Maharashtra State Board Class 12 Geography Solutions Chapter 1 Population Part 1

1. Identify the correct correlation.

A – Assertion R – Reasoning
Question 1.
A – Areas which have fertile soil have dense population.
R – Fertile soils are good for agriculture.
(a) Only A is correct.
(b) Only R is correct.
(c) Both A and R are correct and R is the correct explanation of A.
(d) Both A and R are correct but R is not the correct explanation of A.
Answer:
(c) Both A and R are correct and R is the correct explanation of A.

Question 2.
A – Population of a region does not change.
R – Birth rate, death rate and migration affect the population of a region.
(a) Only A is correct.
(b) Only R is correct.
(c) Both A and R are correct and R is the correct explanation of A.
(d) Both A and R are correct but R is not the correct explanation of A.
Answer:
(b) Only R is correct.

Question 3.
A – In stage 2, death rate reduces but birth rate is constant.
R – Population increases rapidly in stage 2.
(a) Only A is correct.
(b) Only R is correct.
(c) Both A and R are correct and R is the correct explanation of A.
(d) Both A and R are correct but R is not the correct explanation of A.
Answer:
(c) Both A and R are correct and R is the correct explanation of A.

Question 4.
A – In stage 5 death rate is more than birth rate.
R – Population is declining in stage 5.
(a) Only A is correct.
(b) Only R is correct.
(c) Both A and R are correct and R is the correct explanation of A.
(d) Both A and R are correct but R is not the correct explanation of A.
Answer:
(c) Both A and R are correct and R is the correct explanation of A.

Question 5.
A – In stage 1 both death rate and birth rate are high.
R – Population growth is stable in stage 1.
(a) Only A is correct.
(b) Only R is correct.
(c) Both A and R are correct and R is the correct explanation of A.
(d) Both A and R are correct but R is not the correct explanation of A.

Answer:
(c) Both A and R are correct and R is the correct explanation of A.

2. Write short notes on.

Question 1.
Impact of relief on population distribution.
Answer:
1. Relief is one of the most important factors influencing the distribution of population.

2. Generally, mountains are thinly populated, plains are thickly populated and plateaus are moderately populated.

3. The mountains and hilly areas are less populated because of limited means of livelihood; agriculture is poorly developed and transportation facilities are limited. For example, north eastern states of India have less population due to hilly and mountainous relief.

4. On the other hand, plains are densely populated because of fertile soil and well-developed agriculture. Due to plain relief, it is easy to construct roads and develop industries. Better employment facilities attract people in these areas. For example, Ganga plains are thickly populated.

5. In short, we can say plains are densely populated and mountains and plateaus are sparsely populated.

Question 2.
Correlation between birth rate and death rate.
Answer:

- Birth rate and death rate are the important components of population change.
- Birth rate is the number of live births in a year per thousand population.
- Death rate is the number of deaths in a year per thousand population.
- Population growth depends upon birth rate and death rate in a year.
- Population growth occurs not only by increasing birth rate but also because of decreasing death rate.
- When birth rate is more than death rate, population increases.
- When birth rate is less than death rate, population decreases.
- If both, birth rate and death rate is same then population is said to remain stable. However, the birth rate and death rate being same is only a hypothetical situation.

Question 3.
Stage 3 of Demographic Transition Theory.
Answer:
1. Stage 3 of Demographic Transition Theory is the stage of expanding population.

2. From second stage to this stage, death rates are decreasing. Birth rates are also decreasing. Decrease in both birth rates and death rates, reduces the rate of growth of population. But actually, population is growing because the birth rates are higher than death rates.

3. In this stage, since the country is making progress, the income of the people is above the subsistence level and there is an improvement in the standard of living of the people. Poverty is also reducing.

4. There is development of technology as a result secondary and tertiary activities develop.

5. Due to increase in education level, people understand the importance of family planning so size of family reduces.

6. In short in stage 3 countries are moving from developing stage to developed stage.

3. Give geographical reasons.

Question 1.
India is passing through Stage 3 of demographic transition.
Answer:

- In India, since there is a decrease in the birth rates and death rates, the growth rate of population is also decreasing.
- Due to the development in the country, income of the people has reached above subsistence level, standard of living is improved, poverty is decreasing, technology is developing.
- Number of people engaged in secondary and tertiary activities are increasing.
- Due to increase in the literacy rate, people have understood the importance of family planning. Therefore, there is a decrease in the size of family.
- Hence, India is passing through Stage 3 of demographic transition.

Question 2.
Population distribution is uneven.
Answer:
1. Distribution of population in the world is very uneven because distribution of population depends upon many physical factors such as relief, climate, availability of water supply, soil etc.

2. For example, if you consider relief factor, mountains and hilly areas are thinly populated. Plateau regions are moderately populated and plains are densely populated. The Himalayan region in India is thinly populated but the Gangatic plains are thickly populated and Deccan plateau region are moderately populated.

3. The distribution of population also depends upon human factors such as agriculture, mining, transportation, urbanisation etc.

4. For example, agriculture or mining activities support large population since they provide source of living to many people.

5. Sometimes government policies also affect population distribution. For example, government provided land, water, electricity at concessional rate in New Mumbai area to attract people and to reduce pressure of population in Mumbai city.

Question 3.
Population increases because of transportation facilities.
Answer:
1. The development of roads and railways makes the region more accessible.

2. Such areas provide favourable conditions for the development and manufacturing industries, which generate employment. Therefore, people from different areas migrate in search of jobs. Thus, such areas become densely populated. For example, Gangetic plain of India, where the density of roads and railways is highest in India.

3. Population increases in port cities due to availability of sea transport for the development of trade. Therefore, the coastal region is densely populated. For example, many port cities like Chennai, Mumbai are developed on the east and west coast of India.

4. Thus, population increases because of transportation facilities.

Question 4.
Secondary and tertiary activities increase in the third stage of demographic transition.
Answer:

- In Stage 3 of demographic transition theory, growth rate of population decreases.

- As a result, the income of the people in the country reaches above subsistence level. Poverty rate decreases and standard of living increases. Therefore, the use of technology increases and this generates an employment in secondary and tertiary activities.
- Due to increase in education level and development of health facilities there is increase in employment in tertiary sector.
- Thus, secondary and tertiary activities increase in the third stage of demographic transition.

Question 5.
Population may increase though birth rates are low.
Answer:
The growth of population depends upon the difference between number of live births in a year per thousand population and number of deaths in a year per thousand population. Therefore, growth of population depends upon both birth rate and death rate.

When birth rate is low and death rate is also low, then though the number of live births per thousand population are less, but due to a smaller number of deaths per thousand population, there is increase in population of the country.

Question 6.
Population density is a function of population and area of a region.
Answer:
The number of people living in any area or country is called total population of the area or country.

Density of population is the ratio between total population and a total area of that region or country.

For example, as per the census of 2011, Density of population in India is 325 persons per sq. km. It is a ratio between total population in India and total area of India in sq. kms.

In some countries total population may be less but the density of population is high due to small area of the country. For example, Bangladesh's total population is less but area of country is small therefore, density of population is high.

In some countries total population may be more but the density of population is low due to very large area of the country. For example, Brazil has more total population but area of country is also large therefore, density of population is low.

Thus, population density is a function of population and area of a region.

