Australia & U.S.

→ He said –

"Whoever rules Heartland, rules Eurasia
Whoever rules Eurasia, rules outlying island
who rules outlying island, rules world".

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His theory - (i) said that the heartland is neither accessible by sea nor by land (ii) outlying island as major powers.

His theory was put to test in 2nd world war, it had seen true if Germany & Russia have joined hands or if Russia would have seen overthrown by China & Japan. But nothing of such sort happened.

Today's relevance -

- not much relevant due to technological advances like fighter jets which reduced geographical advantage.
- new mode of warfares like cyber warfare, hybrid warfare came into existence
- no simple equation of unipolar / multi-polar world like heartland.
- power of a country is derived from economic, social, technological factors instead of just military & weapons.

So his theory of Heartland is not much relevant in today's world due to evolution of world.

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Rimland theory – was an improved version of Heartland theory by trying to address its drawbacks. This theory mainly lies around the security of U.S. & believes that forum of countries together can bring peace.



World Map

He said –

"Whoever rules Rimland, will rule Eurasia
Whoever rules Eurasia, will rule world"

Rimland theory – talked about Heartland's drawback as follows –

(i) extent of Arctic ocean was exaggerated

(ii) region from Poland to Yenisey is waste, so it is not as resourceful as it was said.

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Theory said – The best scenario for U.S. to secure itself is avoid unification of countries like Japan & U.K., USSR as biggest threat to U.S. and countries coming together i.e. U.S., U.K., Russia for peace is best way.

Relevance today –

(i) no single world power as china & India become major powers in world.

(ii) mode of warfare changed from conventional to non-conventional

(iii) forum of countries for peace was true to an extent but it has not stopped Russia attack on Ukraine even after NATO.

(iv) Eurasia is not as resourceful as it was told & other centres of growth emerged like china, India, Brazil etc.

So this theory is more or less not relevant in today's world due to globalisation, economic interdependence as well as different factors involved in security of countries.

(b) Highlights the significance of environmental issues in Regional planning. **[15 Marks]**

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Regional planning is about planning of regions i.e. planning in social, economic, environmental, technological context.

Environmental issues in Regions –



Central Asia, India & china – facing air pollution, water pollution, increasing aridity of soil, plastic pollution, encroachment of water bodies in urban areas etc.

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Now keeping in mind these factors will help us in taking steps for their improvement –

(i) worldover the tropical rainforest are facing deforestation i.e. 90% Amazon rainforest of Brazil in 1980 now has only 6% left.

(ii) Coral bleaching – along Australian coast in 1982-83, 1998 due to global warming & climate change

(iii) Aral Sea – is almost dead due to anthropogenic factors

↓

Bigger issues need to be taken care of while planning for regions.

Now addressing regional instances of environment help in addressing –

- problem of climate change
- problem of desertification
- over-exploitation of species
- man-biodiversity conflict
- oil pollution
- erosion of soil

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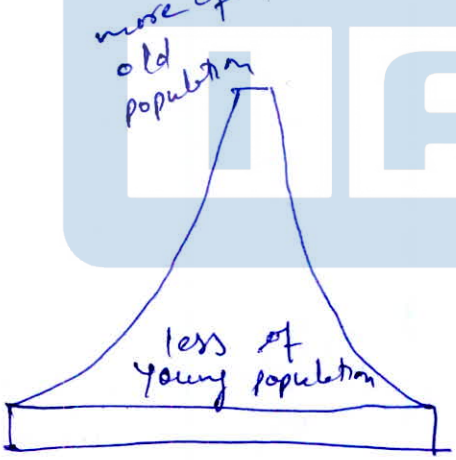
In order to achieve regional balanced development within the regions & across the regions we need to take environment all along with us, as development in sync with it is sustainable development.

