



VISION IAS

www.visionias.in

VISION IAS

R
N 29 SEP 2017 NO 03

RECEIVED

GEOGRAPHY (TEST CODE : 948)

Name of Candidate	SAMBIT MISHRA	Registration Number	28070
Medium Hindi/Eng.	ENGLISH	Date	29/09/2017
Center	KB		

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.

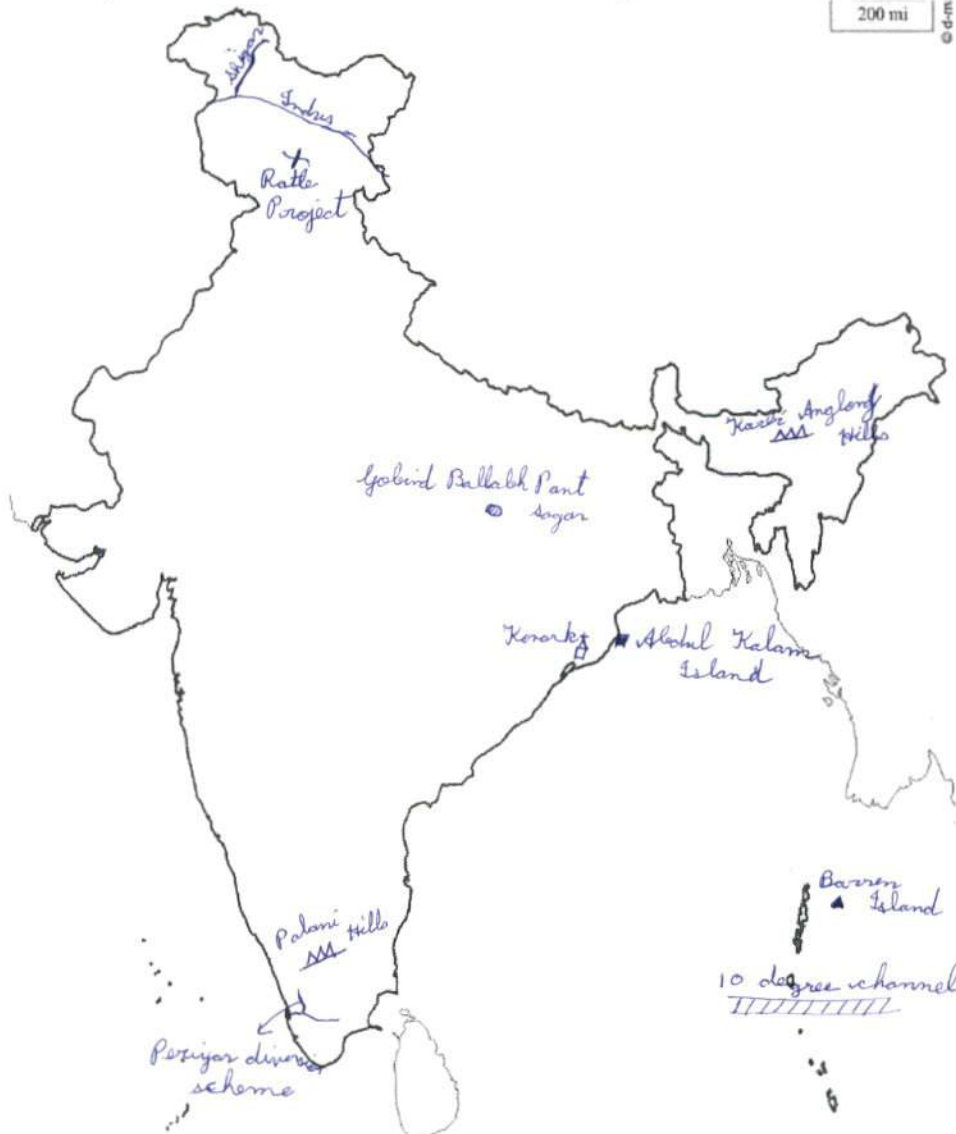
All the Best

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

200 mi

km



(i) Ratle Project

It is a multipurpose river valley project on River Chenab located in the state of Jammu and Kashmir. It has been a disputed project due to deteriorating Indo-Pak ties and Indus Water Treaty

(ii) Barren Island

This is India's only active volcano located in the Andaman and Nicobar Islands, north-east of Port Blair

(iii) 10 degree channel

It is the channel of water that divides the Andaman group of Islands from the Nicobar group of Islands

(iv) Shigar River

It is a tributary of River Indus located in Jammu and Kashmir

(v) Konark

This is a world Heritage Site located in Odisha and famous for its magnificent Sun Temple. It has become a cultural centre and is a specimen of Odisha school of Nagara Temple Architecture.

