

केन्द्रीय माध्यमिक शिक्षा बोर्ड, दिल्ली  
सीनियर स्कूल सर्टिफिकेट परीक्षा (कक्षा बारहवीं)  
परीक्षार्थी प्रवेश-पत्र के अनुसार भरें

विषय Subject : GEOGRAPHY

विषय कोड Subject Code : 029

परीक्षा का दिन एवं तिथि  
Day & Date of the Examination : 08/04/15 (WED)

उत्तर देने का माध्यम  
Medium of answering the paper : ENGLISH

प्रश्न पत्र के ऊपर लिखे  
कोड को दर्शाए :

Code Number

64/1/1

Set Number

①  ②  ③  ④

Write code No. as written on  
the top of the question paper :

अतिरिक्त उत्तर-पुस्तिका (ओं) की संख्या

No. of supplementary answer -book(s) used

1+2 maps

विकलांग व्यक्ति :

हाँ / नहीं

Person with Disabilities :

Yes / No

NO

किसी शारीरिक अक्षमता से प्रभावित हो तो संबंधित वर्ग में ✓ का निशान लगाएँ।  
If physically challenged, tick the category

B  D  H  S  C  A

B = दृष्टिहीन, D = मूक व बधिर, H = शारीरिक रूप से विकलांग, S = स्पास्टिक  
C = डिस्लेक्सिक, A = ऑटिस्टिक

B = Visually Impaired, D = Hearing Impaired, H = Physically Challenged  
S = Spastic, C = Dyslexic, A = Autistic

क्या लेखन - लिपिक उपलब्ध करवाया गया : हाँ / नहीं  
Whether writer provided : Yes / No

NO

यदि दृष्टिहीन हैं तो उपयोग में लाए गये  
सॉफ्टवेयर का नाम :

If Visually challenged, name of software used :

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\*एक खाने में एक अक्षर लिखें। नाम के प्रत्येक भाग के बीच एक खाना रिक्त छोड़ दें। यदि परीक्षार्थी का नाम 24 अक्षरों से अधिक है, तो केवल नाम के प्रथम 24 अक्षर ही लिखें।  
Each letter be written in one box and one box be left blank between each part of the name. In case Candidate's Name exceeds 24 letters, write first 24 letters.

कार्यालय उपयोग के लिए  
Space for office use

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- Q1) Population distribution refers to the way people are spaced over the surface of the earth. Over 90% of the world's population lives on only 10% of this available area.
- Q2) All human activities that generate income are termed as economic activities. They can further be classified into primary, secondary and tertiary activities.
- Q3) Transport nodes are different areas/places connected by routes of links eg) important cities connected by roads etc. These nodes/places along with the links/routes that join them form an interconnected network, known as a transport network.
- Q4) In towns, a majority of the working population must be engaged in non-agricultural pursuits (ie secondary or tertiary sector).  
In villages, majority of the working population is engaged in primary/agricultural activities.

(P10)



Eq) In India, at least 75% of the male working population must be engaged in non-agricultural activities; in Italy, it is 50%.

Q5) In population composition (a field of demography) a population can be classified on the basis of RESIDENCE i.e. "Rural" or "Urban" or ~~to~~ to measure in total population.

- proportion of population that is urban
- size of villages
- rate of urbanisation

CENSUS is a way in which this data can be gathered. The proportion of urban population (i.e. people living in urban areas like towns, cities etc) in comparison relation to the total population gives us level of urbanisation.

Q6) Sher Shah Suri built the Shahi (Royal) road to STRENGTHEN and CONSOLIDATE his empire, from Peshawar in the Indus Valley in the west, to Calcutta in the east.

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Q 7) Pollution can be classified on the basis of the MEDIUM through which contaminants/pollutants are carried and dispersed:

AIR pollution involves airborne contaminants eg) hydrocarbons

WATER pollution involves waterborne contaminants eg) runoff from pesticides, fertiliser etc

NOISE pollution involves unbearable/unpleasant levels of noise, measured in decibals eg) traffic

SOIL/LAND pollution involves contaminants in the ground eg) arsenic in soil.