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(c) Explain the concept of Demographic attributes? Highlights the demographic characteristics of India. **[15 Marks]**

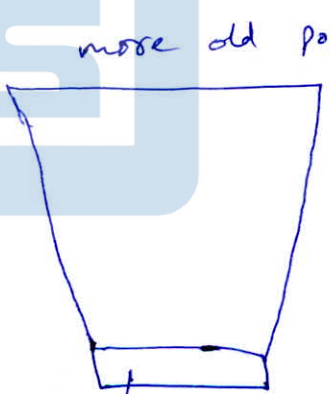
Demographic attributes is about the demographic structure of a country which talks about demographic dividend, dependent population etc.

Demographic attributes - tells about age - structure of pollution, sex ratio, ratio of dependents to independents, availble demographic dividend & manpower to a country.



India's Demographic attributes

- shows rich demographic dividend
- less average age
- ratio of dependent to independent is less.



Japan, U.K.

- shows more average age
- not so rich demographic dividend
- ageing - society
- ratio of dependent to independent is more.

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Demographic characteristics of India :-

- India average age is 26 years
- most population lies in working-age population

Age	percentage of population
0-14	24.5 %
15-59	65.6 %
> 60	9-10 %

↓

shows rich demographic dividend, less dependents i.e. 0-14 age & 60 and above are less than 15-59 years working age population.

- sex ratio is against females, as Census 2011 talked about 940 females per 1000 males
- slowing our birth rate is achieving replacement level fertility rates as recent NFHS-5 data said that 18 states have achieved it will result in ageing-society in coming times.
- life expectancy is improving with each year.

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Reasons for demographic characteristics –

(a) a lot of childrens are born in 1990 are all in working age group

(b) wider-base of pyramid still shows that we can take leverage of demographic dividend for ~~a~~ upcoming few decades

(c) early marriage of girls resulting in higher fertility levels due to high 'biological reproduction period'

(d) 'son-mata preference', aborting, sex-selection resulted in loopsided sex ratio.

Government need to provide proper eduction, health to children & then skills to leverage the potential of demographic dividend, as well as needs selective marking of areas to control population of areas by regional planning as well.

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SECTION-B

Q.5 **Answer the following in about 150 words each:** **[10×5 = 50 Marks]**

(a) Write explanatory note on cultural ecology.

(b) Explain how physical environment affect the crop distribution pattern in the world.

(c) 'The global cities act as the command and control centres of the world system'. Elaborate.

(d) Discuss the functional classification of towns giving suitable examples from each type.

(e) Explain how human geography in the early twentieth century has become more integrative and interdisciplinary?

5(a) Cultural ecology - can be defined as the ecological practices taken by people of different cultures & their contribution to our environment.

Cultural ecology -

(i) societies binded by the physical characteristics of a region like 'monsoon' acts as a unifying factor for South Asia.

(ii) 17 mega biodiverse countries are binded to preserve the ecology of these regions thereby giving a commonality of cultural ecology.

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(c) many communities worships the environment like Bishnoi community in Rajasthan, Bhutan (whole country respects it) shows 'ecology in culture'

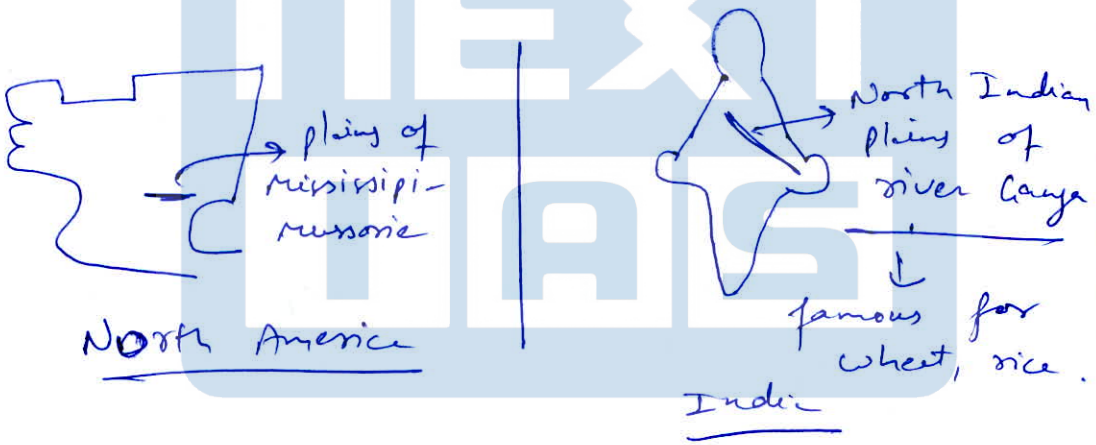
There needs to be a synergy between culture & ecology by way of 'ecology in culture' & 'culture in ecology'.