(vi) Abdul Kalam Island

Formerly known as Wheeler Island, it is India's premiere Missile Testing Centre, located offshore Odisha coast near Chandipur.

(vii) Karbi Anglong Hills

These are a group of hills in North East India which are an ~~area~~ extension of the Peninsular Plateau but separated by the Maldam gap.

(viii) Govind Ballabh Pant Sagar

It is an artificial reservoir created as a result of the Rihand Dam on Rihand river in Uttar Pradesh.

(ix) Periyar Diversion Scheme

It is an irrigation and drinking water scheme of diverting the waters of River Periyar of Kerala to the Malabar Plains

(x) Palani Hills

These are a group of hills in South India inclined in a South West - North East direction spanning Kerala and Tamil Nadu.

1. **(b) Enumerate the usefulness of neem coated urea from agricultural and ecological perspective in India.** 10

Due to rampant diversion of urea for non-agricultural purposes, the Govt of India has adopted neem-coating of urea to prevent misuse.

Agricultural utility

1. Diversion of urea to non-agricultural purposes can be checked

2. Fertilizer is more effective due to slow rate of nitrogen release
3. Neem acts as a natural herbicide or weedicide -
4. Microbial activity of the soil is boosted due to neem
5. Antiseptic property of neem kills harmful microbes.
- Ecological utility:
 1. It will promote judicious use of fertilizers as the rate of nitrogen release is slow
 2. It is a natural method of augmenting soil fertility through use of neem
 3. It will prevent eutrophication due to slow breakdown of urea and runoff into streams

4. It utilizes the bio-herbicide properties of neem.

All these utilities prove that neem-coating of area is a very positive step toward sustainable agriculture.

1. (c) Discuss the need for reforms of land tenancy and leasing.

10

Indian agriculture has suffered a lot due to the colonial policies of ~~the~~ like Zamindari system leading to pauperization of the agrarian community.

Need for reforms in land tenancy and leasing :

1. Colonial legacy led to a landed hierarchy in agriculture where the landowners rarely cultivated the land.

2. Post-independence land reforms included tenancy reforms like reduction of rent, security of tenure and right of tenants to acquire land.
3. But due to poor implementation and legal loopholes, ~~tenants~~ the position of tenants and share-croppers has barely improved.
4. Different states have different provisions leading to confusion.
5. As tenancy is not recognized in most cases due to oral agreements, the tenants lack access to agricultural credit, insurance, etc.
6. This has prevented them ~~from~~ from upward mobility and trapped them in a cycle of poverty.

7. The land acquisition act also makes land leasing very difficult. Land leasing can help poor farmers leverage their land and get good return on development projects, which can catalyse their economic prosperity.

All these point to an urgent need to have ~~to~~ tenancy reforms and a land leasing policy which is uniform throughout the country.

1. (d) Elaborate the role of trade in India-China relation.

10

India - China relation has a long history with many ups and downs. It is the economic glue which has prevented any large scale conflict in recent times.

India - China Trade

1. China is India's biggest trading partner.

• but India has a huge trade deficit ^{over} of \$50 billion.

2. India imports steel, electronics, manufactured goods, drug API, etc. from China.
3. Indian exports include leather, food preservative, services, food items, etc.
4. India also enjoys soft power due to export of culture through Bollywood, Buddhism etc.
5. India is very dependent on China for most of its manufactured goods and bulk drugs (APIs).
6. Recently trade has suffered due to differences between the two nations regarding Doklam, South China Sea, One Belt One Road initiative, India's proximity to the USA and China's proximity to Pakistan. This had led to a temporary closing of Wathula Pass for trade.

In the era of globalization, ~~the~~ increasing trade leading to increased interdependence of nations, can act as the biggest deterrent to large scale conflicts and maintain global peace.

2. (a) Discuss the coastal zones as defined by UNCLOS and the new changes envisaged by Indian government with respect to marine and coastal regulation zones.

