# Study Material B.Ed.
# Course Code:103
# Unit I & Unit II

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# Unit I:

## OBJECTIVES OF POPULATION EDUCATION

**The three props of Education are;**

**(1) Objectives   (2) Curriculum   (3) Methods of teaching.**


It is the aim and objectives of education that are decided first of all. Aims and objectives determine the curriculum. The next step is to teach the curriculum as effectively as possible. This step involves the use of methods of teaching.

Aims and objectives are of prime importance in any educational policy. Until objectives are specified and practical, no definite programme of education can be laid down. Population education needs spelling out of objectives for its teaching.

In 1969, National seminar on population education in Mumbai. The members of the seminar opined that the growth of population is a major challenge before the country. They decided that population education should be an integral part of education at all levels.

Kamala Rao and D. Gopal Roa suggested that the objectives of population education can be spelled out at three different levels.
1.    Policy level objectives.
2.    Implementation level objectives and
3.    Instructional objectives.


- **Policy level objectives emphasize**
    The general objectives of population education. Following are the aims
    and objectives of population.


1.    **To Develop Methodologies: -** The implementation and success of population education depends on the methodologies and strategies that it adopts. The methodologies will influence the young through schools and adults through other educational agencies. Population education undertakes different education programmes,

methods of teaching curricular and co-curricular activities for regular school goes and those who are out of schools. Population education their aims at developing different educational policies for education and imparting the learners.

2.  **Understanding population Education:-**

    For understanding population education we have to understand the
    Following aspects.

a)  **Understanding of Demography: -** The population education aims at developing understanding demographic transition of population growth. It enables a learner stages from anicentencies to modern times. This programme facilitates to understand difference in rise and fall of population growth in different periods.

b)  **Understanding different causes:-** The population education aims or developing understanding of rapid growth of population and its multi dimensions causes growth of population is the product of different factors like society, early marriages, remarriage of widows ,illiteracy ,presence of superstitions poverty, preference for sons, university of marriage, belief in large family ,joint family system,, agricultural economy etc.

c)  **Understanding Influence:** - Another objective of population education is developing the understanding of population growth social, political economic and cultural life of the people. It enables us to understand the serious effect-population growth on.

- Environment population
- Quality of life
- Economic development
- Labour & employment
- Food problems
- Agriculture
- Health problems etc.

d)  **Understanding influence an environment: -** Another objective of population education is to develop an understanding of evil effects of over-population on environment. The purpose is to acquaint the student with harmful effects of population growth on air pollution, water pollution, noise pollution, soil pollution, thermal pollution, radioactive population etc.

e)  **Understanding of Medical Advancement: -** One of the objectives of population education is to help the students to know that reduction of death rate was possible due to advancement in medical sciences and technology. The progress which the world

experienced in the advancement of medical sciences and technology eradicated many fatal diseases but there was no considerable decline in the birth rates with the result population growth is alarming. It will create an understanding among the learners that same medical science and technology could be utilized for controlling the birth rates.

**f)** **Understanding system of reproduction: -** The population education creates an understanding of the mechanism and physiology of rediproduction which are responsible for continuing of species. This part is highly concerned with the biological factors reading to the reproduction of human child.

3. **Appreciation of population Education: -** Appreciation of population education can be studied under the following heads.

a) **Population Growth and Quality of life: -** The population helps the learners to have application of the relationship between the population size and Quality of life. In general the population growth and quality of life are inversely related i.e. with the increase in population growth the quality of life decrease & vice versa. The population education makes learners conscious of how population growth effects the standard life. The increase in population has led to number of evil consequences;

- It does not enable people to overcome poverty.
- It creates under pressure on land.
- It creates serious food problems.
- It results in un employment.
- It leads to crimes and corruption.

b) **Good effects of small size family: -** Population education creates an appreciation of relationship between small size family and its good effects the preservation of the health of a mother and welfare of the children. Its aim should be unable the students to understand that family size in controllable and population limitation can facilitate the development of higher quality of life.

c) **Appreciation of family size programme:** - With the past four decades in every country of the world vast changes have occurred in many aspects of life. Population policies are now rapidly becoming and accepted part of developmental programmes. Population education develops an understanding among the learners, how family planning programmes can preserve the health of the mother, the welfare of the children, the economic, and the economic stability of the family and future prospects of younger

generation. Indian families today & in future should be small and with no more than one or two children.

d) **Appreciation of Govt Policies: -** Through population education the learners will definitely appreciate and understand the Govt family planning programme in relation to country's needs. Its objectives are;

- To reduce population growth rate not necessarily to zero
- To stabilize the population by achieving a zero population growth
- To achieve a negative growth rate with a view to reducing the size of population

4. **STUDY OF POPULATION TTENDS**

a) **Population Trends: -** Population trend implies a general direction in which population situation is changing. The population education seeks to study the influence of population trends on various aspects of life. It will further the study of close iteration of population growth and developmental process with particular reference to national programmes to raise the standard of life.

b) **Impact of population Education on society: -** The broader objective of population education is to study the broader implication of its introduction to parents, teachers, school, pupils & society.

5. **INVOLVING POPULATION EDUCATION**

a) **Formal Education system: -** According kamala Rao and D Gopal Rao population education should aim at involving the formal education systems and its curricular activities, teacher training programmes etc in imparting a systematic content on population education at stages of school and college education.

b) **Involving teacher and society:** - The aim of population education is to involve teachers and social workers to get involved actively and understand the gravity of the situation.

6. **RECOGNISINING CAUSES OF DEMOGRAPHIC PHENOMENA**

The aim of population education is to enable the individuals to recognise the causes of demographic phenomena, whether they are social, political, economic biological, ethical or religious and enable the people to remove these obstacles for social progress.

The objectives of population education is to enable the students to understand that family size is controllable, that population control can facilitate higher quality of life in the nation and small family size can contribute materially to the quality of living for the individual family. It should also enable the students to appreciate the fact that for

preserving the health & welfare of the family, to ensure economic stability of the family and to assure good prospects of the younger generation. The Indian families of today should be small and compact.

## DISTRIBUTION AND DENSITY OF POPULATION

Man is the cream of creation. He is the creator, producer and consumer. There is no part of the earth which has not been touched by man. To understand population properly, it is necessary to understand know distribution and density of population.

According to 2011 census, the estimated population of the world is 7 billion out of the estimated population 75.5% is concentrated in the developing and under developing and under developing countries of Europe, North America, South Africa, Japan, Australia and New zeland.

