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GEOGRAPHY (TEST CODE : 953)

Name of Candidate	SAMBIT MISHRA		
Medium Hindi/Eng.	ENGLISH	Registration Number	28070
Center	KB	Date	12/10/17

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1 (a)	20	
(b)	10	
(c)	10	
(d)	10	
2(a)	20	
(b)	15	
(c)	15	
3(a)	20	
(b)	15	
(c)	15	
4(a)	20	
(b)	15	
(c)	15	
5(a)	10	
(b)	10	
(c)	10	
(d)	10	
(e)	10	
6(a)	20	
(b)	15	
(c)	15	
7(a)	20	
(b)	15	
(c)	15	
8(a)	20	
(b)	15	
(c)	15	

Total Marks Obtained:

INSTRUCTIONS

1. Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).
2. The Candidate should attempt FIVE Questions out of EIGHT questions strictly in accordance with the instructions given under each question printed in ENGLISH.
3. The number of marks carried by a question/part is indicated against it.
4. 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.
5. Word limit in questions, if specified, should be adhered to.
6. Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off.

75, 3rd Floor, Old Rajinder Nagar Market, Near Axis Bank, New Delhi – 110060

103, 1st Floor, B/1-2, Ansal Building, Behind UCO Bank, Dr. Mukherjee Nagar, Delhi – 110009

EVALUATION INDICATORS

1. Alignment Competence
2. Context Competence
3. Content Competence
4. Language Competence
5. Introduction Competence
6. Structure - Presentation Competence
7. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

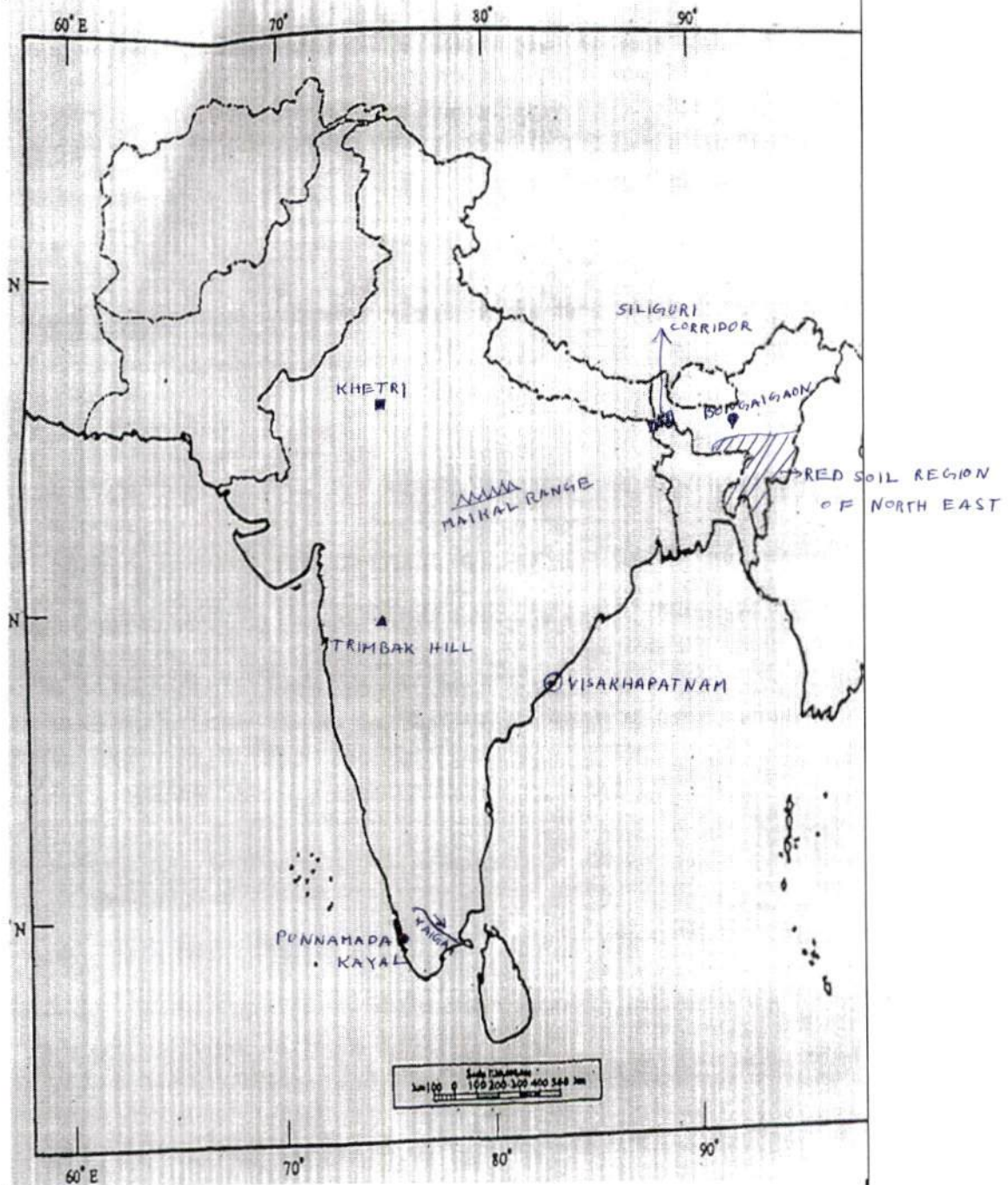
4.

