

CBSE Class 12 Biology
Important Questions
Chapter 4
Reproductive Health

1 Marks Questions

1. Give the term for prenatal diagnostic technique aimed to know the sex of developing foetus and to detect congenital disorders.

Ans. Amniocentesis.

2. After a successful in vitro fertilisation, the fertilised egg begins to divide. Where is this egg transferred before it reaches the 8-celled stage and what is this technique called?

Ans. Fallopian tube; Zygote intra fallopian transfer (ZIFT)

3. Give the term for rapid population growth.

Ans. Population explosion.

4. Name the fluid from which foetal cells are extracted for chromosomal analysis.

Ans. Amniotic fluid.

5. Give technical name of female used to bring up in vitro fertilized egg to maturity.

Ans. Surrogate mother.

6. Name the oral contraceptive developed by CDRI, Lucknow.

Ans. Saheli

7. What is the WHO's interpretation of reproductive health?

Ans. WHO defines reproductive health as total well being in all respects of reproduction including physical, emotional, behavioural and social.

8. Why has the Government imposed a statutory ban on amniocentesis?

Ans. The Government has banned amniocentesis to check on the incidences of female foeticides.

9. Expand MTP and ICSI.

Ans. MTP: Medical Termination of Pregnancy.

ICSI: Intra Cytoplasmic Sperm Injection.

10. What is lactational amenorrhoea?

Ans. It refers to absence of menstruation during period of intense lactation.

11. Write the scientific name of causative agents of :-

i) Syphilis

ii) Gonorrhoea.

Ans. (i) Treponema Pallidum

(ii) Neisseria Gonorrhoea

12. Name the technique by which one can disorder any possible chromosomal or metabolic disorders in foetus.

Ans. Amniocentesis.

13. Expand the following :-

i) GIFT

ii) ICSI

iii) IUCD

Ans. (i) Gamete Intrafallopian transfer.

(ii) Intra Cytoplasmic Sperm injection

(iii) Intra uterine contraceptive devices.

2 Marks Questions

1. Lactational Amenorrhea is a method of contraception Justify. What is the maximum effectiveness of this method in terms of period/duration?

Ans. (a) Ovulation and menstrual cycle do not occur during the period of intense lactation following parturition. Therefore, as the mother breast feeds, chances of conception are nil.

(b) It is effective only upto a maximum period of six months following parturition.

2. How are non medicated IUDS different from hormone releasing IUDS? Give examples.

Ans. (a) Non medicated IUDs = Lippes loop, Copper releasing IUDS (CuT, Multiload 375) ®
These increase phagocytosis of sperms within uterus and release copper ions which suppress sperm motility and fertilizing capacity of sperm.

(b) Hormone releasing IUDs - Progestasert, LNG-20 -These makes uterus unsuitable for implantation and the cervix hostile to sperms.

3. What are implants? How do they help in preventing fertilisation?

Ans. The structures which contain hormones like progesterone and estrogen and are placed under the skin.

4. Briefly explain two natural barriers for birth control.

Ans. Periodic abstinence couple should avoid coitus from 10th to 17th day of menstrual cycle. Coitus interruptus Male partner withdraws his penis from the vagina just before ejaculation of semen.

5. Enlist any four possible reasons for infertility in human beings.

Ans. Physical, congenital disease, Drugs, Immunological and even psychological (any four).

6. What does GIFT represent?

Ans. It is the introduction of two unfertilized oocytes and several sperms into the fallopian tube of a woman desirous to be a mother through laproscope. The eggs may be hers or a donor's. The sperms may be of her husband's or of a donor. Fertilisation occurs in vivo and the development of the foetus takes place through natural process.

7. How does Cu- T act as a contraceptive?

Ans. It is an intrauterine device having ionized copper. The copper diffuses into the uterus and brings about the release of toxic cytokines. They inhibit sperm motility and therefore fertilization of ovum.

8. Mention any four probable reasons for the rapid rise of population in our country?

Ans. The probable reasons could be:

- Steady decline in the death rate due to improved health services.
- Early marriages especially in certain rural areas.
- Lack of education among the poor and they fail to understand the ill effects of a large family.
- Longer life span.

9. Identify the device used for the following methods of birth control: Barrier, IUD, Surgical technique and Administering hormone.

Ans. Barrier: Condom, IUD: Copper –T, Surgical technique: Vasectomy or Tubectomy, Administering Hormone : Oral Pill.

10. What are STDs? Mention any two of it.

Ans. Diseases or infections transmitted through sexual intercourse are collectively called Sexually Transmitted Diseases or STDs. Ex: Syphilis and Gonorrhoea.

11. “Removal of Gonads cannot be a contraceptive option”. Why?

Ans. Because in this methods, gonads are surgically removed it will lead to infertility & both male & female will be dependent on hormones in their remaining life to regulate functioning of many reproductive org.

12. What are MTPs ? Under what conditions MTPs are legally permitted?

Ans. MTP refers to as medical termination of pregnancy. It is legalized in our country only:-

1. in case of rape.
 2. in case of casual unprotected intercourse
 3. in case pregnancy is harmful for foetus or for mother.
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13. Describe the technique which is used for sex determination in foetus?

Ans. Amniocentesis is the prenatal diagnosis in which sample of amniotic fluid from womb of a pregnant women is taken during early stages of foetal development, the cells are cultured & analyzed to determine the sex of foetus.

14. What are test tube babies? Are they different from normal babies?

Ans. The baby produced lay conceiving eggs & sperms in a culture tube (envitro fertilization) & nursing in the uterus is called a test – tube baby. They are same as normal babies only the fertilization for such zygote occurs in in-vitro conditions.