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2(b) Crop distribution system of the world is affected by factors like rainfall, climate, temperature, plain areas etc.

Affect of physical environment –

(a) most plain areas of the world are fertile as well as agriculturally developed due to better soil quality, availability of rivers and other sources of irrigation.



(b) availability of rainfall, humidity and high temperatures for growth of crops like Jute, that's why it is found in West Bengal (India) & Bangladesh.

(c) the tea, coffee & other plantation

Candidates must not write on this margin

crops requires elevated surfaces, shade during growth etc. are found in Africa, India etc.

(d) pulses requires moderate rainfall, comparatively moderate temperatures along with average quality soil, so found in Africa, dryland area of India.

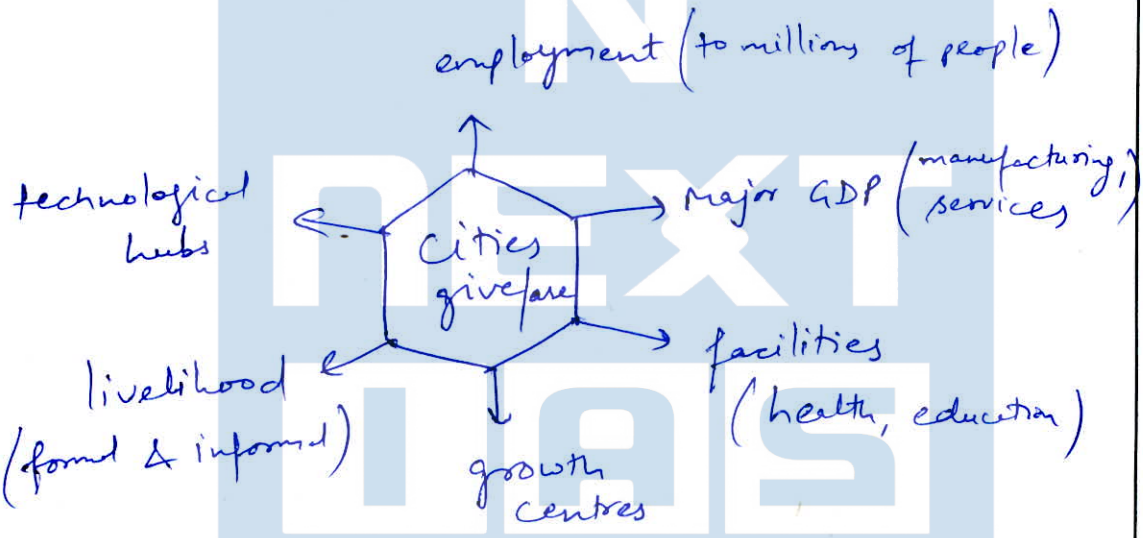
(e) erosion due to water, rivers, winds are not suitable for crop as can be seen in 'chanbal ravines' in Madhya Pradesh & parts of central India.

Crop distribution depends on quality of soil, amount of rainfall, plain surfaces etc. and human factors like landholding, credit availability etc.

Candidates must not write on this margin

5(c) Most countries of world are developed on pretext of creating global cities like New York (U.S.), London (U.K.), Shangai (china) etc. as these cities are 'growth centres' of the world.

Role of cities –



Most of the developed countries have well planned cities in terms of their settlement, industries etc. whereas developing world is lagging behind in this despite the fact that the major economic contribution come from these cities.

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Indian scenario — Mumbai alone contributes around 12-13% to the country's GDP, four major metro cities (Chennai, Delhi, Mumbai etc.) contributes to 66% of our informal & formal economy, shows the importance of cities in growth of India.