5.

6.

All the Best

1. (a) On the outline map of India provided to you, mark the location of all of the following. Write in your QCA Booklet the significance of the locations, whether physical / commercial / economic / ecological / environmental / cultural, in not more than 30 words for each entry:
2x10=20



1. Bongaigaon

It is a town in Assam known for its oil refinery.

2. Khetri

It is a copper mining and smelting town located in Rajasthan.

3. Vishakhapatnam

It is one of the Major Ports located in the Eastern Coast in Andhra Pradesh which mainly serves trade in iron and steel.

4. Red soil region of North East

The red soil of North East spreads from Meghalaya to Manipur, Nagaland, Mizoram and Tripura.

5. Vaigai river

It is one of the major rivers of Peninsular India mostly flowing in Tamil Nadu and drains into the Bay of Bengal

6. Maikal range

It is a hill range in Madhya Pradesh which is famous for rock paintings

7. Trimbak Hill

It is the source of the river Godavari and is located near the city of Nashik in Maharashtra. Also a famous Jyotirlinga

8. Siliguri corridor

Also known as 'Chicken's neck', it is a narrow tract of land in West Bengal which connects the North East India to the rest of India

9. Lion safari in U.P.

10. Punnamada kayal

It is a lake in Kerala near Vembanad
Lake of Kochi, famous for its Snake boat
race or Vallam Kali

Attempt the following in about 150 words each (3 x10)

1. (b) Bring forward the various aspects related to pesticide use in India. 10

With the advent of Green Revolution,
pesticide use in India has ~~excessively~~ increased
manifold but irresponsible use has led
to many health and ecological hazards

Health Hazards

1. ~~The~~ Excessive use of Endosulfon in the
cashew plantations of Kerala has led to

at to enter the food chain and
cause genetic deformities like stag-horn
limbs

2. Overuse of pesticides for cotton cultivation
in the Malwa region of Punjab has
led to a spike in cancer cases and
resulted in a train ~~was~~ renamed 'Cancer
Express' to Bikaner

3. With ~~the~~ rising concerns of harmful effects
of pesticides, people are now switching over
to organic products

Ecological impact

1. Overuse of pesticides has led to runoff
into aquatic ecosystems lead to their
bio-accumulation in a species and
bio-magnification with higher trophic level

2. Pesticide contamination has not only affected the aquatic ecosystem but has also led to soil degradation.

Thus it is vital to adopt sustainable practices like integrated pest management using bio-pesticide and spread awareness about the threats from misuse.

1. (c) Discuss the resource potential of the western and north-western regions in India.

