

Previous Year Question

Paper 2017

(Maximum Marks: 70)

(Time allowed: Three hours)

(Candidates are allowed additional 15 minutes for only reading the paper. They must NOT start writing during this time.)

- Answer Section A and B from Part I which are compulsory.
- Answer any four questions from Part II.
- Sketch maps and diagrams should be drawn wherever they serve to illustrate your answer.
- The intended marks for questions or parts of questions are given in brackets [].

PART – I (30 Marks)

Answer all questions.

SECTION – A

Question 1.

[10 x 2]

- (i) Name one country each which forms a frontier with India in the :
 - (a) North
 - (b) West
- (ii) Name any two standard geological eras, along with their duration.
- (iii) Mention any two differences between the Western Ghats and the Eastern Ghats.
- (iv) State two objectives of social forestry.
- (v) Define the following terms :
 - (a) Ribbon settlement
 - (b) Metropolis
- (vi) What is meant by market gardening ? State any one importance of market gardening.
- (vii) Mention any two factors which influence natural vegetation of a place.
- (viii) What is eco-tourism ? How is it promoted in India ?
- (ix) Mention the locational factors which favour the growth of cement industry in India. Name any two states which serve as hinterland for the Haldia port.

Answer:

- (i) (a) China
- (b) Pakistan
- (ii) 1. Pre-Cambrian over 570 million years old.
- 2. Paleozoic (245-570 million years old)

- (iii) Western Ghats

1. It runs parallel to the western coast in a north-south direction from Tapi river to Kanya Kumari.
2. It's average elevation is 900 to 1100 metres above sea level.

Eastern Ghats

1. It runs in a north-south to south-west direction parallel to the eastern coast from Odisha to the Nilgiri hills.
2. It's average elevation is less than that of the western ghats and is about 600 meters above sea level.

(iv) Two objectives of social forestry are :

1. To reduce pressure on the traditional forest areas by developing plantations of fuelwoods, fodder and grasses.
2. Management and protection of the forests as well as afforestation of barren lands, aimed at helping in environmental social and rural development.

(a) Ribbon Settlement : Such villages develop along some road, railway, river or a canal. The main streets run parallel to the road, rail or river and main shops are also in the main street. Linear pattern is also found along the sea coast. The flood plains of rivers in the hilly terrains are also occupied by linear settlements. In the low-lying areas of western Europe, villages are often positioned on dykes and levees forming linear patterns. In India, such patterns are found all along the major roads and rivers.

(b) Metropolis : A metropolis is a distinct form of settlement, characteristically with sprawling of its built-up area and includes its interdependent nearby villages and even towns.

(vi) Market gardening is the growing of fruits and vegetables in suburban areas for commercial purposes and sale in urban markets. It is creating skilled employment for rural masses especially for women folks.

(vii) Two factors which influence natural vegetation of a place are climate and soil.

(a) Climate : It influences the vegetation to a great extent and we can have several varieties such as Tropical evergreen, Tropical deciduous, Tropical grasslands and Tundra type of vegetation on the basis of climate.

(b) Soil : It modifies vegetation to a great extent. The tidal forests of coastal areas and the acacia in drier parts of Maharashtra are examples of modification by soil.

(viii) Eco-tourism is defined as responsible travel to natural areas that aims to conserve the environment, sustains the well-being of the local people and involves interpretation and education. Eco-tourism is promoted in India by evaluating environmental and cultural factors, initiatives by hospitality providers to promote recycling, energy

efficiency, water reuse and the creation of economic opportunities for local communities.

(ix) Manufacturing of cement requires heavy and weight losing materials and is primarily a raw material oriented industry. Limestone is the main raw material and on an average 1.5 tonnes of limestone is required to produce one tonne of cement. So, location of a cement plant is based on limestone deposits and also coal which is a major input, as it is used not only as fuel in kiln but also to burn the limestone.

(x) Two states which serve as hinterland for the Haldia port are Bihar and Jharkhand.

SECTION – B

Question 2.

