

**SECTION A 1X10=10**

- 1) Explain the India's population policy and population control measures.

**1 What do you know about India's Population Policy?**

**3.1 There are three types of objectives of National Population Policy (NPP) 2000:**

**1. The Immediate Objective:**

The immediate objective is to address the unmet needs for contraception, health care infrastructure and health personnel and to provide integrated service delivery for basic reproductive and child health care.

**2. The Medium Term Objective:**

The medium term objective is to bring the Total Fertility Rate (TFR) to replacement level by 2010 through vigorous implementation in inter-sectorial operational strategies.

**3. The Long Term Objective:**

The long term objective is to achieve a stable population by 2045 at a level consistent with the requirements of sustainable economic growth, social development, and environment protection.

**Targets:**

The following are the targets of National Population Policy:

1. Achieve zero growth rate of population by 2045.
2. Reduce infant mortality rate of below 30 per thousand live births.
3. Reduce maternal mortality ratio of below 100 per 1, 00,000 live births.
4. Reduce birth rate to 21 per 1000 by 2010.
5. Reduce total fertility rate (TFR) to 2.1 by 2010.

National Socio-Demographic Goals for 2010:

## **Family Welfare Schemes**

The Ministry of Health and Family Welfare has a number of schemes to cover the under-privileged sections of society and help them with maternity, post and neonatal healthcare and family planning. These include the Janani Suraksha Yojana, Rehabilitation of Polio Victims and several financial assistance schemes for surgery and other health problems. Counseling centres are also available across the country as part of the government sponsored family welfare schemes.

### **Some of the Important Family Welfare Schemes Are Listed Below:**

- **National Family Welfare Programme:** India launched the National Family Welfare Programme in 1951 with the objective of "reducing the birth rate to the extent necessary to stabilise the population at a level consistent with the requirement of the National economy. The Family Welfare Programme in India is recognised as a priority area, and is being implemented as a 100% centrally sponsored programme.

#### **National Population Policy:**

The National Population Policy, 2000 affirms the commitment of government towards voluntary and informed choice and consent of citizens while availing of reproductive health care services and continuation of the target free approach in administering family planning services.

#### **National Rural Health Mission:**

The National Rural Health Mission (200512) seeks to provide effective healthcare to rural population throughout the country with special focus on 18 states, which have weak public health indicators and/or weak infrastructure. The mission aims at effective integration of health concerns with determinants of health like sanitation and hygiene, nutrition and safe drinking water through a District Plan for Health.

- **Urban Family Welfare Schemes:** This Scheme was introduced following the recommendation of the Krishnan Committee in 1983. The main focus was to provide services through setting up of Health Posts mainly in slum areas. The

services provided are mainly outreach of RCH services, preventive services, First Aid and referral services including distribution of contraceptives.

- Sterilization Beds Scheme: A Scheme for reservation of Sterilization beds in Hospital run by Government, Local Bodies and Voluntary Organisations was introduced as early as in the year 1964 in order to provide immediate facilities for tubectomy operations in hospitals where such cases could not be admitted due to lack of beds etc. But later with the introduction of the Post Partum Programme some of the beds were transferred to Post Partum Programme and thereafter the beds were only sanctioned to hospitals run by Local Bodies and Voluntary Organisations.

### **Reproductive and Child Health Programme:**

The Reproductive and Child Health Programme was launched in October 1997 incorporating new approach to population and development issues, as exposed in the International Conference in Population and Development held at Cairo in 1994. The programme integrated and strengthened in services/interventions under the Child Survival and Safe Motherhood Programme and Family Planning Services and added to the basket of services, new areas on Reproductive Tract/Sexually Transmitted infections.

#### **3.1 population control: role of society, public opinion-**

Public opinion consists of the desires, wants and thinking of the majority of the people. This concept came about through the process of urbanization and other political and social forces.

Critically examine the measures taken by both central and State Government to control the population.

On-going interventions:

- 1) More emphasis on Spacing methods like IUCD.
- 2) Availability of Fixed Day Static Services at all facilities.
- 3) A rational human resource development plan is in place for provision of IUCD, minilap and NSV to empower the facilities (DH, CHC, PHC, SHC) with at least

one provider each for each of the services and Sub Centres with ANMs trained in IUD insertion.

4) Quality care in Family Planning services by establishing Quality Assurance Committees at state and district levels.

5) Improving contraceptives supply management up to peripheral facilities.

6) Demand generation activities in the form of display of posters, billboards and other audio and video materials in the various facilities.

