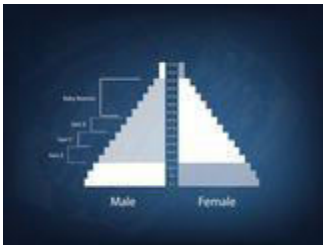
Q. What is Age sex pyramid? Describe the usefulness of age sex pyramid to describe the composition of population of a place.

Ans:- A **population pyramid**, also called an "**age-gender-pyramid**", is a graphical illustration that shows the distribution of various age groups in a population (typically that of a country or region of the world), which forms the shape of a pyramid when the population is growing. Males are conventionally shown on the left and females on the right, and they may be measured by raw number or as a percentage of the total population. This tool can be used to visualize the age of a particular population. It is also used in ecology to determine the overall age distribution of a population; an indication of the reproductive capabilities and likelihood of the continuation of a species.

A population pyramid is a way to visualize two variables: age and sex. They are used by demographers, who study populations. A population pyramid is a graph that shows the distribution of ages across a population divided down the center between male and female members of the population. The graphic starts from youngest at the bottom to oldest at the top. It is called a population pyramid because when a population is growing (there are more babies being born than there are people dying), the graphic forms the shape of a triangle. A population pyramid can be used to compare differences between male and female populations of an area. They also show the number of dependents (children and, sometimes, elderly people) and general structure of the population at any given moment.

Population pyramids are useful for studying the future of a region as well as examining historical and current population trends. If part of the population has been affected by sudden changes, such as casualties from armed conflict, high female mortality in childbirth, or the migration of young workers out of poorer regions, the graph will offer a way to visualize how the future population will be affected. They can also help direct government and private industry distribution of services for regions based on population needs.



Population pyramids help show how populations are composed and how they are changing. Here is a population pyramid from the United States in August 2016 showing various age groups: baby boomers, generation X, generation Y, and generation Z. Typically, there are three trends in population pyramids: expansive, constrictive, and stationary. These illustrate the trajectory of a regional population, which may be growing, shrinking, or staying the same.

Q:- What is the importance of Malthusian theory?

The **Malthusian Theory** of Population is the **theory** of exponential population and arithmetic food supply growth. The **theory** was proposed by Thomas Robert **Malthus**. He believed that a balance between population growth and food supply can be established through preventive and positive checks.

Q:- How useful is the demographic transition model?

Ans:- Using the **Demographic Transition Model**, demographers can better understand a country's current **population** growth based on its placement within one of five stages and then pass on that data to be used for addressing economic and social policies within a country and across nations.

Q:- Define human migration. Describe push and pull factors with example.

Ans:- **Migration** is the movement of people from one area to another.There are many economic, social and physical reasons why people emigrate and they can usually be classified into push and pull factors.

What are push and pull factors?

- Push factors are those associated with the area of origin
- Pull factors are those that are associated with the area of destination

Economic reasons

Economic motives loom large in all human movements, but are particularly important with regards to migration.

Pull Factors

- More jobs
- Better jobs
- Higher wages
- The promise of a “better life”

Sometimes this is encouraged by the destination country for example, the 1960’s employment campaign in the Caribbean by London bus companies that actively recruited young men to move to London to work as bus drivers, who were then often followed by their families.

Another example might be the “brain drain” to America that occurred in the latter half of the 20th century from several other western countries.

Push Factors

Economic push factors tend to be the exact reversal of the pull factors:

- Overpopulation
- Few jobs
- Low wages

This lack of economic opportunity tends to push people to look for their futures outside the area of their origin.

An example of this is the migration of Mexicans and people from other Central American countries into the US, where they often work low-wage, long-hour jobs in farming, construction and domestic labour.

It’s difficult to classify this case purely with push factors though, because often the factors associated with the country of origin are just as important as the factors associated with the country of destination.

Forced migration has also been used for economic gain, such as the 20 million men, women and children who were forcibly carried as slaves to the Americas between the 16th and 18th centuries.

Social reasons

Social reasons tend to involve forced migration

Pull factors

- Principles of religious tolerance

For example the US attracted religious refugees, such as the Mennonites, who settled in Pennsylvania.