Need to do —

- environmental planning in cities
- developing world to better plan their cities in terms of preparedness to hazards
- developing new growth centres & poles to achieve balanced regional development.

In order to sustain the cities, we need to take steps to address climate change & global warming so that they can remain engines of growth in the world.

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5(d) Towns are classified on the basis of administrative towns, transport towns, cultural towns, religious towns etc.

(i) Administrative towns – are basically the capital cities of the countries as well as that of state / provinces / federations in them i.e. New Delhi (India), London (U.K), Tokyo (Japan) etc. These towns helps in better administration of the country, pro-people governance etc.

(ii) Transport towns – are the connecting links between cities & towns i.e. Bhopal (in Madhya Pradesh), Agra etc. as they support the smooth transportation by way of acting as connecting link i.e. Jhansi is meeting of East-west & North-South road corridor in India.

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(iii) cultural & religious town — having rich legacy of heritage, belief, faith things like temples etc. Examples are- Amritsar (Golden Temple), Canadia's temple, mecca-Medina of Islam etc.

Town classification is a complex thing as intangible things can't be classified properly but still the major trait defines it.

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5(e) During the early 20th century, human geography got various thoughts in form of Possibilism (Vidal De la Blache, French school), Determinism, Neo-determinism etc. which enriched the human geography.

Evolution	thoughts
(i) Possibilism —	human master of environment
(ii) Determinism —	environment master of human
(iii) Neo-Determinism —	human & environment relation is complex but environment has final say.
(iv) theories like Heartland	dealing with the problems of war/security of the world.

All these thoughts generated a lot of diversity & integration of which helped in making it more integrative & inter-disciplinary.

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The reaction to these came in mid - of 20th century i.e. Quantitative Revolution as a mark of discontent against these thoughts & theories.

The developments of early 20th century gave new direction to the geographical subject.

Q.6 (a) The environmental issues are not adequately addressed in Urban planning. Comment. [20 Marks]

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In recent times, many urban areas of the world faced problems due to lack of proper urban planning like Hyderabad flooding (2020), the problem is more so in developing countries than developed world.

Environmental issues in urban areas –

(a) lack of proper waste disposal system which results in pollution of land, water

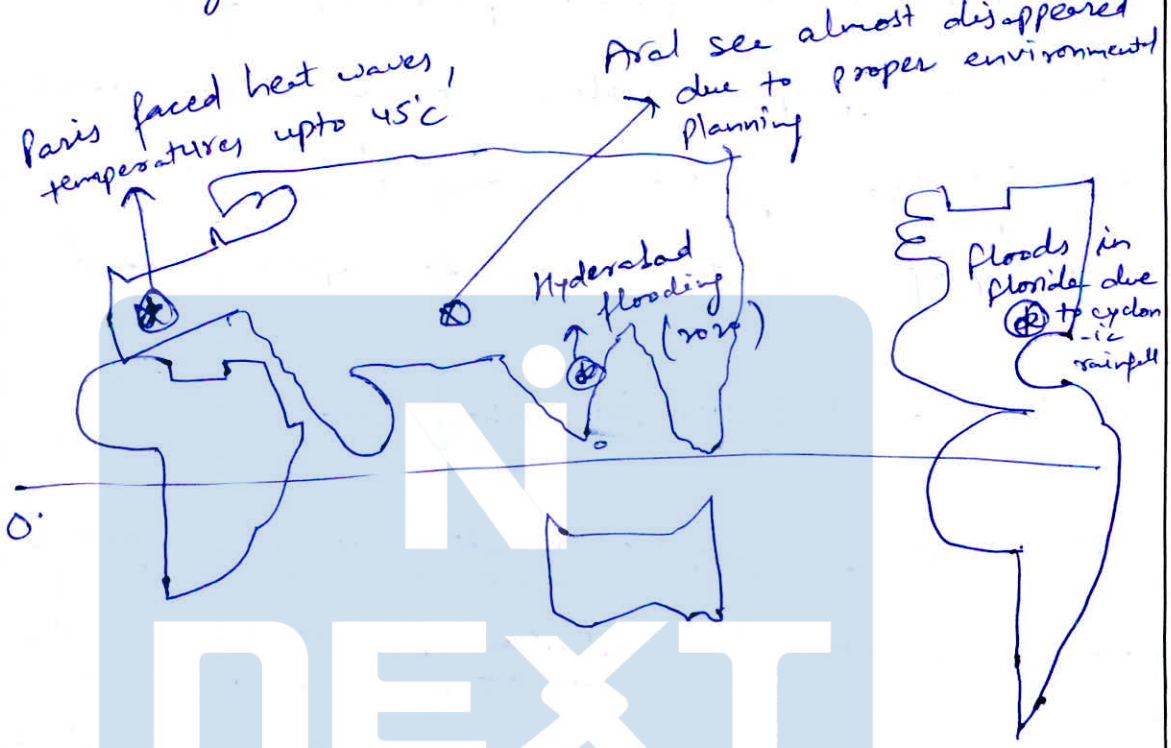
(b) due to landfill sites, a lot of emissions in form of methane & other greenhouse gases drives global warming and climate change.