Continent wise the distribution is

Asia =61.2%, Africa =11.5%, North America =5.4%, South America =8.4% Europe + Russia =13% and Oceania=0.5%

Country wise china is the largest country with a population of 1.35 billion of the world and comprises of about 20% of the world population. It is followed by India. The population of India according to 2011 census is 1.20 billion. It comproses of the 17.5% of the population of the world. The next in order are U.S.A, (27 million), Indonesia (21 million), Russia (16 million), Japan (13million), Bangladesh (12.8million) and Nigeria (11 million)

Hemisphere wise 90% of the total population is concentrated in the Northern hemisphere and only 10% is in the southern hemisphere.

## DENSITY OF POPULATION

Population distribution is more locational, while as population density is more proportional population distribution is the spatial distribution in which people finds its location. Population density means relationship that exists between size of population and the area, Density of population is expressed in number of ways. The two important ways are

1.  Arthmetic density = $\dfrac{\text{Total Population}}{\text{Total area}}$

Expressed in terms of number of persons per sq.km.

2.   Physiological density or Nutritional density

$$= \frac{Total \quad Population}{Total\,agriculture\,area}$$

Expressed in terms of number of persons per sq.km of are able lands or agricultural land.

The average arithmetic density of world population is about 45 persons per sq.km. The actual density of population varies from place to place, region and country to country. The density of population varies from less than /person to ever 1000 persons per sq. Km and the areas of high density of population are small and scattered. Such unevenness in the distribution of population is not found as whole but in each region and country. There are number of factors which are responsible for such uneven distribution of population.

**FACTORS AFFECTING THE DISTRIBUTION OF POPULATION:-**

The population distribution pattern is ever changing phenomena. The main factors which affect the distribution of population on the surface of the earth are grouped into two categories.
1)   Physical factors
2)   Non-physical factors.

1.   **PHYSICAL FACTORS**

The physical factors which determine the distribution of   population are;
1)   LOCATION: - About 66% of the world population is concerned up to the distance of 500km from sea, and 75% up to the distance of 1000kms from the sea. These figures indicate that coasts are density population. This is because coastal areas experience moderate climate conditions and have increased accessibility to all the regions.
2)   Climate:- The most importance factor which determines the distribution of population in any region of the hot and humid climate is hostile for the people and has small concentration of population cold climates are also not suitable for population concentration and the areas of cold climate are sparsely peopled. The hot deserts of the, where temperature remains very high and have seareity of water also do not attract people. The areas where climate conditions are favourable are densely peopled.
3)   Relief: - The relief feature of the earth exerts tremendous influence upon the distribution of population in the different parts of the world high rugged relief restrict human access, habitation and cultivation. Almost all the mountainous areas of the world

do not favour the human settlements and that is why population in such areas is sparse. The plains and valley support human activity and are densely populated.

4) Soils: - is the medium on which crops are cultivated. The soils supply us with three basic necessities of life.i.e. Food clothing and shelter. The areas with fertile soil support and attract large people. The fertile soil are density populated on the other hand the areas with infertile soil are sparsely populated.

5) ENERGY RESOURCES: - The regions which are rich in energy and mineral resources attract people for the exploitation of resources for the economic upliftment of living standard petroleum and coal form the basis for the modern industrial development and where the minerals are found the population is dense.

6) ALTITUDE: - It has been found that the density of population decreases with altitude. Nearly 80% of the population is concentrated up to the attitude of 500mts. High altitude impose limitation on the human habitation due to drastic reduction of atmospheric pressure and reduction of oxygen level, which are dangerous for human life.

2. **NON PHYSICAL FACTORS**

The non physical factors or cultural factors which determine the distribution of population in the world are;

I.   Historical Factors: - The cities of early civilization are generally crowded because they have got settled very early i.e. Athens, Rome, and Nile valley Delhi etc.

II.   Demographic Factors: - These include the regions distribution fertility, mortality and migration Higher the fertility, higher the density of population. Higher the mortality, lower the density of population and higher the immigration rate higher the density of population and higher the emigration lower the density of population.

III.   Urbanisation: - Urban areas are densely populated than rural areas because of availability of employment facilities and other socio-economic facilities.

IV.   Industrialization: - Industrialization leads to urbanisation. Industrial economy supports large population as compared to agricultural economy.

V.   Modern facilities: - The areas with modern facilities i.e. having a good network of roads and communication, hospitals, drinking water, electricity, educational facilities, computer network tend to be densely populated.

VI.   Cultural factors:- These include social attitudes, stage of economic development and political organisation

**DISTRIBUTION OF POPULATION**

The world has been divided into 3 ones on the basis of density of population. These three zones are;

1. Regions of High density of population
2. Regions of moderate density of population
3. Regions of low density of population

## Regions of High density of population

The regions of high density of population include those are where the density of population is above 250 persons per sq km. There are four major zones of high density of population in the world.

- Eastern Asia: - which include china, Japan and kore.
- Southern Asia: - Comprising of India, Pakistan and Bangladesh.
- North Western Europe: - Comprising of Great Britain, Nether lands,    Belgium, Denmark and Germany.
- North eastern United States: - comprising regions between Great lakes and Atlantic coast.

The high density of population in the first two regions of Asia is due to intensive agriculture in low lands receiving adequate rainfall and irrigation facilities similarly there is high density of population in Nile valley and Java Islands of Indonesia. These are regions of intensive agriculture. The regions in Europe and United States have high density of population due to industrialisation and urbanisation.

## Regions of medium Density

The regions of medium density of population include the areas where the density of population is between 50-250 persons per sq. Km. Moderate density of population occurs in the river valleys of south- East Asia, central and southern Europe, Russia, regions of South America and South Africa. These are regions of extensive agriculture, pastorar activities and industrial development.

## Regions of Low density's

The regions of low density of population comprises of the areas where the density of population is below 50persons per sq.km. These include 80% of the land are, which is too rugged, too hot, too cold, too wet, too dry for the people to live in large number. The Polar Regions such as Antarctica and Greenland are extremely cold and sparsely peopled. The high mountains & dissected plateaus such as those in central Asia have rugged relief

which render settlements rather difficult except in accessible areas. The equatorial rain forest regions are inhospitable to live. The tropical deserts such as Sahara and Australia do not favour such as Sahara and Australia do not favour human settlement except in oases. In such inhospitable forests, deserts or mountainous regions, small number of nomads in habit the area.

## DISTRIBUTION AND DENSITY OF POPULATION IN INDIA.

The population of India according to 2011 census is 1021 billion. It accounts for 17.5% of the total population of the world. However India accounts only for 2.42% of the total land area of the world. The density of population according to 2011 is 382 persons per sq. Km.