20

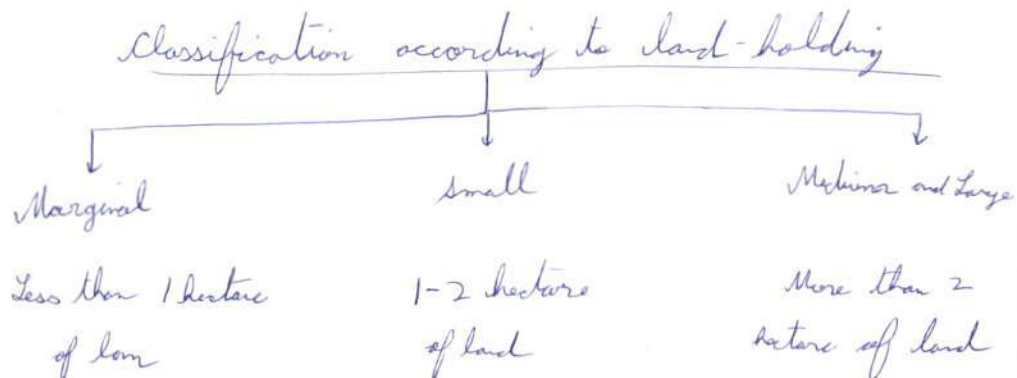
2. (b) Examine the situation of ground water pollution, along with the causes, from a regional perspective. 15

2. (c) Analyse the role of canal networks and the major challenges faced by such regions.

15

3. (a) 'Agricultural landholdings in India are highly distorted and hence a bottleneck for attaining the goals of social justice, equity and efficiency'. Analyse. 20

Agricultural landholding in India is highly distorted with a majority of farmers belonging to the small and marginal category



More than 80% of farmers belong to the small and marginal category making the average land holding in India about 1.15 hectare

Disadvantages of small holdings

1. No economies of scales, high ~~up~~ fixed average fixed cost
2. Barly sufficient for subsistence, hence not much scope for profit.
3. Lack of access to institutional credit due to small size of holding.
4. Poor ~~adaptable~~ adoption of mechanization
5. Lack of resources like high yielding variety (HYV) seeds, irrigation, chemical fertilizers, pesticides, etc
6. Caught in a trap of indebtedness and poverty because of high rates of money lenders

7. More prone to crop failure due to lack of insurance
8. Poor post harvest techniques leading to wastage

Barrier to social justice

1. Land holding in India is invariably linked to caste.
2. Lower castes have smaller land holding and hence have remain backward.
3. Land is a source of power in rural India and hence this structure hinders social justice

Barrier to equity

1. Green revolution led to rapid growth of big farmers who have all advantages like economies of scale, input, credit, fertilizers, irrigation, mechanization etc.
2. Small and marginal farmers devoid of these resources remained backward

3. Hence there is a marked inequality in Indian agriculture.

Barriers to efficiency:

1. Big farmers have high productivity due to economies of scale, mechanization, inputs like HYV seeds, credit access etc, post harvest infrastructure etc.
2. Small farmers cannot afford all these due to high average fixed cost.
3. Hence the small farmers have low yield low productivity.

3. (b) Elaborate the major provisions with respect to wildlife conservation and how wildlife resources are useful. 15

Wildlife conservation has always been a top priority for the government due to the various ecosystem services provided by them and utility in maintaining ecological balance.

Provisions for wildlife conservation:

1. Legal protection:

* Enactment of various laws like Wildlife Protection Act, 1972; Environment Protection Act, 1986 etc.

* According to various degrees of protection to different organisms coming under different schedules of Wildlife Protection Act.

2. Mission mode projects

* Project Tiger (1973), Project Elephant, Project Gharial, Project Rhinoceros etc have helped create a focussed approach towards conservation of various species

3. In-situ conservation

* Creating protected environment like Wildlife Sanctuary, National Park, Biosphere Reserves etc with minimal human interference

* Tiger reserves, elephant corridors etc have also been demarcated for protection for various species.

4. Ex-situ conservation

Zoos, botanical garden, gene banks, etc have captivity breeding centres etc have been instituted

5. Regulation

- * Fishing, ~~forest~~ hunting etc have been regulated under various laws
- * Regulations for environmental pollution with Environment Impact Assessment (EIA) for development projects.

7. International commitment

- * CITES, IWC etc help in creating international partnership for conservation.