(c) encroachment of natural water bodies in quest of development like wetlands, lakes (as these are sponges of environment) resulting in urban flooding.

(d) excessive concretisation, deforestation resulting in creation of urban heat island and urban heat dome. (heat waves in Europe)

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(e) a lot of waste water, contaminated water tend to pollute the acquifers and groundwater.

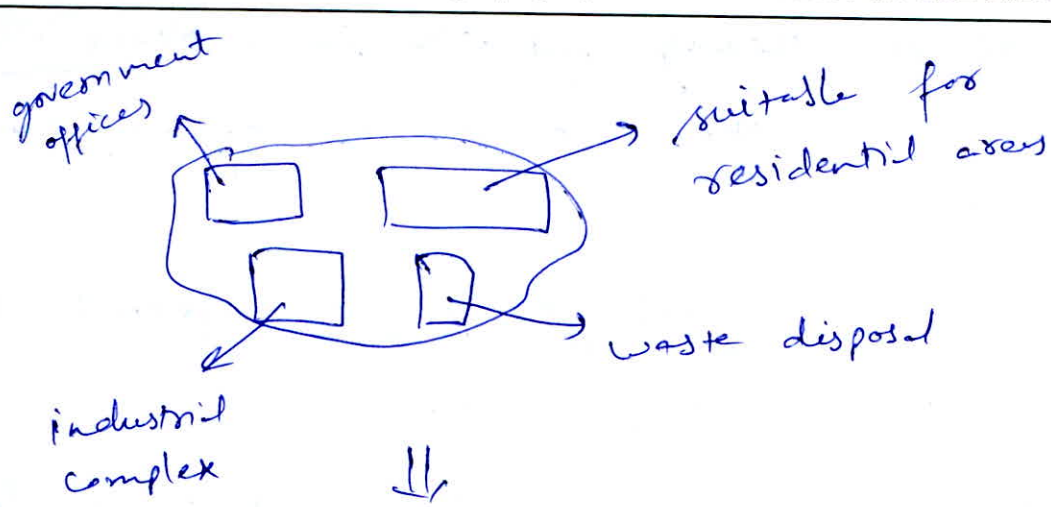


Effects due to neglect of environmental urban planning

Solutions —

(a) urban planning should be in sync with environment & for this we need to study geomorphological structure of the city to better assess residential areas, industrial areas, waste disposal locations

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This can be best planned using geomorphological knowledge of the region.

(b) there is an urgent need to start massive afforestation programme across the world on lines of 'Mega Plantation Drive' of Delhi government to make world cities as 'Harit Shehr' (Green cities)

(c) proper planning of settlements & residential areas will help in preventing encroachment of wetlands, lakes as well as development of slums

(d) moving towards renewable sources of energy, electric vehicles to reduce emissions and consequent global warming & climate

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change, thereby reduction in extreme weather events like cloudbursts, cyclones, tsunamis etc.

(e) proper drainage system required to drain the rainwater.