Up with a population of 199 million are the largest populated states of India. It is followed by Maharashtra (112million) Bihar (104million), west Bengal (a/m) M.P (72million) T.N (71million) Rajasthan, Karnataka etc. Population wise Sikkim is the smallest state and its population is (1.05million)

On the basis of density of population Indian states /union territories can be divided into 3 categories.

1.    High density   2. Medium density   3. Low density

## High density states /Union Berritories.

The states of high density of population comprises of the states /union Berritories where the density of population is above national average i.e. 382 persons per sq. Km.

Bihar (1,106), west Bengal (1,028), Kerala (860) Up (829) Haryana (573) T.N (555) Punjab (551) Delhi (11320), Chandigarh (9258) Pondicherry (2547) Daman Di4 (2191) Lakshadweep (2149) Dadra Nagar Haveli (700)

## Moderate Density states/union territories.

The states of moderate density of population comprises of those states /union territories where the population density is between 100-382 persons per sq km. They include Maharashtra (308), Jelangona (309), Rajasthan (132), J&K (124) Himachal Pradesh (123) Nagaland (119), Manipur (115).

## Low Density states/Union territories.\

These include those states where the population density is below 100 and comprises of.

Sikkim (86), Mizoram (52), Arunachalprash (17) and Andman Nicobar Island (46).

## MIGRATION

**Definition: -** Migration is defined as the movement of an individual or a group from one place of residence to settle in another, either permanently or semi-permanently. Together with fertility and mortality, migration is one of the chief elements determining the population change of an area. Migration results in the re-distribution of population.

Migration has three fold impacts.
1. On the area experiencing immigration.
2. On the area experiencing out migration.
3. On the migrants themselves.

Whenever migration takes place, in whatever form it modifies the area of origin, the area of destination, as well as the life of migrants.

### Migration types

The phenomena of migration have been divided into various types on the basis of distance, time, movement, migration etc.

On the basis of distance migration is divisible into 3 types.

1. Long distance migration
2. Medium distance migration
3. Short distance migration

On the basis of motivation migration has been divided into two types.
1. Social migration
2. Economic migration

On the basis of time, migration has been divided into two types.
1. Long term migration
2. Short term migration

On the basis of nature of movement migration has been divided into two types.

1. Immigration:- Which denotes immigration
2. Emigration: - Which denotes outmigration.

On the basis of territorial jurisdiction migration the migration is of two types

1. International migration:-When the migrates movement of the people is from one country to another country.

2. Internal migration: - When the movement of the people is within the territorial jurisdiction of a country.

The internal migration is further classified into

i. Rural to urban
ii. Urban to Urban
iii. Rural to rural
iv. Urban to rural

**Rural to Urban:-**It implies the movement of people from rural to urban areas. It is caused by pull & push factors. This type of migration is common in less developed countries, where rural population far exceeds the urban population and where rapid industrialisation takes place. Both push of arural areas & pull of urban areas generate migratory tendencies among the people. In rular areas, poverty, unemployment, uncertain wages, income holdings and poor facilities of education, health, recreation and other services act as push factors by comparison the pull factors of urban areas may include better employment opportunities regular and high wages, fixed working hours, better facilities of education and other socio-cultural activities.

**Urban to Urban Migration: -** Inter urban migration takes place between one urban centre to another. This type of migration is common is highly urbanised countries of the world, though it takes place in less developed countries in smaller magnitude. Thus type of migration because of economic motives and better employment prospects. This type of migration leads to unprecented growth of big cities and the cost of small towns. Time and distance does not matter in this type of migration.

**Rural to Rural Migration: -** In India rural to rural migration is common. Those rural areas which are overcrowded and the agricultural productivity is low because of infertile soil people come to sparsely populated areas experiencing large scale economic developmental activities. Thus this type of migration can take place for longer distances and may be permanent.

**Urban to Rural areas: -** Urban to sub-urban /rural migration is relatively less common as compared to other types of migration such a movement takes place at advanced stage of development and is generated by over congestion. It is more in developed countries than in less developed countries.

### MISCELLANOUS TYPES OF MIGRATION

Some migrations are directed by Government concerned. For example, the Goran heights which were captured by isracal in 1973 fall in this category china Govt also forced the people to settle in Jibal to consolidate Chinese political base in this region. It also aimed at redistribution of population. These migrations were politically motivated.

In Indonesia Java is politically density populated. The Govt motivates people to move to sumabaro and Barneo with the purpose to create balance between to population and resources.

### CAUSES OF MIGRATION

Migration is complex phenomena. It is difficult to analyse motive behind migration. The factors which cause migration very from area to area and from person to person. The factors which cause migration are both pull factors as well as push factors push factors are those which operate in the areas of outmigration and compel the people to move to other areas. Pull factors are those which operate in the areas of immigration and attract people to settle in these areas. In fact both pull as well as push factors operate simultaneously. It is because of this it is difficult to differentiate between pull factors and push factors.

However, for the convenience of understanding the determinants of migration have been classified into 3 factors.
1. Social factors
2. Economic factors and
3. Demographic.

1. **SOCIAL FACTORS.**

These are certain factors which are socially rooted and responsible for migration.
1. **Marriage: -** Females move from the places of their parental residence to the places of residence of their spouses at the time of marriage. The motive behind

this type of motivation is to do nothing with economic gains. The Indian females are considered least mobile, but female migration is because of this factor.

2. **Religious Freedom:** - Religious freedom makes a man or a group of people to migrate from one place to another place. In order to preserve and profess their religion, Jews migrated from Germany before the war and settled in newly created state of Israel.

3. **Socio-Economic status: -** The people belonging to lower social status are more mobile. There are evidences in India to prove that the people with lower socio-economic status are more mobile because they do not have landed property to tie them to their native places similarly in Britain in 19$^{th}$ century people having lower social status were more mobile Higher status social status people who training, ability and information thus became more mobile.

4. **Information network:-** The availability of information through education, cultural contacts and iteration also increases the migration prospects. The communities that are ruled by ancient braditions customs and communal ties are less mobile than those who are socially awakened and where people have higher cultural contacts with other parts of the world and possess intense desire for social uplift and higher status.

5. **Govt policies:-** Govt policies make their contribution in giving specific direction to the population movement Example, Israel, Russia, china, Indonesia, France etc.

### ECONOMIC FACTORS

Economic motives constitute the most vital population movement. The economic determinants are

1. **Economic conditions of an area: -** The depressed economic conditions of an area generate tendencies of the people to out migrate where as the conditions reflecting economic prosperity after greater economic potentiality and attract immigrants. The industrial areas which have greater economic potential attract immigrants.