Utility of wildlife resources

1. source of food for human beings.
2. source of medicines. Eg: Morphine, quinine etc
3. source of minor forest produce like tendu, leaves, sabai grass, honey, wax, lac, rubber etc
4. source of timber as a raw material
5. Raw material for various industries like paper, textile, food processing etc.
6. Ecological balance through bio-remediation
7. ~~It~~ Regulate climate through absorption of GHGs and transpiration

3. (c) Discuss the relevance of newer methods of rice cultivation in Indian agriculture. 15

Newer methods of rice cultivation have led to dramatic rise in yield with lesser use of water.

Some new techniques

1. Japanese method

- * The saplings are nurtured in a nursery and then transplanted into the field in distinct row-pattern.
- * This helps in easy weeding and application of fertilizers.
- * This improves the yield of rice produced.

2. System of rice intensification (SRI)

- * This involves early transplantation of rice saplings and increased spacing between them.
- * Increased spacing allows more efficient use of nutrients, sunlight, water, etc and gives higher yield.

3. Rice - fish aquaculture

- * This is a type of mixed farming of growing fishes in the flooded fields of rice.
- * This augments nutrients for soil and also diversifies nutrient income for farmers

4. Hydroponics

- * This involves cultivation of rice in a medium culture rather than soil. It is done inside a green-house
- * It can be done in vertical layer leading to efficient utilization of space
- * It increases yield due to precise application of inputs like fertilizers, water etc

Relevance

1. Increased yield
2. Lesser water requirement
3. Efficient use of inputs

4. Sustainable practices

5. Income augmentation of farmers

6. The new techniques can go a long way in making rice cultivation sustainable, remunerative and ensure food security

4. (a) Examine how the new national waterways act can help in realizing the potential of inland water transport.

20

The recently passed National Waterways Act has increased the number of National Waterways from 45 to 111.

Significance of the act

1. The addition of 106 new national waterways can give a huge boost to inland ^{water} transportation which is the cleanest and cheapest mode of transport

2. It will institute an authority to regulate the use of these waterways and ensure sustainable development.
3. It will lead to better management of river basin as it will require constant cleaning and dredging of rivers.
4. It will lead to balanced growth of all regions as these waterways are spread throughout the country.
5. It will spur development in the hinterland due to transport development to ensure last mile hinterland connectivity as well as industrial activity due to improved transportation.

6. It will lead to better logistics and encourage more investment in all parts of India
7. It will lead to inter-linking of a large number of rivers through canal development. This can alleviate water stress in many regions like Bundelkhand, Vindhyas etc.
8. It will enable a inland water transport system to become the economic lifeline of India

Potential of Inland water transport

- * India is blessed with a large number of rivers, but this potential has not been realised through inland navigation
- * The new act can help India realise its true potential of inland water transportation

- and spur balanced and inclusive growth,
- * Being the cheapest and cleanest mode, it is sustainable and eco-friendly
 - * But in order to realize this potential many follow up steps need to be taken like - improving channel flow, constructing corals, regular dredging, last mile hinterland connectivity etc.

4. (b) Discuss the scope of niche tourism in promoting the tourism industry.15

Niche tourism is the term used for specialized tourism catering to some specific domain and specific group of people. Tourism has immense potential in India as a mass job-creating service sector industry which can be fully realised only with development of Niche tourism.

Scope of Niche Tourism in India

1. Religious Tourism has tremendous scope due to the spiritual nature of Indian people. Pilgrimage places like Dwarka, Puri, etc should be developed to facilitate pilgrimage.
2. Eco-Tourism is also a popular niche where people come close to nature and enjoy its scenic beauty. Potential sites - North East India, Himalayas etc
3. Adventure Tourism attracts a lot of youth with activities like hiking, trekking, rafting etc. Sites - Auli, Sikkim, Himalayas, Western Ghats
4. Cuisine Tourism - India has so many different culture and food styles that cuisine tourism has a lot of scope
5. Rural Tourism - The rural areas in India can provide a new perspective to people from

cities and also boost the rural economy

6. Heritage tourism - India is an ancient civilization and has a lot of cultural capital which can be show-cased to the world through preservation of Ancient sites. Eg: Walanda, Hampi, etc

7. Wildlife tourism - India vast biodiversity can be leveraged to attract the youth into conservation activities. Eg. Western Ghats, Lorbel, etc.