(f) rainwater harvesting must be made mandatory to reduce pressure over the freshwater sources of the city

(g) flood-plain zoning can be done for cities like Kanpur to reduce the menace of flood

Since urban areas act as 'growth poles' for the world by way of contribution to GDP, employment etc. so we need to plan their development in sync with sustainable environmental development.

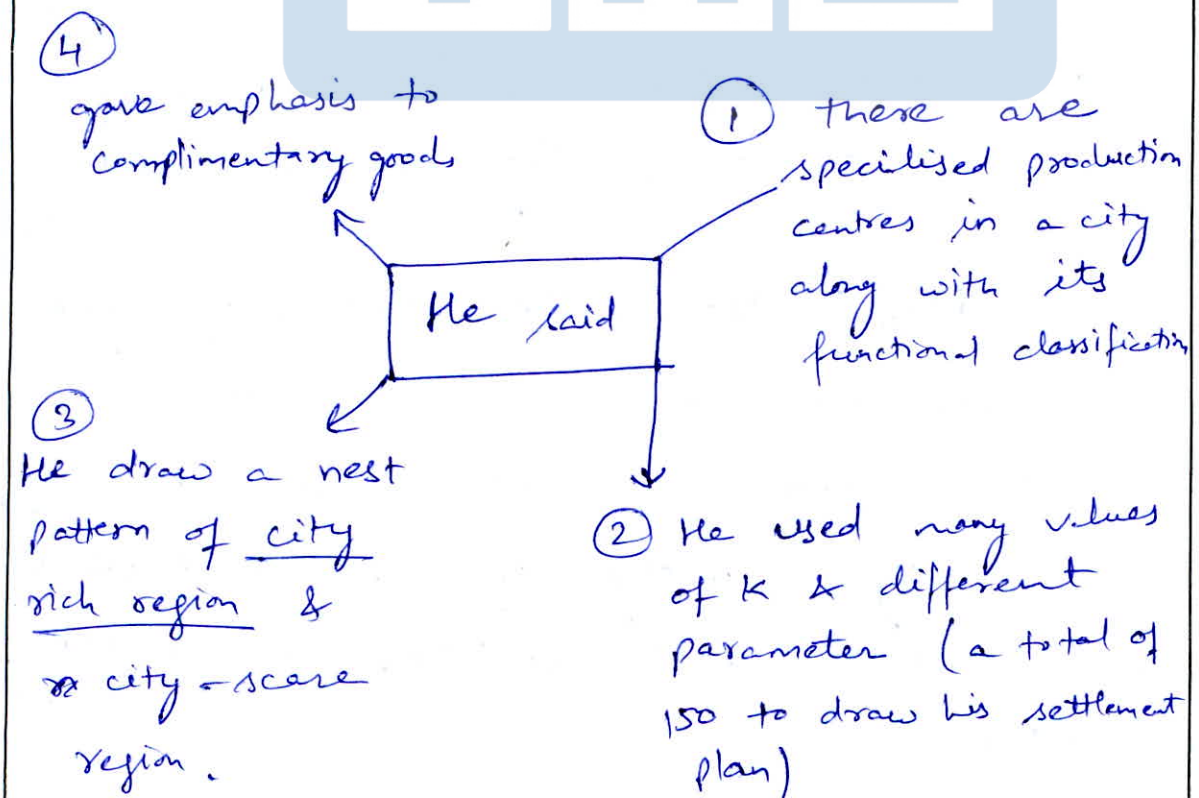
(b) Examine the relevance of Central place Theory of Losch in the present context. [15 Marks]