2. **The availability of good agricultural land:-** The areas which have acute population pressure and limited agricultural land resource base, generate outmigration, where as areas where agricultural land has been reclaimed and the areas where irrigation facilities have been made available and the agricultural conditions have been made available and the agricultural conditions have been improved attract immigrants.

3. **Role of Growth of employment:-** In ruler areas the relationship between resource base and population pressure is negative. In urban areas, the rate of growth of employment is high because of developmental activities and attract immigration. The recent years has also stimulated migratory tendencies because the facilities have increased migratory tendencies.

## DEMOGRAPHIC FAACTORS

Young adults are more mobile than children and elders. Similarly when the pressure of population is inversely proportional to resource base, this cause migration. In India same is the case with U.P and Bihar.

## CONSEQUENCES OF MIGRATION

It has been widely accepted that migration affects the areas of out migration, areas of immigration and the migrants themselves.

The areas from which the people move out and the areas to which the people move in both undergo qualitative and quantitative changes in demographic structure.

The population movement involves the relationship between physical resources and human resources. The physical resources and human resources get modified significantly.

When the people move from one place to another place, the demographic attributes like number, density, growth, fertility, mortality, age structure, sex compostion, literacy rate, occupational structure etc. Ex```periences quantitative change in their numerical express.

Similarly, the movement of educated and technically trained people into an area may not be seen interms of proportional increase in literacy but such a type of immigration may result in the change in the quality of life of the area.

The rural masses live in an open air and pollution free environmental conditions, but when they migrate to urban areas, face serious adaptation problems. In urban areas they suffer from lack of pure air, and open space, noxious fumes and dust. They have to adopt to new die try habits and timing of food. They suffer from various diseases, especially respiratory diseases.

The people who migrate to other areas try to preserve their culture especially religion and languages. Language becomes a serious problem when the people of different languages migrate in large number and live together for a longer period of time. French and English in Canada and Dutch and English in South Africa pose serious problems for their respective Governments.

Similarly when the people belonging to different religions migrate in large number and love together on the same piece of land, it either means healthy spread of all religions or may lead to rivalry base on religion. U.K and U.S.A are the examples where healthy spread of all religions faiths has emerged and Israelites and Palestinians provide the example, where religious rivalry has given rise to conflicts and wars.

**World mugrationn**

In the 17th century there was acute pressure of population in North-Western Europe upon its dwindling resources. The people starting migrating to other countries i.e. Brazil, south Africa, Australia, Newzealand. North America etc. This migration assumed alarming rate between 1820-1930. The humans were transplanted. But, the migration was voluntary. There were economic exigencies behind it.

During two world wars, millions of people out migrated from Germany and other countries but it was forced migration. It comprised of people of all ages and sex.

In 1917, Bolshevik revolutions in Russia forced are million Russians to move to adjacent parts of Europe.

In 1920, three lakh Americans fled for perceucation associate with Turkish revolution.
In 1930's more than a million refugees left Germany to escape Nazi persecution.

In 1947, emergences of Pakistan in Indian subcontinent forced 15 million people to cross the international borders or fled from one part of the sub-continent to another.

Emergence of Israel in 1948 forced about 1.5 million plaraman refuges to move to other parts of Arab countries.

In the present world the receiving countries are U.S.A, Canada, Australia, Nezealand. The main sources of migration are U.K, Philippines, Mexico, Cuba etc.

In the south-west Asia the receiving countries are sudi Arabia, Bahrain, Iraq, Jordon, Kuwait, U.A.E & Yemen. The main contributors are India, Pakistan, Bangladesh, Philippines, South Korea, Turkey etc.

Migration accepted as refuges, Burundi, Somalia, yogosalavia, Afghanistan, Iraq, Pakistan & India (Due to Political instability).

## MIGRATION IN INDIA

Receiving states:- Maharashtra, Delhi, Karnataka, Gujarat, Tamil Nadu, Andhra Pradesh, M.P, Goa west Bengal, Punjab, Chandigarh & J&K.

Supplier states:- Bihar, U.P, Rajasthan, Odhisha, North-Eastern states Jharkhand, Chhattisgarh, Uttrankhand, Kerala.

# Unit: - II

## SCOPE OF POPULATION EDUCATION IN SCHOOLS

**UNESCO** defines population Education." As an educational programme which provide for a study of the population situation in family, community, nation, and the world with the purpose of developing in students, rational and responsible attitudes and behaviour towards the situation."

There is a wide scope of population education in schools, because the schools are the centres of teaching & learning of young generations, the are future oriented, these promote social change and are engaged in adopting new innovation and changes.

Population Education includes the following areas of study.

a) Population dynamics and patterns of population growth.
b) Developing the basic understanding of the process of human reproduction.
c) Understanding of health problems associated with child bearing.
d) Appreciation of relationship between family size and quality of life.
e) Population characteristics and social-economic development.
f) Fanciliarity with population policies and family planning programmes of one's own country.

## PROBLEMS OF IMPARTING POPULATION EDUCATION IN SCHOOLS:-

a) Confusion in concepts
b) Shortage of qualified & trained teachers in population Education.
c) Prejudice of parents
d) Lack of suitable planning
e) Lack of coordination among various agencies working in the field of family planning/welfare and education.

## AIMS OF POPULATION EDUCATION IN SCHOOLS

a) To aware the students about the interrelationship between population changes and the forces of socio-economic development.
b) To aware the future citizens about the population situation in the country and the strategies adopted to meet the critical situation.
c) To make the students to know that population explosion in the country is the result of high birth rates and declining death rates in the recent decades.
d) To make the students understand relationship between family size and quality of life.

e) To impress upon the students that use of science and technology has helped in bringing down the death rate and same can be utilized in bringing down birth rates.

f) To help the students to know that the socio-economic burden in bringing up large families usually result in deterioration in quality of life

g) To provide population education its rightful place in the curriculum of the formal as well as non-formal programme of Education.

## ACTIVITIES AND PROGRAMMES INVOLVED IN POPULATION EDUCATION FOR SCHOOLS

1) Setting up of population education cell in the state council of Educational Research and training (SCERT) with competent and qualified officers and other supporting staff for efficient implementation of the programme.

2) Developing curriculum and text-books for primary, upper primary, secondary and higher secondary classes as well as the pre-primary and secondary teacher training institutions.

3) Developing training packages for training teachers and orienting senior supervisory staff for proper implementation of the programme.

4) Orienting field officers of education department, to administer, supervise, guide, coordinate, assess and monitor the programme implementation process.

5) Train key resource person for launching the programme.

6) To train teachers & teacher educators to properly handle the textual as well as the instructional material in the classroom.

7) To orient heads of the schools to guide intelligently and supervise the programmes in the schools.