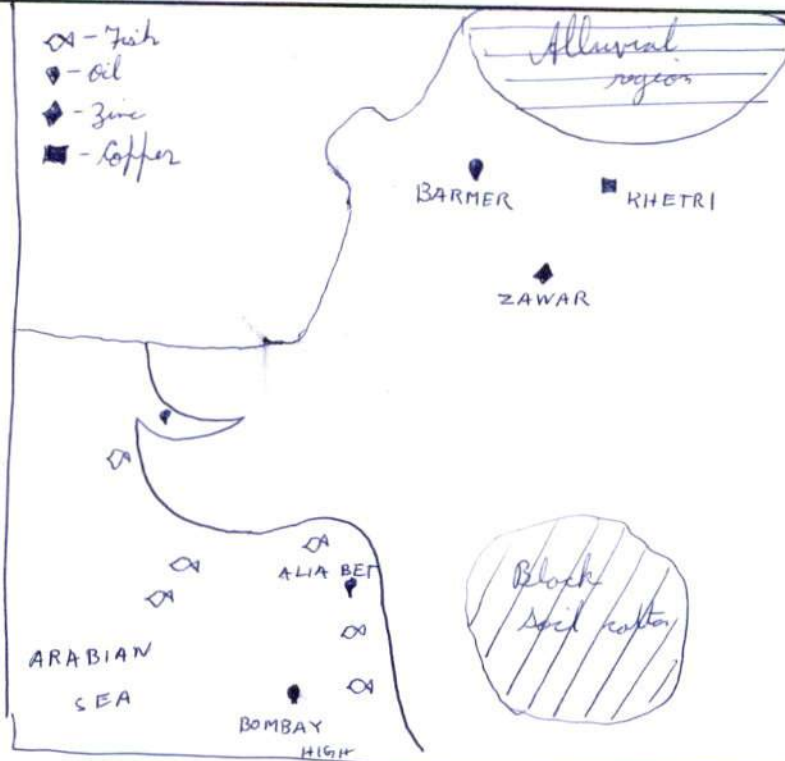
10

Western and North Western part of India include the states of Maharashtra, Gujarat, Rajasthan, Punjab and Haryana.

Resource Potential

1. Long coastline in Maharashtra and Gujarat provide good aquatic resources like fishes, tidal energy etc.

2. Offshore oil fields are found in near Mumbai, Aliahet, Gulf of Khambat etc
3. The black soil region in these states are suitable for cotton cultivation
4. Zinc and lead mines are found in Zawar mines of Rajasthan.
5. Copper deposits are found in Khetri district of Rajasthan
6. Oil reserves are found in Barmer, Rajasthan
7. Punjab and Haryana are endowed with rich and fertile alluvial soil which made them drivers of the Green Revolution.
8. This region received plenty of sunlight and has potential to develop solar energy
9. Wind energy can be utilized in Rajasthan due to minimum obstruction and in coastal areas due to land and sea breeze



1. (d) The role of geography in India and Myanmar relations.