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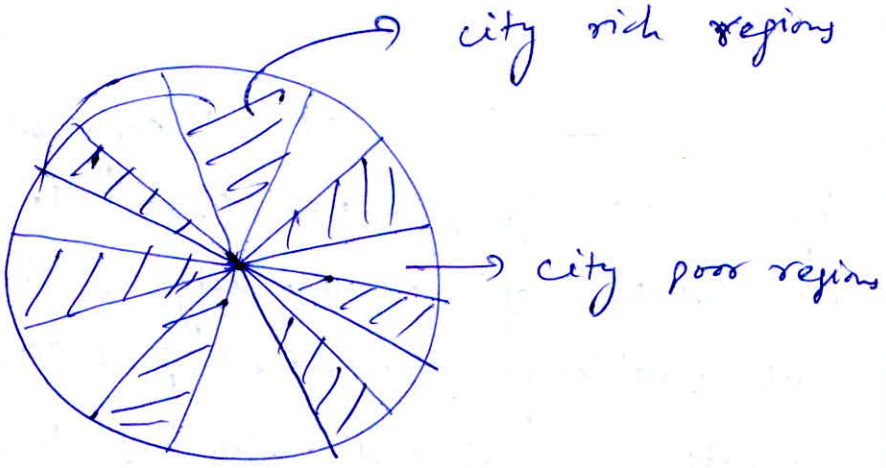
Central place theory was given by German geographer Christaller but due to issues of considering higher services, not considering specialised production centres in the city, limited values of K (K=3,4,7) in settlement resulted in modifications done by Losch.

Central Place theory of Losch –

He took few assumptions like isotropic plain, all men are economic rational men etc. to develop his model.



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Nest pattern of Losch

Model is improvement over christeller & applicable to —

- densely populated areas
- gave importance to primary, secondary & tertiary services
- considered existence of specialised centres of production
- used different values of k giving wider acceptability to his model.

Despite this, the assumptions like all men are economic rational men, isotropic plain do not conform to the reality resulting it a model which is bound to have deviations across the world.

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Present context –

(i) due to modern means of communication and transport (like airways) resulted in overcoming the barrier of transportation

(ii) trans. logistics facilities, better purchasing power shows that people can go distances to buy products.

(iii) Specil production centres are true to an extent as Agra mainly being a transport town also has 'leather industry' as specialised production.

(iv) knowledge of economic rationality as well as isotropic plain do not found in reality either at that time or today.

(v) Nesting pattern is very rarely seen in reality.

Although the work done by him was commendable as he has limited data, resources but today his model is no longer relevant to the settlement of cities barring few exceptions.

(c) Discuss the concept of Primate City and rank- size rule. [15 Marks]

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Primate city concept was given by Mark Jefferson as a city which wields considerable influence in economic, social, political, cultural parameters of the country.

Conditions for primate city —

- narrow geographical extent
- low per capita income
- homogenous society
- dependence on primary sector more for economic growth.
- lopsided regional development

Applicability — Most Latin American countries like Argentina, Paraguay confirms to the concept as they have their capital cities like Buenos Aires acting as primate cities whereas countries like Canada, Australia show multiple primacies due to having multiple such cities.

When it comes to India, then at central level the country do not possesses it due to a lot of diversity,

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wider geographical extent etc. But some states like west Bengal (Kolkata), Jammu & Kashmir (Srinagar) do show primacy tendies at state level.

Rank-size rule — This theory was given by Z.K. Zipf in 1949 which talked about the population of city as $\frac{1}{n}$th of the maximum population city.