18 They Govt of India also realises this potential and has launched schemes like Swadesh Darshan with theme based circuits, HRIDAY and PRASAD for heritage and religious tourism. Niche tourism can become a game changer if properly developed and utilized

4. (c) 'Mass rapid transport systems are the future of urban transport in India'.
Elucidate.

15

Urban areas in India are increasingly getting congested with very slow movement of people due to frequent traffic jam.

Mass Rapid Transport System (MRTS)

This is a system of public transport which focused on quick transport of large number of people using efficient systems.

Types of MRTS

1. Metro rails

- * These are the most popular mode of transport in large cities like Delhi, Kolkata etc.
- * They have a dedicated track - either elevated or underground and have high frequency.
- * They move people quickly, economically and efficiently.

2. Bus Rapid Transport System (BRTS):

- * They have dedicated lanes on the roads and have high speed and frequency.
- * They are popular in cities like Ahmedabad.

3. Waterways

- * Some cities close to rivers or backwaters can leverage waterways for rapid transport.
- * Cities like Rochi have an efficient functioning waterway system.

4. Hyperloop

- * It is a new technology system of transporting people at high speed using capsules in a pipeline.
- * It can be the mode of future transport.

done

All these MRTS systems are faster,
more reliable, efficient, eco-friendly and
economical. ~~Here~~ They focus on moving people
rather than moving vehicles. Therefore they
are the future of urban transport in India

5. (a) The importance of the rivers in India - Nepal relations.

10

Rivers are a vital link between India-
Nepal relations as they help connect people
and evolved common civilizations

Rivers in India - Nepal relations

1. A number of rivers are shared between
India and Nepal with the prominent ones
being Jhaghara, Gandak and Kosi

2. Rivers are a lifeline for people of both sides but they are also a source of potential disasters like devastating floods.
3. India - Nepal relations have strengthened due to mutual cooperation in developing multipurpose river valley projects like Kosi project.
4. Nepal can gain a lot from these project and ensure electricity to all its people. India will also gain through controlled flow and reduced risk of floods.
5. Recent agreements on joint development of Mahakali project vindicate the importance of rivers in Indo-Nepal relation.
6. Future trade and transport routes can also be explored through waterways.

7. Irrigation should be ensured to the terai region of Nepal which has very close ties with India.

All these mutual benefits show how rivers can act as a bridge between people of India and Nepal.

5. (b) 'Geothermal energy, though relevant, yet is not highly promising in India'. Examine the statement. 10

Geothermal energy is the mode of energy utilization from the heat in the interior of the earth through hot springs and natural geysers.

Potential in India

1. India is blessed with numerous hot water springs like Puga Valley, Manikaran, Uttapani etc.

2. These resources are fairly spread out throughout the country but is mainly concentrated in hilly regions of Ladakh, Kashmir, Himachal Pradesh.

3. India is trying to make a major shift towards renewable sources of energy and geothermal resources can be one of them

Challenges

1. Most of the hot springs are located in difficult terrain like mountains, hills and forest.
2. Setting up distribution network from these places is very difficult.
3. The thermal energy released from these springs and geysers are not continuous but intermittent.

4. High initial investment and costly source of energy.
5. Technology available today make their utilization economically unviable.

Here Geothermal Energy has a lot of potential in India but currently isn't very promising. With advancement in technology, we can hope to one day tap this clean source of energy.

5. (c) Write a short note on mineral resources of the north eastern region. 10

North eastern region of India is fairly well endowed with mineral resources.

Oil resources

1. Oil exploration began very early in the region with India's first refinery being set up in Digboi, Assam.
2. Oil and natural gas are available in good quantity in the Assam basin, with ~~interest~~

~~investment~~ Refineries at Digboi, Namaniguri, & Narkatiya etc and gas pipelines from Moran-Hugryan - Noonmati - Barauni and others prove this resource potential

Tertiary Coal

1. Relatively low quality tertiary coal is found in many north-eastern states.
2. Rat-hole mining for these coal resources is very popular but recently outlawed by courts

Uranium:

~~At~~ Meghalaya has recently discovered viable amount of uranium which can be exploited for India's nuclear energy programme

With advancing technology and focus on North-East many mineral resources are being discovered which can act as an catalyst for rapid development of the region.

5. (d) Usefulness of high speed trains in the Indian context.

10

The recent foundation laid for the High speed rail project with Japanese collaboration has led to debates on its utility.