Q 8) HUMAN GEOGRAPHY refers to the synthetic study of the dynamic interrelationship between human societies and the earth's surface. The earth influences humans, who in turn affect the earth -

i) NATURAL ELEMENTS like climate, terrain etc affect humans eg) influence settlement patterns

ii) HUMAN ELEMENTS like buildings, roads etc are created on the natural landscape/stage provided by nature, using resources provided by it.

Therefore, human and natural/physical elements are intrinsically linked, despite dualism in the SUBJECT MATTER of the study of human geography, such as:

i) Whether geographical phenomena should be <sup>studied</sup> ~~studying~~ using theoretical/  
law making (nomothetic) approach or descriptive (idiographic) approach

ii) Whether regions of the earth should be ~~study~~ studied using regional approach or systematic approach

iii) Whether the subject matter should be explained using historic-institutional approach or theoretical approach

⇒ In this way, the subject matter of human geography consists of different conceptions of the relationship between humans/living beings and nature/physical environment.

LAND / TOPOGRAPHY

Q 9) Rural settlements are closely related to and dependent upon the land and natural resources. Three factors responsible for their location:

i) AVAILABILITY OF WATER:

- Water is required for existence, as well as daily life activities like bathing, cooking, washing etc besides drinking.

- Therefore, people prefer to settle in "wet point" settlements where water is available, even if these regions are otherwise disadvantaged  
eg) surrounded by swamps

- Early settlers established settlements in these regions for this reason

eg) in the Ganga basin, in the Nile valley etc

ii) LAND / TOPOGRAPHY:

(OTO)

- People prefer to settle in fertile, even or gently <sup>undulating</sup> ~~stepping~~ plains that support agriculture, building infrastructure like roads, buildings, factories etc

- Extremely fragmented/restricted areas of settlement with rugged topography are therefore ~~not~~ preferred.

Eg) Rolling country in Europe, Northern Plains in India etc

### iii) DEFENCE:

People prefer to settle in strategically important/defensive locations during

- war

- political instability

- hostility with neighbouring groups for better safety and protection

Eg) Insellbergs of Nigeria, hills in India etc



Q 10) JEAN GOTTMAN defined megalopolis / mega city for the WORLD as a "union of conurbations", with population over 10 million  
Eg) Boston to Washington DC. It is derived from the Greek words mega - huge and polis - city.

IN INDIA, however, METROPOLITAN CITIES are large <sup>contiguous</sup> areas of urban development with POPULATION BETWEEN 1 - 5 MILLION

Eg) Varanasi, Agra

MEGA CITIES in India have population of OVER 5 MILLION

Eg) Greater Mumbai, Delhi.

(PTO)



Q11) - Agriculture is highly DEPENDENT on land for the following reasons:

i) It is a PRIMARY ACTIVITY i.e. it is directly dependent on the land for environment for natural resources for raw materials (land)

ii) OUTPUT of agriculture is directly proportional to the amount of land i.e. greater land means greater output

iii) QUALITY of the land also directly influences output. This is not the case in other economic activities.

- In addition to this, ownership of land also has a SOCIAL VALUE:

i) It provides security in obtaining loans

ii) It helps mitigate the damage done by natural disasters eg) floods.

iii) It increases social status in rural society

⇒ Thus, land resources is extremely crucial to the people dependent on agriculture.

Q12) 71% of the earth's surface is covered in water; however, only 3% is fresh water. Even within this, a large proportion is in the form of glaciers; therefore, only around 1% is usable.

Similarly, in India (which has 4% of the world's water resources) only 1122 cubic km<sup>3</sup> of water resources are usable. Water shortage is therefore a major problem, requiring assessment, efficient use and conservation of water resources.

### ASSESSMENT:

Available water resources should be assessed for better MANAGEMENT and PLANNING of utilisation of water resources. eg) National Water Policy of 2002 provides for assessment of ground and surface water resources.

⇒ This promotes values of planning, foresight, diligence and better management of resources.

### EFFICIENT USE:

There should be limits to the amount of water that can be used in a particular situation to encourage avoiding wastage. ~~Water should be used~~ Water use should be efficiently prioritised to ensure that essential ~~needs are met first~~ <sup>eg) prioritising availability of drinking water over water for industries.</sup>

⇒ This promotes values of prioritising, judicious use of precious resources, sharing of resources and thinking of others rather than our own needs.

