

FORMATIVE ASSESSMENT

1. Place visit

Visit Vellore Fort and collect data.

2. Group Discussion

Vellore Revolt - Group discussion.

3. Oratorical competition

“Vellore revolt is a forerunner for Indian Independence”.

4. Group Discussion

The British Military restriction is the main cause of Vellore revolt - Discuss in group.

TERTIARY ACTIVITY I

1. TRADE

Trade is the exchange of commodities within or between countries. Trade occurs because of **surplus** of goods in one place and the **demand** for the same in another place. The difference in the natural resources of countries forms the basis of trade between countries.

The commodities entering into world trade may fall into two main categories:

1. Primary products which includes cereals, fruits and other items grown for food and industrial raw materials such as mineral ores, fiber crops like cotton, jute etc and

2. Secondary products are manufactured goods.

Trade may take place within a country (Internal Trade) and between countries (International Trade). International trade may be bilateral or multilateral. Bilateral trade is the exchange of commodities between two countries. Multilateral trade is between a number of countries.

Factors Affecting Trade**1. Uneven distribution of natural resources**

Differences in climate, geology, soil, vegetation and mineral resources result in the exchange of goods.

2. Stage of industrial/economic development

Industrial countries export finished products to other less

industrialized countries. The less developed countries export industrial raw materials and food products.

3. Differences in climate

Differences in climatic conditions result in different types of agricultural, animal and forest products. These are exchanged locally and internationally. Exchange of these goods takes place between different climatic regions. For example Temperate regions supply soft wood and dairy products. Tropical regions supply hardwood and tropical crops.

4. Differences in population

People in different regions, produce distinctive types of goods because of their long tradition of producing certain goods like silk fabrics in China and watches in Switzerland. Densely populated countries have less international trade, since domestic consumption of products is high and there is **little** surplus. However, they may export goods that are labour intensive. For example Tea.

5. Transportation

Transportation has played an important role in the development of trade. The development of roads, oil pipelines and so on in a country facilitate international trade by transporting a variety of bulky goods to the ports.

6. Government Policies

International trade is influenced by political relationship. When the relationship between countries is good, then there is more trade.

Trading blocs are associations between groups of neighbouring countries for the purpose of promoting trade. For example: Association of South East Asian Trading Nations (ASEAN) and European Union (EU).

International Trade Flows

International trade flow is controlled by geographic, economic and political conditions.

Many countries enjoy geographical advantage over other countries in the production and trade of agricultural commodities and minerals. Therefore they specialize in the trade of these commodities. For example, they import, oil from the Middle East, paper and wood pulp from Canada and Sweden and rubber and tin from Malaysia.

Trading Regions

The world's major trading regions are:

1. Europe

Europe is one of the most densely populated and highly industrialized regions and has the largest volume of trade (30 %). The exports of this region are mainly finished and semi-finished products. Imports are mainly industrial raw materials.

2. North America

The USA has the largest volume of trade together with Canada and they export machinery, automobiles, chemicals and import a variety of products.

3. Latin America

This region covers the Caribbean islands and Central and South American countries. All of them are exporters of foodstuffs and raw materials and importers of manufactured goods.

4. Africa

African countries are exporters of mineral ores and tropical raw materials and importers of manufactured goods.

5. Asia

Asian countries are rich in raw materials and minerals and export them. All Asian countries except Japan are importers of manufactured goods.

6. Australia

Australia exports agricultural products and minerals and imports foodgrains, petroleum and machinery.

Trade has a great impact on the economy of a country. The difference in values between imports and exports is referred to as the **balance of trade**. If exports exceed imports, the country is said to have a favourable balance. When the value of imports exceeds the value of exports, the country has an adverse balance of trade.

EXERCISE

I) Fill in the blanks.

1. Latin America exports _____.
2. Rubber and tin are found abundantly in _____.
3. Industrial countries export _____ to the less industrial countries.

II) Match the following.

- | | |
|-----------|--------------------------|
| 1. China | Middle Eastern countries |
| 2. Oil | Mineral ores |
| 3. Paper | Silk |
| 4. Africa | Malaysia |
| 5. Tin | Canada |

III) Choose the correct answer and fill up.

1. Trade within the country is called _____.
a) Internal trade b) International trade c) Open trade
2. Industrial raw materials are _____ products
a) Primary b) secondary c) Tertiary
3. Switzerland is famous for _____.
a) Silk b) Watches c) Tea

IV) Answer in 2 or 3 sentences.

1. What is meant by bilateral and multilateral trade?
2. What are the two main categories of commodities that enter into the world trade?
3. Why does trade occur?

V) Answer in a paragraph.

1. How does climate affect the trade of a country?
2. Write a short note on balance of trade.

VI) Answer in detail.

1. Discuss the factors that affect trade.
2. Give an account of the world's major trading regions.

FORMATIVE ASSESSMENT

1. List any five items that are exported and imported from Tamil Nadu.
2. On a world map mark the five important commodities imported by India from different parts of the world.
3. Find out the currencies for the following countries.
 - i. USA
 - ii. Germany
 - iii. Srilanka
 - iv. Korea
 - v. Japan
 - vi. Brazil
 - vii. Kuwait
 - viii. Russia
 - ix. Singapore
 - x. Morocco
4. Give the expansion for the following and write a short note
 - i. ASEAN
 - ii. OPEC
 - iii. EUC
 - iv. WTO

TERTIARY ACTIVITY II

2. TRANSPORT AND COMMUNICATIONS

Transportation is the movement of people and goods from one place to another place. A good transportation system in a region makes good use of its resources and manpower through movement and exchange resulting in economic growth. The major transport systems are discussed below

ROADWAYS

Roads are the most common mode of transportation in the world. There is a close relationship between road density, (Road density is the ratio between the total length of roads in a country to its total land area) population density (The ratio between the total number of people in a country to its total land area) and the state of economic development of a country. The greater the road connectivity, the greater the economic development.