4. Answer the following questions in detail.

Question 1.
Explain the physical factors affecting distribution of population.
Answer:
Physical factors affecting distribution of population are:
(i) Relief
(ii) Climate
(iii) Availability of water
(iv) Soils

(i) Relief

- Distribution of population is greatly affected by relied features.
- Generally, flat plains or gently sloping lands are densely populated.
- Plains are suitable for agricultural activities.
- In these areas it is easier to construct roads and railways and development of industries and trade. As a result, many people are attracted to plains and they become densely populated. For example, Ganga plains are thickly populated.
- On the other hand, in mountainous and hilly areas density of population is low. This is because in such areas agricultural development is difficult.

- The construction and development of transport facilities is very difficult and costly too. Such areas are inaccessible.
- Due to inaccessibility, movement of goods and people are restricted. Therefore, mountainous and hilly areas are thinly populated. For example, north eastern states of India have less population due to hilly and mountainous relief.

(ii) Climate

- Climate is the most important factor of all the factors influencing the distribution of population.
- Areas having very hot or very cold climate, heavy rainfall are very uncomfortable for human settlement. Such areas are thinly populated.
- For example, polar regions where Eskimos and Lapps live are sparsely populated due to extreme cold climate. Sahara Desert is sparsely populated due to extreme hot climate.
- On the other hand, areas with equable climate, that is climate having not much seasonal variation attract people. People feel comfortable to stay in these areas.
- For example, coastal areas have dense population because of equable climate and wide scope for the development of agriculture, industries and trade.

(iii) Availability of water

- Water is the most important factor affecting distribution of population. It is the most essential factor for all human activities.
- Therefore, more people live in areas where potable and sufficient water is available. As a result of this most of the river valleys are densely populated i.e. Nile river valley.
- Even in desert areas there is more population near oasis due to availability of water.

(iv) Soil

- Fertile soils are most important for the development of agriculture.
- The areas having fertile alluvial soil have developed intensive agriculture and support large number of people and hence they are densely populated, e.g., Gangetic Plain, Plains of Mississippi, Irrawaddy and Yangtze etc.
- Similarly, in the areas having very fertile black cotton soil or regur soil, agriculture is well developed and hence such areas are densely populated.
- The volcanic soil is very fertile hence, it supports agriculture. Therefore, slopes of volcanic mountains have dense population. For example, volcanic mountain slopes of Java island.

Question 2.
In the first and fifth stage of the demographic transition, population growth is almost nil. What is the difference between the two stages then?
Answer:

- In the stage 1 both birth rates and death rates are high. The difference between the two is very less and therefore, population is stable.
- In stage 1 birth rates are high due to limited educational opportunities, people feel having many children is good. Therefore, families are big.
- In stage 1, due to lack of sanitation facilities, medical facilities, spread of contagious diseases, malnutrition, etc., death rate is high.
- In stage 5 birth rates and death rates are very low. Birth rates are almost equal to death rates.
- As a result, the population growth is almost minimal or very low or even negative in case of some countries.
- In stage 5, death rate is low because of improved medical facilities, eradication of contagious diseases and healthy environment.
- In stage 5, due to increase in awareness among the people, birth rate is low.

Question 3.
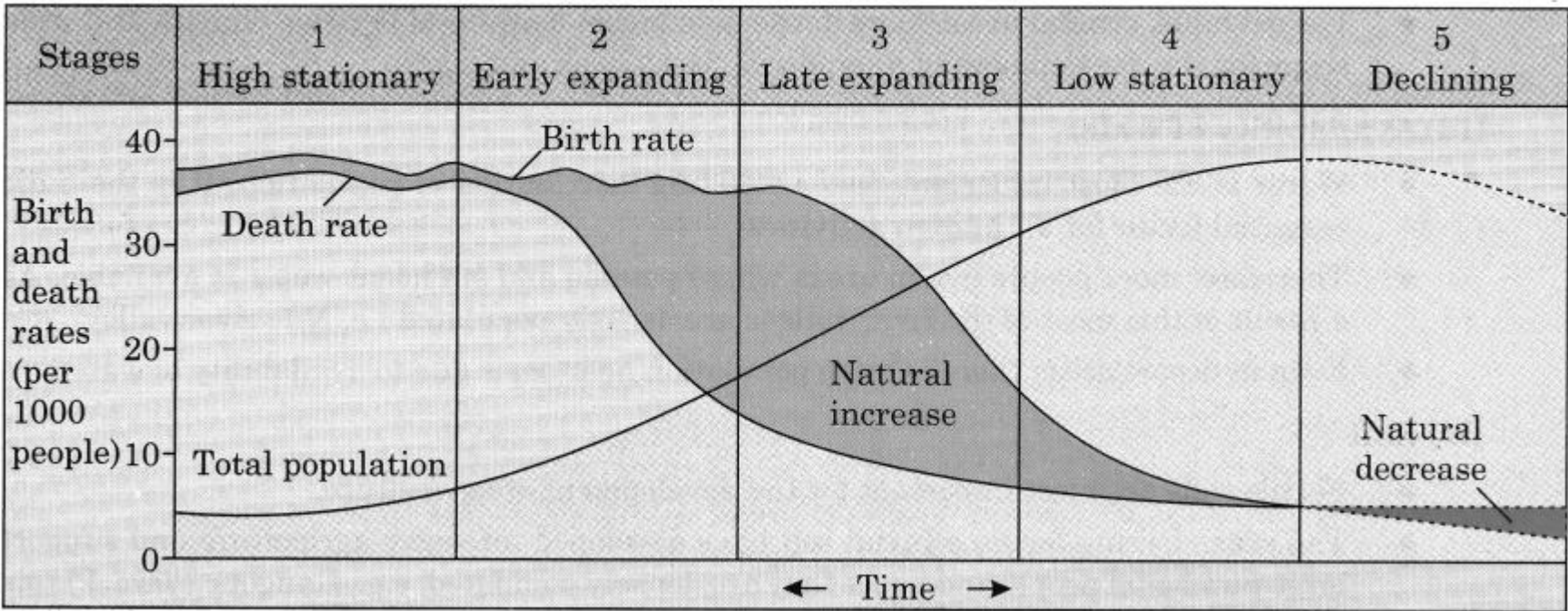Discuss the problems faced by counties in stage 4 and stage 5.
Answer:
Problems faced by stage 4 countries are as under:

- The death rate is very low and going down as the medical facilities have improved and pandemic like plague, cholera, small pox, etc., are eradicated.
- Birth rate is the same as death rate so population growth is minimal.
- Problems faces by stage 5 countries are as under:
- In this stage the birth rate is very low and death rate is high. Therefore, the growth of population is slow or negative growth of population is seen.
- Due to large number of old people the death rate is high and due to a smaller number of young people birth rate is low.
- Due to large number of old people, dependent population is high.
- Due to less young age population, working population is limited.
- As a result, the size of dependant population is larger than active population and it has adverse effect on economy of the country.