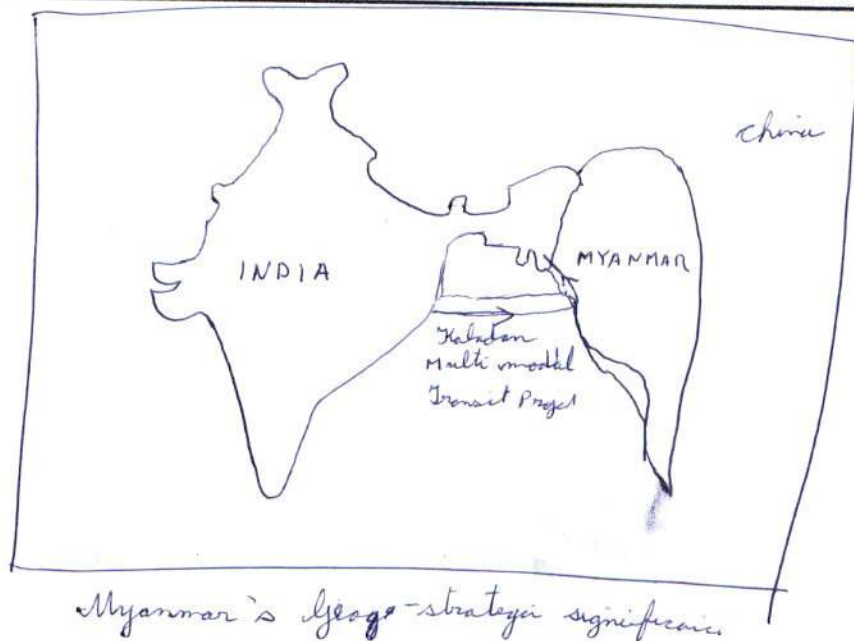
10

India and Myanmar share a long boundary and cordial relation with strong economic, strategic and cultural ties.

Role of Geography

1. Due to its strategic location between India and China, Myanmar acts as a buffer state.

2. Myanmar's vicinity to the North-East India and strong cultural ties with many tribal groups of North East, make it a partner in development of the region
3. It acts as a convenient transit route to North East India through the Kabaddan Multi-modal Transit project
4. The wet monsoonal climate makes it conducive for teak forest which ~~for~~^{is} a major export item of Myanmar to India
5. The frontier region is used by insurgent groups to find safe haven and requires coordination
6. Its location makes it India's gateway to ASEAN
7. Monsoon acts as a unifying agent



2. (a) How have aviation policies in the country affected the evolution of this sector, specially the regional connectivity. What new measures are being taken for improving the share of this sector, in overall transport sector. 20

The aviation sector began very early in India but has remained under-utilized till recently

Evolution

1. JRD Tata started a aviation company in the 1920s to give India an early start

2. After Independence, the company was nationalized and two daughter ~~comp~~ PSOs came up - Air India for international flights and Indian Airlines for the domestic sector.
3. The monopoly of these PSOs continued till the liberalization era of 1990s.
4. After opening of the sector to private players, the sector has taken off.

Aviation Policies

1. 5/25 Rule

This rule mandated that an airline company can carry international operation only after 5 years of existence and after having a fleet of more than 25 aircrafts.

2. Fixation of fuel

The aviation turbine fuel was stated heavily by most states which discouraged its expansion.

3. Limited infrastructure

Functional airports were localized only to major cities hindering regional connectivity

4. Poor regulation:

This resulted in malpractices and unviable ventures

Impact of such policies

1. Regional connectivity suffered due to inadequate infrastructure and high taxation.

2. Predatory pricing and fierce competition

has led to insolvency of some big players.

Eg Kingfisher

Recent measures

1. The Regional Connectivity Scheme (RCS) has focused on operationalising local routes, reviving airstrips, price capping, economic flying etc.
2. The new policy aims to make India an Maintenance, Repair and Overhaul Hub for the world.
3. Taxes have been rationalized and viability gap funding provided.
4. Open Sky Policy for countries more than 5000 km away.
2. (b) Do you agree that 'Agriculture for Nutrition' approach can help in setting off many imbalances for the country as a whole.

15

Agriculture for Nutrition approach focuses on catering to the nutritional demand of the country and have leads to diversification.

How can it set off imbalances?

1. It would lead to diversification of produce giving a safety net for farmers in case of pest attack or failure of one crop.

2. It would encourage sustainable practices like mixed cropping, crop rotation etc. E.g. legumes can restore soil fertility through nitrogen fixation.
3. It would encourage mixed farming which would lead to diversification of income source due to demand for animal products like milk, meat, egg etc.
4. It would boost horticulture sector which is more remunerative for farmers.
5. It would also push forward the food processing industry due to greater demand for ready to eat food in urban areas.

