

For BioResire students



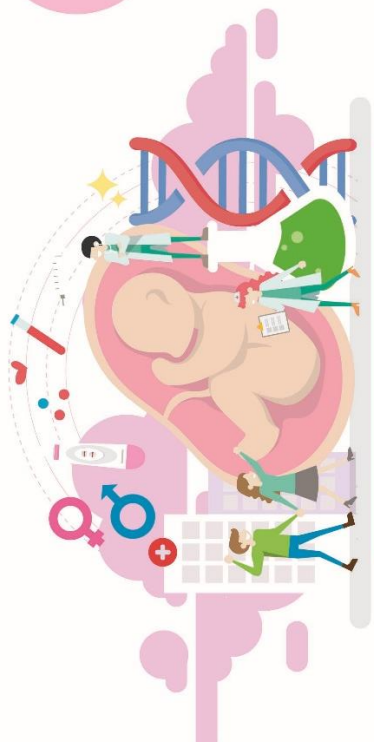
# NEET Biology Material

**Elite Batch**

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# REPRODUCTIVE HEALTH

**IMPORTANCE**

- To avoid unwanted pregnancies.
- Cases where continuation of pregnancy could harm both mother and baby

**Problem**

- Illegal Practice
- Misuse of Amniocentesis

**SEXUALLY TRANSMITTED DISEASES (STDs)**

**Examples**

- Gonorrhoea, Syphilis, Herpes, HIV, AIDS, etc

**Symptoms**

- Itching fluid discharge, Swelling and pain in genital regions.
- Pain in inflammatory diseases (PID), abortions, infertility, cancer, etc.

**Preventions**

- Avoid sex with multiple and unknown partners
- Use condoms, etc.

**ASSISTED REPRODUCTIVE TECHNOLOGIES (ART)**

**In vivo fertilisation (IVF) (Test tube Baby)**

**Embryo Transfer**

- i) Gamete Intra Fallopian Transfer (GIFT).
- ii) Intra Uterine Transfer (IUT).

**Intra Cytoplasmic Sperm Injection (ICSI)**

**In lab single sperm injected into an egg.**

**Embryo implanted in uterus.**

**Artificial Insemination**

**Semen from donor introduced into uterus.**

**Surrogacy**

**Surrogate mother bears child for a couple who cannot bear child.**

## Contraceptives

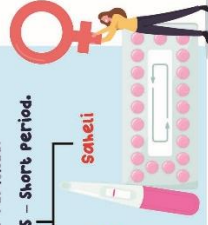
### Barrier

- Condoms
  - (i) Rubber Sheath, (ii) Males and females cervical caps
  - (i) Rubber, (ii) Reusable spermicidal creams
- Used along with other barriers.



### Oral

- Prevents implantation of blastula.
  - Used by females.
- Effectiveness - Short Period.**
- Progestogen-Estrogen Pills**
- Saheli**



### Natural

- Periodic Abstinence
- During fertile period avoid coitus.
- Coitus Interruptus
- Withdrawal of penis before ejaculation.
- Lactational Amenorrhoea
- Ovulation and menstrual cycle did not occur during the lactation period.



**REPRODUCTION AND CHILD HEALTH CARE (RCH) PROGRAMMES**

- Providing awareness about reproduction related aspects for reproductively healthy societies.
- Sex Education (School).
- Awareness about population explosion and social evils.

**Reason**

- Increased health facilities and better living conditions.
- Decline in death rate.
- Increase in number of people in reproductive age.

**POPULATION EXPLOSION**



**Solution**

- Creating awareness about 'Hum Do Hamre Do'.
- Legal marriage age - Male (21) and female (18).
- Use of contraceptives.

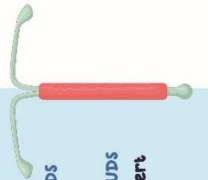
### Injectables

- Effectiveness - Long Period.
- Progestogens**
- Progestogen-Estrogen combined**



### Intra Uterine Devices (IUDs)

- Non - Medicated IUDs**
- Lippes loop
- Copper Releasing IUDs
- Cut. Cu7, etc
- Hormone Releasing IUDs
- MNG - 20, Progestasert



### PERMANENT BIRTH CONTROL

- Sterilization (Surgical Methods)**
- Vasectomy**
    - Male.
    - Vas deferens cut and tied.
  - Tubectomy**
    - Female.
    - Fallopian tube cut and tied.