Push factors

- Intolerance towards a certain cultural group
- Active religious persecution

Examples being the Huguenots in 16th century France, the Puritans in 17th century England and the Jewish refugees from Nazi Germany.

Physical reasons

Pull factors

- Attractive environments, such as mountains, seasides and warm climates

For example the Alps pull French people to eastern France. Spain attracts migrants, especially retirees, who seek warmer winters

Push factors

- Natural disasters

Examples would be the east African drought of 2011 and the mass exodus from the island of Montserrat leading up to the eruption of the *La Soufriere Hills volcano in 1995, which led to two thirds of the population abandoning the island.

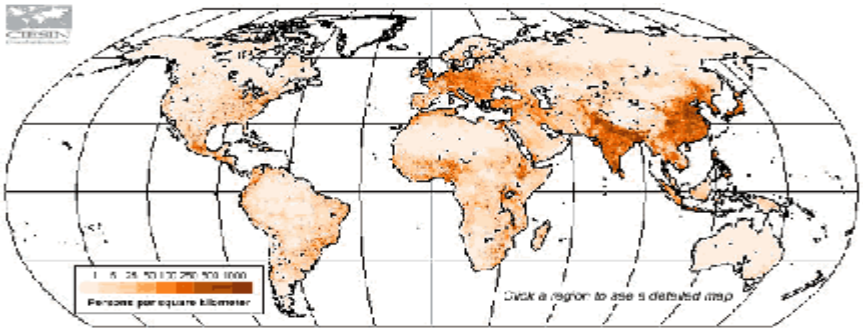
Q:- Discuss in details the factors affecting the distribution and density of population.

Ans:- **Population Distribution**
Population distribution means the pattern of where people live. World population distribution is uneven. Places which are **sparsely** populated contain few people. Places which are **densely** populated contain many people. Sparsely populated places tend to be difficult places to live. These are usually places with hostile

environments e.g. Antarctica. Places which are densely populated are habitable environments e.g. Europe.

Population Density

Population density is a measurement of the number of people in an area. It is an average number. Population density is calculated by dividing the number of people by area. Population density is usually shown as the number of people per square kilometer. The map below is a choropleth (shading) map and illustrates population density. The darker the colour the greater the population density.



Source: Columbia University's Center for International Earth Science Information Network
Page URL: http://sedac.ciesin.columbia.edu/plue/gpw/index.html?main.html&2

The map above shows that world population distribution is uneven. Some areas have a high population density while others have a low population density. Areas of high population density tend to be located between 20° and 60°N. This area contains a large land area and a relatively temperate climate.

Factors Affecting Population Density

There are a range of **human** and **natural** factors that affect population density. The tables below illustrate this.

Physical Factors	High Density	Low Density
Relief (shape and height of land)	Low land which is flat e.g. Ganges Valley in India	High land that is mountainous e.g. Himalayas
Resources	Areas rich in resources (e.g. coal, oil, wood, fishing etc.) tend to densely populated e.g. Western Europe	Areas with few resources tend to be sparsely populated e.g. The Sahel
Climate	Areas with temperate climates tend to be densely populated as there is enough rain and heat to grow crops e.g. UK	Areas with extreme climates of hot and cold tend to be sparsely populated e.g. the Sahara Desert

Human Factors	High Density	Low Density
Political	Countries with stable	Unstable countries tend to

	governments tend to have a high population density e.g. Singapore	have lower population densities as people migrate e.g. Afghanistan.
Social	Groups of people want to live close to each other for security e.g. USA	Other groups of people prefer to be isolated e.g. Scandinavians
Economic	Good job opportunities encourage high population densities, particularly in large cities in MEDCs and LEDCs around the world.	Limited job opportunities cause some areas to be sparsely populated e.g. Amazon Rainforest

Q:- Name the major population density zones of the world and discuss the reasond behind the concentration of population in each of the zone.

Ans:-

Five major population density zones of the world. The divisions are:

1. Very Sparsely Populated Zone—Less than 10 Persons/sq. k.m.

2. Low Density Zone—11 to 50 Persons/sq. k.m.

3. Moderate Density Zone—51 to 100 Persons/sq. k.m.

4. High Density Zone—101 to 300 Persons/sq. k.m.

5. Very High Density Zone—Over 300 Persons/sq. k.m.

1. Very Sparsely Populated Zone—Less than 10 Persons/sq. k.m.:
Despite massive increase of global population in recent years, vast stretches of earth surface is poorly inhabited with population density less than 10 persons per sq. k.m.