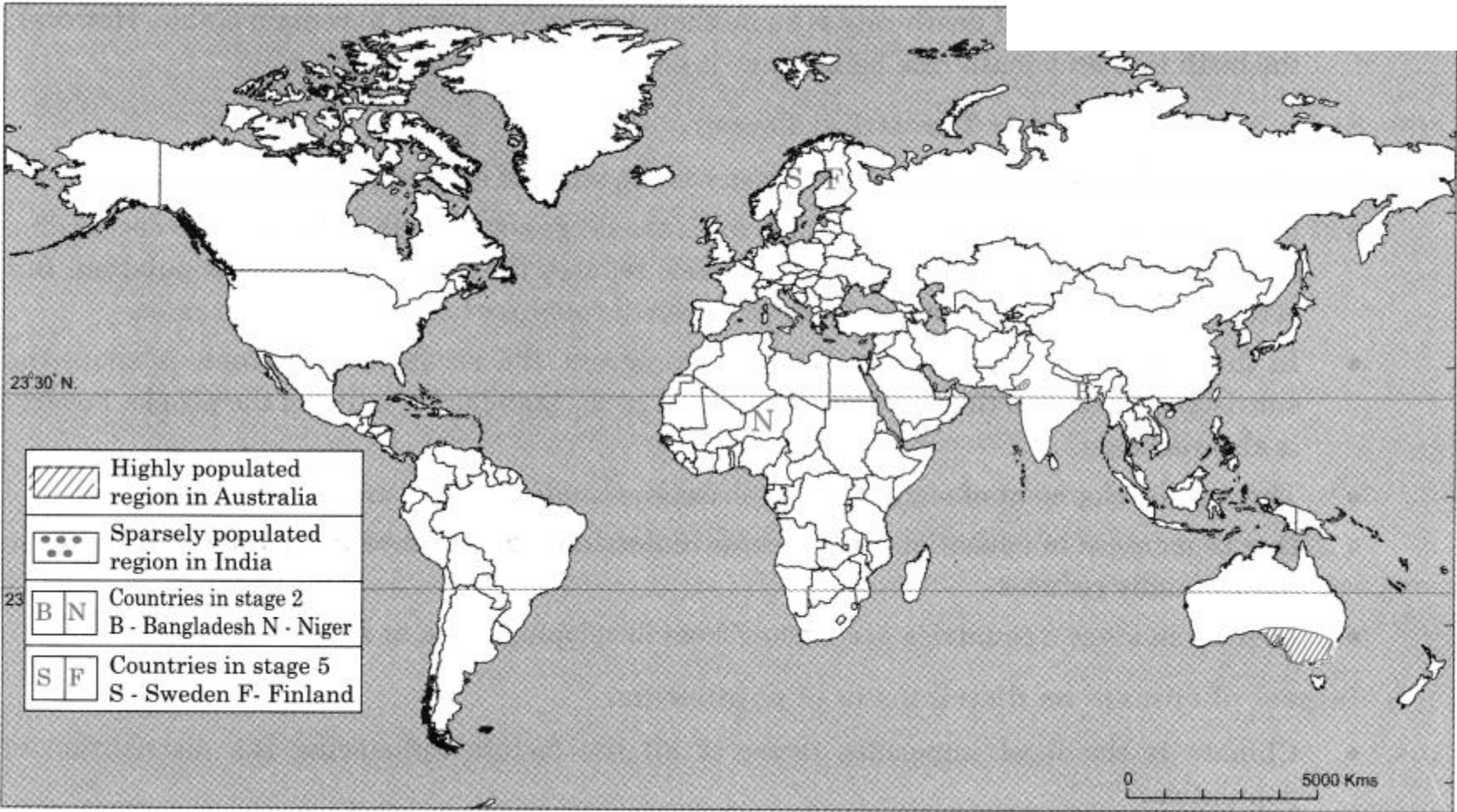5. Draw a neat labelled diagram for demographic transition theory and its various stages.
Answer:

6. Mark and name the following on the outline map of the world with suitable index.

(a) Highly populated region in Australia.
(b) Sparsely populated region in India.
(c) Any 2 countries in stage 5 of demography transition theory.
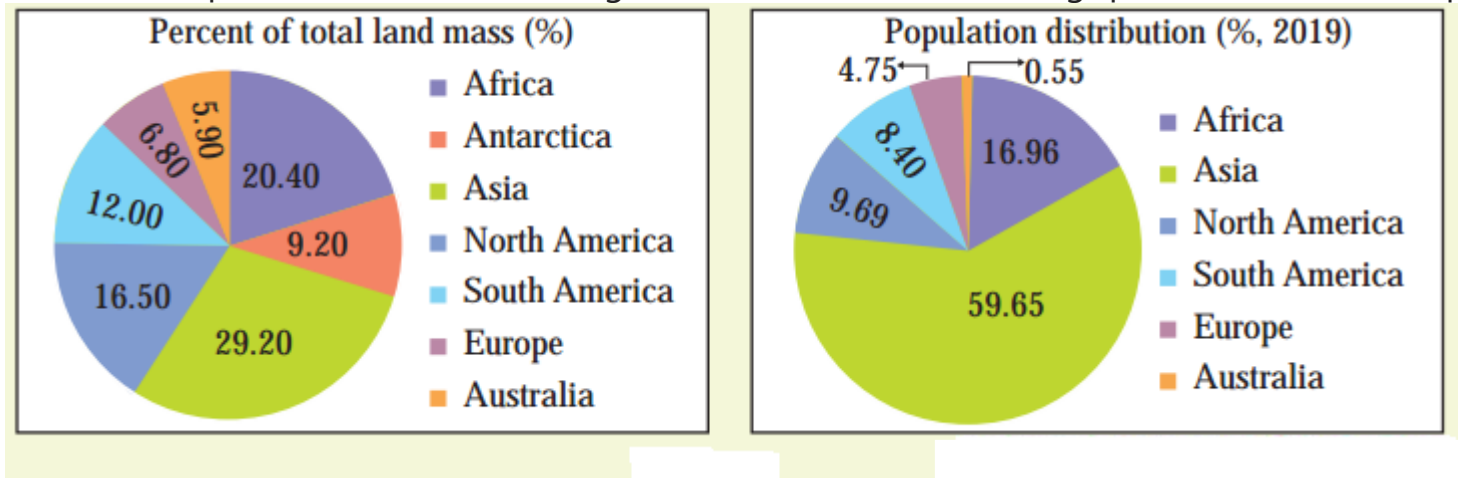(d) Any 2 countries in stage 2 of demographic transition theory.
Answer:

Class 12 Geography Chapter 1 Population Part 1 Intext Questions and Answers

Try These

Question 1.
Observe the pie charts shown in the figure and answer the following questions. (Text book pg.no – 1)
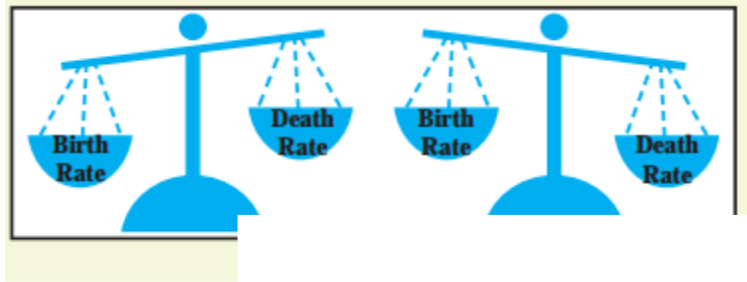

1. Which continent has least population?
2. Which continent has the least landmass and also least population?
3. Which continent has the most land mass as well as most of the population?
4. Which continent is missing in one of the pie charts? Why?

Answer:

1. The continent which has the least population is Australia.
2. The continent which has the least land mass and also least population is Australia.
3. The continent which has the most land mass and also most population is Asia.
4. The continent of Antarctica is missing in population distribution chart, because it has no permanent human settlement.

Question 2.
Look at the below figure and answer the questions that follow:

1. What does the image show?
2. What happens to the population when the deaths are more than births?
3. What happens to the population when births are more than deaths?
4. What happens when both are same? Is it possible?

Answer:

1. The image shows balance between birth rate and death rate.
2. Population growth may be less or in some countries there may be negative growth.
3. When births are more than deaths, then population growth is faster.
4. When both births and deaths are same, population will be stagnant. This is not possible for any country.