6. It would incentivize pulses production which will improve soil health.
7. Aquaculture and fisheries will be promoted as they are cheap source of protein

Overall this approach would ~~take~~ lead to crop diversification, income diversification, sustainable practices, better remuneration etc which can go a long way in ~~the~~ setting-off the imbalances in the agrarian sector

2. (c) Compare the Indus and the Brahmaputra plains regions from physical and human geography dimensions and discuss how some practices of one region can be helpful in overcoming the challenges of the other. 15

Indus and Brahmaputra plains are very distinct due to independent cultural and physical evolution.

Physical differences

<u>Indus plains</u>	<u>Brahmaputra plains</u>
1. Formed by major <u>tributaries</u> of River Indus	Formed by the basin of River Brahmaputra
2. <u>Low gradient</u> and <u>extensive plains</u>	<u>steep decline</u> in elevation and <u>narrow plains</u>
3. <u>Meanders</u> and <u>ox-bow lakes</u> common	<u>Braided channel</u> with <u>river islands</u> . Eg Majuli
4. Relatively <u>slow</u> flow of river	<u>Fast</u> flow especially in rainy season
5. <u>Floods</u> are <u>rare</u>	<u>Floods</u> very <u>common</u>
6. <u>Low</u> rainfall	<u>Heavy</u> rainfall

Cultural Differences

<u>Indus plains</u>	<u>Brahmaputra plains</u>
1. Well developed irrigation network with <u>canals</u> and <u>tube wells</u>	Irrigation potential <u>under-utilized</u>
2. Large farms with <u>extensive farming</u>	Small farms with <u>intensive cultivation</u>
3. Dominance of <u>wheat</u>	Dominance of <u>rice</u>
4. Use of <u>High yielding Variety of seeds</u>	HYV seed rarely used
5. Use of <u>fertilizers</u> and <u>pesticides</u> is high	Low use
6. Mechanization of agricultural practices	Low mechanization

Using Complementarities

1. Indus plains should adopt natural and sustainable practices like those used in Brahmaputra plains to deal with soil degradation, salinity etc
2. Brahmaputra plains should adopt scientific methods like mechanisation, HYV seed etc like Indus plains.

3. (a) What distinct factors have led to growth of major industrial regions in the southern parts of the country. Discuss with examples.

20

3. (b) Compare the freshwater lakes with the saltwater lakes in India and how some of the lakes act as a local 'Base level'. 15

3. (c) Write about the major argo-ecological regions of the country and give the challenges and scope related to anyone. **15**

4. (a) Analyse how irrigation optimization will help us overcome multiple challenges.

20

Despite being a water stressed country, India is a net-exporter of water through export of water rich crops. Hence there is a need to switch to irrigation optimization with More crop Per drop.

How to optimize irrigation?

1. Using micro-irrigation techniques like sprinklers, drip irrigation etc to apply

- provide water near the roots and minimize losses.
2. Fertigation with micro-irrigation can also improve yield
 3. Practices like mulchings, plastic covers etc should be encouraged.
 4. Integrated watershed management with check dams, percolation pit etc rather than dams on river.
 5. Rainwater harvesting to recharge ground water.
 6. Climate smart agriculture with production of drought resistant varieties in arid region
 7. Precision agriculture with controlled application of inputs to optimize yield

8. Rationalization of electricity subsidy
to farmers
9. Declaring groundwater as a public good
and charging its use.
10. Innovative and sustainable methods
like hydroponics, System of Rice intensification
etc should be employed for rice cultivation

How does it overcome multiple challenges

1. It ensure better income for farmers
due to higher productivity.
2. It prevents soil degeneration and erosion
through sustainable practices.
3. It reduces government spending by
rationalization of subsidy.
4. It ensures food security for the nation
as well as nutritional security.