8) Developing a suitable monitoring system for the periodic evaluation of the programme.

9) Developing exemplary lessons for the school radio and T.V Programmes.

10) Conducting research studies on the impact of population education on the attitude formation

11) Bringing out a news letter on population education to open up a two way communication channel between the population education cell and field workers.

12) Organise interstate visits and study tours within the country for mutual exchange of ideas and comparing of notes.

13) Translating from English to regional languages.

## PAPULATION EDCATION IN SCHOOLS
The following six major areas have been identified concepts in schools.
1) Population growth (determinants and demographic situation)
2) Population growth and economic development (consequences)
3) Population growth and social development (consequences)
4) Population health and nitration

5) Population biological factors & family size
6) Population programmes national & international.

The population education is not to be treated as a separate subject but should be integrated with other curricular subject. The draft syllabus in population education at different school levels includes the following topics.

**Elementary stage:**

i. Growth of population in cities
ii. Over crowded situation
iii. Population and economic development
iv. Importance of good health
v. Factors responsible for personal hygienc
vi. Life in stums
vii. Control of diseases
viii. Basic food groups
ix. Population and biological factors

**SECONDARY STAGE:**
i. Population growth
ii. Population growth & economic development
iii. Population growth and social development
iv. Health nutrition and population growth
v. Stages of growth

**HIGHER SECONDARY STAGE**
I. Population growth
II. Population growth and economic development
III. Health nutrition & population growth
IV. Population growth & social development
V. Population growth and Biological factors.

**CORRELATING SCHOOL SUBJECTS WITH POPULATION EDUCATION PROGRAMMES:**

Population Education is not to be treated as a separate subject, but should be integrated with other curricular subjects. A glimps of the different curricular subjects in relation to population education as;

a) **Languages: -** Materials in the form of stories, essays can be incorporated in language text books in mother tongue, regional languages, Hindi, English related to population problems.

b) **Mathematics:** - Problems relating to population growth can be taken up by way of percentage, bar, line, pic graphs etc.

c) **Science and Health Education:**- Problems relating to fertility, reproduction, family planning etc can be studied in sciences and health education.

d) **Social studies:** - Statistics on population growth, material on the impact of population explosion and socio economic development of the nation should find place in social studies.


## METHODS OF POPULATION EDUCATION

### DISCUSSED METHOD:

An old proverb says, "Two heads are better than one and when number of heads combine together to solve a problem, wonderful results can be achieved."

Discussion method of instructional strategy is a cooperative method in which the pupils and the teachers are the active participants. It is also a democratic method of imparting instructions because the participants are free to express their opinions and views.

Discussion method has been used in teaching learning process since time immemorial. It has been widely used in famous Nalanda University. The Greak scholars also used this method to discuss various problems and issues with their disciples. This method forms an important method in teaching learning process even during modern times. In fact, its importance is increasing day by day.

Webester dictionary defines discussions in the following manner, "To discuss means to consider, to examine to investigate the various sides of a question or a topic or a problem. This method ranges all the way from simple question answer technique to non-directive approach where the teacher is playing a laisezfair role. This technique is essential for democratic process."

In the discussion there is exchange of opinions and search for factual basis. The participants are involved in competetative cooperation. It aims at uniting and integrating the work of class.

Discussion encourages the students to use their experiences for further classification and consolidation of learning materials. Teacher's job is to provide guidance to the student's activities. A good discussion is well planned and well mannered conversation and as such participants must be courteous, clear, good natured, tolerant and sincere.

Discussion involves study and prepration, selection and organisation of subject matter, exchange of ideas & learning procedures. It invaluable training to the students in reflective thinking.

Discussion may be formed or informed. In formal discussion proper schedule is prepared and certain rules are observed. The informal discussion takes place informally, where discussion does not demand any schedule or observance of rules.

Group discussion may be organised on any topic or issue of population education. The important issues are family size equality of life causes of infant mortality, population growth and environmental pollution, population growth and economic & social development causes of in favourable sex ratio in India low Literacy level among females, religion and population growth etc.

## PRINCIPLES OF DISCUSSION

- Principle of active participation
- Principle of freedom for work
- Principle of group and actual participation to ask questions and answer them.

## CONSTITUENTS OF DISCUSSION

The constituents of discussion are;

Leader 2 Group 3 Problem 4 Content 5 Evaluations.

1. **The Leader: -** In the discussion teacher is the leader. He does the planning of the discussion selection and organisation of subject matter. As a leader the teacher has to lead & guide the discussion. He has to ensure that the members of the group participants in the discussion.
2. **THE GROUP: -** The students form the group. The students or members of the group differ in their intelligence, temperament and interests. Each and every member of the group may be encouraged by the leader to participate in the discussion.
3. **The problem:** - The problem or topic of discussion should be selected cooperatively by the teacher and the students. The problem must be definite & precise. It must be full of educative possibilities. It must touch to the lives of the people.
4. **The content:** - The content is the body of knowledge the facts and generalisation which must be drawn upon if any problem is to be discussed and resolved. In the discussions we have to constantly resort to facts and generalisation. The differences of opinion are to be discussed and differences are to be resolved, so that agreement is reached.
5. **Evaluation:** - At the end of the discussion, every participant should evaluate, whether discussion on a particular problem or topic has added to his knowledge and information changed his ideas attitudes, prejudice and increased his range of interests. A discussion

should bring change in ideas and attitudes and make participants more active than before.

### ADVANTAGES

i. Discussion helps to improve verbal self expression. It provides opportunity to every participant to express his views on the topic of discussion.

ii. It is a process of collective decision making

iii. It develops higher mental abiririties likely critical and logical way of thinking

iv. This method discourages rote memory and craming. It provies right approach for acquiring knowledge and information and leads to better understanding of the problem or topic.

v. Discussion develops right attitude, courtesy, clearity, patience, tolerance and sincerity among the participants.

vi. It develops social qualities like cooperation, unity , brotherhood selflessness and we feeling among the participants

vii. It is a democratic way of acquiring knowledge and information

viii. In this method students are active participants and not the passive listeners.

ix. The learning is of higher quality of life

x. It develops problem solving attitude & creativity

xi. Discuss is useful both for seniors as well as juniors

xii. Group discussion helps in indentifying and discovering talented students who have potential to become good leaders.