7) National Family Planning Indemnity Scheme' (NFPIS) under which clients are insured in the eventualities of deaths, complications and failures following sterilization and the providers/ accredited institutions are indemnified against litigations in those eventualities.

8) Compensation scheme for sterilization acceptors - under the scheme MoHFW provides compensation for loss of wages to the beneficiary and also to the service provider (& team) for conducting sterilisations.

9) Increasing male participation and promotion of Non Scalpel Vasectomy.

10) Emphasis on Miniap Tubectomy services because of its logistical simplicity and requirement of only MBBS doctors and not post graduate gynecologists/surgeons.

people. It is the collective opinion of the people of a society or state on an issue or

11) Accreditation of more private/NGO facilities to increase the provider base for family planning services under PPP.

12) Strong political will and advocacy at the highest level, especially, in States with high fertility rates.

#### New Interventions under Family Planning Programme

1) Scheme for Home delivery of contraceptives by ASHAs at doorstep of beneficiaries: The govt. has launched a scheme to utilize the services of ASHA to deliver contraceptives at the doorstep of beneficiaries.

2. Scheme for ASHAs to ensure spacing in births: The scheme is operational from 16th May, 2012, under this scheme, services of ASHAs to be utilised for counselling newly married couples to ensure delay of 2 years in birth after marriage and couples with 1 child to have spacing of 3 years after the birth of 1st child.

ASHAs are to be paid the following incentives under the scheme:-

a.Rs. 500/- to ASHA for ensuring spacing of 2 years after marriage.

b.Rs. 500/- to ASHA for ensuring spacing of 3 years after the birth of 1st child.

c. Rs. 1000/- in case the couple opts for a permanent limiting method up to 2 children only. The scheme is being implemented in 18 States of the country (8 EAG, 8 NE Gujarat and Haryana).

3. Boost to spacing methods by introduction of new method PPIUCD (Post-Partum Intra Uterine Contraceptives Device).

4. Introduction of the new device Cu IUCD 375, which is effective for 5 years.

5. Emphasis on Postpartum Family Planning (PPFP) services with introduction of PPIUCD and promotion of minilap as the main mode of providing sterilisation in the form of post-partum sterilisation to capitalise on the huge cases coming in for institutional delivery under JSY.

Assured delivery of family planning services for both IUCD and sterilisation.

6. Compensation for sterilisation acceptors has been enhanced for 11 High Focus States with high TFR.

7. Compensation scheme for PPIUCD under which the service provider as well as the ASHAs who escorts the clients to the health facility for facilitating the IUCD insertion are compensated.

8. Scheme for provision of pregnancy testing kits at the sub-centres as well as in the drug kit of the ASHAs for use in the communities to facilitate the early detection and decision making for the outcome of pregnancy.

9. RMNCH Counselors (Reproductive Maternal New Born and Child Health) availability at the high case facilities to ensure counseling of the clients visiting the facilities.

10. Celebration of World Population Day 11th July & Fortnight: The event is observed over a month long period, split into fortnight of mobilization/sensitization followed by a fortnight of assured family planning service delivery and has been made a mandatory activity from 2012-13 and starts from 27th June each year.

11. FP 2020- Family Planning Division is working on the national and state wise action plans so as to achieve FP 2020 goals. The key commitments of FP 2020 are as under :

12) Increasing financial commitment on Family Planning whereby India commits an allocation of 2 billion USD from 2012 to 2020.

13) Ensuring access to family planning services to 48 million (4.8 crore) additional women by 2020 (40% of the total FP 2020 goal).

14) Sustaining the coverage of 100 million (10 crore) women currently using contraceptives. Reducing the unmet need by an improved access to voluntary family planning services, supplies and information. In addition to above, Jansankhya Sthirata Kosh/National Population Stabilization Fund has adopted the following strategies as a population control measure:-

Prerna Strategy:- JSK has launched this strategy for helping to push up the age of marriage of girls and delay in first child and spacing in second child the birth of children in the interest of health of young mothers and infants. The couple who adopt this strategy awarded suitably. This helps to change the mindsets of the community.

Santushti Strategy:- Under this strategy, Jansankhya Sthirata Kosh, invites private sector gynaecologists and vasectomy surgeons to conduct sterilization operations in Public Private Partnership mode. The private hospitals/nursing home who achieved target to 10 or more are suitably awarded as per strategy.