### CONSERVATION:

- REUSING and RECYCLING of water should be implemented on a large scale to ensure good quality water is used for drinking/cooling etc. and lesser quality water is used for gardening, washing cars etc.

Similarly, industries should also use reclaimed waste water for cooling etc.



- WATERSHED MANAGEMENT should be promoted. This involves conservation, regeneration and judicious use of natural and human resources in a watershed, especially water resources (through various water harvesting structures like percolation tanks, etc)

Projects like HAR YATI, NEERU-MEERU and ARVARY PANI SANSAD emphasise the role of community participation in this.

- RAINWATER HARVESTING (i.e. collecting rainwater by guiding it into pits, borewells etc and storing it for future use) must be practiced

- CONSERVATION CONCIOWNESS and awareness of water as a scarce resource should be spread through education, tax disincentives etc

- LEGISLATIONS regarding water conservation eg) Water Cess Act must be more strictly implemented.

⇒ In this way, we can spread awareness and values regarding



the NECESSITY of CONSERVING WATER, which is a LIMITED and SCARCE resource essential for life

Q13) AIR POLLUTION refers to the addition of contaminants to the air/atmosphere in a concentration high enough, or duration long enough, to adversely affect human beings, flora and fauna, buildings, etc. CONTAMINANTS include hydrocarbons, Carbon monoxide etc.

HARMFUL EFFECTS INCLUDE:

- i) DISEASES like tuberculosis, asthma etc which spread due to presence of contaminants in the air which harm the lungs
- ii) SMOG, or smoke mixed with fog, which is very common in urban areas and is damaging to the health.
- iii) ACID RAIN is also caused due to air pollution - the pH level of the first rains is always higher than the subsequent ones of the season.

⇒ Therefore, it is essential to reduce the CONTAMINANTS in the air (like hydrocarbons, carbon dioxide, carbon monoxide, lead, oxides of sulphur etc) by stopping pollution or reducing polluting activities like burning of fossil fuels, industrial and mining activities etc

Q14) HUMAN DEVELOPMENT refers to increasing the range of people's choices and increasing their capabilities in terms of health, education, income and empowerment within a sound physical environment, thus resulting in greater social, political and economic freedom.

It involves helping people live meaningful lives i.e. lives with some purpose.

It requires people-centric policies on behalf of the government.

It was first introduced in 1990 in the United Nations Development Program's report by AMARTYA SEN and DR MAHBUB-UL-HAQ.

THE FOUR PILLARS OF HUMAN DEVELOPMENT ARE:

### 1) EQUITY:

- This refers to equality in the availability of opportunities to all  
eg) equal access to education, health care etc

- However, in real life, this is often not the case

eg) marginalised groups like SCs/STs often suffer discrimination, like denial of entry into schools etc

→ - Availability of opportunities should be equal irrespective of factors like caste, gender, race, religion etc

### 2) SUSTAINABILITY:

- This refers to continuity in the availability of opportunities/resources

- It means that we meet the needs of the present without compromising





as the needs of the future.

- The next generations should have access to the same opportunities that the previous generations did.

Eg) Judicious use of exhaustible natural resources like oil to ensure that future generations will have sufficient reserves; switching over to solar power rather than oil etc.

### 3) PRODUCTIVITY:

- This refers to human labour productivity.

- It is important as human beings are the real wealth of a nation.

- It can be developed by providing people access to education, health care facilities etc, thus increasing their CAPABILITIES.



## 4) EMPOWERMENT:

- This refers to the power to make choices

- People's CAPABILITIES and FREEDOM can be increased through people-centric policies, greater expenditure on the social sector by the government etc

- Empowerment of marginalised/historically socially or economically backward groups eg) women, SC/STs is especially important.

Q15) Industries are located in the OPTIMUM LOCATION where production costs are minimised, thus increasing profits. FIVE FACTORS INFLUENCING LOCATION:

⇒ MARKET

⇒ This involves DEMAND (ie people who would buy the product) and PURCHASING POWER (ie people will have enough resources/income to purchase)

the product). Thus, industries prefer to set up in DENSELY POPULATED regions with higher STANDARDS / QUALITY OF LIVING

Eg) Many foreign companies like Walmart wish to enter Indian markets for this reason

ii) Market is important as it provides an OUTLET for manufactured goods

iii) MARKET ORIENTED INDUSTRIES include heavy machinery, machine tools etc; <sup>crude oil refineries</sup> ~~Petroleum products~~ (refined petroleum is used as a raw material in petrochemical industries and is easier to transport) and cotton mills are often located close to markets as well.