### LIMITATIONS

i. Discussion strategy is not useful for all topics, units or problems included in the subject

ii. It has a great chance for deviation from the main topics. It is likely to go off the track

iii. In discussion there is room for monopolisation only a few students dominate ad monopolize the situation. A large number of students do not participate in the situation.

iv. Too much of criticism may lead to unpleasant feelings. It may creat emotional tension.

v. This method is suitable for higher class but not for lower classes.

vi. If the discussion is conducted without proper schedule and observance of rules, it may degenerate into aimless talking & wastage of time

vii. It is time consuming and does not provide first hand information and direct experience to the educands

viii. Discussion method will hamper the completion of the syllabus of a particular class because it is time consuming.

## INQUIRY METHOD

Inquiry techniques of imparting instruction is a learner centered technique or approach. It is a method of development. In this method the child is lead to discover the truth by himself. This method is similar to problem solving method.

Inquiry may be developed as an educational device, whereby the teacher and the pupils attempt a conscious, planned and purposeful effort to arrive at an explanation or solution to some educationally significant difficulty.

## BASIC PRINCIPALS OF INQUIRY METHOD

- The problem of inquiry should be judiciously selected. It should be real, interesting and suitable. It should be selected according to age need mental and physical capacities and resourcefulness of the students. It must be related to the life of the students. It must be thought provoking and correlated with the previous knowledge and social and physical environment of the students. It must be educationally useful, activity oriented, clear and definite. It must have possible solution. It must have relationship with the curricular organisation and free from financial strains.
- While selecting the problem students must be given freedom. It should not be imposed on them.
- It must be stated clearly. It must be defined clearly. The students must be able to keep it in mind while working on it.
- The teacher should provide congenial environment for solving the problem of inquiry.

Every subject has its own problems the subject of population education is also full of problems, where we can make use of inquiry method Examples are;
- In favourable sex ratio in J&K
- Low female literacy rate in J&K
- Population growth & soil erosion
- Family size and quality of life
- Why people migrate to urban areas etc.

Inquiry method involves inductive and deductive approach. However the inductive method is more effective. In inductive method the students move form particular to general and from known to unknown.

The basic approach followed in the Inquiry method is to;
  i.   Creation of problem

ii.    Discovery of facts

iii.   Formation of hypothesis

iv.    Drawing of conclusion.

## ROLE OF TEACHER

- The teacher should be a great reader, interested in getting information and keep his knowledge up to date.
- He should have spirit of Inquiry and spirit of scientific investigation
- He should suggested different sources of information to the student and cultivates in them the habit of reading books.
- He should be expert in the art of asking questions and should have friendly attitude towards his pupils
- He should encourage students to ask questions
- He should encourage mental activity in the children
- He should maintain democratic atmosphere in the classroom
- He should be able democratic atmosphere in the classroom
- He should be able to devise problems of inquiry for different categories of pupils.
- He should be patient enough to observe the activities of learners.

## MERITS

i.     Inquiry methods helps in stimulating thinking

ii.    It develops power of reasoning and imagination

iii.   It helps to improve knowledge

iv.    It helps in developing good study habits

v.     The problem is solved by the joint efforts of many students. This develops unity cooperation and tolerance among them.

vi.    The students learn to be self-reliant and self dependence

vii.   Discussion helps to develop the power nof expression of the students

viii.  This method helps the teacher to know in detail his pupils. The teacher comes to know about the level of educational attainment of the pupils and accordingly guides.

ix.    It helps in the maintenance of discipline. This students remain busy to find answer to their own problem

x.     Knowledge is easily assimilated as a result of purposeful activity

xi.    It develops the potential of critical judgement

xii.   It helps a learner to act in a new situation

xiii.  The students are active participants in the act of learning and not passive listeners to the lectures of the teacher.

## DEMERITS

i. It involves only mental activity and no physical activity
ii. This method is not suitable for lower classes, where students lack sufficient background information
iii. It is time consuming and syllabus cannot be completing by applying this strategy
iv. It is due & monotonous
v. This is lack of adequate llibrarier in our system

## SELF STUDY METHOD

According psychologists no two individuals are alike. There are individual differences. The individuals differ in their habits, interest's, ideas, thoughts, actions attitudes, aptitudes feelings etc.

In a class, students also differ in their habits attitudes previous knowledge, intelligence etc. Every student is Unique so far as behaviour is converned. The habits are expressed in their thoughts feelings and action.

Different student differ so far as learning is concerned. Some student crame content material. Some students understand subject matter when they write it. Some comprehend & subject matter by listening to it. Some learn by observation. The habits possessed by students in carrying out study is different subjects is also different.

Research studies reflect that there is a perfect correlation between the study habits and outcomes of teaching learning process. If the study habits are good and desirable, the chances of realisation of educational objectives are better and vice versa. Therefore, study habits play an important role in the process and product of teaching & learning.

### MEANING OF SELF STUDY:-

It implies that the individual or a learner studies himself through his/her self efforts /independent efforts.

As a teaching device self study may be defined as an attempt on the part of teacher to persuade students to pick the path of independent learning resulting in the habit of acquiring knowledge or skills through his own independent efforts. Self study is a good study habit and fruitful exercise for acquiring knowledge, information and skills once the self study habit is picked up by the student, the process of teaching becomes easy and objective centered. For the success of this method teacher himself has to demonstrate the

skill of self study before students. He should provide essential resources and facilities for carrying out the independent study. He/she must inspire and eccourage the students for carrying out the independent study for the realisation of educational objectives.

For example, give student a topic on any problem of population education. The topic must be Uncommon and should not be available from common books. To find answer to the topic, a student must feel it necessary to consult a number of books. He/she must be allowed to take the resource of library and other literary sources.

### STEPS FOR SELF LEARNING

a. CLEARLY SET OBJECTIVE:- The first and fore most step of self study is to formulate smart and result oriented objectives i.e clearly difine the topics you need to learn and start collecting the relevant material accordingly.

b. Look out for good & reliable information sources:-The sources of information from where the valuable information is collected should be valid authentic & reliable.

c. Create Interest:- Maintenance of emotional stability is must for learning. Higher the interest higher the learning & vice versa. Interest increases when the learner comprehends the subject matter well. It is essential element of self study otherwise, it is a boring affair.

d. Cover your topic well from every angle:- Use different sources of information to learn a topic or problem so that the concepts are clear. Use different study material, encyclopedica, modern technology and reference material to topic well.

e. Prepared to Deal with problems:- There are always problems associated with every new learning. Doing something new, it is obvious that you would face problems. Intelligence is to be pre-prepared to face the problem. It takes longer time to understanr new things and solve new problems. We need not to get distracted by the problems, rather be ready to face them.

f. Make effective use Technology:- In self study technology plays an effective role. If a person is opting for self study, it is very important for him to keep himself updated with the latest technology and latest tutorials, encyclopedica & books.

g. Keep Learning:- Any time is learning time and any experience is learning experience. Learn constantly wherever time is available to do so you can take full advantage of the internet and various mobke devices even while travelling.

h. Look out for Learning communities:- In the present world one can easily Join learning communities on the internet. It will eliminate your loneliness and get value suggestion & information from such groups. It will  also help you to assess your achievements.

i. Take Gaps:- The following suggestions will help in the self study.