National Helpline: - JSK also running a call centers for providing free advice on reproductive health, family planning, maternal health and child health etc

Advocacy & IEC activities:- JSK as a part of its awareness and advocacy efforts on population stabilization, has established networks and partnerships with other ministries, development partners, private sectors, corporate and professional bodies for spreading its activities through electronic media, print media, workshop, walkathon, and other multi-level activities etc. at the national, state, district and block level.

### 3.4 Family Welfare Schemes

The Ministry of Health and Family Welfare has a number of schemes to cover the under-privileged sections of society and help them with maternity, post and neonatal healthcare and family planning. These include the Janani Suraksha Yojana, Rehabilitation of Polio Victims and several financial assistance schemes for surgery and other health problems. Counseling centres are also available across the country as part of the government sponsored family welfare schemes.

Some of the Important Family Welfare Schemes Are Listed Below:

- **National Family Welfare Programme:** India launched the National Family Welfare Programme in 1951 with the objective of "reducing the birth rate to the extent necessary to stabilise the population at a level consistent with the requirement of the National economy. The Family Welfare Programme in India is recognised as a priority area, and is being implemented as a 100% centrally sponsored programme.

**National Population Policy:**

The National Population Policy, 2000 affirms the commitment of government towards voluntary and informed choice and consent of citizens while availing of reproductive health care services and continuation of the target free approach in administering family planning services.

**National Rural Health Mission:**

The National Rural Health Mission (2005<sup>12</sup>) seeks to provide effective healthcare to rural population throughout the country with special focus on 18 states, which have weak public health indicators and/or weak infrastructure. The mission aims at effective integration of health concerns with determinants of health

like sanitation and hygiene, nutrition and safe drinking water through a District Plan for Health.

- **Urban Family Welfare Schemes:** This Scheme was introduced following the recommendation of the Krishnan Committee in 1983. The main focus was to provide services through setting up of Health Posts mainly in slum areas. The services provided are mainly outreach of RCH services, preventive services, First Aid and referral services including distribution of contraceptives.

- **Sterilization Beds Scheme:** A Scheme for reservation of Sterilization beds in Hospital run by Government, Local Bodies and Voluntary Organisations was introduced as early as in the year 1964 in order to provide immediate facilities for tubectomy operations in hospitals where such cases could not be admitted due to lack of beds etc. But later with the introduction of the Post Partum Programme some of the beds were transferred to Post Partum Programme and thereafter the beds were only sanctioned to hospitals run by Local Bodies and Voluntary Organisations.

#### **Reproductive and Child Health Programme:**

The Reproductive and Child Health Programme was launched in October 1997 incorporating new approach to population and development issues, as exposed in the International Conference in Population and Development held at Cairo in 1994. The programme integrated and strengthened in services/interventions under the Child Survival and Safe Motherhood Programme and Family Planning Services and added to the basket of services, new areas on Reproductive Tract/Sexually Transmitted infections.

#### **Population control measures.**

#### **Measure of Population Control**

##### **A. Social Measure:**

Population explosion is a social problem and it is deeply rooted in the society. So efforts must be done to remove the social evils in the country.

##### **1. Minimum age of Marriage:**



As fertility depends on the age of marriage. So the minimum age of marriage should be raised. In India minimum age for marriage is 21 years for men and 18 years for women has been fixed by law. This law should be firmly implemented and people should also be made aware of this through publicity.

### **Raising the Status of Women:**

There is still discrimination to the women. They are confined to four walls of house. They are still confined to rearing and bearing of children. So women should be given opportunities to develop socially and economically. Free education should be given to them.

### **2. Raising the Status of Women:**

There is still discrimination to the women. They are confined to four walls of house. They are still confined to rearing and bearing of children. So women should be given opportunities to develop socially and economically. Free education should be given to them.

### **3. Spread of Education:**

The spread of education changes the outlook of people. The educated men prefer to delay marriage and adopt small family norms. Educated women are health conscious and avoid frequent pregnancies and thus help in lowering birth rate.

### **3. Spread of Education:**

The spread of education changes the outlook of people. The educated men prefer to delay marriage and adopt small family norms. Educated women are health conscious and avoid frequent pregnancies and thus help in lowering birth rate.

### **4. Adoption:**

Some parents do not have any child, despite costly medical treatment. It is advisable that they should adopt orphan children. It will be beneficial to orphan children and children couples.

### **5. Change in Social Outlook:**

Social outlook of the people should undergo a change. Marriage should no longer be considered a social binding. Issueless women should not be looked down upon.

## **6. Social Security:**

More and more people should be covered under-social security schemes. So that they do not depend upon others in the event of old age, sickness, unemployment etc. with these facilities they will have no desire for more children.