Give it a try

Question 1.
The below table shows the 10 most populated countries in the world in 2018 with their areas. Calculate their population densities and complete the table. (Text book pg.no – 1)

Rank	Country	Population in crores 2018	Approx. area in lakh sq. km	Population Density
1	China	142.8	96.0	
2	India	135.3	32.9	
3	USA	32.7	95.3	
4	Indonesia	26.8	19.1	
5	Pakistan	21.2	8.9	
6	Brazil	20.9	85.2	
7	Nigeria	19.6	9.2	
8	Bangladesh	16.1	1.5	
9	Russia	14.6	171.0	
10	Mexico	12.6	19.7	

Answer:

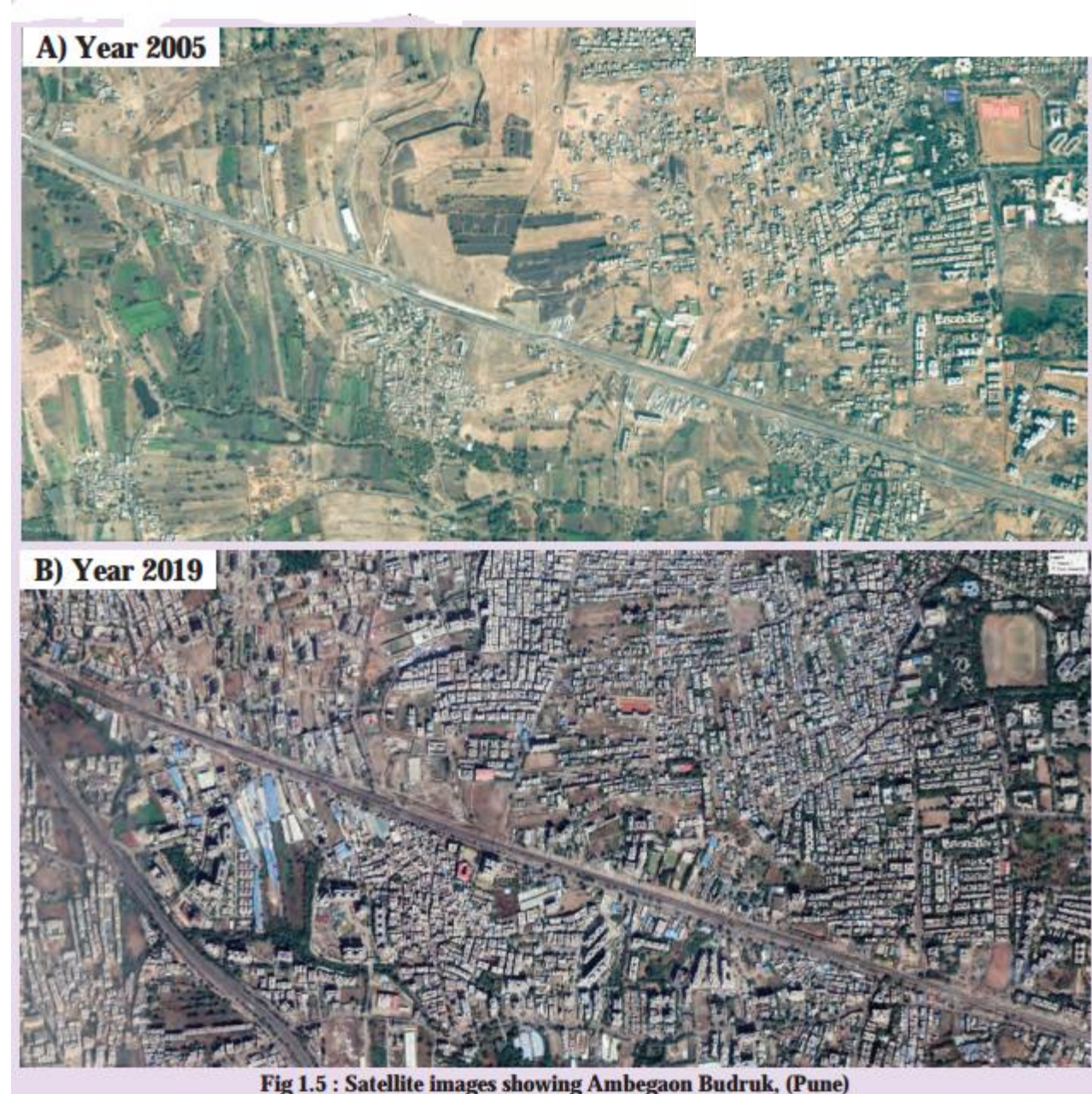| Rank	Country	Population in crores 2018	Approx. area in lakh sq. km	Population Density
1	China	142.8	96.0	148.75
2	India	135.3	32.9	411.25
3	USA	32.7	95.3	34.31
4	Indonesia	26.8	19.1	140.31
5	Pakistan	21.2	8.9	238.20
6	Brazil	20.9	85.2	24.53
7	Nigeria	19.6	9.2	213.04
8	Bangladesh	16.1	1.5	1073.33
9	Russia	14.6	171.0	8.53
10	Mexico	12.6	19.7	63.95

Question 2.
The satellite image given in Fig. They show the same area from two different periods. (Text book pg.no – 6)

Fig 1.5 : Satellite images showing Ambegaon Budruk, (Pune)

1. What difference do you see?
2. What might have caused these changes?

Answer:

1. The satellite image 'A' is image of the year 2005 and satellite image 'B' is of the year 2019. That means there is a difference of 14 years in these two images.

2. In image 'A' you can see that there are a few roads, limited settlements and most of the areas are covered by agricultural fields, and there is thin population.

3. When we compare the image 'A' with the image 'B', we find that in image 'B' the number of major roads (highway) and minor roads have increased. As a result, the area has become more accessible and thickly populated.

Due to development of industries and employment opportunities there is development of transport.

Question 3.
1. Can you calculate the death rate if the total number of deaths in the above city was 2,986 in the same year?
2. On the basis of the birth rates given in earlier and death rates calculated, what change in population do you observe?

Answer:

1. Total population of a city is 223000 and total deaths in the city are 2986 in that year.

Death Rate = $\frac{Total number of deaths in a year}{Total population in that year}$ × 1000