$$\text{Population of city} = \frac{P_n}{n}$$

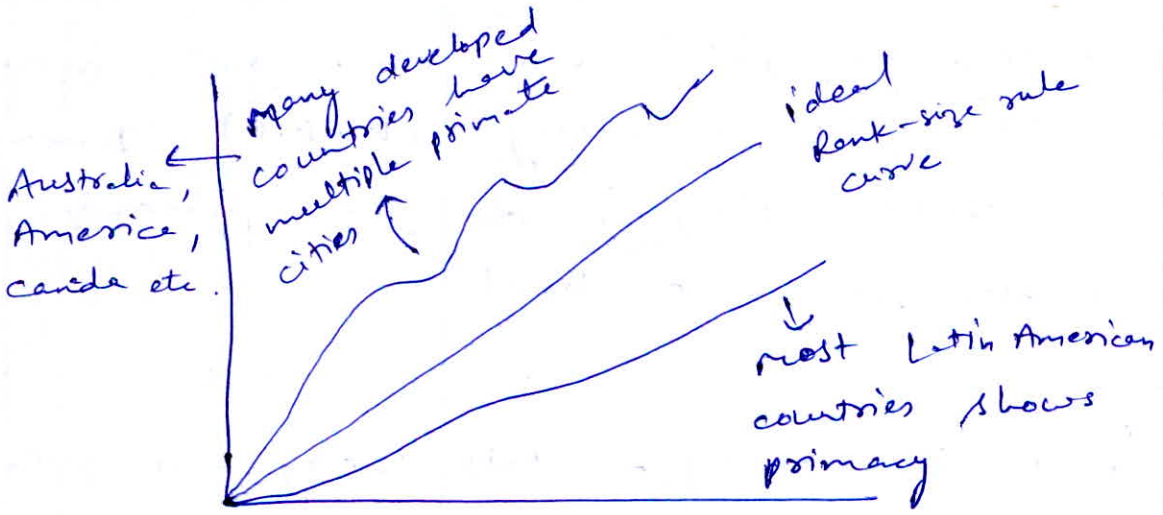
Conditions required for this —

- wider geographical extent
- heterogenous society
- federal form of government
- balanced regional development

Applicability —

Since these theories are deductive in nature so bound to have variations when applied in different conditions

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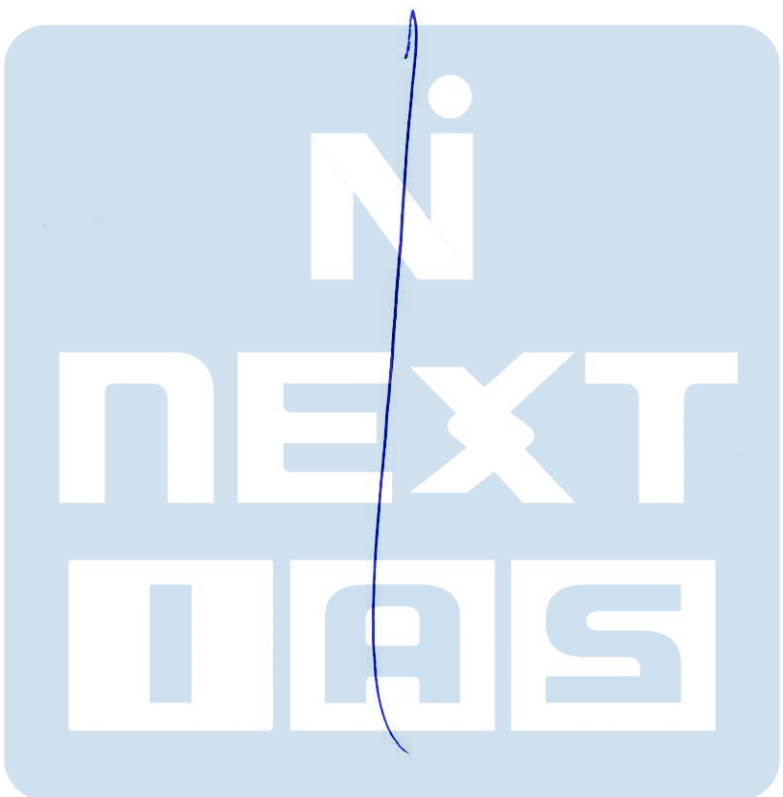
So this rule is not being followed anywhere in strict sense as shown in the graph/curve above.

When it comes to India, we can still see some applicability owing to wider geographical extent, federal governance by colonial administration, absence of forces of nationalism till 1947 etc.

Both the concept are deductive in nature & have numerous variations when applied across the world so lacks universal applicability & no model is expected to confirm to this as well.

Q.7 (a) Examine the causes of international migrations and the socio- economic and political problems generated by them. [20 Marks]

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(b) What is region? Discuss the types of regions and the methods of regionalizations. [15 Marks]

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(c) India's fertility rate drops below replacement level. Comment. **[15 Marks]**

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Q.8 (a) "Population-resource regions explain a complex relation". Critically analyze. [20 Marks]

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(b) Blue - Green infrastructure as an opportunity for Indian cities. Comment. **[15 Marks]**

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(c) Discuss the relevance of Von Thunen's model of agricultural location in the contemporary context. **[15 Marks]**

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SPACE FOR ROUGH WORK



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