5. It leads to sustainable growth
and development in agriculture
6. It leads to social capital due
to lack of conflict because of stressed
resources

All these prove the multiples effect
of optimized irrigation in solving numerous
problem of our contemporary times

4. (b) Examine the evolution of the paper industry in India. What new factors
have affected the new developments in this industry. 15

Paper industry has a long history
of evolution in India which is continuing
to adapt its changing situations

History

Paper industry in India began in the
early 20th century and has continued
to grow since then

Raw materials required

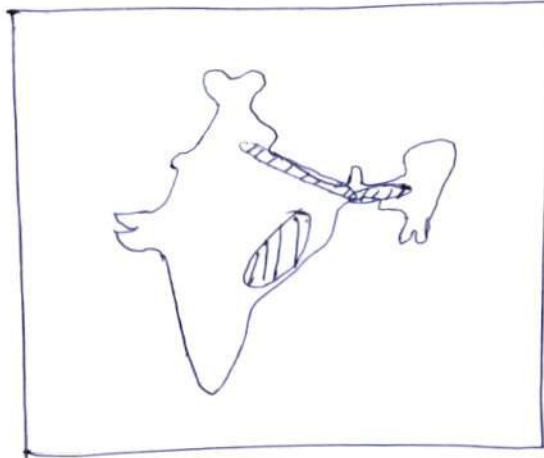
1. Pulp material from soft wood /
bamboo / sabai grass
2. Plenty of fresh water
3. Cheap electricity or power
4. Chemicals to process the pulp.

All these factors along with availability of cheap labour has led to a specific distribution of paper industry

Geographical distribution

1. Hilly region of Himalayas
1. Himalayan foothill due to availability of softwood as well as freshwater
2. West Bengal and Assam due to cheap labour, bamboo and fresh water,
3. Odisha, Jharkhand, Bihar, Andhra Pradesh

due to cheap labour, sabai grass,



Major paper producing area in India

Effect of new factors

1. With the rise in digital technology, there demand for paper has reduced ~~due~~ and ~~make~~ many sectors are going paperless
2. Rising consciousness about sustainable use has led to greater recycling of paper, shifting the industries to near market areas like major cities

4. (c) Critically examine how the information and technology has played a role in development in various sectors in the country. 15

(IT)

Information and technology, has been a revolutionary development which ~~also~~ has fundamentally changed many sector and acted as an enabler.

Impact on different sectors

1. Primary sector

Agriculture has become more remunerative by creation of a national ~~as~~ market through e-NAM leading to disintermediation and better price realisation.

2. Manufacturing

Automation and computer aided manufacturing has increased quality and efficiency and economy but has created fear of job loss.

3. Logistics and transport

Use of GPS and navigation has greatly enhanced the efficiency of logistics and reduced costs

4. Service sector

* IT has facilitated India jump directly from a primary sector dominated economy to a service dominated economy.

* It has made India a prime destination for outsourcing and created good employment opportunities

5. Communication

The internet has completely revolutionised communication with the world now a more connected place with social media.

6. Commerce

Shopping has become and trade has become very convenient through e-commerce platforms like Flipkart, Amazon etc

7. Road Infrastructure

IT has enabled better planning and execution of infrastructure project with the help of tools like big data analytics, GIS, remote sensing etc

5. Write on each in about 150 words:

10x5=50

(a) Examine the geographical basis of demands for autonomy and for re-organisation of states' boundaries in the North-eastern region.

North eastern India is unique for the concentration of so much diversity in such a small geographical area.

Geographical basis for diversity

1. Difficult terrain has led to isolation of small groups of settlements

2. Fast flowing rivers further fragmented the societies into small tribal groups.
 3. Geographical barriers led to ~~exclusion~~ little contact and ~~isolation~~ independent evolution of distinct languages and cultures.
 4. Dense forest have also prevented assimilation and prevented relatively small groups.
- ~~Dense~~ Demand for autonomy and reorganization
1. Geographical isolation of North-East Region has prevented meaningful development in the region.
 2. Poor connectivity with rest of the country has led to a cultural gap.

3. Cultural diversity with different languages, races, traditions etc have divided the people.
4. Harsh terrain and climate have led to added grievances

All these are geographical basis of demand for autonomy and reorganisation in North East India

5. (b) Implications of dilution of ecologically sensitive areas related rules.