Start learning well in advance, so that you have sufficient time for preparing for a test.

The responses which are repeated are retained.If you want to retain material over a long period of time and have clarification of every topic, practice it at regular intervals.

Set your deadlines yourself for when you want to learn things and time for practice so that you can make a proper work plan on how to proceed effectively.

**MERITS:-**

a)      This  method of learning develops personality traits like self reliance, self dependence self confidence among the learners.

b)      It develops creativity among the students & makes them research oriented

c)      It broadens the mental horizon of the students

d)      It develops intellectual capacities of the students and could be used for acquiring knowledge & information

e)      The self study method makes the students to utilize the leisure time properly to enrich & increase their fund of knowledge and information.

f)      It help learner to study any subject of interest

g)      It makes learners systematic and organised


**DISADVANTAGES:-**

•      It does not have teacher to correct mistakes

•      This technique is not suitable for lower classes

•      Without interest and attitude for self study, it is mere wastage of time and energy on part of the students

•      In the absence of conducive and good environment and facilities , it does not yield worth while results

•      This method needs careful planning, which is lacking in our system

•      Teachers may use it as a good exercise for not  teaching in the class.


**ASSIGMENT METHOD**

The teacher should have at his command both knowledge and skills of variety of method. Some method are more effective in developing knowledge and others for developing skills. The method of teaching should be such be such as will arouse the interest of the students to such a degree that will continue to study the subject long after leaving classroom. Assignments are give due importance in all subjects.

Assignment means work that is allotted to the pupils or the class. Since school time is insufficient to complete the syllabus or the course of study, the necessasity for the assignment arises. It is a means for substituting and supplement teacher work. It is useful

for the child in the sense that it is a step toward self education. It enables the child to use his own resources and work unsupervised.

## CHARACTERISTICS OF A GOOD ASSIGNMENT

- It is definite and worthwhile
- It is clear & precise
- It is interesting
- It directs the learning activity
- It removes difficulties
- It recognises the individual differences
- It develops insight and understanding
- It emphasizes essentials
- It is stimulating, motivating and cooperative.
- The assignments can be ither low stakes (formative assignments) or high stakes (summative assignments)
- The number and type of assignments will depend upon course design, learning outcomes and course enrollment numbers.

## TYPES OF ASSIGMENTS:-

There are various types of assignments, that can be used to develop or or demonstrate students higher order thinking skills, writing skills presentation skills and /or collaborative and interpersonal skills

- Essays: - Essays are used to assess student's comprehension over specific content and the abirity to explain the material in their own words.
- Writing or research papers:- These papers focus on student comprehension, ability to understand material, but depending upon the purpose of the paper. It measures students innovation or evaluation abilities.
- Oral presentations:- are used as a method to assess oral presentation skills, understanding of the content and ability to organise and structure material.
- Projects: - are exceptional methods to assess student's creation or innovation abilities. For example, a student has to understand the material apply their understanding to another context, and construct a project based upon this comprehension.
- Case studies: - are used to apply class content to specific individual, usually themselves.
- Labs: - are ideal methods to apply abstract ideas or theories to concrete experiences.

• Group Assignments:- are able to assess interpersonal, communication and collaboration skills of students for collaboration a student must be able to synthesize the material from group members or help create a group solution or product.

## PRACTICAL SUGGESTIONS FOR TEACHERS

• Home assignment should be graded as per individual's interest and abilities and not to the whim of the teacher.

• It is not to be used as tool for punishment

• It should be definite and limited in scope

• These should be well thought and well planned in advance

• These should form the part of syllabus

• Assignments should be given according to time. Due share should be given to different school subjects

• The regular checking & correction of home assignments is essential. If it remains unchecked.

• It may be academic or practical type.

• It should encourage further reading

• It should be selective useful attractive and reactive.

## IMPORTANCE OF ASSIGNEMENTS:-

➢ Assignments arouse interest and attention of the students and hence motivate them to study

➢ Assignments supplement the teaching work done in schools

➢ This method of instruction stimulates thinking and develops insight and understanding

➢ It is useful activity which keeps child busy at home

➢ It develops self study habits among students

➢ It helps in covering lengthy and heavy syllabus

➢ It provides opportunity for review revision and supplementation of class work

➢ It develops work culture among the students

➢ It develops habit of reading regularly, habit which goes long way in the pursuit of knowledge

➢ It leads to self reliance self confidence and self dependence

➢ It develops power of independent and individual work among the children

➢  It helps in achieving the desired objectives

➢ It serves a link for parent teacher relation

## DRAWBACKS

There are some educationists who are against the allotment of home assignment to the children. They are of the opinion that six hour work in schools in quite sufficient. Giving extra work may create mania in the child. It may also work against the health of the child. It may also work against the health of the child. He/ She may remain under perpetual physical & mental strain during and after the school hours

- Parents complain that home assignments compel child to grade home duties
- Some teachers use home assignments as a means of punishing the teacher
- The home assignments make children book worms
- In home assignments there is no provision for direct experience
- Some teachers feel lazy & do not check the home assignements and make necessary correction. Under such circumstances the purpose and utility of assignments is defeated
- It is dull and monotonous method of learning and is devoide of recreation & entertainment
- Psychology of education pleads that learning should be enjoyable and this method is full of boredom and monotony

### OBSERVATION METHOD

Population is dynamic and never static. The subject matter of population education is size of population and its impact on socio-economic development of an individual family, community and the nation. Population education deals with the study of people. Its subject matter is concrete and realistic. We can observe people living and earning their living. We can observe the people multiplying on the surface of the earth. We can observe people utilizing the natural resources for improving the standard of life and making their life comfortable. We can see people migration from place to place. The various attributes of population can be seen and studied directly.

Observation constitutes the direct or firsthand experience of real and concrete objects or things. It has close connection with sense experience. Observation is basic to both scientific inquiry and artistic expression.

According to A.B. Alcott, "observation more than books and experience rather than persons are prime educators."

According to John Deway:- Anounce of experience is better than a ton of theory, because it is only through an experiences that any theory has vital and variable significance."