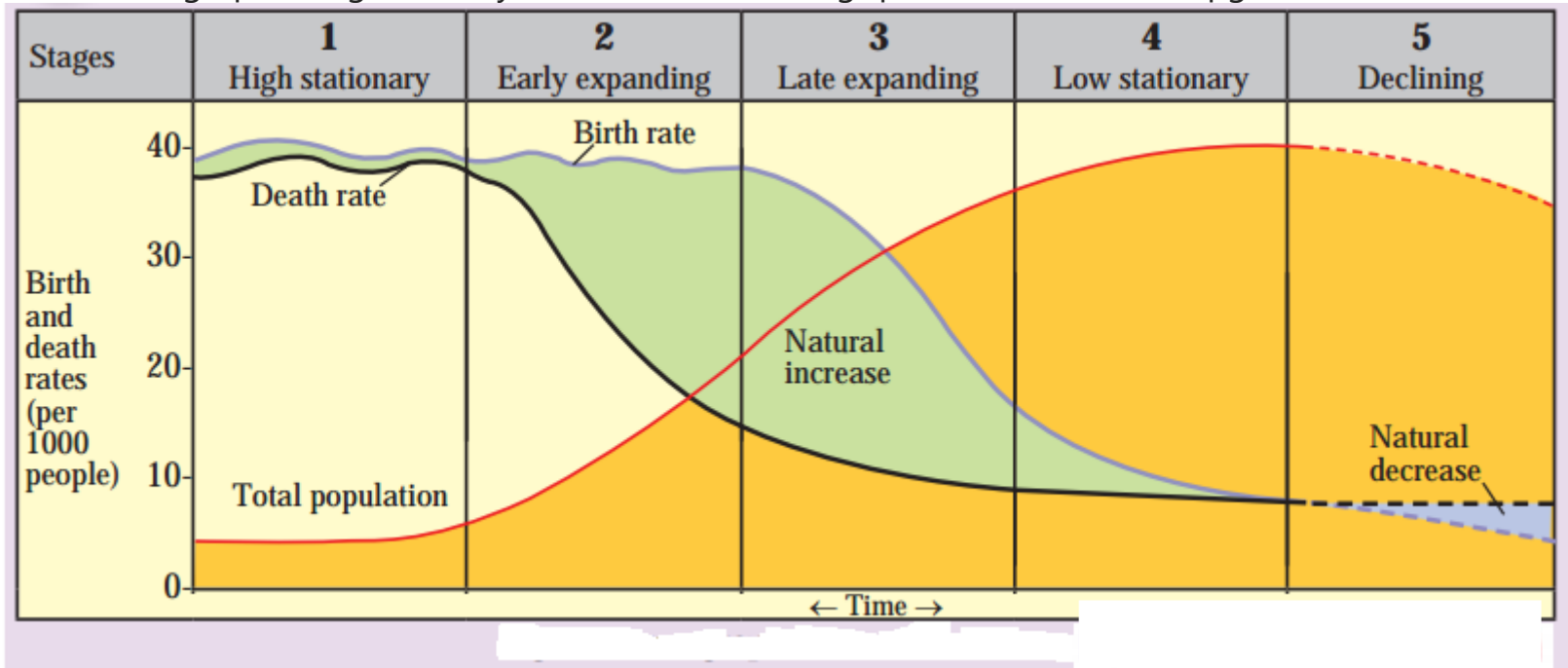Death Rate = $\frac{2896}{223000}$ × 1000 = 13.39

Therefore, the death rate is 13.39.

Digvijay

Arjun

2. In earlier example birth rate was 14.57 and the death rates calculated is 13.39. It means death rate have decreased by 1.8. It means the population has increased.

Question 4.
Look at the graph in Fig. carefully. Answer the following questions: (Text book pg.no – 9)

Stages	1 High stationary	2 Early expanding	3 Late expanding	4 Low stationary	5 Declining

1. What do the blue and black lines indicate?
2. What does the green part in the graph show?
3. What does the blue part in the graph show?
4. In which stages is the birth rate more than the death rate?
5. In which stages is the birth rate same as the death rate?
6. In which stage is the death rate being more than birth rate?

Answer:

1. Blue lines indicate birth rate and black lines indicate death rate.
2. Green part in the graph shows the natural increase of population.
3. Blue part in the graph shows the natural decrease of population.
4. In stage 2 and 3 birth rates is more than death rate.
5. In stage 4 the birth rate is same as the death rate.
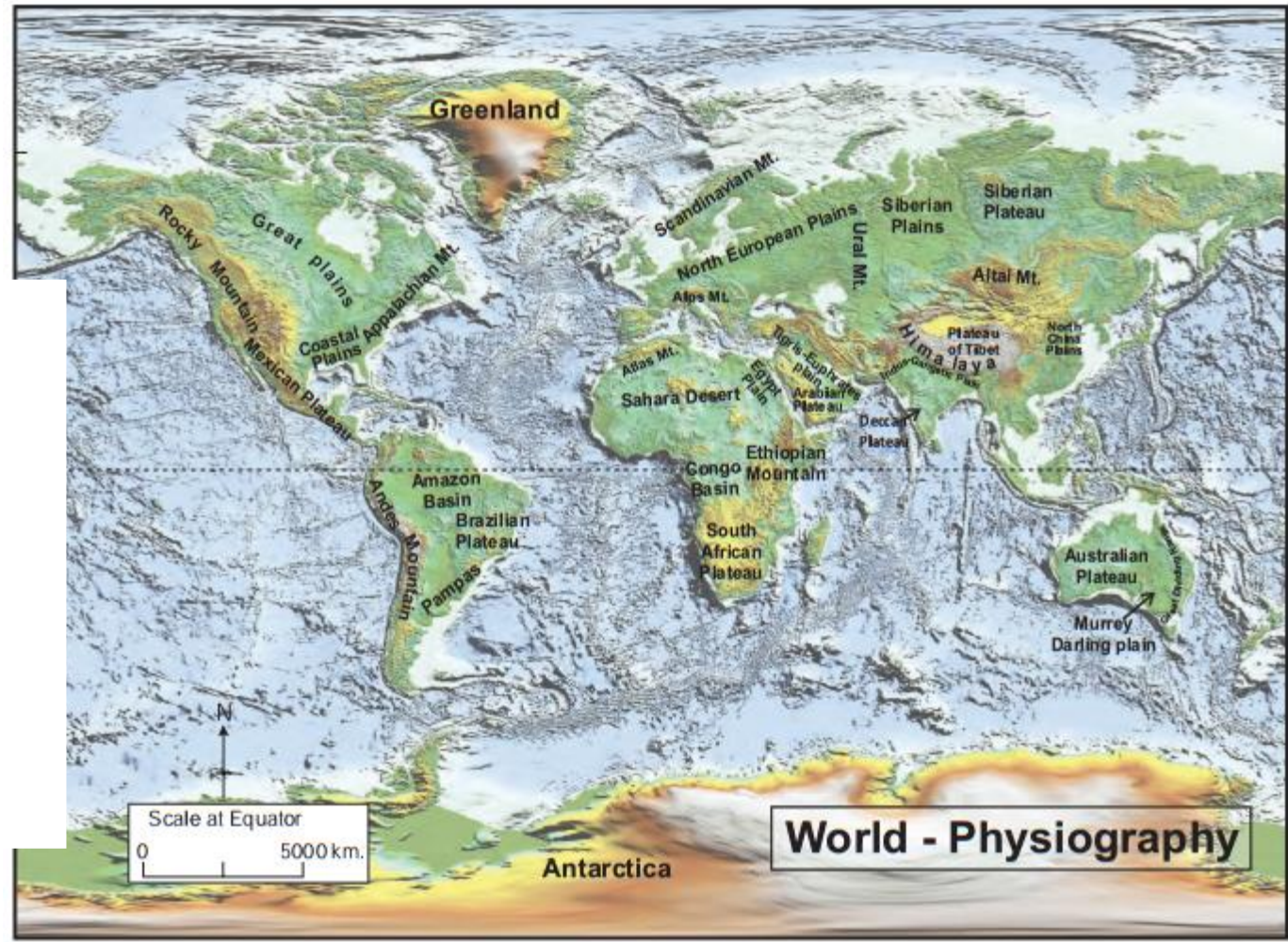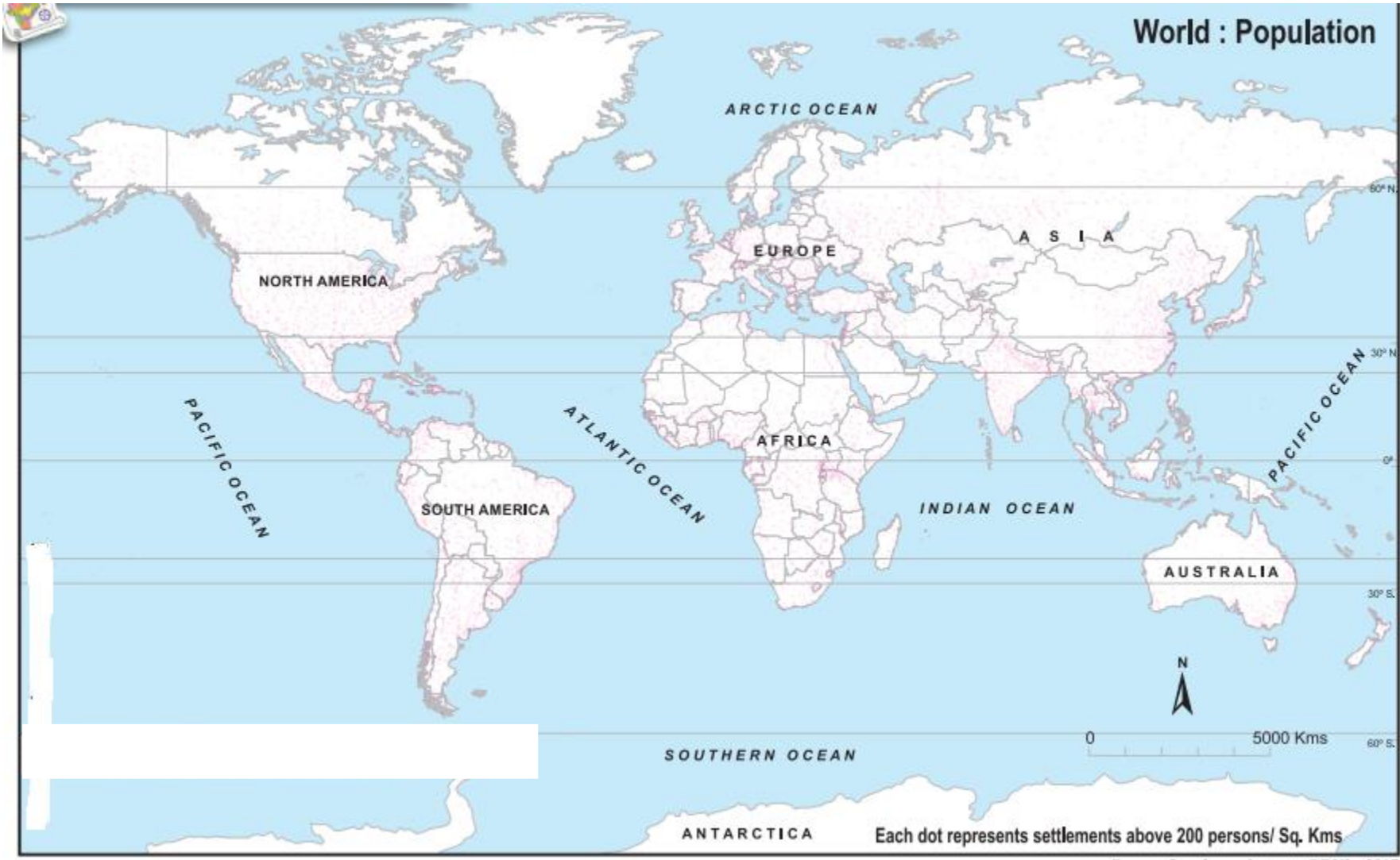6. In stage 5 the death rate is more than birth rate.