Roads can be classified as transcontinental highways, national highways and local roads. The transcontinental highways are important as they are very long roads connecting the continents from end to end. The Trans-Canadian Highway, The Alaskan Highway, the Pan-American Express Highway and the Australian Transcontinental Highway are examples of such roads.

Increasing speed and number of road vehicles has resulted in the development of multilane national highways. These are excellent

straight roads cutting across the country through bridges and tunnels to reduce travel time. The autobahns of Germany were the first such roads.

THE GRAND TRUNK ROAD IN INDIA

The Grand Trunk Road is India's longest major road running across North India connecting Sonargaon in Bangladesh and Peshawar in Pakistan for a distance of 2500 Km.

In India, road network is densest in the coastal regions of Tamil Nadu and Kerala and also in West Bengal, Punjab, Haryana and U.P. In India roads are divided into National Highways, State Highways and District Roads.

RAILWAYS

Railways developed with the rise of industries because they were the cheapest and fastest means of transport for carrying bulky goods over long distances. Railway network is densest in the highly developed industrialized regions of Europe and North America. Japan, India, S.E. Australia, and coastal Argentina have moderately dense railway network.

The Trans-Siberian Railway is a trans-continental railway line linking Leningrad on the Baltic coast of Russia with Vladivostok on the Pacific coastland. The Trans-Canadian Railway links the East

and West coasts of Canada. The Trans -Andean Railway links Buenos Aires (Argentina) with Valparaiso (Chile). The Trans-Asian Railway links Singapore with Istanbul in Turkey running through 26 countries for a length of 18000 Km.

Indian Railway is the second largest in Asia and the 4th largest in the world. It is the densest in the Gangetic plains of U.P., Bihar and West Bengal. The Indian Railway employs the largest workforce in the world.

In large metropolitan cities of India, intracity rail lines are constructed to ease the growing traffic congestion. These rail lines are either underground rail lines or elevated above the ground. (Figure.54)

The **Mass Rapid Transit System (MRTS)** is an elevated line of the suburban railway in Chennai (Madras), Tamil Nadu. The line currently runs from Chennai Beach (Madras Beach) to Velachery, covering a distance of 25 km with 17 stations. Like the rest of the suburban railway network, the MRTS is operated by the Government-owned Southern Railways (SR).



Figure 54. MRTS Chennai

WATERWAYS

Waterways are the cheapest means of transport. They may be divided into inland waterways and ocean transport.

Inland Waterways

Deep navigable rivers with a perennial flow of water and navigation canals constitute the inland waterways. The most important inland waterway lies in the industrially advanced countries of Western Europe, (such as the Rhine, Rhone, Danube and Elbe) North America and Canada (Great Lakes). These waterways in combination with the railways help wider movement of goods at lower costs in the industrial regions of these countries. (Figure.55)



Figure 55. Rhine waterways

In India, inland waterways are limited to the river Brahmaputra in Assam and the Ganges and its tributaries in U.P. and Bihar.

Buckingham canal was once an important waterway in Tamil Nadu. It carried goods from Nellore to Marakkanam but sadly now it is a polluted channel.

Ocean Transport

Ocean routes were once an important form of transport for intercontinental travel. Today, it is used mainly for transporting bulky cargo. The following are the major shipping routes of the world ;

The North Atlantic route connecting the crowded countries of Europe to the Eastern coast of North America.

- The Cape of Good Hope route connecting Western and Southern Europe with South West Asia and Australia.

- The Panama Canal route connecting the west coast regions of

North and South Americas with their east coastal regions.

- The Trans-Pacific route connecting the ports of Eastern Asia to the ports on the west coast of North America.

- India is bounded on the east by the Bay of Bengal, on the west by the Arabian Sea and on the south by the Indian Ocean. It has a long coast line of 6,100 km (mainland). Some of the major ports are Kolkata, Paradip, Vishakhapatnam (Figure.56 and 57), Chennai, Tuticorin, Cochin, Mangalore, Marmagao, Mumbai and Kandla.