## **B. Economic Measures:**

### **The following are the economic measures:**

#### **1. More employment opportunities:**

The first and foremost measure is to raise, the employment avenues in rural as well as urban areas. Generally in rural areas there is disguised unemployment. So efforts should be made to migrate unemployed persons from rural side to urban side. This step can check the population growth.

#### **2. Development of Agriculture and Industry:**

If agriculture and industry are properly developed, large number of people will get employment. When their income is increased they would improve their standard of living and adopt small family norms.

#### **3. Standard of Living:**

Improved standard of living acts as a deterrent to large family norm. In order to maintain their higher standard of living people prefer to have a small family. According to A.K. Das Gupta those who earn less than Rs. 100 per month have on the average a reproduction rate of 3.4 children and those who earn more than Rs. 300 per month have a reproduction rate of 2.8 children.

#### **3. Urbanisation:**

It is on record that people in urban areas have low birth rate than those living in rural areas. Urbanisation should therefore be encouraged.

## **C. Other Measures:**

## **The following are the other measures:**

### **1. Late Marriage:**

As far as possible, marriage should be solemnized at the age of 30 years. This will reduce the period of reproduction among the females bringing down the birth rate. The govt. has fixed the minimum marriage age at 21 yrs. for males and 18 yrs. for females.

### **2. Self Control:**

According to some experts, self control is one of the powerful methods to control the population. It is an ideal and healthy approach and people should be provided to follow. It helps in reducing birth rate.

### **3. Family Planning:**

This method implies family by choice and not by chance. By applying preventive measures, people can regulate birth rate. This method is being used extensively; success of this method depends on the availability of cheap contraceptive devices for birth control. According to Chander Shekher, "Hurry for the first child, Delay the second child and avoid the third."

### **Recreational Facilities:**

Birth rate will likely to fall if there are different recreational facilities like cinema; theatre, sports and dance etc. are available to the people.

### **5. Publicity:**

The communication media like T.V., radio and newspaper are the good means to propagate the benefits of the planned family to the uneducated and illiterate persons especially in the rural and backward areas of country.

### **6. Incentives:**

The govt. can give various types of incentives to the people to adopt birth control measures. Monetary incentives and other facilities like leave and promotion can be extended to the working class which adopts small family norms.

### **7. Employment to Woman:**

Another method to check the population is to provide employment to women. Women should be given incentive to give services in different fields. Women are taking active part in competitive examinations. As a result their number in teaching, medical and banking etc. is increasing rapidly. In brief by taking, all these measures we can control the growth of population.

## **2. Give a detail account on the importance of population education?**

### **Need & Importance of Population Education**

The need & importance of population education can be stated under following headings:

#### **1) Controlling of Population Explosion**

At present we are witness the unprecedented growth of population in the form of population explosion. This is indeed a dangerous trend as it poses a great challenge for the welfare and development of the India and the entire mankind. Here population education can serve as safety valve against the global threat to mankind.

#### **2) Ensuring Quality Life:**

Rapid population growth is a great hindrance in the way of enjoying the better standard of life. Here population education serves as a potent instrument through which people can be made aware about the better quality life through a programme of planned intervention to stop unprecedented the population growth and to ensure better stand of life.

#### **3) Optimum Use of Natural Resources:**

The problem of rapid population growth has led to the uneven and indiscriminate use of natural resources. As a result multiple problems and issue have come up on account of this problem.

#### **4) Solving Food Problem:**

Third world countries like India find it very hard to make both ends meet. The developing countries like India are not able to meet the adequate provision of food

millions of helpless and poor people. Population education can help in this regard by making people aware about the ill

### **5) Effects of over population.**

Creating Positive & Health Attitude among Students: Population education in long run can help us to develop in young generation the positive attitude toward rapid population growth and its effects on economy and development of the take rational decisions about the looming threat of population explosion.

### **6) Developing Appropriate Reproductive Behaviour:**

About 50% Population in India is under the age of 18. This age group needs to be properly made aware of ill effects of population growth. Population education is needed on the account that it can help us to develop among the young generations the appropriate reproductive behaviour. At present

**7) Need for Democracy:** It has been well said that greater the population lesser the democracy and lesser the population greater the democracy. Population explosion leads to unemployment, poverty and many other social issues; therefore there is need of restricting the rapid population for the success of democracy and the development of the nation.

**8) To check the effects of over population:** Population education makes us aware of the ill effects of the rapid population growth and its impact on the socio-economic prospects of the nation. Therefore there is the need of population education for better understanding of the issues related to the population.

