



Mentor Guru

Class 12 – Biology

Chapter 3 – Reproductive Health

Short types question with answer

Q.1. List some important steps for improving the reproductive health standards in India.

A.1. Following steps can be taken to improve the reproductive health standards in India:

- Educating people about the birth control measures, prenatal and postnatal care of the mother, significance of breastfeeding.
- Educating them about safe and hygienic sexual practices and sexually transmitted diseases.
- Educating the school going children about the sex-related aspects.
- A legal ban on the checking of the gender of the foetus.
- Create awareness about sex-abuse and drawbacks of population explosion.
- Proper infrastructural and professional facilities to attain reproductive health standards.

Q.2. Female gametes are transferred to the fallopian tube in the GIFT procedure. Is it possible to transfer the gametes to the uterus?

A.2. It is not possible to transfer the gametes to the uterus. This is because the gametes cannot survive in the environment of the uterus. They will be degenerated or phagocytosed if transferred directly into the uterus.

Q.3. Why are non-medicated methods not as effective as the copper ions releasing Intra-Uterine Devices?

A.3. The non-medicated methods are less effective than the copper ions releasing IUDs because:

- The copper ions reduce the fertilizing capacity and the motility of the sperms.

- It phagocytosis the sperms inside the uterus.
- It is safe, cost-effective, and convenient methods of contraception.
- The breastfeeding can use it with no fear of any side-effects.

Q.4. What are the factors responsible for the population explosion in India?

A.4. The following factors are responsible for the population explosion in India:

- Poverty.
- Death rate decline.
- The desire to have a male child.
- Increase in the young population of reproductive age.
- Reduction in the infant and maternal mortality rates.
- The rural people are not aware of the consequences of the increasing population.

Q.5. Explain in-vitro fertilization and embryo transfer in brief.

A.5. In IVF and ET techniques, the male and female gametes are made to fertilize in the laboratory environment. The zygote thus formed is introduced in the uterus of the acceptor during the secretory phase. The eight-celled embryos or the early embryos are transferred to the fallopian tube while the embryos more than eight cells are transferred to the uterus.

Q.6. What are the benefits of natural contraceptive methods over artificial methods?

A.6.

- The natural methods of contraception involve no side-effects.
- Unlike the artificial method, the natural method is reversible because there is no surgery involved.

Q.7. When is the medical termination of pregnancy advised by the doctors?

A.7. The medical termination of pregnancy is advised under the following circumstances:

- If the pregnancy endangers the health (physical/mental) of the woman.
- If the child is malformed or handicapped
- In cases of rape
- If the girl is unmarried, consent of the guardian is required.
- In the case of mentally ill mothers

Q.8. What are the important features of an ideal contraceptive?

A.8. Following are the features of an ideal contraceptive:

- It is safe
- It lasts long
- It is cost-effective
- It is highly effective
- Its effect can be reversed
- It is independent of coitus
- It can be administered easily
- Does not require any medical supervision

Q.9. Justify the statement, “All reproductive tract infections are sexually transmitted diseases, but all sexually transmitted diseases are not reproductive tract infections.”

A.9. The reproductive tract infections are transferred from one partner to another during sexual intercourse. Hence called sexually transmitted diseases. For eg., gonorrhoea, genital herpes, syphilis, etc. However, some sexually transmitted diseases such as hepatitis, AIDS are transferred during sexual intercourse but do not cause any infections in the reproductive tract or genitals. These are therefore, not referred to as reproductive tract infections.

Q.10. Why is tubectomy considered a contraceptive method?

A.10. Tubectomy is the permanent method of sterilization in women. In this method, the fallopian tubes are blocked or cut so that the egg is stopped from travelling to the uterus. This eliminates any chances of pregnancy.

Long Answer Type Questions

Q.1. Describe any three assisted reproductive techniques practised to treat infertility.

A.1. Assisted Reproductive Techniques refer to the medical procedures used to treat infertility. Few of the assisted reproductive techniques are:

- **In-vitro Fertilization-** In-vitro fertilization involves the steps:

Stimulation of the ovaries by giving human gonadotropins ↓ Retrieving the released eggs ↓ Fertilization of the eggs with the selected sperms. ↓

Development of eggs into embryos under laboratory environment ↓ The embryos are implanted in the uterus of the female

- **Intracytoplasmic Sperm Injection-** In this method, one sperm is injected into the egg. But this procedure might damage the egg. The babies might involve defects in the reproductive organs in case of the abnormal Y chromosome.
- **Gamete Intrafallopian Tube Transfer-** This method is used in case of fallopian tubes that are functioning properly. In this technique, the eggs and sperms obtained are not fertilized in the laboratory. They are inserted into the far end of the fallopian tube either through the vagina or through the abdomen with the help of a laparoscope.

Q.2. What are the advantages and disadvantages of hormonal contraceptives?

A.2.

Advantages of hormonal contraceptives:

- This is a highly effective method of contraception.
- It can be used for a longer period.
- Causes very light or no menstruation.
- The effects are reversible

Disadvantages of hormonal contraceptives:

- It does not protect against sexually transmitted diseases.
- Minor surgery is required to insert and remove the device.
- It has several side-effects such as irregular menstruation, depression, weight gain, hair loss, etc.
- The capsule implanted area might get infected.
- It is necessary to take the medications continuously.
- The method is expensive.

Q.3. Explain any two sexually transmitted diseases and suggest ways to prevent them.

A.3. Sexually transmitted diseases are those that are transferred from one partner to another through sexual contact. Two sexually transmitted diseases are explained below:

1. **AIDS**– The Acquired Immunodeficiency Syndrome (AIDS) is caused by the Human Immunodeficiency Virus (HIV). This virus attacks the immune

system of the host making him vulnerable to infections. It can be spread through semen, blood, breastmilk, and rectal or vaginal fluids.

2. **Genital Herpes-** Herpes is a chronic disease spread by the Herpes Simplex Virus (HSV). The HSV type 2 virus spreads the disease through sexual intercourse. A person suffering from genital herpes will show symptoms like fever, pain while urinating, vaginal discharge, red blisters on the genitals, etc.

Prevention of Sexually Transmitted Diseases:

- Use protection during sexual intercourse.
- Get vaccinated for Hepatitis and Human Papillomavirus
- Get tested for HIV
- Abstain from sexual activities
- Do not share the underclothing's and towels.

Q.4. Justify the ban on amniocentesis in our country?

A.4. Amniocentesis is a technique in which the amniotic fluid is collected from the uterus with the help of a needle to determine any genetic abnormalities in the foetus by analysing the chromosomal patterns. This technique was being misused to know the gender of the foetus and if the foetus was a girl, it was aborted. To stop the female foeticide, amniocentesis was banned under Prenatal Diagnostics Technique Act in the year 1994.

Q.5. Why should sex education be introduced to school-going children? List any five reasons.

A.5. Sex education should be introduced to school going children for the following reasons:

- To make the students aware that the bodily changes they are experiencing during puberty are absolutely normal and natural.
- To help them speak up when they face any sexual harassment in society.
- The students will get to know about the facts of life from a supportive source instead of some absurd show or movie.
- They will be made aware of the risks involved in having sex.