

NCERT Solutions Class 12th Biology:

Chapter 4 – Reproductive Health

Question 1: What do you think is the significance of reproductive health in a society?

Answer Reproductive health is the total well being in all aspects of reproduction. It includes physical, emotional, behavioural, and social well being. Sexually transmitted diseases such as AIDS, gonorrhoea, etc. are transferred from one individual to another through sexual contact. It can also lead to unwanted pregnancies. Hence, it is necessary to create awareness among people, especially the youth, regarding various reproduction related aspects as the young individuals are the future of the country and they are most susceptible of acquiring sexually transmitted diseases. Creating awareness about the available birth control methods, sexually transmitted diseases and their preventive measures, and gender equality will help in bringing up a socially conscious healthy family. Spreading awareness regarding uncontrolled population growth and social evils among young individuals will help in building up a reproductively healthy society.

Question 2: Suggest the aspects of reproductive health which need to be given special attention

in the present scenario.

Answer Reproductive health is the total well being in all aspects of reproduction. The aspects which have to be given special attention in the present scenarios are

(1) Counselling and creating awareness among people, especially the youth, about various aspects of reproductive health, such as sexually transmitted diseases, available contraceptive methods, case of pregnant mothers, adolescence, etc.

(2) Providing support and facilities such as medical assistance to people during pregnancy, STDs, abortions, contraceptives, infertility, etc. for building a reproductively healthy society

Question 3: Is sex education necessary in schools? Why?

Answer Yes, introduction of sex education in schools is necessary. It would provide right information to young individuals at the right time about various aspects of reproductive health such as reproductive organs, puberty, and adolescence related changes, safe sexual practices, sexually transmitted diseases, etc. The young individual or adolescents are more susceptible in acquiring various sexually transmitted diseases. Hence, providing information to them at the right time would help them to lead a reproductively healthy life and also protect them from the myths and misconceptions about various sex related issues.

Question 4: Do you think that reproductive health in our country has improved in the past 50 years? If yes, mention some such areas of improvement.

Answer Yes, the reproductive health has tremendously improved in India in the last 50 years. The areas of improvement are as follows.

- (1) Massive child immunization programme, which has lead to a decrease in the infant mortality rate
- (2) Maternal and infant mortality rate, which has been decreased drastically due to better post natal care
- (3) Family planning, which has motivated people to have smaller families
- (4) Use of contraceptive, which has resulted in a decrease in the rate of sexually transmitted diseases and unwanted pregnancies

Question 5: What are the suggested reasons for population explosion?

Answer The human population is increasing day by day, leading to population explosion. It is because of the following two major reasons.

- (a) Decreased death rate
- (b) Increased birth rate and longevity

The death rate has decreased in the past 50 years. The factor leading to decreased death rate and increased birth rate are control of diseases, awareness and spread of education, improvement in medical facilities, ensured food supply in emergency situation, etc. All this has also resulted in an increase in the longevity of an individual.

Question 6: Is the use of contraceptives justified? Give reasons.

Answer Yes, the use of contraceptives is absolutely justified. The human population is increasing tremendously. Therefore, to regulate the population growth by regulating reproduction has become a necessary demand in the present times. Various contraceptive devices have been devised to reduce unwanted pregnancies, which help in bringing down the increased birth rate and hence, in checking population explosion.

Question 7: Removal of gonads cannot be considered as a contraceptive option. Why?

Answer Contraceptive devices are used to prevent unwanted pregnancy and to prevent the spreading of STDs. There are many methods, such as natural, barrier, oral, and surgical methods, that prevent unwanted pregnancy. However, the complete removal of gonads cannot be a contraceptive option because it will lead to infertility and unavailability of certain hormones that are required for normal functioning of accessory reproductive parts. Therefore, only those contraceptive methods can be used that prevent the chances of fertilization rather than making the person infertile forever.

Question 8: Amniocentesis for sex determination is banned in our country. Is this ban necessary?

Comment.