## **PART B 4X4=20 MARKS**

Answer any five questions.

3. Write short notes on the need of research in population Education.

Population education helps and enables us to be aware of the process and consequence of population growth on the quality of our lives and the environment. Population education provides the learners with a knowledge and understanding of the prevailing population situation in their own country and the world.

Population education makes the people aware of the population related issues. ... It gives knowledge about the population situation, makes people aware of population problems and teaches methods for its proper management. It also brings about changes in their behaviours.

4. Give an account on the basic components of population dynamics.

The main components of population change are **births, deaths, and migration**. “Natural increase” is defined as the difference between live births and deaths. “Net migration” is defined as the difference between the number of people moving into an area and the number of people moving out.

Population dynamics is the type of mathematics used to model and study **the size and age composition** of populations as dynamical systems.

A population describes a group of individuals of the same species occupying a specific area at a specific time. Some characteristics of populations that are of interest to biologists include the population density, the birthrate, and the death rate. If there is immigration into the population, or emigration out of it, then the immigration rate and emigration rate are also of interest. Together, these population parameters, or characteristics, describe how the population density changes over time. The ways in which population densities fluctuate—increasing, decreasing, or both over time—is the subject of population dynamics.

## **5. List the effects of population growth.**

### **EFFECTS OF OVER POPULATION**

Even after 67 years of independence, the scenario of our country is not good, due to over population. Some major impacts of high population are as follows:

- 1) Unemployment: Generating employment for a huge population in a country like India is very difficult. The number of illiterate persons increases every year. Unemployment rate is thus showing an increasing trend.
- 2) Manpower utilisation: The number of jobless people is on the rise in India due to economic depression and slow business development and expansion activities.

3) Pressure on infrastructure: Development of infrastructural facilities is unfortunately not keeping pace with the growth of population. The result is lack of transportation, communication, housing, education, healthcare etc. There has been an increase in the number of slums, overcrowded houses, traffic congestion etc.

4) Resource utilisation: Land areas, water resources, forests are over exploited. There is also scarcity of resources.

5) Decreased production and increased costs: Food production and distribution have not been able to catch up with the increasing population and hence the costs of production have increased. Inflation is the major consequence of over population.

6) Inequitable income distribution: In the face of an increasing population, there is an unequal distribution of income and inequalities within the country widen. Areas that do not attract people. The areas where climate conditions are favourable are densely populated.

## **6. Describe the Mental Health welfare programmes in India.**

The Government of India has launched the National Mental Health Programme (NMHP) in 1982, keeping in view the heavy burden of mental illness in the community, and the absolute inadequacy of mental health care infrastructure in the country to deal with it.

The vision of the National Mental Health Policy is to promote mental health, prevent mental illness, enable recovery from mental illness, promote destigmatization and desegregation, and ensure socio-economic inclusion of persons affected by mental illness by providing accessible, affordable and quality health.

### **What are the components of national mental health Programme?**

NMHP has 3 components:

Treatment of Mentally ill. Rehabilitation. Prevention and promotion of positive mental health.

## **7. Write short on family welfare programmes in India.**

## **Family Welfare Schemes**

The Ministry of Health and Family Welfare has a number of schemes to cover the under-privileged sections of society and help them with maternity, post and neonatal healthcare and family planning. These include the Janani Suraksha Yojana, Rehabilitation of Polio Victims and several financial assistance schemes for surgery and other health problems. Counseling centres are also available across the country as part of the government sponsored family welfare schemes.

Some of the Important Family Welfare Schemes Are Listed Below:

- **National Family Welfare Programme:** India launched the National Family Welfare Programme in 1951 with the objective of "reducing the birth rate to the extent necessary to stabilise the population at a level consistent with the requirement of the National economy. The Family Welfare Programme in India is recognised as a priority area, and is being implemented as a 100% centrally sponsored programme.

### **National Population Policy:**

The National Population Policy, 2000 affirms the commitment of government towards voluntary and informed choice and consent of citizens while availing of reproductive health care services and continuation of the target free approach in administering family planning services.

### **National Rural Health Mission:**

The National Rural Health Mission (200512) seeks to provide effective healthcare to rural population throughout the country with special focus on 18 states, which have weak public health indicators and/or weak infrastructure. The mission aims at effective integration of health concerns with determinants of health like sanitation and hygiene, nutrition and safe drinking water through a District Plan for Health.

- **Urban Family Welfare Schemes:** This Scheme was introduced following the recommendation of the Krishnan Committee in 1983. The main focus was to provide services through setting up of Health Posts mainly in slum areas. The



services provided are mainly outreach of RCH services, preventive services, First Aid and referral services including distribution of contraceptives.