The technique of obtaining information about various attributes of population by direct observation is basic to the subject. It is very difficult for pupils in a classroom to understand certain basic facts about the population, if they are not given opportunity to observe these facts themselves. We should bear in mind that description about various attributes of population is based on the observation of some people

### PSYCHOLOGICAL BASIS

In order to comprehend psychological basis of observation, it is desirable to know how learning takes place. It is through sense organs. These sense organs. These sense organs are known as windows of soul. All learning is accomplished through sense organs i., ear, eye, skin, nose and tongue. These sensory impressions are the basis of knowledge about the world around us. Learning experiences are of three types.

- First hand or direct experience
- Representative or Reproductory experience
- Symbolic experience.


All these three types of experiences are necessary for right type of learning, but the direct experience is the most educative type of experience. Here the learning is more or less permanent. Direct experience but students in real situation, so that they learn themselves. It should form an essential and indispensable feature of education at all levels and in all subject.

The observation method of population education consists of two major activities

1. Direct observation
2. Observation of second hand material
1. Direct observation:- Direct observation of facts about population demands organisation of outdoor activities, like tours, travels, socio-economic surveys visits to various places etc. These activities should form an essential part of educating the pupils regarding population various facts about the subjects about which we can gain direct experience are;

- Density of population in rural areas & urban areas
- Pressure of population on land resources
- Pressure of population on forests
- Family size and education of parents
- Family size and percapita income
- Family size & standard of living
- Pressure of population on infrastructure
- Overcrowded schools, hospitals buson etc
- Population and resources
- Population and environmental pollution etc.


### OBSERVATION OF SECOND HAND MATERIAL

It is not possible to have firsthand experience of all aspects of population of all places. It is desirable to use A.V. aids in the classroom to make concepts clear, viewed, effective and

purposeful. This A.V aids which can be used are T.V radio video's charts graphs maps, statistical diagrams, etc. These materials are also known as second hand material.

The purpose of these materials is to supplement & support verbal experiences and better comprehension on the part of learners.

## MERITS

- Observation method makes the teaching and learning process easy, vivid interesting and purposeful
- Learning through observation technique is of higher quality
- Observation method develops among students social qualities like cooperation unit team spirit brotherhood friendship sympathy etc.
- This method develops self reliance self confidences and self dependence.
- This method breaks the dullness the boredom, dullness, drabness and monotony of classroom teaching
- Children have curiosity to see & observe the realities by themselves. This method satisfies this natural instincts.
- This method leaves permanent impression on the minds of the students
- The students explore the facts by themselves
- This method is scientific and psychological

## DEMERITS

- If observation is conducted aimlessly, it may degenerate into aimless wandering.
- It is time consuming and expensive
- It is likely to upset the school time table
- It is not suitable for lower classes where the pupils lack the power of purposeful observation
- It requires trained teachers with specialisations but our system lacks appropriate and sufficient training and trained staff
- Sometimes parents are found retactant in sending their children for observation

## FACTORS OF POPULATION GROWTH

The human population remains changing all the time of conditions are favourable food supplies are adequate and regular and there are no natural calamities the population tends to increase with the passage of time. On the other hand if the conditions are adverse food supplies are short of requirements are adverse, food supplies are short of requirements and calamities such as draughts floods epidemics commonly occure the population is likely to decline. Moreover people remain on move all the time.

A population growth implies a change in population between to given points in time. The net change in population between two points in time is expressed in percentage and is described as growth rate of population. Growth may be positive or negative. Growth may be negative if there is decrease in population between two given points in time. It may be positive if there is increase in population between two given points in time.

The growth rate of population is caused by two factors.

1. Natural increase and
2. Migration

1.    Natural increase is the outcome of excess of births over deaths. The natural increase may be high but if the people migrate out of a country or berritory in large number, the population with decrease.

In early periods human existence the number of deaths generally neutralised the number of births. There was high morality and it necessitated high fertility to assure survival of mankind.

It is said that agriculture was started by man around 8000 B.C. The world's population is estimated to be around 8 million at the advent of agriculture subsequently the improvement in food supply permitted the birth's to exceed death rates by modest margin. The population continued to growth at a slow rate for a long period of time and is estimated to have reached 800 million by the mid of the eighteenth century. After this the population started showing increase for the following reasons

I.      Industrial revolution increased tremendously the supporting capacity of an area.
II.     Man's increased controlled over nature
III.    Decline in morality rates

Consequently by 1950, the population of the world reached to 2.5 billion, by 1988, the population reached to 5 billion mark and in 2001 it crossed 6 billion. According to the census of 2011 the population of the world is more than 7 billion.

Till 1950, the growth rates were much higher in developed countries of North America, Europe and Japan than in the developing countries of Asia, Africa & South America for instance from 1850 to 1950 the growth rate in developed countries was 0.9% and in developing countries it 0.6%, but after 1950 the trend changed between 1950 to 1970 the growth rate in developing countries was 2.2% and in developed countries it was 1.1%

Continent noise Africa has the highest growth rate of 3% followed by south America 2.3% Asia 1.7% occeania 1.5% Russia 0.9% and Europe 0.3% & North America 0.9% The world average is 1.7%.

**GROWTH OF POPULATION IN INDIA**

Homosapier is the name of the branch of animals which constitute human beings. It is understood that homosapians did not emerge in India. India has been peopled by the people, who came to India from outside most probably from the west. There is no information available about the size of population in India before Mughal period. But it is believed that in 1600 A.D the population of India was 100 million or 10 crore with a rise of 2% it reached to 130 in the middle of 18<sup>th</sup> century

The first census of India was conducted in 1872, but it was not complete. A first official census was taken in 1881 A.D. After this the census is being continued and taken after every 10 years.

In 1881 the population of India was 250 million. There was a growth of 12 million from 1891-1921.

| Census year | Population in crores | Growth Rate |
|---|---|---|
| 1901 | 23.8 | -1.1 |
| 1911 | 25.2 | +5.7 |
| 1921 | 25.1 | -0.30 |
| 1931 | 27.9 | +11.0 |
| 1941 | 31.8 | +14.2 |
| 1951 | 36.1 | +13.3 |
| 1961 | 43.9 | +21.5 |
| 1971 | 54.8 | +24.8(24.8) |
| 1981 | 68.3 | +24.66 |
| 1991 | 84.6 | +21.51 |
| 2001 | 105.3 | +19.4 |
| 2011 | 121.5 | +17.2 |

This table shows that before 1921, the growth rate was negative as well as positive. It sometimes increased & sometimes decreased. But after 1921 the growth has been positive.

It increased continuously. This is why 1921 is taken as year of great divide or Demographic divide in the population history of India. After 1921 there has been tremendous progress in the field of medical sciences and technology and many total diseases were eradicated and population has been rising continuously

The determinants of population growth are;

- Fertility
- Mortality
- Migration