Advantages :

1. World class transport infrastructure which can greatly improve the ease of doing business and attract investment.

2. Transport time ~~was~~ cut ~~to~~ by several orders.
3. Cutting edge technology adoption which can in future lead to project exports
4. Spillover effect of development of the region as a whole through increased job opportunities and industrial activity - Growth Pole
5. Auxiliary activities can boost the MSME sector
6. Learning from international best practices.

Disadvantages:

1. Too expensive and can promote elitism and inequality.
2. Focus should be on safety of current railway track rather than going for Bullet Trains
3. Huge cost of land acquisition, resettlement and compensation.

7. Better to allocate resources for poverty alleviation than elite services for the rich-off

Though there are valid concern about the project, the recent project between Mumbai and Ahmedabad should be promoted as it comes with very favourable terms and can have a multiplier effect which can propel future growth.

5. (e) National water divide and the basins it demarcate.

10

Water divide is considered to be the line joining the crest of the mountains that divide two ~~are~~ river water basins

National water divide can be considered to be the Saravalli - Vindhyas - Western Ghats ranges.

* Aravalli range divides the basin system of western inland drainage (eg. Luni) from the eastern drainage into the Ganga-Yamuna system (eg. Banas)

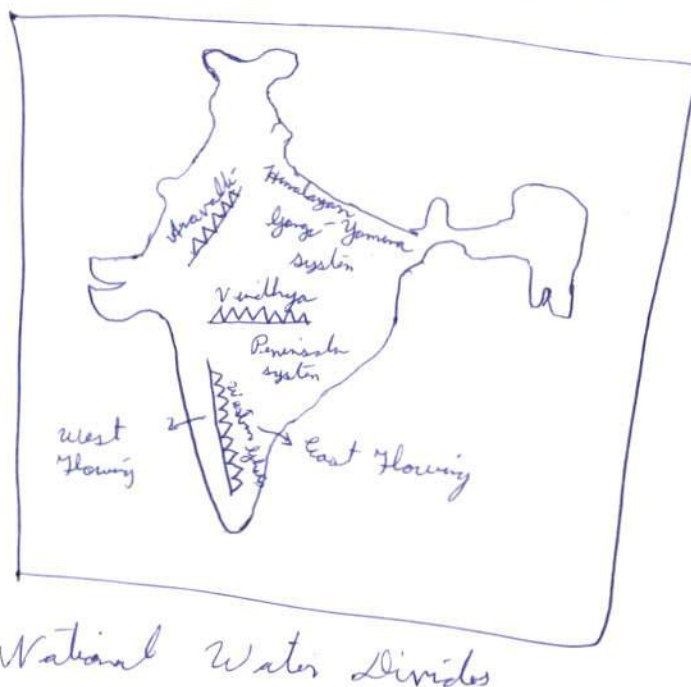
* Vindhyas divide the Himalayas river system - Ganga-Yamuna, from the Peninsular drainage system :

eg: Chambal flows into Yamuna, Narmada into Arabian sea.

* Western Ghats divide the east-flowing rivers from the West flowing ones.

eg: Mandovi, Sharavati, Ulhas drain into Arabian sea.

Godavari, Krishna, Tamiraparani drain into Bay of Bengal



6. (a) Discuss the physiography of peninsular India.

20

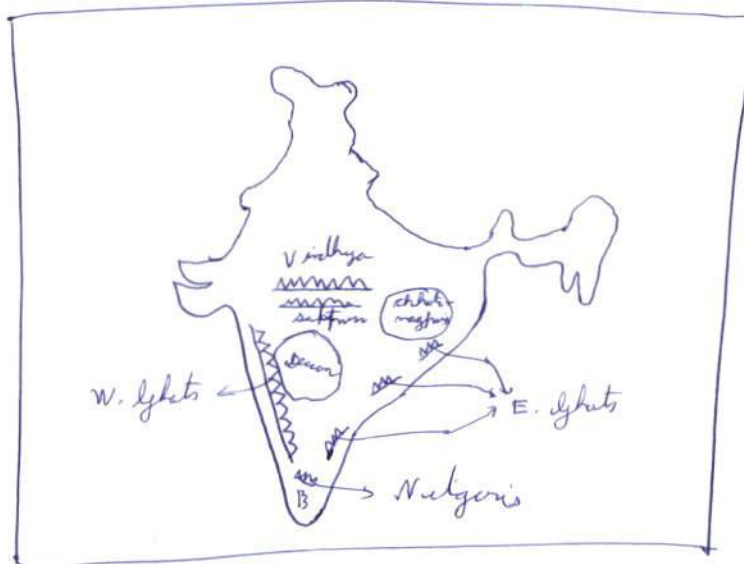
The physiography of peninsular India is very diverse due to a long period of evolution.