### TEMPORARY BIRTH CONTROL

# REPRODUCTIVE HEALTH

## Reproductive Health: Problem and Strategies

- India was amongst the first countries in the world to initiate the programmed “family planning” initiated in 1951.
- Reproductive health in a society forms a crucial part of general health.
- Improved programs covering wider reproduction-related areas are currently in operation under the popular name ‘Reproductive and child health care (RCH) program’.
- Health and education of young people and marriage and child bearing during more mature stages of life are important attributes to the reproductive health of a society.

## Measures taken by Government:

- Through the help of audio-visuals & print media.
- Even family members, close relations are involved in the awareness.
- Sex education was introduced in schools to provide awareness
- Proper information about reproductive organs, adolescence & related changes, safe & hygienic sexual practices, sexually transmitted diseases, AIDS etc.

## Amniocentesis:

It is a technique used to find out chromosomal abnormalities in developing embryo by using amniotic fluid. It is also misused to check foetal sex determination based on the chromosomal pattern in the amniotic fluid surrounding the developing embryo.

## Population Explosion and Birth Control:

Improved quality of life of people, increased health facilities and better living condition had an explosive impact on explosion of population. Rapid decline in death rate, MMR (maternal mortality rate) and IMR (infant mortality rate) along with increase in population of reproductive age is the main reason for population explosion.

## Steps to overcome population explosion:

- Using various contraceptive methods.
- Educating people about the demerits of large family.
- Increasing the marriageable age of female and male
- Providing incentive to parents having 1 or 2 children.

**Contraceptive methods:** Contraceptive methods are used to prevent the unwanted

pregnancy and modifying the menstrual cycle.

### **An ideal contraceptive should be:**

- User friendly
- Easily available
- Effective
- Reversible
- No side effects
- No way interferes with sexual desire and sexual act.

### **Contraceptive methods could be divided into following categories:**

- Natural or traditional methods.
- Barrier methods.
- IUDs.
- Oral contraceptive methods.
- Injectable.
- Implants.
- Surgical methods.

### **Natural methods:**

Natural methods work on the principle of avoiding chances of ovum and sperm meeting.

#### **It includes:**

**Periodic abstinence:** The couples avoid coitus from day 10 to 17 of menstrual cycle as chances of fertilization are very high during this period, it is called the fertile period.

**Withdrawal or coitus interruptus:** Male partner withdraws penis from vagina just before ejaculation to avoid insemination.

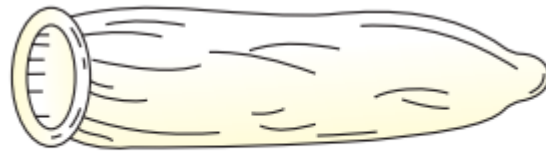
**Lactational Amenorrhea:** Absence of menstruation after parturition and due to intense milk feeding and no ovulation in this period, chances of fertilization is nil.

### **In Barrier methods:**

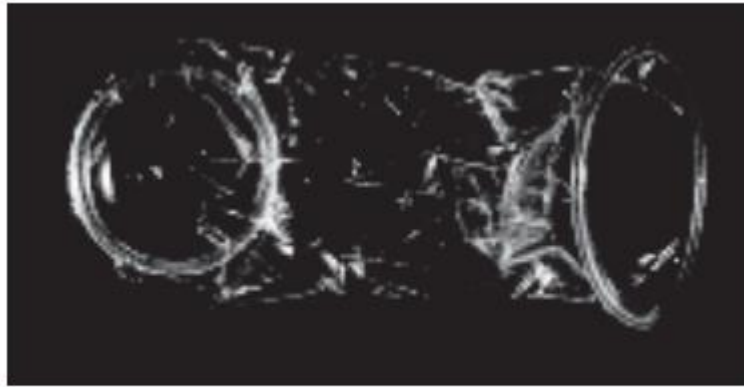
In Barrier methods, ovum and sperms are prevented from physical meeting with help of barrier.