Make friends with maps!

Question 1.
Look at the map in Fig. Compare it with the physical map of the world given in Textbook Page No. 83. Try to understand the impact of physical factors on population distribution. Complete the table accordingly. (Text book pg.no – 2)

World : Population

Each dot represents settlements above 200 persons/ Sq. Kms

World - Physiography

Answer:

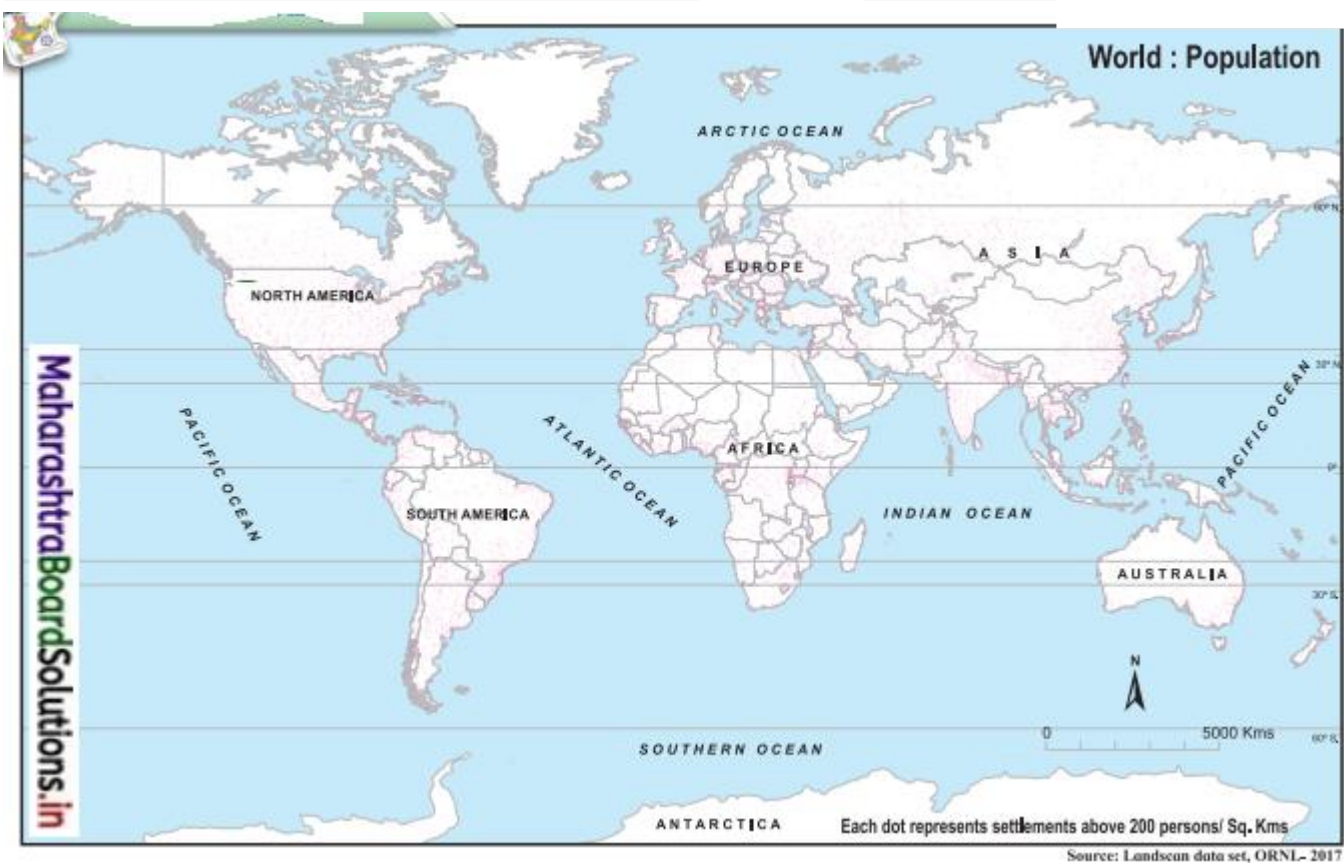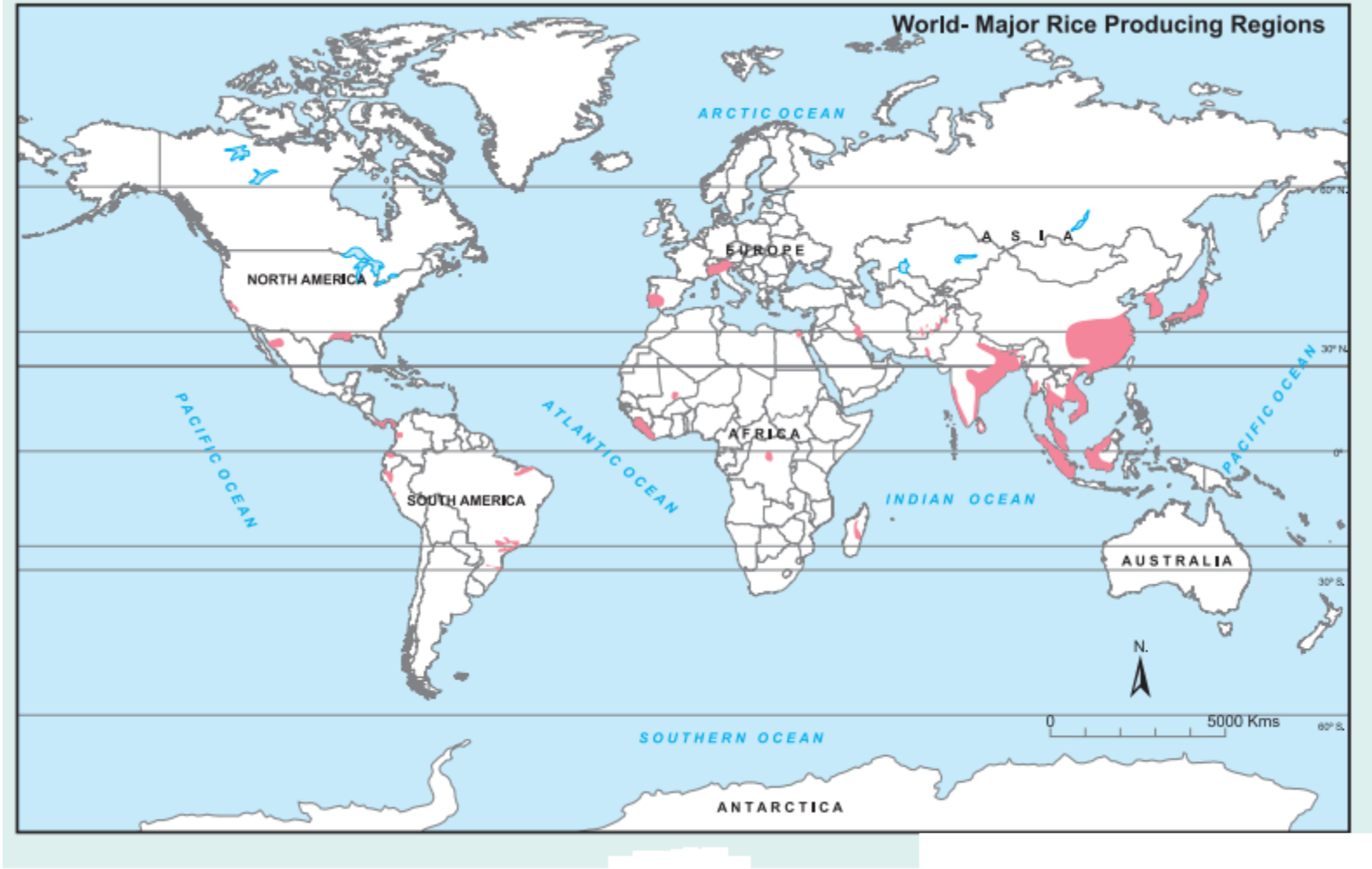| Continent	Physical factors responsible for High population	Physical factors responsible for less population
North America	Coastal Areas	Forest, deserts, snow covered land
Asia	Coastal areas and Fertile Plains	Mountains and deserts