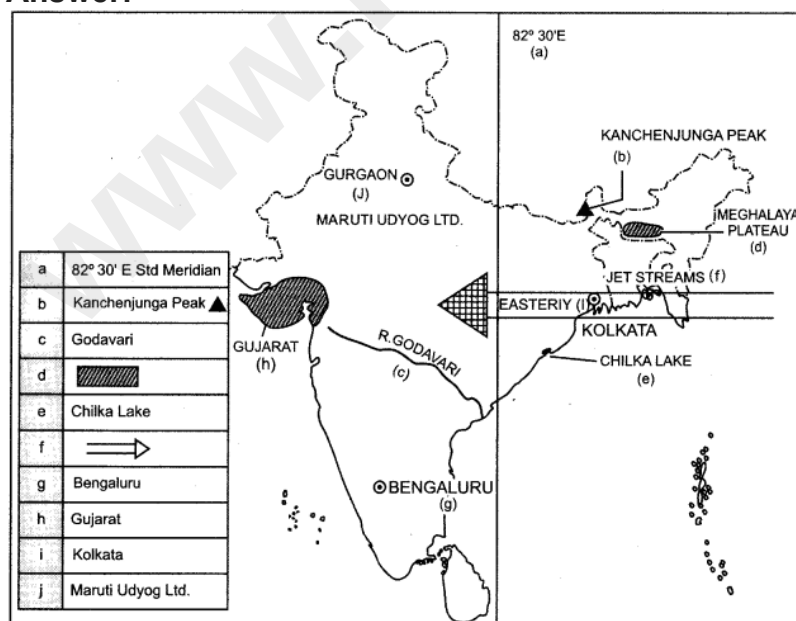
[10]

On the outline map of India provided :

- Mark and name the central longitude of India.
- Mark and name the highest peak of Himalayas in India.
- Mark and name the longest river of Peninsular India.
- Shade and label the Meghalaya Plateau.
- Mark and label Chilka lake.
- Draw an arrow to show the direction of easterly jet streams over India.
- Mark with a dot the capital city of Karnataka.
- Shade and name the state with the largest production of groundnut.
- Mark with a dot and name the centre for Garden Reach Workshop.
- Mark with a dot and name the centre for Maruti automobile industry.

Note : All the map work, including legend (Index) should be done on the map sheet only.

Answer:



PART – II (40 Marks)

Question 3.

- (a) Name any two physical divisions of India and state two characteristic features of each. [4]
- (b) Explain how the following factors affect India's climate : [2]
- (c) Study the climatic data provided in the table below for a city A in India and answer the questions that follow : [2]
- (i) Southern Oscillation Answer any four questions.
- (ii) Northern Mountain Ranges

City	T/R	J	F	M	A	M	J	J	A	S	O	N	D
A	T	20	23	26	32	35	39	34	28	25	28	24	21
	R	14	23	27	42	121	231	300	306	289	160	34	5

T = Mean monthly temperature in degree Celsius (°C).

R = Average monthly rainfall in millimeters (mm).

- (i) Mention two main features of the climate experienced by station A.
- (ii) Calculate the annual rainfall for station A.
- (d) Name the major region for the following:
- (i) Tropical evergreen forests
- (ii) Arid forests
- (iii) Mountain forests
- (iv) Tropical monsoonal forests [2]

Answer:

- (a) Himalayas and Peninsular Plateau are the two physical divisions of India :

Himalayas

1. It is a young fold mountain of soft rocks.
2. Most of the rocks are sedimentary.
3. Himalayas are tectonic mountains and the rivers are torrential.
4. It was formed 20 – 30 million years ago, during Tertiary period.

Peninsular Plateau

1. It is an old landmass of hard rocks.
2. Most of the rocks are granite and Basalt.
3. Rivers are slow moving and are of low gradients with shallow river valleys.
4. It was formed during Precambrian era.

- (b) (i) Southern Oscillation : The Southern oscillation is a pattern of meteorological changes which are often observed between Indian and Pacific oceans. Whenever the surface level pressure is high over the Pacific Ocean and low over Indian Ocean, the south west monsoons in India tend to be stronger. If the surface level pressure is high

over Indian Ocean and high over Pacific Ocean, the southwest monsoon is likely to be weaker.

(ii) Northern Mountain Ranges : The Himalayas and the adjoining mountain ranges protects India from the bitter cold dry winds of Central Asia during winters. The mountains also act as an effective physical barrier for the rain bearing southwest monsoons to cross the northern frontiers of India.

(c) Two main features of the climate experienced by station A :

(i) 1. The range of temperature is as high as $(39^{\circ}\text{C} - 20^{\circ}\text{C}) = 19^{\circ}\text{C}$.

2. The station receives rain from south west monsoon.

(ii) 1552 mm.