#### **This includes:**

**Condoms for male:** Used by male, barrier made of rubber or latex sheet used to cover penis or vagina and cervix of female. It also prevents from STDs.



**Condom for male**



**Condom for female**

**Condom for female:** Diaphragms, cervical cap and vaults are barrier made of rubber that is inserted into the female reproductive tract during coitus. Spermicidal creams, jellies and foams are usually used along with these barriers to increase their contraceptive efficiency.

**Advantages of barrier methods:**

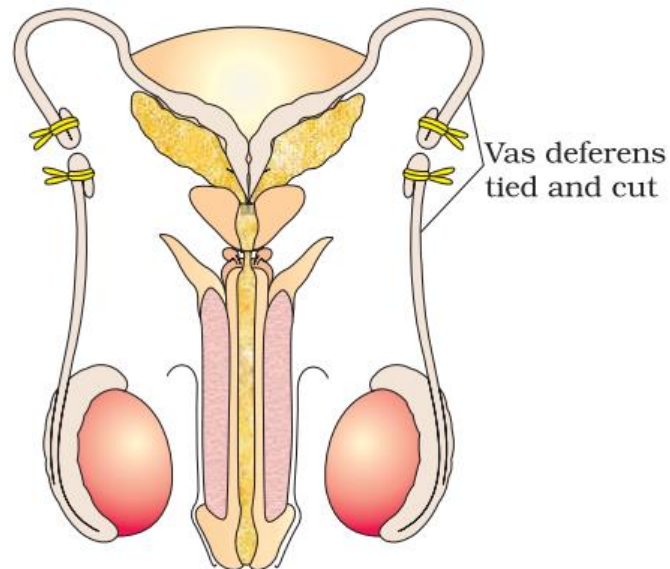
- They are disposable.
- They can be self-inserted.
- They are reusable.
- Prevents conception by blocking entry of sperm through cervix.

**Intra uterine Devices:** Inserted by doctor or trained nurse into the female uterus through vagina. IUCDs may be non-medicated IUDs (e.g., Lippes loop), copper releasing IUDs (CuT, Cu7, Multiload 375) and the hormone releasing IUDs (Progestasert, LNG-20). IUCDs increase the phagocytosis of sperm in uterus and copper reduce the motility and fertility capacity of sperms The hormone releasing IUDs make the uterus unsuitable for implantation and the cervix hostile to the sperms. It is ideal for female who wants to delay pregnancy and spacing between two children.

**Oral Pills:** Oral Pills are progesterone or progesterone-estrogen combination used by females in form of tablets. They inhibit ovulation and implantation as well as change the quality of cervical mucus to prevent/ retard entry of sperms. Administration of progesterone or progesterone-estrogen combination within 72 hours of coitus is found to be very effective as emergency contraceptive.

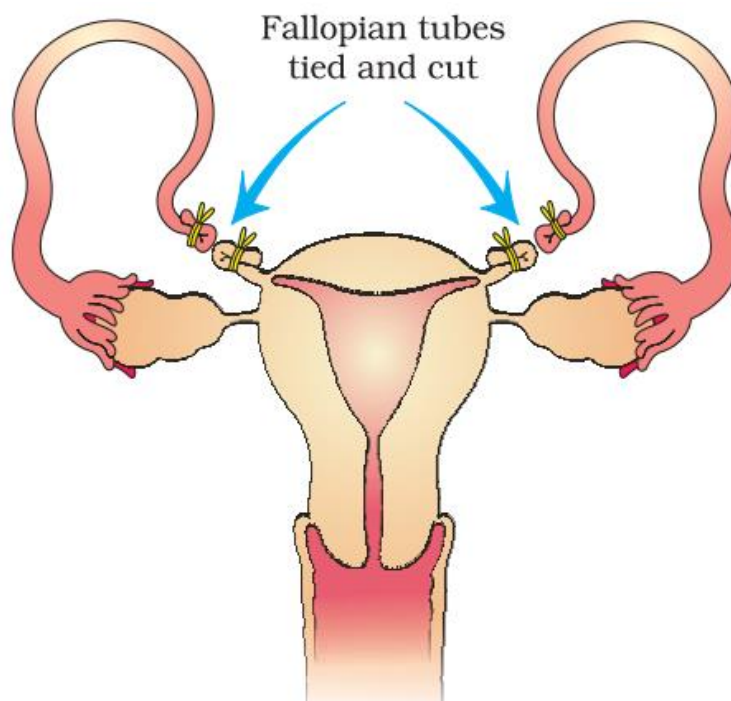
**Surgical method:** This method is also called sterilization. It is used as terminal method of contraception in male and female to prevent any more pregnancy.