Europe	Coastal areas and fertile Plains	Mountains, snow covered areas
Africa	Coastal Areas	Dense forest, mountains and deserts
South America	Coastal Areas	Mountains, dense forest and deserts
Australia	Coastal Areas	Hilly regions and deserts
Antarctica	–	Snow covered areas

Question 2.

Refer to the map showing rice producing regions of the world in Fig. Relate it with the population map of the world in Fig. Write the conclusions in your own words. (Text book pg.no – 5)

World- Major Rice Producing Regions

World : Population

Each dot represents settlements above 200 persons/ Sq. Kms

Source: Landscan data set, ORNL- 2017

Answer:
Areas of high density of population in Fig 1.2 if we compare with world map Fig 1.4 showing major rice producing areas in the world, we found that the areas of major rice production and areas of high density / thick population are the same areas.
Conclusion:
Rice cultivation is possible only in those areas where there is fertile alluvial soil and assured supply of water. Rice producing areas and areas of dense population in the world are the river flood plains and delta of rivers like Kaveri, Krishna, Godavari and Ganga in India, Brahmaputra in Bangladesh, Irrawaddy in Myanmar, Yangtze and Yellow in China, Mekong in Laos and Cambodia etc. These areas are high density areas in the world.

Can you tell?

Question 1.
Can you think of the factors besides physiography which affect the distribution of population? Make a list. (Text book pg.no – 3)
Answer:

Physical / Human factors	High density of population	Low density of population
Availability of potable water	River valleys	Deserts
Climate	Equable climate – coastal areas	Extreme climate – polar regions
Availability of resources	Minerals, fertile soil	Limited resources
Economic	Transportation, employment opportunities, urbanisation	Less employment opportunities, poor economic growth
Social	Migration from different parts of India in Mumbai	Out migration from Konkan to Mumbai
Government Policy	Favourable government policies to attract people	Unfavourable government policies

Question 2.
Observe the table 1.4. Arrange data in ascending order for birth rate and death rates respectively. (Text book pg.no – 8)
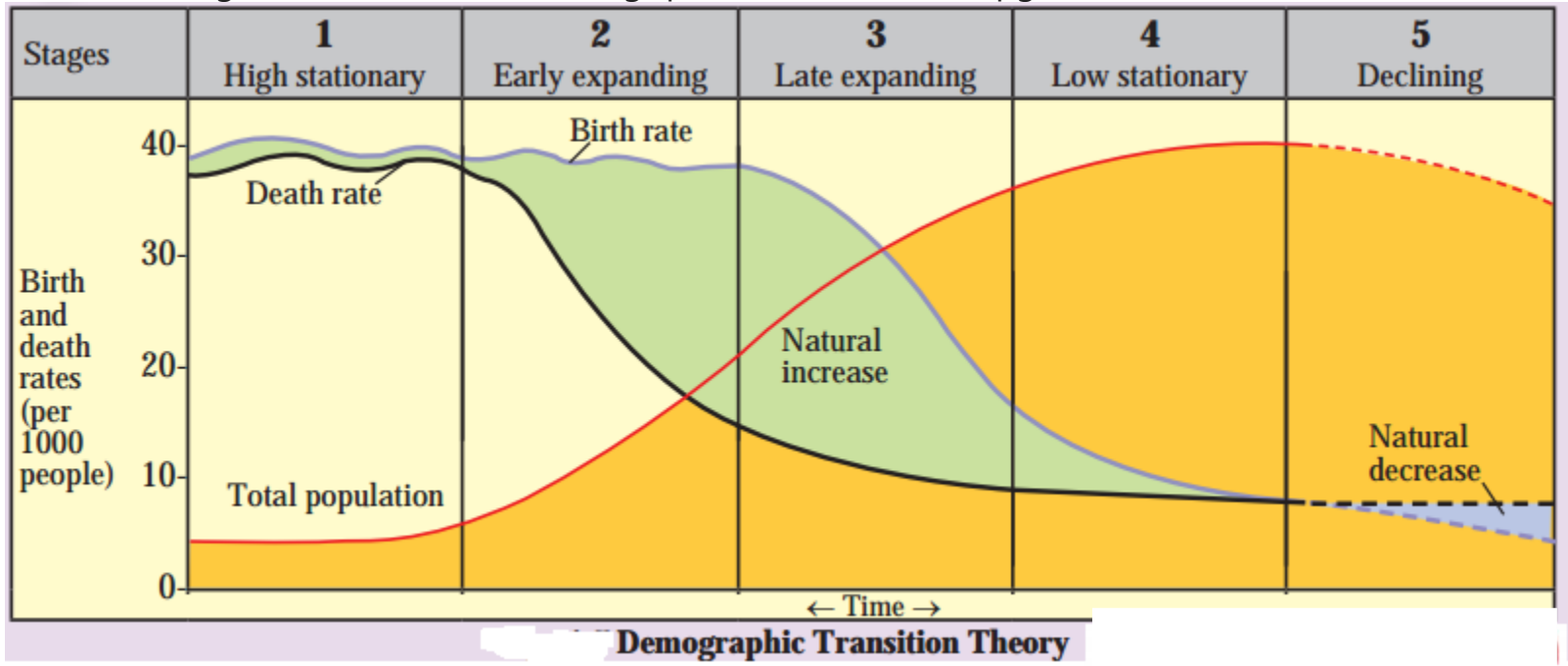
Country	Crude BR (2017)	Crude DR (2017)
Sweden	11.5	9.1