- **Sterilization Beds Scheme:** A Scheme for reservation of Sterilization beds in Hospital run by Government, Local Bodies and Voluntary Organisations was introduced as early as in the year 1964 in order to provide immediate facilities for tubectomy operations in hospitals where such cases could not be admitted due to lack of beds etc. But later with the introduction of the Post Partum Programme some of the beds were transferred to Post Partum Programme and thereafter the beds were only sanctioned to hospitals run by Local Bodies and Voluntary Organisations.

### **Reproductive and Child Health Programme:**

The Reproductive and Child Health Programme was launched in October 1997 incorporating new approach to population and development issues, as exposed in the International Conference in Population and Development held at Cairo in 1994. The programme integrated and strengthened in services/interventions under the Child Survival and Safe Motherhood Programme and Family Planning Services and added to the basket of services, new areas on Reproductive Tract/Sexually Transmitted infections.

### **8. Give a note on the advantages of small family unit.**

#### **What is a small family?**

A small family (also nuclear family) is a group of people, which is made of parents and one or two kids. Nowadays, most newly wedded couples plan to have only one or two kids when compared with three or more children in olden days. The reasons for this change include a drift toward later marriage, more effective contraception methods, more stress on careers for women, and the growing cost of nurture and educating kids.

#### **Benefits / Advantages of a small family**

Dominant civilizing norms habitually influence couples in their option of family size. Depending on the background, this option can be traced to cultural, religious, or socioeconomic reasons, like the necessity for support in old age. However, it is

established that a family with two or fewer kids provides several benefits to both the children and the parents. Here are the top 10 benefits of a small family.

### **1. Better life quality for children**

Kids of smaller families get more attention to higher quality from their parents, causing higher achievements. Kids with one or no siblings can perform better in edification, as parents hold a restricted amount of emotional and economic resources these happen to be diluted, meaning their quality diminishes as the number of kid increases.

### **2. Amplified economic success**

Children with fewer siblings are capable of attaining amplified economic success and communal positions. Furthermore, the decision to limit the size of a family can be understood as a strategic option to perk up the socioeconomic success of kids and grandkids in modern societies.

### **3. Better life quality for parents**

Parents are greatly benefitted by a small family. The expenditure, such as of supporting a kid from cradle to university, such as school books, uniforms, trips, provisions, university fees, etc., is greatly reduced. Moreover, fewer kids create a more controllable impact on family finances, thus relieving strain and emotional pressure levels.

### **4. Less pressure on family budgets**

Parents of a small family experience less pressure on family budgets, making them to make both ends meet easily, and to make them doing essential shopping without any difficulty by buying quality products.

### **5. Maximum level of happiness**

The levels of happiness are maximized when the number of kids is limited to two for each family. Those who turn into a parent at their young age, which is habitually related to having a bigger family, reported descending happiness trajectories, whereas happiness levels were maximized when parents were older and had previously acquired financial and educational resources.

## **6. Less strain for mothers**

Mothers with one or two children experience less strain when compared to those having two or more children. This allows mothers to pay more attention to the welfare of their children.

## **7. A small family is an ecologically sustainable option**

The size of a family plays a vital role in preventing and highlighting climate change. Actually, it may be the solitary campaign for ecologically friendly lifestyles, which really counts. Considering further influences impacts of climate change, such as the loss of certain species, a small family makes even more ecological sense.

8. Smaller families are inclined to have optimistic effects on the life of a woman.

Women are usually responsible for child rearing activities. A smaller number of kids would offer women additional time to develop individually and professionally. Smaller families could boost the empowerment of women, together with men, assuming more responsibility. Moreover, women who bear their first kid at their 30s tend to have fewer kids are better off professionally and economically, as well as in terms of welfare.

9. Condensed health risk

Parents are much benefitted with a small family, which include abridged expenses on food, additional time to devote to leisure or work, increased caring attention per kid, and condensed health risk.

10. Higher levels of education

Young individuals are more probable to attain higher levels of education if their family is restricted to one or two kids. While socioeconomic factors are pertinent, family size has a considerable impact on the encouragement and attention children get at home.

g) What extension activates will you adopt in creating awareness of population?

a) Prevent and control communicable diseases.

b) Promote small family norms.

c) India launched the National Family Welfare Programme in 1951 with the objective of "reducing the birth rate to the extent necessary to stabilize the population at a level consistent with the requirement of the National economy.

d) Reduce death rate.

e) Reduce birth rate, literature. Unemployment problem.