**Vasectomy:** Vasectomy is the surgical method in male; a small part of the vas deferens is removed or tied up through a small incision on the scrotum to prevent release of sperms.



**Vasectomy**

**Tubectomy:** Tubectomy is the surgical method in females in which small part of fallopian tube is removed surgically.



**Tubectomy**

These techniques are highly effective, but their reversibility is very poor.

## Side effects of contraceptive method:

It is very important that the selection of contraceptive method should be taken under the consultation of the doctors.

They have ill-effects like nausea, abdominal pain, breakthrough bleeding, irregular menstrual bleeding or even breast cancer.

## Medical Termination of Pregnancy (MTP):

- Voluntary termination of pregnancy before full term is called MTP (medical termination of pregnancy) or induced abortion. It plays important role in decreasing population by aborting unwanted pregnancy.
- In India, MTP is legalized in 1971 with some restriction to prevent its misuse such as indiscriminate and illegal female foeticides.
- MTP is used to Get rid of unwanted pregnancy due to unprotected intercourse or failure of contraceptives used during coitus or rapes.
- When pregnancy continuation could be harmful or even fatal to mother or foetus.
- MTPs are considered relatively safe during first trimester or up to 12 weeks of pregnancy. Second trimester MTPs are much riskier.

## Sexually Transmitted Disease (STDs):

Diseases or infections which are transmitted through sexual intercourse are collectively called sexually transmitted disease or venereal disease (VD) or reproductive tract infection (RTI).

Some common STDs are Gonorrhoea, syphilis, genital herpes, chlamydia, genital warts, trichomoniasis, hepatitis-Ba and AIDS.

Hepatitis-B and HIV is also transmitted by sharing of injection needles, surgical instruments with infected person, transfusion of blood, or from infected mother to foetus.

Except genital herpes, HIV and hepatitis-B are completely curable if detected earlier and treated properly.

Timely detection and proper treatment of STDs are very important otherwise it could lead to complications later, which include pelvic inflammatory diseases (PID), abortions, still births, ectopic pregnancies, infertility or even cancer of the reproductive tract.

## Infections of STDs can be prevented by:

- Avoid sex with unknown partners/ multiple partners.
- Always use condoms during coitus.

- Go to a qualified doctor in case of doubt for early detection and get complete treatment if diagnosed.

## Infertility:

The couples which are unable to reproduce children in spite of unprotected sexual cohabitation are called infertile. The reasons for this could be many-physical, congenital, diseases, drugs, Immunological or even Psychological.

## Assisted reproductive technologies (ART):

Infertile couples can be assisted to have children through certain special techniques commonly called assisted reproductive technologies (ART),

### Which includes:

**In vitro fertilization (IVF):** In vitro fertilization (IVF) fertilization outside the body followed by embryo transfer, which is commonly called test tube baby program. The ovum from wife/ donor and sperms from husband/ donor are collected and induced to fertilize in laboratory conditions.

**ZIFT (zygote infra fallopian transfer):** The zygote or early embryo (8 blastomeres) could be transferred into fallopian tube called ZIFT (zygote infra fallopian transfer) and embryo with more than 8 blastomeres.

**IUT (intra uterine transfer):** IUT (intra uterine transfer) into the uterus to complete the further development. Embryos formed by in-vivo fertilization (fusion of gametes within the female) also could be used for such transfer to assist those females who cannot conceive.

**GIFT (gamete intra fallopian transfer):** Transfer of gametes collected from a donor into fallopian tube of another female who do not produce ovum.