Distinctive features

1. Peninsular India is made up of very old geological structures like the Archaean system, Dharwar system, Cuddapah system, Gondwana system and Vindhyan system.

2. The Vindhya and Satpura are black mountains which form the Northern Boundary of Peninsular India.
3. The western coastal plain is a narrow plain formed by fast flowing rivers draining into the Arabian Sea.
4. The Western Coast is a coast of submergence with indentation, coves, bays, cliffs etc.
5. The Eastern Coast is a coast of emergence with smooth coastline, well developed beaches, lagoons.
6. The Western Ghats are a fairly continuous chain of mountains with gaps - Thalghat, Borghat, Palghat.
7. The Eastern Ghats are discontinuous with large gaps and distinct hills.
8. The Deccan plateau region is a zone of volcanic origin with well developed black soil.

9. The Chhotanagpur Plateau in the North Eastern part of the peninsula are mineral rich and with Gondwana coal deposits
10. The Malabar Coast has distinctive backwaters known as kayals
11. The Telangana Plateau region is arid with hard rock system
12. The Dandakaranya Forest region covers South Chhattisgarh, South Odisha and North Andhra Pradesh



Some prominent parts of Peninsula India.

13 The Nilgiris act as a junction of Western
and Eastern Ghats.

The peninsular India is very diverse with
a lot of distinct physiographic units

6. (b) Do you agree that animal rearing and dairy sector is adversely affected by numerous factors, both physical and human geography related. 15

Animal rearing and dairy sector depend
on a lot of factors - both physical and
human

Physical Factors

1. Terrain

Difficult terrain makes agriculture difficult
and promotes animal rearing. Eg: Gujarat
and Babbar in Jammu and Kashmir

2. Climate

Arid region with little scope for agriculture promotes animal rearing. Eg: Sheep rearing in Rajasthan, Camels in Rajasthan, yaks in Sikkim.

3. Vegetation:

Grasslands with rich fodder encourage animal rearings. Eg: Alpine pastures called Margs

Human Factors1. Economic

Farmers tend to practice mixed farming to diversify their income.

2. Traditional

Some tribes like Gujjars, Bakarwals, Bhotias etc are nomadic herders for many generations.

3. Religious

Cow is considered sacred for Hindus, hence they are reared and not slaughtered for meat.

4. Social

Some lower castes like Chamars have a traditional occupation of leather works.

Thus we see that the choice of animal rearing and dairy farming depends on a number of physical as well as human factors.

6. (c) How important is coal bed methane as a fuel source and what is its potential in India. 15

Coal bed methane is the methane gas that is trapped above a coal seam and is an excellent fuel.

Importance

1. It is a highly efficient source of energy
2. It burns cleanly without any smoke
3. It has high calorific value
4. It can be transported easily & through pipelines.
5. It can reduce our dependence on imported natural gas
6. It is obtained as a by-product of coal mining, hence not much extra cost in extraction

Potential:-

1. India has a large reserve of coal seam and most of the coal beds have coal bed methane above them
2. This methane gas should first be extracted adequately before mining of coal begins.
3. In inaccessible coal mines, coal gasification can be employed to extract ~~a~~ source of good energy
4. If tapped efficiently, it can drastically reduce our import dependence
5. If being a clean fuel it will help meet our Paris treaty obligations
6. It can help rural household become safer through better fuel

7. It can become a source of clean electricity through gas-based powerplants.

Coal bed methane has a lot of potential to become the energy of future and should be tapped efficiently

7. (a) Discuss the various natural vegetation regions found in different parts of the country. 20

7. (b) 'Success of the P.S.U.s has been, at best, a mixed bag'. Analyse. 15

7. (c) What is meant by monsoon management for Indian agriculture.

15

8. (a) Discuss the relevance of the Archaean, Dharwar and the Cuddapah regions from the perspective of mineral resources and soils. 20

8. (b) Critically analyze the success of SEZs in promoting exports.

15

8. (c) Elaborate the importance of western disturbance for the northern half of the country. 15