(d) (i) Tropical evergreen forests are found in Andaman and Nicobar islands, Assam, Meghalaya, Nagaland, Manipur, Mizoram, Tripura, West Bengal and on the Western slopes of the Western ghats.

(ii) Arid forests are found in Rajasthan and Southwest Punjab, Southwest Haryana and parts of Gujarat.

(iii) Mountain forests are found in the hilly ranges of northeast India and the Himalayan parts of West Bengal, Bihar and Uttarakhand.

(iv) Tropical monsoonal forests are found in the north-eastern parts of the peninsula, middle and lower Ganga valley and along the foothills of the Himalayas.

Question 4.

(a) Explain any three factors that influence the spatial distribution of population in India.

[3]

(b) Define the following terms :

(i) Stepwise migration

(ii) Urban agglomeration

(c) (i) What is meant by pull migration and push migration ? [3]

(ii) What are the two major differences between rural settlements and urban settlements ?

[2]

(d) Study the given data and answer the following questions :

S.No.	Name of the State/Union Territory	Total Population	
		2001	2011
1	N.C.T. of Delhi	1,38,50,507	1,67,53,235
2	Uttar Pradesh	16,61,97,921	19,95,81,477
3	Bihar	8,29,98,509	10,38,04,637
4	West Bengali	8,01,76,197	9,13,47,736

- (i) Identify the state with the highest growth rate of population.
- (ii) Calculate the absolute growth of population for the state mentioned by you in (d) (i) above.

Answer: (a) The three factors are :

1. Terrain : The plains have encouraged higher density of population as compared to mountain region. The steep slope of the Himalayas restrict the availability of land for agriculture, development of transport, industries and other economic activities which may tend to discourage concentration of population and its proper growth. So, the great plains of North India is a land of extremely gentle slope and offers great opportunities for the growth of agriculture, transport and industries.

2. Industries : Industrial growth offers massive employment opportunities and acts as a great magnet to attract people. This results in higher population density. Industrial areas are invariably associated with areas of high population densities. One of the major causes of population density in West Bengal, Gujarat and Maharashtra is the phenomenal growth of industries.

3. Urbanization : Urbanization and population concentration go hand in hand and are closely related to each other. Agricultural based rural areas do not provide employment to all the people living there. Even small scale cottage industry fails to provide employment to the entire rural folk. Urban areas provide vast scope for employment in industries, trade, transport and services.

(b) (i) Sometimes people move from a village to a small town and later to a big city. Such movements are known as step wise migration.

(ii) Urban agglomeration denotes a continuous urban spread and normally consists of a town and its adjoining urban outgrowths ' or two or more physically contiguous towns together with contiguous well recognised outgrowths, if any of such towns.

(c) (i) Pull Migration : There is a vast scope of employment in industries, trade, transport and other services in the urban centres. So, the urban centres act as magnets for the migrant population, known as 'Pull factors'.

(ii) Push Migration : Due to unemployment, hunger and starvation people are pushed out of the villages to the urban centres to find livelihood. Natural disasters like floods, droughts, earthquakes, tsunami and war also give extra "push" to migrate to other regions.

Rural Settlements

1. Rural settlements are of small size which may consist of two to four houses or a few hundred houses.

2. Pollution free environment.
3. People are primarily engaged in agriculture or other primary activities.

Urban Settlements

1. Urban settlements are of bigger size in which a few thousand to a few lakh persons are living, still bigger cities are known as metro-polis.
2. Environmental pollution is a great problem with urban population.
3. People are primarily engaged in secondary and tertiary activities of which industry, trade, transport and services are important.

(d) (i) Bihar

$$\text{Growth rate} = \frac{P_2 - P_1}{P_1} \times 100$$

P1 = Population of the base year

P2 = Population of the current year

$$P_2 = 10,38,04,637$$

$$P_1 = 8,29,98,509$$

$$P_2 - P_1 = 2,08,06,128$$

$$\text{Growth rate} = \frac{2,08,06,128}{8,29,98,509} \times 100$$

$$= 2\%$$

$$(ii) 2,08,06,128 (10,38,04,637 - 8,29,98,509)$$

Question 5.

(a) Mention any two reasons why sufficient land is not available for cultivation in India.

[2]

(b) (i) Give a reason for small size of cultivable landholdings in India. [3]

(ii) Suggest two methods for increasing the size of land holdings.