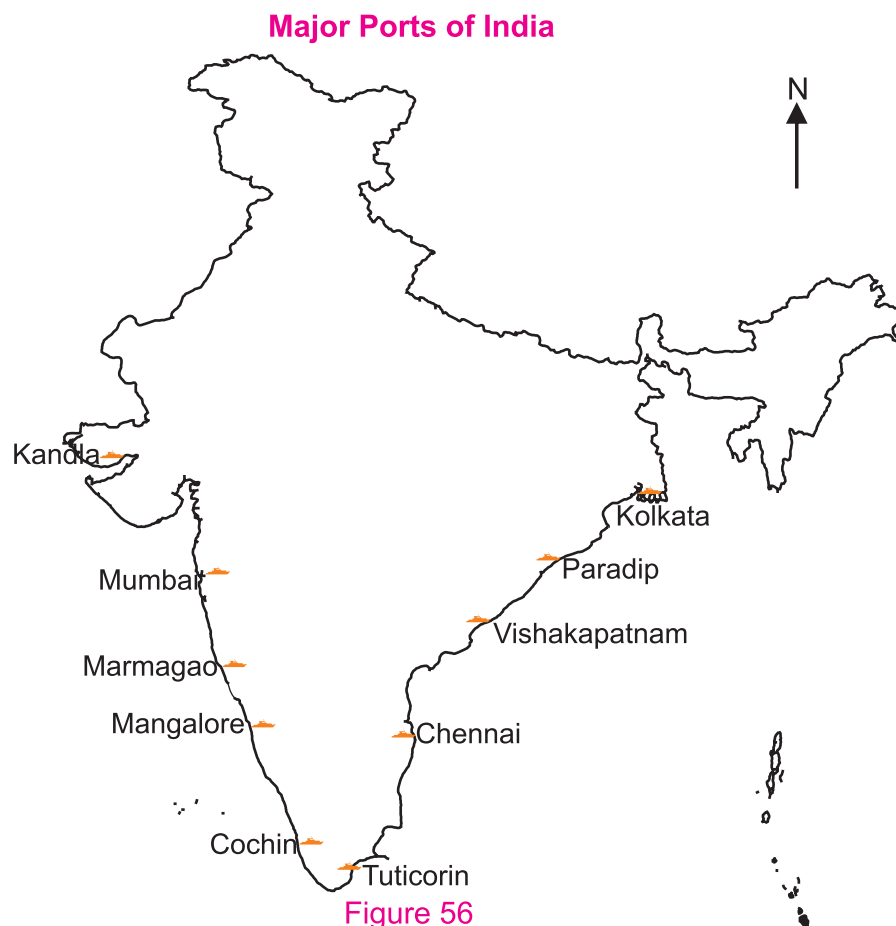




Figure 57. - Visakapatnam Port

AIRWAYS

Airways are the fastest and costliest means of transport which carry passengers, freight and mail. Air travel has gained immense popularity because it not only saves time but also reduces tiredness involved in covering long distances. Passengers from India can reach many European countries in a day.

Commercial airlines now connect all important parts of the world and a large proportion of the world's mail is carried by airways.

PIPELINES

Pipelines are used to transfer commodities like oil and natural gas. The oil pipelines are privately owned by oil companies. The bulk of the world's crude oil from the oil fields is transported to the refineries or shipping terminals through pipelines.

Some of these pipelines are : Big Inch line from Texas to New Jersey, (TAPS) or the **Trans-Alaska Pipeline System (Figure.58)** in North America. Tap line or the Trans-Arabian Pipeline from Qaisumah in Saudi Arabia to Sidon in Lebanon is runs for a distance of 1214 Km.



Figure 58. The Trans-Alaska Pipeline

COMMUNICATION

Communication involves the transmission of words and messages. The different forms of communication are telecommunication and mass communication. The first development in communication was the invention of the telegraph in 1844. The next important development was the invention of the telephone in 1875. The development of Telex (Telegraph Exchange) in 1935 enabled messages written in one place to be transmitted to distant places where they are typed out by a teleprinter.

Mass communication includes all those media designed to reach a large audience.

Mass communication can be divided into two categories-the print media (books, journals, magazines, newspapers) and the electronic media (radio, television, telecommunication, internet). In recent years, satellites have played an important role in communication both in India and the World. The Indian National Satellite (INSAT) has revolutionized communication in India in the recent years.

The development of transport and communication in a region helps increase the mobility of people, easy and fast movement of goods and transfer of ideas. This

increases trade and economic prosperity of that region. Therefore, transport and communication is important for the development of a country.

EXERCISE

I) Fill in the blanks.

1. The Transcontinental railway links _____ with Vladivostok
2. _____ are the cheapest means of transport.
3. Buckingham canal carried goods from Nellore to _____.

II) Choose the correct answer.

1. _____ is a major port
a) Puducherry b) Chennai c) Cuddalore
2. Pipelines are used to carry _____.
a) Coal b) Oil c) Wood
3. Telegraph was invented in the year _____.
a) 1844 b) 1855 c) 1866

III) Match the following.

- | | | |
|--------------------|---|--------------------------|
| 1. Brahmaputra | - | North America |
| 2. Rhine | - | Transcontinental Highway |
| 3. Alaskan Highway | - | Major port |
| 4. Visakhapatnam | - | Inland waterways |
| 5. TAPS | - | Germany |

IV) Answer in two or three sentences.

1. How are roads classified?
2. Write a note on Indian Railways
3. Name the different means of communication

V) Answer in a paragraph.

1. Write about the major shipping routes of the world.
2. What do you know about Inland waterways?
3. Give an account of mass communication

V) Write a detailed answer.

1. The development of transport and communication is important for the development of a country - Discuss.

FORMATIVE ASSESSMENT

1. List the seaports of India along the coast from north to south.
2. Project work:
 - i. Write any two important goods handled by the following seaports.
a. Mumbai b. Visakapattinam c. Goa d. Cochin e. Kolkatta
 - ii. Which is the longest railway line in India and name the cities which it connects.
 - iii. Write a very short note on Trans - Alaskan pipeline system.
 - iv. Collect an INSAT picture from the local news paper. Can you understand weather from the photograph.
 - v. Why is air transport is preferred by the people of North East India.

POPULATION

3. POPULATION GROWTH AND DISTRIBUTION

The period of economic change when man became a farmer altered the relationship between man and environment. Since then the population began to grow steadily.

Population Growth

The world population probably reached 500 million by 1650 and has since grown at an increasing rate. The world population first reached 1 billion in 1804. The second billion was added after 123 years in 1927. Since 1950, the rise in population has been rapid.

Table 1 gives you an idea of how rapidly the world population has been growing since 1804.

Year	World Population in billions	Time taken to add the next billion
1804	1	
1927	2	123 years
1960	3	33
1974	4	14
1987	5	13
1999	6	12
2011	7	12

Table 1: Population Increase

Economic growth progressed with industrial and agricultural development, the improvements in medical care, health, flood control,

fire protection etc helped to control the natural laws. This caused decrease in deaths and increase in births. Let us now study the aspects of birth and death rates.

