

HUMAN POPULATION AND ENVIRONMENT

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Population Growth.

Doubling Time :-

The time required for a population to double its size at a constant annual percentage rate of growth

$$T_d = \frac{70}{r}$$

r \Rightarrow Annual per. growth rate

The growth rate of population is determined by four principles components.

1. Birth rate.
2. Death rate.
3. Immigrate rate.
4. Emigrate rate.

Population growth among Nations

Group - I :- Most developed countries.

(U.S.A, Canada) have 20%

Population rate of increase in

Population in less than 1% / yr

Group II :- less developed countries

(Africa, Asia) have 80%
Population (20% land) rate increase
& greater than 1% / yr

Variation of population based on
Age structure

1. Pre-reproductive population

Pre-reproductive age group
& more. Post-reproductive age
group & less. Large number of
young age people will soon enter
into reproductive age. Group
which increase the population growth

India, Bangladesh, Nigeria.

2. Bell-shaped variation of
Population

Pre-reproductive age group
Population and reproductive
age, group population and more
or less equal. So the people
entering into the reproductive.

France, U.S.A, U.K, Canada.

2. Unshaped Variation of population

Pro. reproductive age group population is smaller than the reproductive age group population. In the next 10 years, the number of people in the reproductive age group is less.

Germany, Italy, Japan.

Causes

Increase in food population and distribution

Increase in birth rate

Decrease in death rate.

Increase of life expectancy.

Consequences

- * Over exploitation of resources.
- * Poverty and starvation
- * Increase in disease, crime, misery
- * Demand for shelter increases.
- * Unemployment
- * Over crowding.

Remedy.

- ⇒ Reduce fertility rate through birth control programme (BCP)
- ⇒ Family planning programme.
- ⇒ Campaign should be launched to promote small family concept.
- ⇒ Leader should appeal to the people for population stabilisation.
- ⇒ Proper family planning education.

Population Explosion

The enormous increase in population, due to low death rate and high birth rate.

Causes.

- *. Invention of modern medical facilities reduces the death rate.
- *. Illiteracy.
- *. Increase in life expectancy.

Effects

- ⇒ Poverty
- ⇒ Environmental

Human rights

The basic rights which are essential for the development of human personality such as rights to life, liberty, property and security of the individual.

1. Universal declaration of Human rights.
2. Covenant of civil and political rights.
3. Optional protocol to the covenant on civil and political rights.
4. Covenant of economic, social and cultural rights.
5. Geneva conventions.
6. Character of the United Nations.
7. Convention of the right of child.
8. Geneva of against torture.

Fundamental rights

1. Right to equality.
2. Right to freedom.
3. Right against Exploitation.
4. Freedom of religion.
5. Cultural and Educational rights.

Value education

Value education includes developing the appropriate sensibility moral, cultural, spiritual and the ability to make proper value judgement and internalise them in one's life.

Value education teaches,

- ⇒ How to live life well?
- ⇒ How to find happiness?
- ⇒ How to Make others happy?
- ⇒ How to behave and communicate with others?

Education for teaching values in character building activities include.

1. Telling
2. Modeling
3. Role playing.
4. Stimulating.
5. Problem Solving.
6. Moralizing.

Aspects

1. Subjects of personal social, national and spiritual values.
2. Elimination of poverty, ignorance ill-health, dowry, rejection of violence.
3. Thinking expressions and innovations which are rooted in India tradition.

classification.

1. Personal values
2. Social values
3. Moral values
4. Spiritual values
5. Behavioural values.

HIV & AIDS.

Acquired Immuno deficiency syndrome (AIDS) is caused by Human Immuno deficiency Virus (HIV)

Origin :-

First case of AIDS reported in a hospital of USA in 1981.

In India first HIV positive infection was detected among prostitutes in

in Madras in 1986.

Modes of transmission :-

⇒ Blood transfusion from the HIV infected persons.

⇒ Using Needles of syring contaminated with blood from HIV positive person.

⇒ Maternal - Foetal transmission

⇒ Prostitution activity.

Various stages of HIV.

*. The first stage is the initial infection in the blood the destruction of T-A cells

*. The second stage is the symptomatic carrier stage.

*. The 3rd stage is the AIDS - related complex.

Symptoms

1. Fever for more than a month.

2. Weight loss considerably.

3. Diarrhoea or loose motion for a longer period.

4. Persistent cough for a long period
5. Fall of hair from head
6. Tiredness for several weeks.

Effects.

1. Leads to death of large numbers of people.
2. HIV affected people cannot perform work well due to lack of energy and frequent sweating.

Prevention of control.

1. Safe sexual activity and sex education.
2. AIDS education
3. Awareness and counselling.
4. Blood and oxygen donor test.
5. Use of disposable needles | from drug users.

Role of IT in human health and Environment :-

- * It helps doctors to monitor and health of people effectively.
- * On-line help of expert doctors can be consulted to provide better.
- * Pacemakers are computers that operate within the human body to help it function better.
- * Though IT it is a possible to broadcast the preventive measures to be taken against communicable disease.
- * Database is a collection of interrelated data on various subjects. Data base is available for disease like AIDS, Malaria etc.
- * E-health is a condensed use of electronic communication and IT.

Role of IT in environment:

1. SRST (Satellite Remote Sensing Technology)

SRST helps in the evolution of its data and its interpretation offer potentially offer for assisting human dimensions of global environmental changes.

It gives information regarding.

1. Fossil fuel consumption
2. Biomass consumption
3. Land use and water Management
4. Agricultural activity.

2. GIS (Geographic Information System)

GIS is a technique and superimposing various thematic maps using digital data on a large number of inter-related aspects. DTM containing digital water resources soil type, forest land, crop land imposed in a layered form in computer using software.

3. Satellite Data :-

It gives information about forest cover, new reserves, minerals, monsoon, ozone layer depletion, smog etc.

4. World wide web :-

More current data is available on www. Important on line learning centres.

- 1) WWW . Mhe . com / environmental science
- 2) Multimedia Digital content Manager

(DCM) in the form of CD-ROM.