Ecologically sensitive zone (ESZ) are regions which are ecologically fragile and hence require greater protection and minimum human intervention.

These are generally areas with high biodiversity and a unique ecosystem.

The buffer zone of biosphere reserves are also considered ecologically sensitive.

Impact of dilation of rules

1. Increased human activity can lead to destruction of the habitat.
2. Increased stress on the ecosystem due to industrial activity.
3. Rise in pollution due to increased tourism and industrial activity.
4. Threat to endangered species living in the area.
5. Risk of losing a biodiversity hotspot.
6. Disturbance of ecological balance, leading to dominance effect.

5. (c) Can it be said that biotechnology sector related developments can help the country become a global player in the sector.

Biotechnology is the field of application of scientific methods to utilise ~~the~~ living organism for human development.

It is considered as a sunrise industry as it has immense potential which has been hitherto untapped.

Potential of biotechnology sector

1. Developing life saving drugs and boosting the pharmaceutical sector
2. Developing genetically modified crops with desirable qualities. Eg Bt-cotton, DMH-11 mustard etc
3. Bio-fortification of crops to ensure nutritional security. Eg: Golden rice with vitamin A
4. Catering to the increased need of insulin ~~also~~ through recombinant-DNA technology to meet the demand of rising diabetic population.
5. To carry out cutting edge research in emerging field like gene-editing.

6. Using ~~our~~ traditional knowledge of the tribal groups to come up with new cures and new products

All these can potentially make a global leaders in the Biotechnology sector.

5. (d) Urban planning requires a multi-pronged approach to handle the related problems comprehensively.

Indian urbanisation faces multiple problems and hence requires a multi-pronged approach in planning

Dimensions of urban planning

1. Basic services

Universal access to basic services like water, electricity, health, education etc should be ensure. This requires addressing

infrastructure bottlenecks as well as
social change to remove barriers

2. Mobility

Multi-modal mobility system should
be planned keeping in mind the physical
constraints for each mode

3. Environment sustainability

Clean technology, efficient waste management
and reduction in emissions are vital.

This also needs a social change to nudge
people to adopt sustainable lifestyle.

4. Disaster preparedness

Proper settlement planning with detailed
plan to deal with specific natural hazard
is a must

Urban planning is not just a theoretical exercise. It requires involvement of various stakeholders and active public participation. Most plan will ~~if~~ fail if people are not incentivized to help execute them.

5. (e) Elaborate the condition of tribals in the western parts of the country and give measures to overcome their challenges.

Western part of the country has a number of tribal groups like Bhils, Saharias, Agarias, Nishads etc

Conditions

1. Some tribes such as Bhils still practice hunting and primitive agriculture.
2. These tribes have poor social indicators.

with high illiteracy, IMR, MMR etc

3. Some are engaged in highly exploitative occupation like salt pan work. Eg. Agarias.

4. Some tribes practice nomadic lifestyle like the Banjaras of Rajasthan

5. ~~Some~~ The society is patriarchal with polygamy very common.

Measures to improve condition

1. Critical social infrastructure should be prioritized. Eg. schools, hospitals.

2. Popularizing their culture to ~~also~~ create cordial ties with the mainstream population.

3. ~~Some~~ Using tribal art and culture to provide gainful employment to tribal youth.

4. Improving the agricultural practices through persuasion to adopt modern methods.
5. Proper implementation of Forest Rights Act and PESA Act to guarantee them dignity and livelihood
6. (a) 'The metropolitan regions in the country are facing challenges unique to such cities in developing countries.' Critically analyse. 20

6. (b) Do you agree that some of the racial diversity is confined only in the tribal communities in the country. Discuss the challenges faced by such tribes and measures taken by the government for the improvement of their status. 15

6. (c) Do you agree that farmers' distress has reached epidemic proportions in india.

15

7. (a) Will it be correct to say that literacy rate does not reflect the employment levels in different regions of the country? What needs to be done to improve the literacy as well as employability in India? 20

Contrary to expectation, the correlation between literacy rate and employability is not very strong in India.