The growth of population or the natural increase of population depends on the birth rate and death rate. Birth rate is the number of live births in a year for every 1000 people in the total population. Death rate is the number of deaths per 1000 people.

The difference between birth rate and death rate is termed as growth rate.

The phenomenal growth in population is because of changes in the patterns of birth and death rates. When both birth rates and death rates are high, the population does not grow much in size.

When birth rates are higher than death rates, the population will increase.

When the birth rate is low and the death rate is high, the population will decline.

Different countries are at different stages of population change. Presently the developed countries of the world have low birth and death rates. Developing countries have low death rates and high birth rates resulting in very high population. They are trying to control the birth rates in order to control their large populations.

Today, there are some countries in the world with more deaths than births or an even number of deaths and births resulting in zero or negative natural population growth (Table 2).

COUNTRY	ANNUAL NATURAL DECREASE (%)
Ukraine	0.8
Russia	0.6
Germany	0.2
Japan	0
Italy	0

Table 2: Annual decrease

Population Distribution and Density

Population distribution refers to the pattern of spread of people on the Earth. World population distribution is uneven. About 90 % of the Earth's people live on 10 % of the land.

Population density is defined as the number of people per sq. km. It is calculated by dividing the number of people in a country by the area of that country.

The tiny country of Monaco has a population density of 16,779 people per sq.km. However, Monaco has very high density because it is extremely small in size (1.95.sq.km). Bangladesh is considered the most densely populated country, with more than 1,069 people per sq.km. Mongolia is the world's least densely populated country with only 1.7 people per sq.km. Australia is second with 2.9 people per sq. km.

Factors affecting the distribution and density of population

There are a range of natural factors and human factors that affects population distribution and density (Table .3)

Physical Factors	High Density	Low Density
A) Physical Factors (i) Relief (shape and height of land) (ii) Climate	Lowland which is flat. example Ganges Valley in India Areas with favourable climates tend to be densely populated as there is enough rain and heat to grow crops, e.g. India.	High land that is mountainous; e.g. Himalayas. Areas with extreme climates are sparsely populated: Eg. the hot deserts such as Sahara and the extremely cold areas like Greenland.
(iii) Resources	Areas rich in resources (Eg. minerals, fuel, forest, fish resources) tend to be densely populated. Eg. Western Europe.	Areas with few resources tend to be sparsely populated e.g. The Sahel in Africa

Physical Factors	High Density	Low Density
B. Human Factors		
(i) Political	Countries with stable governments tend to have high population density; example: Singapore	Countries with unstable governments tend to have lower population densities as people move away; e.g. Afghanistan.
(ii) Social	Groups of people prefer to live close to each other for security; example: USA	Other groups of people prefer to be isolated; e.g. Scandinavians
(iii) Economic	Good job opportunities encourage high population densities, particularly in large cities in both the more economically developed countries (MEDCs) (example: Tokyo) and less economically developed countries (LEDCs) (example: Mumbai)	Limited job opportunities cause some areas to be sparsely populated; e.g. Amazon Rainforest

Table 3: Factors determining population densities

Table 4: shows the distribution and density of population in different continents.

Continent	Population (million)	% of World's Population	Density
Asia	3800	60	203
Africa	840	12	65
Europe	710	11	134
North America	514	08	32
South America	371	5.3	73
Australia	21	0.3	6.4

Table 4: Distribution and density of population

The following table.5 shows a list of countries. Notice that countries having high populations may not have high density of population.

COUNTRIES	POPULATION	% OF WORLD POPULATION	DENSITY (Population per sq.km)
People's Republic of China	1,338,890,000	19.5	139
India	1,183,770,000	17.3	360
USA	309,842,000	4.5	32
Indonesia	231,369,500	3.4	121
Brazil	193,262,000	2.8	23
Pakistan	170,124,000	2.5	211
Bangladesh	162,221,000	2.4	1069
Nigeria	154,729,000	2.3	168
Russia	141,927,297	2.1	8
Japan	127,530,000	1.9	337

Table 5: Population statistics of selected countries of the world

High densities indicate a great crowding of people. We will see in the following lesson, the impact of population pressures on the land and its resources.

EXERCISE

I) Fill in the blanks.

- The rise in population has been steadily rapid since _____.
- The birthrate is the number of live births in a year for every _____ people of the total population
- The world population reached 6 billion in the year _____.
- _____ and human factors affect the distribution of people across the world
- Population density is calculated by dividing the number of people in a country by the _____ of the country.

II) Choose the correct answer.

- When birthrates are high and deathrates are _____, the population of an area will increase.
a) High b) Low c) Stable

2. About 90 % of the Earth's people live on _____% of the land.
 a) 10 b) 20 c) 25
3. _____ is considered the most densely populated country
 a) China b) Mexico c) Bangladesh
4. Areas with _____ climates tend to be sparsely populated.
 a) Favourable b) Extreme c) Cool
5. _____ with stable government have high population density.
 a) Afghanistan b) Egypt c) Singapore

III) Match the following.

- | | | |
|-----------------------|---|--------------------------------------|
| 1. 1804 | - | Low population density |
| 2. Monaco | - | Least density of population |
| 3. Low birth rate and | - | 1 billion population high death rate |
| 4. Australia | - | Population decline |
| 5. Germany | - | High population density |

IV) Write brief answer.

1. Define
 - a) Birth rate
 - b) Death rate
 - c) Population Density
2. How does the climate affect population distribution and density.

V) Answer in detail.