Extension is an informal educational process directed toward the rural population. This process offers advice and information to help them solve their problems. Extension also aims to increase the efficiency of the family farm, increase production and generally increase the standard of living of the farm family.

**9. Write about the various activities that help in teaching population Education.**

## **10. Describe population Equilibrium.**

### 3.7 population equilibrium

The Hardy-Weinberg equilibrium is a principle stating that the genetic variation in a population will remain constant from one generation to the next in the absence of disturbing factors. For instance, mutations disrupt the equilibrium of allele frequencies by introducing new alleles into a population.

**What conditions are required for a population to come into genetic equilibrium?**

Five conditions are required in order for a population to remain at Hardy-Weinberg equilibrium: A large breeding population. Random mating. No change in allelic frequency due to mutation.

**Is it common for a population to be in equilibrium?**

The allele frequencies in a population will remain constant unless one or more factors cause these frequencies to change. Is it common for a population to remain in genetic equilibrium? ... Yes, for some populations and in rare conditions for long periods of time.

### **What are the 5 principles of the Hardy Weinberg equilibrium?**

Key points: When a population is in Hardy-Weinberg equilibrium for a gene, it is not evolving, and allele frequencies will stay the same across generations. There are five basic Hardy-Weinberg assumptions: no mutation, random mating, no gene flow, infinite population size, and no selection.

### **Why is Hardy Weinberg equilibrium important?**

The Hardy-Weinberg model can also be applied to the genotype frequency of a single gene. Importance: The Hardy-Weinberg model enables us to compare a population's actual genetic structure over time with the genetic structure we would expect if the population were in Hardy-Weinberg equilibrium (i.e., not evolving).

### **What is population equilibrium?**

Genetic equilibrium describes the condition of an allele or genotype in a gene pool (such as a population) where the frequency does not change from generation to generation. Genetic equilibrium describes a theoretical state that is the basis for determining whether and in what ways populations may deviate from it.

## **SECTION C (5X2=10)**

### **11. What are the measures taken by government to control population explosion?**

The measures of control for population control.

#### **STEPS TO CONTROL POPULATION IN INDIA**

The Government of India, politicians, policy makers should initiate a bold population policy so that the economic growth of the country can keep pace with the demands of a growing population. Major steps which have been already implemented but still need to be emphasised more to control population. Increasing the welfare and status of women and girls, spread of education,

increasing awareness for the use of contraceptives and family planning methods, sex education, encouraging male sterilisation and spacing births, free distribution of contraceptives and condoms among the poor, encouraging female empowerment, more health care centres for the poor, to name a few, can play a major role in controlling population.

India's strengths in the global world in various fields cannot be ignored, whether in science & technology, medicine and health care, business and industry, military, communication, entertainment, literature and many more. Experts are hopeful that by increasing public awareness and enlisting strict population control norms by the Government will definitely lead the way for the country's economic prosperity and control of population.

Population of India is quite large and rapidly increasing. One percent growth rate means an addition of 1 crore people every year but actually speaking 2 crore persons are being added every year.

So effective population control measures is the need of the hour. We know that birth rate is mainly responsible for rapid population growth.

Hence measures which can reduce the birth rate should be adopted. These measures can be classified into 3 heads.

## **Measure of Population Control**

### **A. Social Measure:**

Population explosion is a social problem and it is deeply rooted in the society. So efforts must be done to remove the social evils in the country.

#### **1. Minimum age of Marriage:**

As fertility depends on the age of marriage. So the minimum age of marriage should be raised. In India minimum age for marriage is 21 years for men and 18 years for women has been fixed by law. This law should be firmly implemented and people should also be made aware of this through publicity.

### **Raising the Status of Women:**

There is still discrimination to the women. They are confined to four walls of house. They are still confined to rearing and bearing of children. So women should be given opportunities to develop socially and economically. Free education should be given to them.

## **2. Raising the Status of Women:**

There is still discrimination to the women. They are confined to four walls of house. They are still confined to rearing and bearing of children. So women should be given opportunities to develop socially and economically. Free education should be given to them.

## **3. Spread of Education:**

The spread of education changes the outlook of people. The educated men prefer to delay marriage and adopt small family norms. Educated women are health conscious and avoid frequent pregnancies and thus help in lowering birth rate.

## **3. Spread of Education:**

The spread of education changes the outlook of people. The educated men prefer to delay marriage and adopt small family norms. Educated women are health conscious and avoid frequent pregnancies and thus help in lowering birth rate.