**Intra cytoplasmic sperm injection (ICSI):** Specialized procedure to form an embryo in laboratory in which sperm is directly injected into ovum.

**Artificial insemination:** Infertility cases in which male partner is unable to produce healthy sperms are treated by this technique in which semen collected from donor is artificially introduced into vagina or into uterus, IUI (intra uterine insemination) of the female.

All these techniques require extremely high precision handling by specialized professional and expensive instruments. Therefore, their benefits are limited to certain countries and people. Emotional, religious, and social factors also prevent the adoption of these methods.

## NCERT LINE BY LINE QUESTIONS

### PARA-4.1

#### PROBLEMS AND STRATEGIES OF REPRODUCTIVE HEALTH

1. According to World Health Organisation, a reproductively healthy individual possesses [Pg-57,E]
  - A) Functionally and morphologically normal reproductive organs
  - B) Normal emotional and behavioural interactions with society
  - C) Total well-being in all aspects of reproductions
  - D) All of these
2. Which country commenced the action plans at national level to achieve total reproductive health as a social goal? [Pg-57,E]
  - A) China
  - B) Japan
  - C) India
  - D) Argentina
3. Consider the following statements: [Pg-57,58,M]
  - a. In India, family planning program was initiated in 1982.
  - b. Reproductive and Child Health Care (RCH) program is an improved version of family planning programs.Select the correct option
  - A) (a) is true, (b) is false
  - B) Both (a) and (b) are false
  - C) (a) is false, (b) is true
  - D) Both (a) and (b) are true
4. In what way awareness can be created among people about reproduction related aspects? [Pg-58,M]
  - a. Through audio-visual and print media advertisements.
  - b. Creating fear among adolescents about sexual practices.
  - c. Introduction of sex education at school.Select the most appropriate option
  - A) (a), (b) and (c) are correct
  - B) (b) and (c) are correct
  - C) (a) and (b) are correct
  - D) (a) and (c) are correct
5. While providing sex education to adolescents at school, which attribute would be least significant? [Pg-58,E]
  - A) Safe and hygienic sexual practices.
  - B) Information about postnatal care of mother and child.
  - C) Information about STDs and AIDS.
  - D) Discouraging children from believing in myths related to sexual practices.
6. RCH programs helps to curb [Pg-58,E]
  - A) Population explosion
  - B) Female foeticide
  - C) Sex abuse
  - D) All of these
7. Statutory ban on amniocentesis helps to check or prevent [Pg-58,E]
  - A) Female foeticides and massive child immunization
  - B) Sexually transmitted diseases
  - C) Genetic disorders in foetus
  - D) All of these
8. Consider the following statements: [Pg-58,M]
  - a. In amniocentesis, small sample
  - b. Foetal sex can be determined through amniocentesis by studying the chromosomal pattern in amniotic fluid.Select the correct option.
  - A) (a) is true, (b) is false
  - B) Both (a) and (b) are false
  - C) (a) is false, (b) is true
  - D) Both (a) and (b) are true

9. Amniocentesis can be used to detect all the listed diseases except [Pg-58,E]  
 A) Hemophilia      B) Malaria      C) Sickle cell anemia      D) Down syndrome
10. In the context of amniocentesis, which of the following statement is incorrect? [NEET-2016]  
 [Pg-58,M]  
 A) It is used for prenatal sex determination.  
 B) It can be used for detection of Down syndrome.  
 C) It can be used for detection of cleft palate.  
 D) It is usually done when a woman is 14–16 weeks pregnant.
11. **Assertion:** Sex education is provided to adolescents at school only.  
**Reason:** Sex education is introduced to teach adolescents about myths related of sexual practices only. [Pg-58,H]  
 A) Both assertion and reason are true and the reason is the correct explanation of assertion.  
 B) Both assertion and reason are true but the reason is not the correct explanation of assertion.  
 C) Assertion is true but reason is false.  
 D) Both assertion and reason are false.
12. **Assertion:** Amniocentesis helps to detect foetal disorders during early pregnancy.  
**Reason:** Jaundice can be prevented in foetus by amniocentesis. [Pg-58,H]  
 A) Both assertion and reason are true and the reason is the correct explanation of assertion.  
 B) Both assertion and reason are true but the reason is not the correct explanation of assertion.  
 C) Assertion is true but reason is false.  
 D) Both assertion and reason are false.