1. Give a detailed account of the world's population growth.
2. What are the different human factors that affect population density?
 Explain.

FORMATIVE ASSESSMENT

1. Project work:
Prepare a scrapbook on "People and life in the Himalayas and Thar Desert"
2. Write a report on the major natural disasters that affected in India in the last 10 years.
3. Map Skill:
Prepare a map of the world showing regions of high population density. Mention five reasons for the same.

4. POPULATION AND RESOURCES

As the population grows, the resource base is struggling to provide People with their requirements. There is a mismatch of people and resources. (Figure.59)

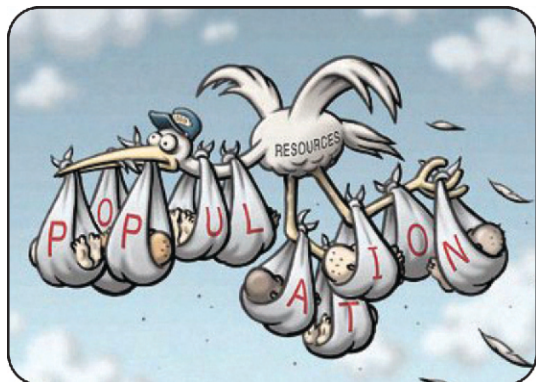


Figure 59.

The hunter-gatherer mode of production could only support very low population densities. When agriculture began to develop, it enabled a steady growth of population.

The increased population puts a lot of pressure on the available resources like land and water. Each year, the number of human beings increases, but the amount of natural resources with which to sustain this population remains finite.

Developing countries with large and growing populations put a strain on the local environment and the limited resources. These countries that struggle to meet the growing demands for food, freshwater, timber and fuel alter the fragile environments. (Figure.60)

Developed countries, in general, have and use more of the Earth's

resources. Population pressure in the developed countries puts a greater strain on global resources and the environment than that in less developed countries because of their very high standards of living.



Figure 60. Growing Demands

Large and increasing population results in great pressure on the limited resources. The overexploitation of resources results in water scarcity, deforestation, desertification, food shortages, exhaustion of minerals and pollution.

Water

Use of water has been growing at more than twice the rate of population increase in the last century. Demand of water already exceeds supply in many parts of the world. Freshwater constitutes barely 0.03 % of the water that is available on the Earth's surface. Increasing population overexploits and pollutes the surface and underground water. The water is polluted by industries and in the developing countries 95 % of the sewage is let into rivers.

As the pressure on water resources intensifies, it leads to tensions and conflicts among users. By 2025, five billion people will be affected by severe water scarcity.

India has 20 percent of the Earth's population, but only four per cent of its water.

Food supply and land availability

As population increases, food supply has to increase. In Africa and Asia, rural population nearly doubled between 1950 and 1985, with a corresponding decline in land availability.

Existing farmlands decline because of changing land uses especially near urban areas. To overcome the shortage of land People clear forests for cultivation.

Deforestation

Eighty percent of the world's natural forests is destroyed by human development activities like logging, clearing for agriculture and grazing. Deforestation results in droughts, soil erosion, flooding, and global warming .

Desertification

One third of the Earth's land surface (35%) is threatened by desertification. It affects a large number of people living in 110 countries. Desertification occurs in the semi-arid lands and desertification is impossible to reverse.

Minerals

As the world's demand for minerals increase, minerals are being mined from greater and greater depths. This leads to ground pollution and lowers the watertable.

Fuel

About 80 % of the world's commercial energy comes from non-renewable fossil fuels like coal, oil and natural gas. The world's use of fossil fuels has nearly doubled every 20 years since 1900. There is a decline in the availability of these fossil fuels.

Land Degradation

The land is degraded by a combination of human activities. The land, air and water are highly polluted. The land is affected by landslides induced by massive deforestation, soil erosion, decline in soil fertility, extensive water logging and salinization in irrigated areas, unscientific mining, quarrying, road building, and waste disposal.

SATELLITE TECHNOLOGY AND RESOURCES

As population increases, people have to find ways and means of finding additional reserves of minerals and ground water. There is need for organized sharing of these limited resources for the benefit of human kind. This requires an understanding of the distribution and availability of natural resources over the Earth.

The development of space technology after the World Wars opened up new ways of understanding the Earth's resources. The first artificial satellite, Sputnik 1, was launched by the Soviet Union in 1957. This was followed by the launch of a number of satellites by different countries for various purposes. These include Earth Observation satellites, Communication satellites, Navigation satellites, Weather Satellites and Research Satellites.

Earth Observation satellites or Remote Sensing satellites help in finding and managing resources. Remote sensing satellites play an important role in natural resources inventory,

environmental monitoring and management. Important remote sensing satellites include LANDSAT of USA, SPOT of France, KITSAT of Korea and Yaogan of China.

The first **Indian Remote Sensing** Satellite IRS1A was launched in 1988. This was followed by the launch of a series of other satellites like IRS- 1B, 1C, 1D, P3, P5, P6, CARTOSAT and RESOURCESAT.

The remotely sensed data provide valuable information about land resources such as geology, soil, vegetation cover, water bodies and minerals. This information helps countries to plan for a sustainable future.

EXERCISE

I) Fill in the blanks.

1. The _____ population puts a lot of pressure on the available resources like land and Water.
2. By 2025, _____ billion people will be affected by severe water scarcity.
3. _____ affects a large number of people living in 110 countries.
4. In the developing countries 95 % of the sewage is let into _____.
5. The first Indian Remote Sensing Satellite IRS IA was launched in _____.

II) Choose the correct answer.