## II) ENERGY / POWER

This provides the motive force for machines

Earlier, coal was used to provide power. Now, petroleum or hydro-  
-power

is used.

Industries using a lot of power, eg) ALUMINIUM are therefore located near power sources

eg) hydropower in Tamil Nadu attracts many cotton mills etc

### III) RAW MATERIAL

This is an important factor in the case of industries using

- Heavy or bulky raw material that is difficult/expensive to transport eg) iron ore
- Weight losing raw material, where the output is easier to transport as it is less in weight than the input eg) steel
- Perishable raw materials eg) sugar cane which must be crushed within 24 hours of harvesting.

eg) Many iron and steel plants are located in the Chotanagpur plateau

region where raw materials like iron ore, coal etc are readily available.

#### IV) LABOUR

i) This involves refers to the availability of CHEAP, PLENTIFUL and SUITABLY SKILLED labourers to work in industries.

ii) India has readily available labour in many areas due to the large population.

Eg) One of the <sup>reasons why the</sup> first cotton mill was set up in Mumbai was the readily available labour in the large city, as well as migrant labour from Maharashtra, Gujarat etc.

iii) It is especially important for labour intensive industries like plantations, where colonial rulers exploited natives to meet the demand for labour.

## I) AGGLOMERATION ECONOMIES

Industries often benefit from nearness to each other. These benefits are in the form of ~~cost~~ savings, thus forming agglomeration economies.

⇒ Thus, depending on their requirements, there are many factors influencing the locations of various industries.

Q16) NOMADIC HERDING is a form of ~~past~~ SUBSISTENCE PASTORALISM

Pastoralism - ~~of~~ rearing of animals locally found in that region for some gain/profit

Subsistence - to meet one's own demands rather than producing for the market.

Therefore, rearing of local animals for one's own use/subsistence is known as nomadic herding. Its features include:

### 1) ONLY 1 TYPE OF ANIMAL IS REARED

This is NOT done on a scientific basis. Animals reared include reindeer and ~~yaks~~ in the arctic/sub arctic, yaks in mountainous regions, camels in the desert eg) Sahara etc.

### 2) MOVE FROM PLACE TO PLACE

~~to~~ Pastoralism is not restricted to a particular area; rather, pastoralists move from place to place in search of:

- better quality ~~food~~ pasture/grazing areas
- greater availability of resources like water

### 3) TRANSUMANCE IS PRACTISED

In mountainous regions, in summer months pastoralists will take their herds to upper reaches of mountains for grazing. In winter, when these regions would be snow covered, they

move down to valleys. This seasonal movement is termed as transhumance.

#### 2) MAJOR REGIONS OF SUBSISTENCE HERDING ~~AND~~

These can be divided into the following 3 major regions:

- Tundra region of Eurasia
- Atlantic shores of Africa to Central Asia ~~and~~
- South-West Africa and Madagascar

3) IT IS LESS ORGANISED and LESS CAPITAL INTENSIVE

→ IT is unlikely that nomadic herding will become important in global markets, and is declining due to ~~new~~ <sup>redrawing</sup> political boundaries and new plans of settlement.

(P70)



Q. 17) TRANSCONTINENTAL RAILWAYS connect two extreme ends of a continent.

The longest (double tracked and electrified) transcontinental railway of the world is the TRANS-SIBERIAN RAILWAY.

Excellently It travels the length of Russia, from St. Petersburg in the west to Vladivostok in the east.

⇒ Thus, it facilitates long runs in either direction of the large country, connecting distant people and promoting integration.

⇒ Important stations also include Moscow, Chita, Irkutsk etc:

- Many important railways radiate from the MOSCOW railhead

- CHITA is an important agro-centre

- IRKUTSK is famous for fur products

### 3) OPENED UP ASIAN MARKETS

It played a critical role in the opening up of the Asian markets to imports from Europe, particularly Northwest Europe.