(c) (i) What is meant by tank irrigation? [3]

(ii) State one advantage each of the following means of irrigation :

(1) Tube wells

(2) Tanks

(d) Explain the following :

(i) Watershed management

(ii) Rainwater harvesting

Answer:

(a) Two reasons for land not available for cultivation in India are:

1. Barren and unculturable waste cover all barren and uncultivated lands in mountains, hills slopes, deserts and rocky areas. These areas cannot be brought under plough except at high input cost with possible low returns.

2. The other reason is land put to nonagricultural uses like irrigation, industry, mining, etc.

(b) (i) The land holdings are very small in India due to the fact of law of inheritance. The farming land gets divided and sub-divided. The holdings becomes smaller with each generation as it passes with division from fathers to their sons.

(ii) Two methods are:

1. Consolidation of landholding, which means reallocation of holdings which are fragmented due to law of inheritance. This has taken place in Punjab, Haryana and Uttar Pradesh.

2. Land holding can be increased if culturable waste land can be brought under cultivation. The land is not being used at present due to constraints like lack of water, salinity or alkalinity of soil, soil erosion, water logging, etc. can be reclaimed to bring it back under plough.

(c) (i) A tank consists of water storage which has been developed by constructing a small bund of earth or stones built across a stream. The water impounded by the bund is used for irrigation.

(ii) 1. Tube-Wells : It can irrigate about ten. times more areas than done by ordinary well and it is an independent source of irrigation.

2. Tanks : The cost of construction of tanks is very low as tanks are natural.

(d) (i) Water Shed Development or Management : It is a very important device to conserve water resources, increases agricultural production and stop ecological degradation. In this way it improves the living conditions of the people.

(ii) Rainwater Harvesting : It is a technique of increasing the recharge of groundwater by capturing and storing rainwater locally in subsurface water reservoirs to meet the demands for water.

Question 6.

(a) Briefly discuss any two problems of Indian agriculture and suggest measures to overcome the same. [2]

(b) State the geographical conditions favourable for the growth of : [3]

(i) Rice (ii) Tea

(c) Discuss any two factors which influence growth of fishing industry in Kerala. [2]

(d) Name the major state in India and its one centre for the production of the following : [3]

(i) Mica (ii) Petroleum

Answer:

(a) Two problems of Indian agriculture are :

(i) Seed : Good quality seeds are out of reach of the majority of farmers especially small and marginal farmers. To solve this problem the Government of India established

National Seeds Corporation and State Farmers Corporation of India. High yielding variety programme was a major thrust plan to increase the production of food grains in the country.

(ii) Manures, Fertilizers and Biocides : Indian soils have been used for growing crops over thousands of years. This has led to depletion and exhaustion of soils resulting in their low productivity. Chemical fertilizers are costly and are often beyond the reach of the poor farmers so the problem of fertilizer availability problem is acute and complex. To solve this problem the government has given subsidy for using chemical fertilizers. In order to maintain the quality of the fertilizers, 52 fertilizers quality control labs have been set up in different parts of the country. Training institute is at Faridabad with its three regional centres at Mumbai, Kolkata and Chennai.

(b) (i) Rice : Temperature-means monthly temperature of 24°C, with a range of 16°C-32°C. Average Rainfall is about 150 cm. Deep fertile clayey or loamy soils are considered ideal for rice. Rice also needs ankle deep water or flooded fields during the earlier part of its growing season.

(ii) Tea : The following are the conditions required for tea cultivation : Temperature : 10°C-30°C

Rainfall : Average yearly rainfall of 2,000 mm.

Altitude : Ground level between 600-2000 meters above sea level.

Soil : Soil with ph 4.5 to 5 and less and soil with excellent drainage.

(c) Two factors are :

1. Kerala has indented coast. So, large numbers of fishing ports have developed.
2. 85% of India's total processing facilities like freezing, ice-making, cold storage, canning, etc., are available in Kerala only.

(d) (i) Mica : Andhra Pradesh

Centre : Nellore

(ii) Petroleum : Gujarat

Centre : Ankleshwar

Question 7.

(a) (i) How are roads classified in India ? [3]

(ii) Mention the different types of roads classified in India.

(b) (i) In which two fields is remote sensing data 1. important ? [2]

(ii) Name two satellite systems of India.

(c) Mention any three geographical conditions that favour rail transport in the Northern Plains of India. [3]

(d) What are the two main items of export from the following sea ports : [2]

- (i) Mumbai Port
- (ii) Visakhapatnam Port.

Answer:

(a) (i) Roads in India are classified on the basis of their importance, maintenance and administration.