1. Freshwater of the Earth is only
 a) 30 % b) 0.03 % c) 3 %.
2. Droughts, erosion and global warming are caused due to
 a) Deforestation b) Afforestation c) Hunting

3. The first artificial satellite launched by the Soviet Union was _____.
- a) Sputnik I b) Sputnik II c) Kitsat
4. India has 20 % of the Population but the water available is only _____.
- a) 5 % b) 4 % c) 2 %
5. Water table is lowered when _____ activity increases
- a) Mining b) Hunting c) Fishing

III) Match the following.

- | | | |
|-----------------------------|---|-----------------------------|
| 1. Agricultural development | - | Semi- arid lands |
| 2. Desertification | - | France |
| 3. Commercial energy | - | Steady growth of population |
| 4. LANDSAT | - | Coal and oil |
| 5. SPOT | - | USA |

IV) Write brief answer.

1. What are the results of over- exploitation of resources.
2. Write the impact of over -population on water resources.
3. What are the ill - effects of over- population in the developing countries?
4. Name the satellites used for observing the earth's resources.

V) Answer in detail.

1. Discuss about the utilization of resources in the developing and developed countries.
2. "Large and increasing population exerts great pressures on the limited resources"- Explain.
3. How is remote sensing satellites helpful in managing resources?

FORMATIVE ASSESSMENT

1. Discussion:
If population of India is increased by 5% in the next decade what are problems we will face?
2. Project Work:
Collect the information about Remote sensing satellites of U.S.A, France and Japan.
3. In 2025 what type of food, would you prefer as an Indian.
4. Map Skill:
 - i. On a map of Europe mark the major rivers of Europe and discuss their uses.
 - ii. On a map of India draw the major rivers and write how are they useful for the Indian population.

1. ROAD SAFETY RULES AND REGULATIONS

Road safety – Rules and Regulations

India has the second largest road network in the world with over 3 million kms of roads of which 60% are paved. These roads make a vital contribution to the India's economy. On the whole, the facilities for the road users are not upto the mark, leading to a high toll of death. Recently, there is a growing concern over the road crash problem.

Importance of Road Safety

Safety is more important in everyone's life. Knowledge about road rules and road safety methods are more important for every one. Accident occurs almost everywhere in home, on road, in schools, in play grounds or even during recreation. Most of the accidents may be prevented. Accidents have a large impact on the life, health and financial aspects of the person involved. Accidents could even completely paralyse ones normal routine life.

For traffic assistance, call 103 through telephone.

The factors due to which accidents occur are classified as

a) Personal Factors

Age, fatigue, attitude physical defect, less knowledge about driving and disorder come under this category.

b) Environmental Factors

Weather, tools, machinery, driver and engine fault of the vehicles come under this category.

Road Rules in India

The rules of the road regulations was brought into effect from July 1, 1989. They serve as a basic guidelines for every Indian driver. He or she has to follow them while on the roads. They deal with basic facts such as overtaking, traffic signals, towing, speed limits and the necessary vehicle documents to be carried while driving.

Important Road safety Rules

Driver shall drive their vehicles on the left side of the road.

Overtaking may be avoided as far as possible.

Caution at road function

The driver of a motor vehicle shall slow down when approaching a road intersection, pedestrian crossing or a road corner.

Fire service vehicles and Ambulances must be given free



passage. The two vehicles need not wait at traffic signals.

Taking “U” Turn



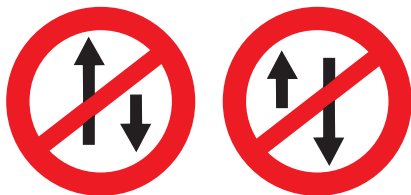
No driver shall take a “U” turn where “U” turn is especially prohibited on a busy traffic road. The “U” turn facility can be availed only in allowed turnings.

Signals to be given by drivers appropriately

- When he is about to slow down.
- When he is about to turn to the right or left.
- When he is about to stop.

Direction indicator should be used while taking a “U” turn or while turning to the left or right side of the road.

One -Way traffic



Drivers shall not drive motor vehicles on road declared as “one way”. Drive on Channelised road (lane Traffic)

a) Where roads are marked as lanes for movement, the driver of a motor vehicle shall drive within the lane and change of the lane only after giving proper signals.

b) Where any road is marked by a yellow line dividing road, vehicles preceding in the same direction trying to overtake each other shall not cross the yellow line.

Silence Zones

Driver of vehicles shall not use the



a) Sound of the horn needlessly or continuously or more than necessary to ensure safety.

b) Drivers should avoid sound of the horn in silence Zones.

c) Drivers should not drive vehicles which have mechanical defect and create undue noise when in motion.

Keep Distance

The driver of a motor vehicle, while moving behind another vehicle, shall keep at a sufficient distance from that other vehicle to avoid collision.

Documents to be possessed

A person driving a vehicle, Shall always carry with him/her driving license, certificate of registration, certification of taxation and certification of insurance of the vehicles and in case of transport vehicle, the permit and fitness certification also.

On demand by any officer of the motor vehicle department of the Government shall produce the documents for inspection.

Road safety cell

Road safety cell was set up by the Ministry of Surface Transport in September 1986. The Ministry has the right to formulate policies for road safety to minimise road accidents. The Ministry also

prepares national road safety policies.

Signals-Road signals

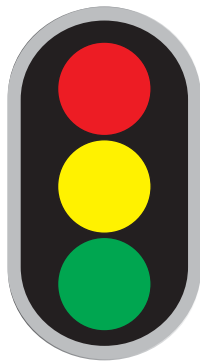
Road signals are the vital and integral part of the traffic system for the safety of the road users. As per IRC the safety (Indian Road Congress) Road signals are for indications on the road. The road signals are categorised into three types. They are:-

- 1) Mandatory signs or Regulatory signs.
- 2) Cautionary signs or warning or precautionary signs.
- 3) Informatory signs.