## **4. Adoption:**

Some parents do not have any child, despite costly medical treatment. It is advisable that they should adopt orphan children. It will be beneficial to orphan children and children couples.

## **5. Change in Social Outlook:**

Social outlook of the people should undergo a change. Marriage should no longer be considered a social binding. Issueless women should not be looked down upon.

## **6. Social Security:**

More and more people should be covered under-social security schemes. So that they do not depend upon others in the event of old age, sickness, unemployment etc. with these facilities they will have no desire for more children.

## **B. Economic Measures:**

**The following are the economic measures:**

### **1. More employment opportunities:**

The first and foremost measure is to raise, the employment avenues in rural as well as urban areas. Generally in rural areas there is disguised unemployment. So efforts should be made to migrate unemployed persons from rural side to urban side. This step can check the population growth.

### **2. Development of Agriculture and Industry:**

If agriculture and industry are properly developed, large number of people will get employment. When their income is increased they would improve their standard of living and adopt small family norms.

### **3. Standard of Living:**

Improved standard of living acts as a deterrent to large family norm. In order to maintain their higher standard of living people prefer to have a small family. According to A.K. Das Gupta those who earn less than Rs. 100 per month have on the average a reproduction rate of 3.4 children and those who earn more than Rs. 300 per month have a reproduction rate of 2.8 children.

### **3. Urbanisation:**

It is on record that people in urban areas have low birth rate than those living in rural areas. Urbanisation should therefore be encouraged.

## **C. Other Measures:**

The following are the other measures:

### **1. Late Marriage:**

As far as possible, marriage should be solemnized at the age of 30 years. This will reduce the period of reproduction among the females bringing down the birth rate. The govt. has fixed the minimum marriage age at 21 yrs. for males and 18 yrs. for females.



## **2. Self Control:**

According to some experts, self control is one of the powerful methods to control the population. It is an ideal and healthy approach and people should be provided to follow. It helps in reducing birth rate.

## **3. Family Planning:**

This method implies family by choice and not by chance. By applying preventive measures, people can regulate birth rate. This method is being used extensively; success of this method depends on the availability of cheap contraceptive devices for birth control. According to Chander Shekher, “Hurry for the first child, Delay the second child and avoid the third.”

## **Recreational Facilities:**

Birth rate will likely to fall if there are different recreational facilities like cinema; theatre, sports and dance etc. are available to the people.

## **5. Publicity:**

The communication media like T.V., radio and newspaper are the good means to propagate the benefits of the planned family to the uneducated and illiterate persons especially in the rural and backward areas of country.

## **6. Incentives:**

The govt. can give various types of incentives to the people to adopt birth control measures. Monetary incentives and other facilities like leave and promotion can be extended to the working class which adopts small family norms.

## **7. Employment to Woman:**

Another method to check the population is to provide employment to women. Women should be given incentive to give services in different fields. Women are taking active part in competitive examinations. As a result their number in teaching, medical and banking etc. is increasing rapidly. In brief by taking, all there measures we can control the growth of population.

## **12. Define Demography.**

Demography is the study of human populations – their size, composition and distribution across space – and the process through which populations change. Births, deaths and migration are the 'big three' of demography, jointly producing population stability or change.

### **Most Common Demographics Examples**

- 1) Age.
- 2) Gender.
- 3) Race.
- 4) Marital status.
- 5) Number of children (if any)
- 6) Occupation.
- 7) Annual income.
- 8) Education level.

### **13. List two needs of teaching population Education.**

#### **1) Controlling of Population Explosion**

At present we are witness the unprecedented growth of population in the form of population explosion. This is indeed a dangerous trend as it poses a great challenge for the welfare and development of the India and the entire mankind. Here population education can serve as safety value against the global threat to mankind.

#### **2) Ensuring Quality Life:**

Rapid population growth is a great hindrance in the way of enjoying the better standard of life. Here population education serves as a potent instrument through which people can be made aware about the better quality life through a programme of planned intervention to stop unprecedented the population growth and to ensure better stand of life.

### **14. Define Birth rate.**

The birth rate is the ratio between the number of live-born births in the year and the average total population of that year.

How do we calculate birth rate?

Birth rate, frequency of live births in a given population, conventionally calculated as the annual number of live births per 1,000 inhabitants.

### **15. What is meant by population explosion?**

Population explosion refers to the rapid and dramatic rise in world population that has occurred over the last few hundred years.

Between 1959 and 2000, the world's population increased from 2.5 billion to 6.1 billion people.