⇒ Therefore, it has had great economic significance

### 4) RAILWAYS ARE MORE IMPORTANT THAN ROADWAYS IN RUSSIA

This is due to the the vast area, and inhospitable terrain and climate of the country. Due to this, railways are very important for transport, thus increasing the significance of the trans-Siberian railway.

⇒ Thus, the trans-Siberian railway is of great economic, political and social significance.

(P10)

Q12) DENSITY OF POPULATION refers to the number of people living in a given unit of area at a given time

$$\text{Population Density} = \frac{\text{Population}}{\text{Area}}$$

It is generally measured in terms of people per  $\text{km}^2$ .

THERE IS GREAT SPATIAL VARIATION IN DENSITY OF POPULATION IN INDIA:

1) The national average is 324 people/ $\text{km}^2$   
 Highest — West Bengal (904 people/ $\text{km}^2$ )  
 Lowest — Arunachal Pradesh (13 people/ $\text{km}^2$ )

2) In the NORTHERN states, it is high in states like Uttar Pradesh, Haryana etc

3) In the PENINSULAR states, it is high in states like Tamil Nadu,

Kerala etc

- iii) MODERATE density is found in states like Odisha, Gujarat etc
- iv) LOW density is found in north eastern states, western Rajasthan etc
- v) Union ~~territories~~ territories generally have high population density.

REASONS FOR VARIATION INCLUDE:

1) GEOGRAPHICAL FACTORS:

- 1) Climate — coastal areas are more densely populated as people prefer find moderate climates more comfortable than extreme ones
- 2) Availability of water — this is why western Rajasthan has much less density than Northern plains; people prefer to settle where there is sufficient water to meet their needs
- 3) Topography — <sup>fertile</sup> plains / gently undulating regions (eg) Northern Plains) support agriculture, building industries etc rather than rugged,

topography / unfertile land (eg Himalayan regions)

## II) ECONOMIC FACTORS

MINERAL BASE attracts INDUSTRIES using these minerals as raw materials, thus creating job opportunities and also attracting other professionals like doctors, teachers, etc, resulting in URBANISATION eg) Damodar Valley Coalfields

## III) SOCIO-ECONOMIC / CULTURAL FACTORS

People often move out of regions of political instability, ~~less~~ lack of resources etc to settle in regions with greater job opportunities, facilities like health care, education etc. GOVERNMENT POLICIES and incentives also attempt to promote regionally balanced population distribution.

## IV) HISTORICAL FACTORS:

Patterns of early human settlement, development of settled agriculture, transport system, industrialisation and urbanisation etc influence population distribution and density.

Eg) Northern Plains are heavily populated despite decline of productivity of agriculture due to history of settlement and well developed transport network.

Q19) AREA UNDER PASTURES ("area under permanent pastures and grazing land") generally includes COMMON PROPERTY RESOURCES, which are:

- owned by the government and panchayat, with no one individual having property rights
- for the use of the community, where all members have access to them with certain obligations
- are crucial for livelihood of poor, and the women (marginal and landless farmers use it for grazing animals, women use it for collecting firewood etc)

SIZE OF THE ECONOMY



In recent years, however, they have been DECLINING due to:

- i) Illegal encroachment from agriculture
- ii) Conversion of common property pasture lands to ~~private~~ agricultural land, with increased pressure from agriculture.
- iii) ~~Private~~ Conversion of community land to private land bought by individuals, and sold by the government for profit.
- iv) Pressure from non-agricultural activities (like industry, need for building houses etc), ~~has~~ characteristic of our developing economy, has reduced lands reserved as CPR, and

CHANGES IN AN ECONOMY ALSO AFFECT LAND USE IN THE FOLLOWING WAYS:

- i) SIZE OF THE ECONOMY

- size refers to the total value of goods and services produced
- as size increases, so does pressure on land resources to meet the increased demand
- therefore, marginal or waste lands come under use.

### 2) COMPOSITION OF THE ECONOMY

- as the secondary and tertiary sectors ~~increase~~ <sup>in jobs and contribution to GDP</sup> register an increase as compared to agricultural/primary sectors, agricultural land is used for industries, factories, human settlements etc
- this pattern of shift in land use from primary to secondary and tertiary activities is common in developing countries.