Answer Amniocentesis is a pre-natal diagnostic technique that is used to determine the sex and metabolic disorders of the developing foetus in the mother's uterus through the observation of the chromosomal patterns. This method was developed so as to determine any kind of genetic disorder present in the foetus. However, unfortunately, this technique is being misused to detect the sex of the child before birth and the female foetus is then aborted. Thus, to prevent the increasing female foeticides, it is necessary to ban the usage of amniocentesis technique for determining the sex of a child.

Question 9: Suggest some methods to assist infertile couples to have children.

Answer Infertility is the inability of a couple to produce a baby even after unprotected intercourse. It might be due to abnormalities present in either male or female, or might be even both the partners. The techniques used to assist infertile couples to have children are as follows.

(a) Test tube babies

This involves in-vitro fertilization where the sperms meet the egg outside the body of a female. The zygote, hence produced, is then transferred in the uterus or fallopian tube of a normal female. The babies produced from this method are known as test tube babies.

(b) Gamete Intra fallopian transfer (GIFT)

It is a technique that involves the transfer of gamete (ovum) from a donor into the fallopian tube of the recipient female who is unable to produce eggs, but has the ability to conceive and can provide right conditions for the development of an embryo.

(c) Intra Cytoplasmic sperm injection (ICSI)

It is a method of injecting sperm directly into the ovum to form an embryo in laboratory.

(d) Artificial insemination

Artificial insemination is a method of transferring semen (sperm) from a healthy male donor

into the vagina or uterus of the recipient female. It is employed when the male partner is not able to inseminate the female or has low sperm counts.

Question 10: What are the measures one has to take to prevent from contracting STDs?

Answer Sexually transmitted diseases (STDs) get transferred from one individual to the other through sexual contact. Adolescents and young adults are at the greatest risk of acquiring these sexually transmitted diseases. Hence, creating awareness among the adolescents regarding its after-effects can prevent them from contracting STDs. The use of contraceptives, such as condoms, etc. while intercourse, can prevent the transfer of these diseases. Also, sex with unknown partners or multiple partners should be avoided as they may have such diseases. Specialists should be consulted immediately in case of doubt so as to assure early detection and cure of the disease.

Question 11: State True/False with explanation

- (a) Abortions could happen spontaneously too. (True/False)
- (b) Infertility is defined as the inability to produce a viable offspring and is always due to abnormalities/defects in the female partner. (True/False)
- (c) Complete lactation could help as a natural method of contraception. (True/False)
- (d) Creating awareness about sex related aspects is an effective method to improve reproductive health of the people. (True/False)

Answer (a) Abortions could happen spontaneously too. True

(b) Infertility is defined as the inability to produce a viable offspring and is always due to abnormalities/defects in the female partner. False

Infertility is defined as the inability of the couple to produce baby even after unprotected coitus. It might occur due to abnormalities/defects in either male or female or both.

(c) Complete lactation could help as a natural method of contraception. False

Complete lactation or lactational amenorrhea is a natural method of contraception. However, it is limited till lactation period, which continues till six months after parturition.

(d) Creating awareness about sex related aspects is an effective method to improve reproductive health of the people.

True

Question 12: Correct the following statements:

- (a) Surgical methods of contraception prevent gamete formation.
- (b) All sexually transmitted diseases are completely curable.
- (c) Oral pills are very popular contraceptives among the rural women.
- (d) In E. T. techniques, embryos are always transferred into the uterus.

Answer

(a) Surgical methods of contraception prevent gamete formation. Correction

Surgical methods of contraception prevent the flow of gamete during intercourse.

(b) All sexually transmitted diseases are completely curable. Correction

Some of the sexually transmitted diseases are curable if they are detected early and treated properly. AIDS is still an incurable disease.

(c) Oral pills are very popular contraceptives among the rural women. Correction

Oral pills are very popular contraceptives among urban women.

(d) In E. T. techniques, embryos are always transferred into the uterus. Correction

In embryo transfer technique, 8 celled embryos are transferred into the fallopian tube while more than 8 celled embryos are transferred into the uterus.