Some areas are even inhabited by less than 5 persons per sq. k.m. Some of these areas are:
1. Entire Polar areas, bounded by Arctic Circles, spread over Greenland etc. Besides Tundra area of C.I.S., Alaska in U.S.A. is also, practically, uninhabited.

2. The arid regions like Sahara and Kalahari in Africa, Thar Desert, Gobi and Mongolian deserts in Asia, Atacama Desert in S. America have less than 5 persons per sq. k.m.

3. The dense forest areas lying north and south of equator—known as tropical rain forest—are so inhospitable and environmentally hostile that population density is very poor.

The other scattered low density areas are:
(i) Siberian cold desert.

(ii) Colder areas of Canada, glaciated areas of Himalayas.

(iii) Desert regions of Mongolia.

(iv) Drier parts of Arabian peninsula, Central Asia, Mexico, etc.

Country-wise analysis reveals that Angola, Botswana, Central African Republic, Chad, Congo, Gabon, Libya, Mauritania, Namibia in Africa; Iceland and some parts of Russia in Europe; some parts of Canada in N. America; Belize, Surinam in S. America; Kazakhstan, Mongolia, Turkmenistan, in Asia and Australia in Oceania belong to very low population density zone.

Extreme climate with extreme temperature, very high and very low rainfall, infertile soil, rugged relief etc. make nature niggardly in these regions.

2. Low Density Zone—11 to 50 Persons/sq. k.m.:
In this zone hostility and adversity of nature is somewhat less than the very low density region. Soil is less barren, rainfall is moderate and temperature is not extreme.

Central African Republic, Chad, Congo, Gabon, Mali, Niger in Africa; some parts of Russian Federation, Finland, Norway, Sweden in Europe; some parts of South Canada and North U.S.A. in N. America; Bolivia, Guyana, Argentina, Peru, Uruguay, Venezuela in S.America, Oman, some parts of Saudi Arabia, Central Indian plateau, Tibetan part of China etc. belongs to this region.

The geographical sub-regions in this zone are:
1. Tropical Grasslands:
The non-commercial grazing grounds in tropical grassland support low to moderate density of population.

2. Temperate grasslands:

Canadian Prairie, Australian Downs, S African Veld, S. American Pampas belong to this region.

3. Mediterranean grasslands:
This area supports low to moderate population.

3. Moderate Density Zone—51 to 100 Persons/sq. k.m.:
Moderately fertile sub-humid, sub-tropical regions are moderately populated. This region consists of Angola, some parts of Algeria, Congo, Mali, Niger, Zambia in Africa; some parts of Norway, Russia, Austria, Bosnia, Bulgaria, Spain, Ukraine in Europe; Costa Rica, Honduras, in S. America; Cambodia, Georgia, Kuwait, Malaysia, Myanmar (Burma), Syria etc. in Asia.

4. High Density Zone—101 to 300 Persons/sq. k.m.:
This region is situated in temperate or sub-tropical warm region. Here life is more conducive. Nature is relatively hospitable with sufficient and consistent rainfall, riverine fertile alluvial soil and bearable temperature.

The major countries situated within this region are : Burundi, Zambia, Nigeria in Africa; Denmark, Czechoslovakia, France, Germany, Italy, Poland, Portugal, U.K. etc. in Europe; Cuba, Haiti in Central America; China, Korea, Pakistan, Philippines, Vietnam etc. in Asia.

5. Very High Density Zone—Over 300 Persons/sq. k.m.:
This zone has all the natural advantages including climate, soil, topography, vegetation. They attracted people over the years.

Though only few countries like Mauritius in Africa; Netherlands in Europe, Bangladesh, India, Japan, Korean Rep and Singapore in Asia fall under this category but, in micro-level number of geographical region and several urban areas all over the globe, can be considered as very high population density region.
Age-old intensive agriculture practice and neo-industrial and commercial activities has provided ample economic-opportunities to support huge population in some areas.