Traffic signals

A traffic light, traffic signal or a stop light is a signaling device positioned at a road intersection to indicate when it is safe to cross through. The traffic signals pass on its information using a universal colour code.

- | | | |
|--------|---|--------------------|
| Red | - | stop and wait |
| Orange | - | Get ready (Listen) |
| Green | - | Go |



Hand signals

Hand signals or manual regulation signs are the gestures

used to regulate traffic on the road using the hand movements. They are categorised as;

- 1) Hand signals by traffic policemen
- 2) Hand signals by drivers.





Road safety is emerging as a major social concern in the country. The statistics are mind boggling with an average mortality rate of 1.1 lakh persons per year dying in road accidents.

Causes for Road Accidents

1. Traffic Violations

Speed is the ultimate mantra of modern living. Everyone is moving fast to reach their desired destination. It is the major cause for accidents.

2. Absence of ample space for pedestrian

The roads are so narrow for vehicles and pedestrians move side by side. In such case, pedestrian are at high risk of



getting hit for they are not visible to drivers coming from behind.

3. Heavy vehicle traffic

In big cities, volume of vehicle traffic is high. Apart from normal vehicles, heavy vehicles are also run on the road. Separate routes and separate timings are allotted for the movement of heavy vehicles in cities. Even then accidents became inevitable.

4. Drunken driving

Under the influence of alcohol, drivers lose the ability to take any quick decision and it results in so many accidents.

Important Road safety tips are as follows

- 1) Don't use the mobile while driving.
- 2) use seat belt while driving.
- 3) Don't drink and drive.
- 4) Always adhere to speed limit.
- 5) Pedestrian should walk cautiously.
- 6) Walk on the foot path.
- 7) Pedestrian should cross the road only at the Zebra crossing.
- 8) Always wear helmets.
- 9) Obey the traffic signals.
- 10) Obey the traffic symbols.
- 11) Give way to the overtaking vehicles.
- 12) Person below 18 years should not be permitted to drive vehicles.



- 13) Parking of vehicles should be done only in the allotted places.
- 14) Encroachment on foot-path should be prevented.

Road safety week

Every year in the first week of January, (Road safety week) is celebrated throughout the state (Tamilnadu), so as to create awareness among school and college students, drivers and all other road users. During the year 2008-2009, Rs. 55 lakhs was provided for road safety awareness

building programme with the focus on “Carefully drive” “Reach Alive”. Apart from this, workshop for drivers involved in road accidents are also conducted as a measure to sensitize them and to create greater awareness regarding road safety aspects.

India registers the highest number of road accidents in the world. Annually 1.1 lakhs people die in road accidents in India .

Government of Tamilnadu
State Transport Authority
Road accident Data from 2005 to 2009

Year	Fatal		Serious Injury		Minor Injury		Non-Injury	Total
	NA	NPK	NA	NPI	NA	NPI		
2005	8844	9760	5214	7815	34669	54152	5151	53878
2006	10055	11009	4630	6833	36262	5708	4198	55145
2007	11034	12036	4498	6873	39494	64226	4114	59140
2008	11813	12784	4426	6696	39193	63555	4977	60409
2009	12727	13746	4448	6721	39676	36783	3943	60794

NA – Number of Accidents
NPK- Number of Person killed
NPI- Number of Persons Injured

Source: DGP-Chennai

For emergency call 108 for ambulance service

Road safety is the life line of a country. Government should sensitize the people about the road safety rules. Periodical seminars

should be conducted for the drivers and the road users. Students particularly from school level should know traffic rules and regulations

thoroughly. If, people follow the rules and regulations strictly, several thousands of precious lives will be

saved. Every citizen of India should take the following pledge to save their life.

I pledge to abide by the Rules of the Road.

EXERCISE

I) Choose the correct answer.

1. The rules of road regulations came into effect from _____.
a) 1989 b) 1990 c) 1998
2. Pedestrians can cross the road _____.
a) anywhere b) near the signals c) at Zebra crossing
3. Every year, first week of _____ is celebrated as Road safety week.
a) December b) January c) March
4. For emergency, call _____ for ambulance service
a) 108 b) 100 c) 106

II) Fill in the blanks.

1. Drivers should drive their vehicles on the _____ side of the road.
2. Road safety cell was set up in _____.
3. In Traffic Light _____ colour indicates stop.
4. Road signals are classified into _____ types

III) Match the following.

- | | |
|---------------------|------------------|
| 1. Orange | - Footpath |
| 2. Pedestrians | - Telephone |
| 3. Information sign | - Traffic police |
| 4. Hand Signal | - get ready |

IV) Answer the following questions briefly.

1. Mention the importance of road safety?
2. Draw and explain the traffic lights?
3. Write a few road safety tips.
4. Name the documents that a person driving a vehicle should possess.

V) Answer in detail.

1. Explain the importance of road safety rules.
2. Describe the causes for road accidents.

FORMATIVE ASSESSMENT

- 1. Discussion:**
Road safety ensures protection of life - Discuss.
- 2. Oratorical competition:**
Topic suggested: "Students' participation in Road safety".
- 3. Group Discussion:**
"Rules to follow on road" - discuss in group.
- 4. Prepare a wall poster:**
Make ready a wall poster to highlight the importance of road safety.
- 5. Essay writing:**
"Haste makes Waste" - write an essay.