Trend of literacy rate

* Highest literacy rate are found in the state of Kerala, Mizoram, Arunachal Pradesh, etc.

* Low literacy rates are found in states of Rajasthan, Bihar, etc

Paradox of employment level

* Despite having high literacy rates, states like Kerala and the North Eastern states fare poorly on employment level.

* States that fare well on the employment level like Gujarat, Tamil Nadu have moderate literacy rates

Why ~~this~~ are literates not employed?

1. Poor learning outcomes from primary education

2. The educational curriculum is not in tune with market demands.

3. Government policies have led to poor industrialization of some states
4. Most Indians are educated but not skilled for job
5. Poor quality of higher education and tax regulation

How to improve literacy?

1. Investment in teacher training to make them more effective and keep them motivated.
2. Proper implementation of RTE Act.
3. Inclusion of vocational training in curriculum so that parents see some returns to investment
4. Adult literacy programs especially for women
5. Use of digital technology in education

How to improve employability?

1. Regular update of curriculum to align with market demand.
2. Skill training with placement
3. Vocational training in schools
4. Collaboration between industries and educational institutes to design course
5. Apprenticeship programs

7. (b) Examine the disparities between the plains and the hills of north-eastern region.

15

The plain and hill people have very different lifestyles due to independent evolution and relative isolation.
Disparities

With time these difference have manifested in stark disparities on various levels.

Disparities

Hill area	Plains
1. Exclusively <u>tribal</u> <u>dominated</u>	Have a <u>mixture</u> of <u>tribal</u> and <u>non-tribal</u> <u>population</u>
2. Primitive <u>lifestyle</u>	Adopted modern <u>lifestyle</u>
3. Poor <u>literacy</u> rates	High literacy rate
4. Poor <u>health</u> indicators	Good health indicators
5. Relatively <u>autonomous</u>	Come under state rule
6. Low population <u>density</u>	High population density
7. Animistic religion	Mainstream religion
8. Strong <u>kinship</u> and bond of with local <u>culture</u>	Relatively weaker bond

Hills	Plains
9. Shyness to <u>contact</u>	No shyness
10. <u>Diminishing population</u>	Swelling population
11. Completely <u>rural</u>	Have some urban <u>centres</u>
12. Domination of primary activities	Secondary and tertiary activities have significant share

All these disparities point to
two very different set of people living
close together. There is an urgent need
to bring in meaningful development in
the hills to prevent future conflicts

7. (c) Examine the morphological aspects of Indian cities.

15

Indian cities have a typical
pre-industrial outlook with high
congestion and low level of planning

Morphological aspects of Indian cities

1. Lack of planning leading to no
distinct ~~are~~ pattern
2. Extremely concentrated settlements with
limited vertical extent.
3. Proliferation of slums and shanties
leading to a horizontal spread -
urban sprawl
4. Rise of suburbanisation leading
to growth of residential dormitory towns
near the cities

5. Central Business District (CBD) is not entirely composed of commercial buildings. People also live in CBD preventing it from emptying during night
6. Urban sprawls expand along major transport routes.
7. Railway tracks are surrounded by squatter settlements
8. Heavy congestion and high pollution due to poor planning.
9. Concretization of the area ~~leads to~~ and lack of green belts
10. Encroachment into wetlands and flood plains
11. Continuous spread with diffused boundaries

12. Rural-urban fringe is noticeable

All these characteristics point to
the urgent need for better planning
and developing counter magnets to make
our cities livable.

8. (a) Discuss the various major patterns of village settlements. Can the village settlements reflect well the social structure of a region. How can measures such as PURA and Smart villages help in overcoming some challenges faced in such region.

20

8. (b) Lifestyle diseases are a major challenge in some parts of the country. Discuss the prevalence of such diseases and give suggestions for improvement of the condition. 15

8. (c) How do pattern of economic activities, trade and financial provisions of the central and state governments affect the federal structure of the country. Analyse from a geographical perspective. **15**