- (ii) 1. National Highways
- 2. State Highways
- 3. District Roadways
- 4. Village Roads
- 5. Border Roads

(b) (i) Remote sensing data is important in the field of agriculture, soil and land use, water resources, ocean/marine resources, forestry and geology meteorology, etc.

- (ii) 1. INSAT : 3E – 4 Series. INSAT 3 DR
- 2. GSAT: 2 – 8 – 10 – 16 Series.

(c) 1. The area of Northern Plain is densely populated region with highly developed agriculture and industry.

2. Large scale urbanisation and industrialization have created a great demand for the rail transport.

3. The flat plains which is suitable for the construction of railways.

(d) (i) Mumbai : Cotton textiles / Leather/ Tobacco / manganese.

(ii) Visakhapatnam : Iron ore/Manganese / spices/wood.

Question 8.

(a) Explain any three factors that have led to the growth of industrialisation in India. [3]

(b) (i) Why is cement industry known as a basic industry ? [3]

(ii) Mention two major centres of cement industry in India.

(c) Discuss any two factors which have influenced Ahmedabad to develop as the largest centre of cotton textile industry in Gujarat. [2]

(d) Name the following :

- (i) Aluminium plant at Renukoot.
- (ii) Iron and Steel plant at Paradeep.
- (iii) HAL centre in South India.
- (iv) First IPCL centre for Petrochemicals.

Answer:

(a) Three factors that have led to the growth of industries in India are :

- 1. Raw material
- 2. Power
- 3. Labour

1. Raw Material : India is richly endowed with a variety of minerals. It is self-sufficient in materials for making steel, aluminium, cement and other products because of the availability of minerals. The agricultural produce like sugarcane, jute and cotton are also responsible for the growth of textile industry, sugar industry and jute industry.

2. Power : Regular supply of power is a must for the localization of certain industries like iron and steel, aluminium, electro metallurgical and electro – chemical industries which need large quantities of power. HEP, thermal power and other sources of power are available in India. So, these industries developed in India.

3. Labour : Modern industry still requires a large number of workers despite the increasing mechanisation. Location of any industrial unit is determined by the availability of skilled and unskilled supply of labours.:

(b) (i) Cement is indispensable for building and construction work. So, cement industry is considered to be an important core infrastructure core industry. The per capita consumption of cement is taken as one of the important indicators of well-being of the people.

(ii) Centres of cement industry in India are :

1. Satna / Kymore / Katni/ Durg in – Chhattisgarh (Any two).

(c) Ahmedabad is the largest centre of cotton textile in Gujarat and the second largest centre after Mumbai.

1. Ahmedabad lies near the main cotton growing region of India and there is no problem of getting raw material.
2. Climate is humid and is suitable for this industry. Even the mills produce cheap cloth. This cloth finds ready market amongst the poor masses of India.

(d) (i) Hindustan Aluminium Corporation HINDALCO.

(ii) Daitari steel plants near Paradeep.

(iii) Hindustan Aeronautics Ltd. Bengaluru.

(iv) Union Carbide India Ltd. Trombay in 1966.

Question 9.

(a). (i) What is a planning region? [5]

(ii) Mention two characteristics of a planning region.

(iii) Distinguish between multi-level planning and single level planning.

(b) Mention any three factors which have led to the emergence of Bengaluru as the electronic capital of India. [3]

(c) Name the mineral for which Chhattisgarh is the only producing state in India.

(d) Name the city that is located 105 km upstream from Haldia. [1]

Answers:

(a) (i) A planning region is a self-created living, having a life time which not only supports the life in the region but also radiates unifying forces that enable the region to be a unified regional space so as to facilitate the practice of regional planning.

(ii) Any two

1. A planning region should be neither be too big nor too small.
2. Boundary should be flexible.
3. There should be natural cohesion.
4. It should have economic harmony.
5. There should be social harmony.
6. Functional unity.

(iii) Multi-level Planning

1. Planning for a variety of is regions which together form a system and subordinate system.
2. The country centralised.

Single level Plan

1. Single-level Planning done at the national level.
2. Process is is divided into small territorial units.

(b) Bengaluru has emerged as electronic capital of India because of:

1. The incentives by the State and Central government.
2. The strategic location of the city is in the middle of the Indian peninsula.
3. A close network of road and railways.
4. A large number of Indian, foreign and multinational companies have invested large sums of money to nourish industries.

(c) Tin

(d) Kolkata.