1. MONEY, SAVINGS AND INVESTMENT

LEARNING OBJECTIVES

To know about the necessity of invention of money.

To understand the importance of money.

To gain knowledge about savings and investment.

In this chapter we will learn about the 'medium of exchange'.

Do you know what the medium of exchange is?

'Money' is the medium of exchange.

In the early stages of development, the need for exchange arose. But exchange took place first in the form of barter. It is the direct exchange of goods for goods. It is the system of trading without the use of money. But it had many difficulties and inconvenience. These difficulties led to the invention of money.

Money, to be used as a medium of exchange, must be universally acceptable. All people must accept a thing as money or the government should give it legal sanction.

Professor Walker has said, 'Money is that which money does'.

The word 'money' is derived from the Latin word 'Moneta'. It is the surname of Roman Goddess 'Junto'.



New symbol of Rupee

VALUE OF MONEY

It means the purchasing power of money. The purchasing power of money depends upon the price level.

The unique rupee symbol is a blend of the Devanagiri 'Ra' and Roman 'R'.

The symbol will not be printed or embossed on currency notes or coins.

It would be included in the 'Unicode Standard' and major scripts of the world to ensure that it is easily displayed and printed in the electronic and print media.

NATURE OF MONEY

While explaining the nature of money, it is essential to note that money is only a means and not an end in itself. Man buys various types of goods and services to satisfy his wants and in the present economic system these goods and services can be purchased only with the help of money. Money is desired by man



because it helps to satisfy his wants. Thus money is only a means and not an end in itself.



Indian Currencies & Coins

FUNCTIONS OF MONEY

Money performs many functions in a modern economy. The most important functions of money are:

- a) Medium of exchange,
- b) Measure of value,
- c) Store of value, and
- d) Standard of deferred payments.

Medium of exchange

The most important function of money is that it acts as medium of exchange. Money is accepted freely in exchange for all other goods.

Measure of value

It is a unit of account and a standard of common measurement. Price is nothing but value expressed in terms of money. As we use yards and meters for measuring clothes and kilograms for measuring weights, we use money for measuring value of goods. It makes economic calculations easy.

Store of value

Money is a convenient form of storing one's wealth. Money also serves as an excellent store of wealth as it can be easily converted into other marketable assets such as land, machinery, industries and gold.

Standard of deferred payments

Money is used as a standard for future payments. Business in modern times is based on 'credit' to a large extent. In credit, payments are made at a future date, money is the standard. If credit transactions were to be carried on the basis of commodities, there would be lot of difficulties and it will affect trade.

ECONOMIC SIGNIFICANCE OF MONEY

Every branch of economic activity in a money economy is different from what it was in a barter economy. Money has influenced and facilitated all economic activities in the field of consumption, production, exchange, distribution and public finance.

IMPORTANCE OF MONEY

Nowadays, you know money plays an important role in the economic development of a country.

Money is one of the most fundamental inventions of mankind. A modern economy cannot function smoothly without money. In fact the importance of money can be adequately realized only in its absence.

Money includes coins, currency notes, cheques, bills of exchange, credit cards and so on.

Identify the different Countries and currencies



SAVINGS AND INVESTMENT

The portion of income not spent on consumption is called savings.

Investment means addition to the existing production capacities. They include fixed equipments, machinery, building, raw materials, replacement due to depreciation etc.

Savings is inevitable for capital formation and economic growth. Savings is directly connected with investment. Savings and



investments are basic economic activities in an economy. Saving can therefore be vital to increase the amount of fixed capital available, which contributes to economic growth.

Piggy Bank-Save your Pocket Money!

Savings and investments are in the hands of two distinct groups of people. Savings is done by the consumers while investment is the function of entrepreneurial class. The motives for saving and investment are also different from each other.

Activity

Find out the currencies which are used in other countries- Draw the symbol.



EXERCISE

I) Choose the correct answer.

1. Money 'is what it does' is defined by _____.
a) Crowther b) Walker c) Robertson
2. The purchasing power of money depends upon the _____.
a) Price level b) demand level c) supply level
3. _____ is used as a standard for future payment.
a) Cheque b) money c) credit card
4. _____ is the unit of account and a standard of common measurement.
a) Medium of exchange b) measure of value c) store of value
5. The portion of income not spent on _____ is saving.
a) Consumption b) production c) distribution

II) Fill in the blanks.

1. _____ is one of the greatest inventions of man.
2. The word money is derived from the Latin word _____.
3. The most important function of money is that it acts as _____.
4. Money is a convenient form of storing ones _____.
5. _____ is inevitable for capital formation and economic growth.

III) Match the following.

- | | | |
|-------------------|---|---------------------------------|
| 1. Moneta | - | Old system of exchange of goods |
| 2. Store of value | - | fundamental invention |
| 3. Savings | - | Money |
| 4. Money | - | Function of money |
| 5. Barter system | - | contributes to economic growth |

IV) Write brief answers.

1. How did Prof. Walker define money?
2. Write briefly about the importance of money.
3. Explain the barter system.
4. Explain the standard of deferred payments.
5. Define savings and investments.

V) Answer in detail.

1. Describe the functions of money.
2. Discuss the significance of money.
3. Write in detail about savings and investment.

FORMATIVE ASSESSMENT

- 1. Prepare a chart**
Prepare a chart showing Indian currencies and coins.
- 2. Discussion:**
Discuss with your friends how the system of trading is done without the use of money.
- 3. Conduct a Survey:**
Conduct a survey in your locality whether exchange took place in the form of barter system.
- 4. Understand:**
Try to understand what is "commodity money".
- 5. Project report:**
Prepare a project report how consumers and entrepreneurs are performing for development of economy.