### 3) INCREASING PRESSURE ON AGRICULTURE LAND

- Even though the contribution of agriculture has declined, pressure on



agricultural land has not.

- This is because the number of people dependent on agriculture falls more slowly than its contribution to the GDP

- In addition, as the population is still growing, there is greater pressure on agricultural land to produce enough for them.

: 2015

(20) ROAD DENSITY can be used to assess distribution of roads. It is the number of roads per  $\text{km}^2$ .

• The national average is approximately 125 per  $\text{km}^2$ .  
It is greatest in

• Road density is high in states like Uttar Pradesh, Punjab, Haryana etc, in the Northern and coastal plains, in Tamil Nadu and Kerala etc.

• It is low in regions like the Himalayas (Jammu and Kashmir, North Eastern States etc), Western Rajasthan etc.

### REASONS FOR VARIATION

Include variations in

the COST and EASE of building roads. This is influenced by:

#### ⇒ GEOGRAPHICAL FACTORS

Terrain, climate, type of soil etc all influence the construction and maintenance of roads

Eg) In the Himalayan ~~that~~ regions, rugged topography makes road construction difficult

Eg) In the north eastern states, heavy rainfall makes road maintenance difficult.

Eg) In the northern plains, construction and maintenance both are easy due to favourable climate, terrain etc

#### ⇒ ECONOMIC DEMAND

Construction of roads is economically viable only if there is

अपना अनुक्रमांक इस उत्तर पुस्तिका

पर न लिखें

Please do not write your

Roll Number on this Answer-Book

अतिरिक्त उत्तर पुस्तिकाओं की संख्या .....

Supplementary Answer-Book(S) No. ....



sufficient demand for the roads

Eg) Northern Plains, coastal plains, major cities etc have high density due to high population (demand) as compared to Western Rajasthan, and have higher road density

Eg) Almost all port cities have very well developed transport networks and road density

### III) ADMINISTRATIVE POLICIES

To promote regionally balanced development, the government also influences construction of roads through its policies

Eg) 20 year plan in 1961.

(P.T.O)



