

## NCERT Solutions for Class 12 Biology Chapter 4 Reproductive Health

### Question 1.

**What do you think is the significance of reproductive health in a society?**

#### **Solution:**

Significance of reproductive health in society are:

- Control over the transmission of STDs.
- Less death due to reproduction-related diseases like-AIDS, cancer of the reproductive tract.
- Control in a population explosion.
- Not only the reproductive health of men and women affects the health of the next generation.

### Question 2.

**Suggest the aspects of reproductive health which need to be given special attention in the present scenario.**

#### **Solution:**

Providing medical facilities and care to the problems like menstrual irregularities, pregnancy related aspects, delivery, medical termination of pregnancy, STDs, birth control, infertility. Post-natal child maternal management is another important aspect of the reproductive and child health care programme.

### Question 3.

**Is sex education necessary in schools? Why?**

#### **Solution:**

Yes, sex education is necessary for schools because:

- It will provide proper information about reproductive organs, adolescence, safe, hygienic sexual practices, and Sexually Transmitted Diseases (STDs).
- It will provide the right information to avoid myths and misconceptions about sex-related queries.

### 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.**

#### **Solution:**

The reproductive health in our country has improved in the last 50 years. Some areas of improvement are :

- Massive child immunization.
- Increasing use of contraceptives.
- Better awareness about sex related matters.
- Increased number of medically assisted deliveries and better post-natal care leading to decreased maternal and infant mortality rates.
- Increased number of couples with small families.
- Better detection and cure of STDs and overall increased medical facilities for all sex related problems.

**Question 5.**

**What are the suggested reasons for the population explosion?**

**Solution:**

- Improved medical facilities
- Decline in death rate, IMR, MMR
- Slower decline in birth rate.
- Longer life span.
- Lack of 100% family planning and education among the village.

**Question 6.**

**Is the use of contraceptives justified? Give reasons.**

**Solution:**

Yes, the use of contraceptives is justified: To overcome the population growth rate, contraceptive methods are used. It will help in bringing birth rate down & subsequently curb population growth. With the rapid spread of HIV/ AIDS in the country, there is now a growing realization about the need to know about contraception & condoms.

**Question 7.**

**Removal of gonads cannot be considered as a contraceptive option. Why?**

**Solution:**

Removal of gonads not only stops the production of gametes but will also stop the secretions of various important hormones, which are important for bodily functions. This method is irreversible and thus, can not be considered as a contraceptive method.

**Question 8.**

**Amniocentesis for sex determination is banned in our country. Is this ban necessary? Comment.**

**Solution:**

Amniocentesis is a prenatal diagnostic technique to find out the genetic disorders and metabolic disorders of the foetus. Unfortunately, the useful technique of amniocentesis had been misused to kill the normal female foetuses as it could help detect the sex of foetus also. Hence, this technique is now banned in our country. This ban is necessary as this technique was promoting female foeticide in our country.

### Question 9.

**Suggest some methods to assist infertile couples to have children.**

#### **Solution:**

If the couples are enabled birth to the children and corrections are not possible, the couples could be assisted to have children through certain special techniques, commonly known as Assisted Reproductive Technologies (ART). Some methods are given as:

**1. In Vitro Fertilization (IVF):** In this method, ova from the female and the sperm from the male are collected and induced to form a zygote under simulated conditions in the laboratory. This process is called In Vitro Fertilization (IVF). Some method is given as follows:

- **Zygote Intrafallopian Transfer (ZIFT):** The zygote or early embryo with up to 8 blastomeres is transferred into the fallopian tube.
- **Intra-Uterine Transfer (IUT):** Embryo with more than 8 blastomeres is transferred into the uterus in females who cannot conceive embryos formed by the fusion of gametes in another female are transferred.
- **Test tube baby:** In this method, ova from the donor (female) and sperm from the donor (male) are collected and are induced to form a zygote under simulated conditions in the laboratory. The zygote could then be transferred into the fallopian tube and embryos transferred into the uterus, to complete its further development. The child born from this method is called a test-tube baby.

**2. Gamete Intra Fallopian Transfer (GIFT):** It is the transfer of an ovum collected from a donor into the fallopian tube & another female who cannot produce one, but can provide a suitable environment for fertilization and further development of the embryo.

**3. Intra Cytoplasmic Sperm Injection (ICSI) :** It is a procedure to form an embryo in the laboratory by directly injecting the sperm into an ovum.

**4. Artificial Insemination (AI):** In this method, the semen collected either from the husband or a healthy donor is artificially introduced into the vagina or into the uterus (Intra Uterine Insemination, IUI). This technique is used in cases where the male is unable to inseminate sperms in the female reproductive tract or due to very low sperm counts in the ejaculation.

**5. Host Mothering:** In this process, the embryo is transferred from the biological mother to a surrogate mother. The embryo then develops till it is fully developed or partially developed. It is then transferred to the biological mother or into any other. This technique is useful for females in which embryo forms but is not able to develop.

### Question 10.

**What are the measures one has to take to prevent contracting STDs?**

#### **Solution:**

Diseases or infections which are transmitted through sexual intercourse are collectively called sexually transmitted diseases (STDs) or reproductive tract infections (RT), e.g., gonorrhoea, syphilis, genital herpes, AIDS, etc. The measures that one has to take to prevent from contracting STDs are:

- Avoid sex with unknown partners/multiple partners.
- use condoms during coitus.
- In case of doubt, go to a qualified doctor for early detection and get complete treatment if diagnosed with the disease.

### Question 11.

**State True/False with an explanation.**

1. **Abortions could happen spontaneously too.**
2. **Infertility is defined as the inability to produce viable offspring and is always due to abnormalities/defects in the female partner.**
3. **Complete lactation could help as a natural method of contraception.**
4. **Creating awareness about sex related aspects is an effective method to improve the reproductive health of people.**

#### **Solution:**

1. True: One-third of all pregnancies abort spontaneously (called miscarriage) within four weeks of conception and abortion passes unrecognized with menses.
2. False: Infertility is defined as the inability of the couple to produce viable offspring. It is due to abnormalities/defects in either male or female or both.
3. True: Complete lactation is a natural method of contraception as during this period ovulation does not occur, but this is limited to a period of 6 months after parturition.
4. True: Creating awareness in people about sex-related aspects like right information about reproductive organs, accessory organs of reproduction, safe and hygienic sexual practices, birth control methods, care of pregnant women, post-natal care of mother and child, etc., can help in improving the reproductive health of people.

### Question 12.

**State True/False with an explanation.**

(a) **Abortions could happen spontaneously too. (True/False)**

**Answer:**

False, Abortion does not happen under normal conditions. It happens accidentally or under the will of Parents.

(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)

Answer:

False, Sterility always does not occur due to females sometimes. Males are also responsible for this.

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

Answer:

True, the Menstrual cycle does not occur after parturition which can act as natural contraception but this method is functional for a period of six months from parturition.

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

Answer:

True, this creates better reproductive health among people.

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