India	18.1	7.2
Greece	8.2	11.6
China	12.4	7.1
USA	11.8	8.5
Niger	46.5	8.5

Answer:

Ascending order for birth rates		Ascending order for death rates	
Country	Crude BR (2017)	Country	Crude DR (2017)
Greece	8.2	China	7.1
Sweden	11.5	India	7.2
USA	11.8	USA	8.5
China	12.4	Niger	8.5
India	18.1	Sweden	9.1
Niger	46.5	Greece	11.6

Question 3.
Look at the Fig. and answer the following questions. (Text book pg.no – 9)

Demographic Transition Theory

1. If the crude birth rate is 7 and crude death rate is 8 then which stage of demographic transition is the country in?
2. If a country has crude death rate of 20 and crude birth rate of 24, then which stage of demographic transition is the country in? [Text book pg.no – 10]

Answer:

1. The country is in stage 5 of demographic transition.
2. The country is in stage 3 of demographic transition.

Find out.

Question 1.
(i) Are Eskimos still living in their conventional ways?
(ii) What changes can be seen in their lifestyle now? (Text book pg.no – 4)
Answer:
(i) No, Eskimos are not living in their conventional way due to the changing environment as a result of increased contacts with societies to the south.

(ii) Eskimo life has changed greatly because of increased contacts with societies to the south.

- They were using harpoons for hunting, now they are using rifles. They were using dogs for land transport, now they are using snowmobiles.
- Outboard motors, store-bought clothing and many other manufactured products have entered into their culture.
- Women are taking salaried jobs to earn currency for store-bought products. As a result, women are losing their knowledge of traditional skills such as sewing animal skin.
- Many Eskimos are not doing nomadic hunting which was their main activity. Now they are living in northern towns and cities and working in mines and oil fields.
- Some Eskimos in Canada have formed cooperative societies for marketing their handicrafts, fish catches, tourism ventures etc.

Use your brain power!

Question 1.
(i) Can lakes be a factor for concentration of population? Find examples.
(ii) Which water bodies are surrounded by dense population in Maharashtra? (Text book pg.no – 4)
Answer:
(i) Man always likes to settle near a waterbody. People are attracted towards lakes.

Lakes are not only a source of fresh water but also a source of fish. They also provide water supply for industries, agriculture and provide water transport. They provide good sites to develop tourism due to greenery of trees surrounding the lake, scope for boating, cool breeze and pleasant atmosphere.

For example, Lake Victoria in Africa, supports 40 million people, with population density 250 persons per sq. km. The growth rate of the population is 3.5 percent each year, which is among the highest growth rates in the world.

The Victoria lake supports the largest freshwater fishery in the world. The fish catch from the lake is more than one million and it employs two lakh people in direct fishing and supports livelihood to four million people.

Five Great lakes in USA – Superior, Huron, Michigan, Erie and Ontario make up the largest body of freshwater on earth. They support more than 30 million people. This equates to 10 percent of USA residents and 30 percent Canadian residents.

The lakes have been a major source for transportation, trade, fishing, tourism, power, recreation etc.

(ii)

- In Maharashtra the following water bodies are surrounded by dense populations.
- Rankala lake around which dense population of Kolhapur city.
- Powai lake around which dense population of Mumbai city.
- Ambazari lake around which dense population of Nagpur city.
- Pashan lake around which dense population of Pune city.
- Dense population on the bank of Mula-Mutha river of Pune city.
- Dense population on the bank of Nag river – Nagpur city.
- Dense population on the bank of Tapi river – Bhusaval and other cities.
- Dense population on the bank of Godavari river – Nasik city.
- Dense population on the bank of Krishna- Koyana rivers – Karad, Sangli cities.
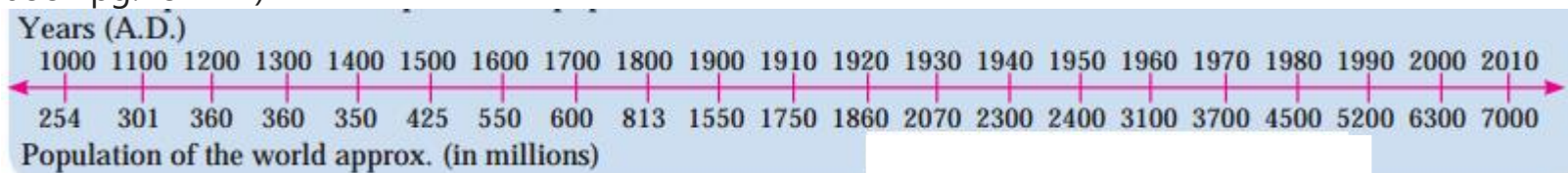- Dense population along the coastline of Arabian sea- Mumbai city.

Question 2.
In which stage do you think India is passing right now? (Text book pg.no – 10)
Answer:
India is passing through stage 3 right now.

Question 3.
Find out in what multiples has population increased in the following timeline and write down your findings. For example, in the initial phase, the population took 6 centuries (1000 to 1600 A.D.) to double itself. (Text book pg.no – 11)

Years (A.D.)
1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010
254	301	360	360	350	425	550	600	813	1550	1750	1860	2070	2300	2400	3100	3700	4500	5200	6300	7000

Population of the world approx. (in millions)

Answer:
(i) 1000 to 1600 population increase 2 times in 6 hundred years.
(ii) 1600 to 1900 population increased 3 times in 3 hundred years.
(iii) 1900 to 1960 population increased 2 times in 6 hundred years.
(iv) 1960 to 2000 population increased 2 times in 4 hundred years.

Let's recall.

Question 1.
Which policy did the Brazilian government promote with respect to decentralisation? (Text book pg.no – 7)
Answer:

1. Last two decades there is highly centralised military rule in Brazil so there was demand for local autonomy. Brazil sought to decentralised government authority and promote citizen participation to establish democracy.
2. Brazil became decentralised federation when it undertook transformation of governance.
3. As result authoritarian military regime came to an end.