15. Mention any four objectives of RCHC.

Ans. RCHC refers to a popular programme called “Reproductive & child health care (RCHC) & the major tasks under these programmes are :-

1. Creating awareness about various reproduction related aspects eg. STDs, birth control methods.
2. Providing facilities & support for building up reproductive healthy society.
3. Educating people about care of pregnant women, important of breast feeding.
4. awareness about sex abuse & sex related crimes

3 Marks Questions

1. Give another name for sexually transmitted diseases. Name two sexually transmitted diseases which are curable and two diseases which are not curable.

Ans. Veneral disease (VD)/Reproductive tract infection (RTI)

Curable : Syphilis, Gonorrhoea

Non Curable : Hepatitis B, AIDS, Genital herpes

2. Differentiate between Vasectomy and Tubectomy.

Ans.

	Vasectomy		Tubectomy
1.	Method of sterilisation in males	1.	Method of sterilisation in females.
2.	Vasa defferentia of both sides are cut and tied	2.	Fallopian tube of both sides are cut and tied.
3.	Prevents movement of sperms at cut end.	3.	Prevent movement of egg at cut end.

3. Name the techniques which are employed in following cases :

(a) Transfer of an ovum collected from a donor into the fallopian tube of another female who cannot produce ova but can provide suitable environment for fertilisation and development.

(b) Embryo is formed in laboratory in which sperm is directly injected into ovum.

(c) Semen collected either from husband or a healthy donor is artificially introduced either into vagina or uterus.

Ans. (a) Gamete intra fallopian transfer.

(b) Intra cytoplasmic sperm injection

(c) Intra uterine insemination.

4. Mention the various precautions one has to take in order to protect himself/herself form STDs.

Ans. (i) Avoid blood transfusion from an infected person.

(ii) Avoid sex with an unknown partner or multiple partners.

(iii) Always use condom.

(iv) Avoid sharing of injections needles and syringes and surgical instruments.

5. What are the disturbing trends observed regarding MTP?

Ans. Majority MTPs performed illegally by unqualified quacks, missuse for female foeticide.

6. Enlist any three causes of infertility in men and women.

Ans. Reasons for infertility in men and women are:

7. State the consequences of over population.

Ans. The consequences of overpopulation are :

- An increase demand and therefore pressure on the natural resources.
- An increase in the level of pollution.
- More number of unemployment, poor infrastructure and pressure on the country's economy.

8. Differentiate between natality rate and mortality rate.

Ans.

Natality rate (Birth rate)	Mortality rate (Death rate)
1. It is the number of births per one thousand individuals per year.	1. It is the number of deaths per one thousand individuals per year.
2. It is the rate at which the new members are added to the population by reproduction.	2. it is the rates at which the individuals die out.
3. It increases population size and population density.	3. It decreases population size and population density.

9. Explain any one natural method of birth control.

Ans. One of the natural methods of birth control is Periodic abstinence or Rhythm method. The couple avoids or abstains from coitus from day 10 to 17 of the menstrual cycle because ovulation occurs during this period and therefore the period is highly fertile. The method is based on the facts the ovum remains alive for 1-2 days and the sperm remains alive for about 3 days. The effectiveness of this method is limited as most of the women have irregular menstrual cycle.

10. Give three differences between tubectomy and vasectomy.

Ans.

Vasectomy	Tubectomy
1. It is a sterilization technique for men.	1. It is a sterilization technique for women.
2. The two vasa differentia are cut and tied up.	2. The two oviducts are cut and tied up.
3. Passage of sperms is prevented.	3. Passage of ova is prevented.

11. Describe the three manners in which fertilization of human ovum by sperm can be prevented?

Ans. I. NATURAL METHODS : avoiding chances of meeting between the gametes.

1. Periodic Abstinence :-couples avoid coitus from 10-17th day of menstrual cycle when ovulation is expected.
2. Lactational Amenorrhoea :- absence of menstruation during intense lactation.

II. BARRIER METHODS :- ovum & sperms are prevented from coming closer with the help of barriers.

1. Condoms :- barriers made up of thin rubber or latex sheath to cover penis in males or cervix in females.
2. Diaphragms cervical caps :- made up of rubber & are reusable
3. Spermicidal creams along with these barriers

1. **SURGICAL METHODS :-** blocks transport of gametes & thereby conception.

1. Vasectomy :- small portion of vas deferens is removed or tied up through incision in scrotum.
 2. Tubectomy :- small portion of fallopian tube is removed or tied up through vagina.
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12. Suggest some methods to assist infertile couples to have children?

Ans. Three are special techniques called Assisted Reproductive Technologies (ART) to help infertile couples to have children:-

1. Test tube Baby Programme :- In this method, ova from wife or donor female & Sperm from husband are allowed to fuse under simulated conditions in the laboratory it is called In-vitro fertilization (IVF). The zygote is then transferred into uterus or fallopian tube this process is called embryo transfer (ET)
 2. Gamete Intra fallopian Transfer (GIFT) :- It involves transfer of an ovum collected from a donor female into another female who cannot produce ova but can provide suitable condition for fertilization
 3. Artificial Insemination: - In this method semen is collected from the husband or a healthy donor & is artificially introduced into vagina or uterus.
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13. Briefly explain the various reproductive technologies to assist an infertile couple to have children.

Ans. Assisted Reproductive Technology (ART) includes in vitro fertilization-embryo transfer (IVF-ET), gamete intrafallopian transfer (GIFT), zygote intrafallopian transfer (ZIFT), and frozen embryo transfer (FET). These techniques also apply to oocyte donation and gestational carriers. Approximately 99 percent of ART cycles performed are IVF-ET. IVF-ET has helped many couples conceive successfully. ART may be recommended when other treatments (such as intrauterine insemination) have not been successful or when there is severe male factor infertility, severe endometriosis or tubal obstruction.