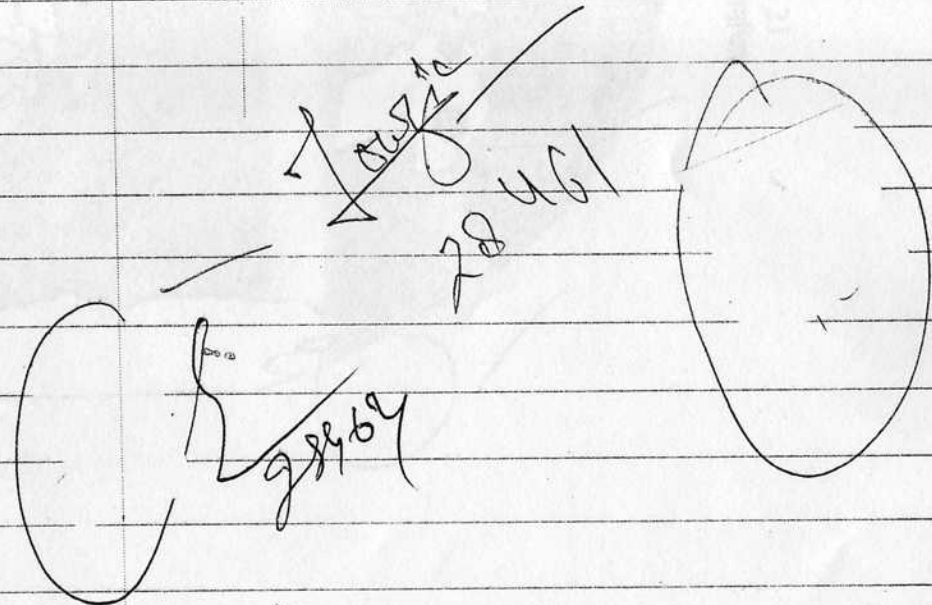


(Q21) MAP ATTACHED

- A - Norway
- B - Sydney
- C - Rio de Janeiro
- D - New Orleans
- E - Lagos

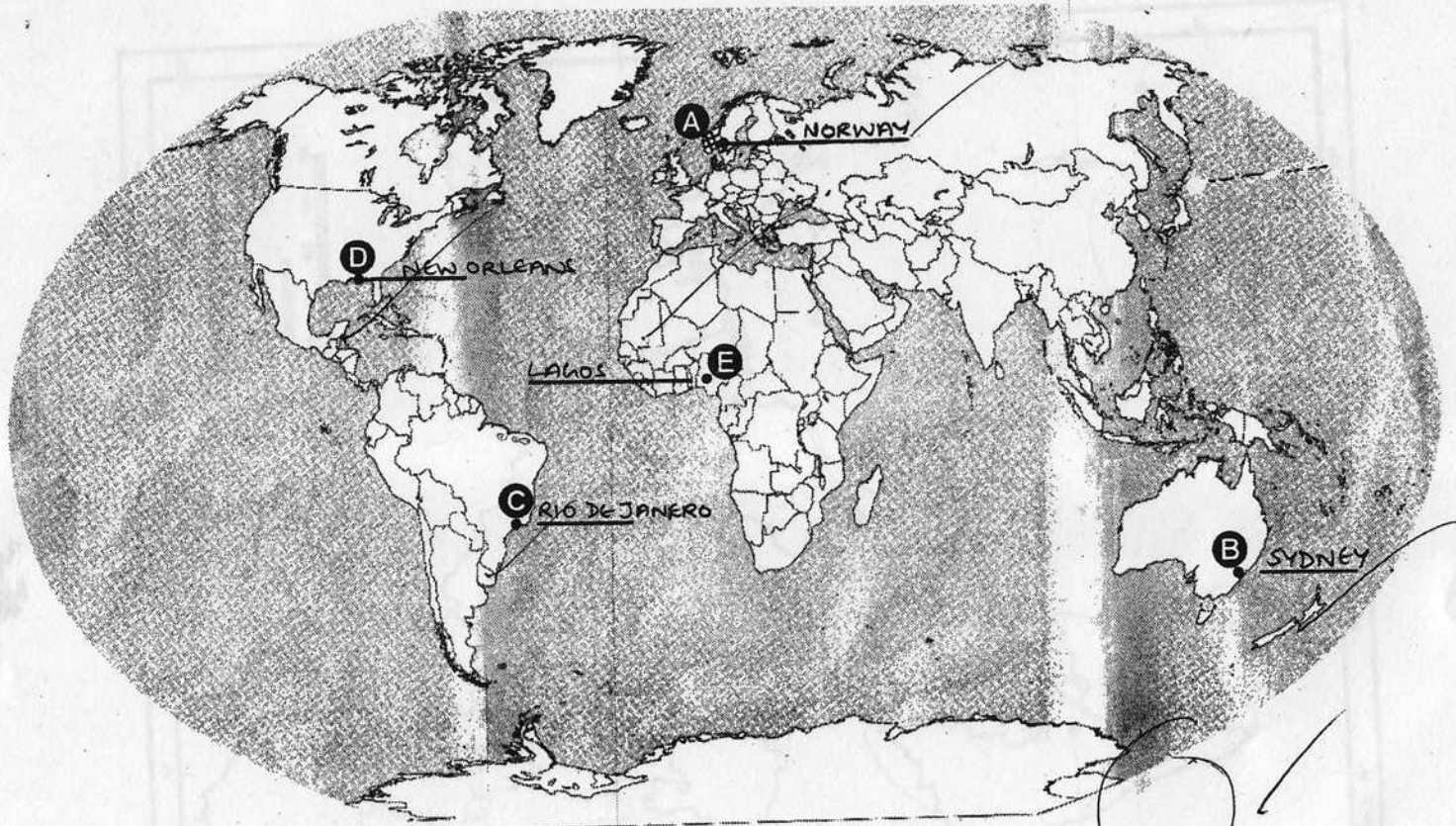
- (Q22)
- i) Goa
  - ii) West Bengal
  - iii) Panipat
  - iv) Bhitai
  - v) Bangalore / Bengaluru

MAP ATTACHED



Ravi  
20/11/15





Map for Q. No. 21  
प्रश्न सं. 21 के लिए मानचित्र

Map for Q. No. 22  
प्रश्न सं. 22 के लिए मानचित्र