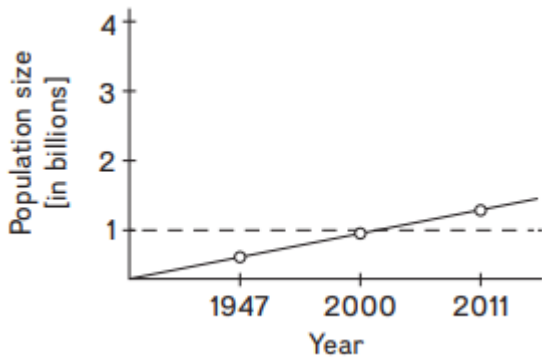
#### PART-4.2

#### POPULATION STABILISATION AND BIRTH CONTROL

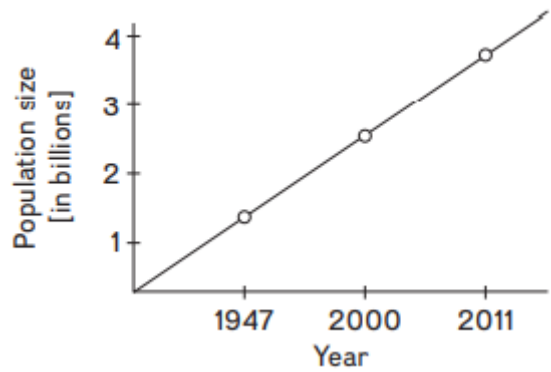
13. The trend of world's population growth from the year 2000 to 2011 is [Pg-59,E]  
 A) Increasing      B) Decreasing      C) Stable      D) Fluctuating
14. Match the following columns [Pg-59,M]

	Column I (Year)		Column II (World population)
(a)	2011	(1)	2000 million
(b)	1900	(2)	7.2 billion
(c)	2000	(3)	6 billion

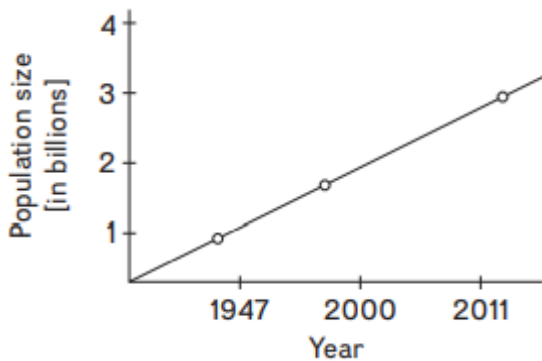
- a      b      c
- 1)    3    2    1  
 2)    1    3    2  
 3)    2    1    3  
 4)    3    1    2
15. Consider the following statements. [Pg-59,M]  
 a. The world population increased significantly in between the years 1900–2000 as compared to the years 2000–2011.  
 b. Increased health services had an explosive impact on world's population growth.  
 Select the correct option  
 A) a is false, b is true      B) Both a and b are true  
 C) a is true, b is false      D) Both a and b are false
16. Which among the following graph represents accurate population growth pattern of India? [Pg-59,H]



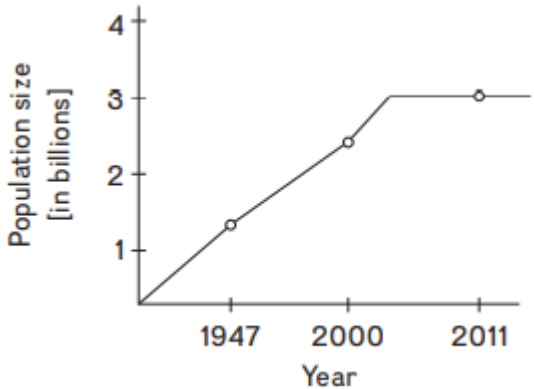
A)



B)



C)



D)

17. According to the 2011 census report, the population growth rate of India was **[Pg-59,E]**  
 A) More than five percent      B) Less than one percent  
 C) Less than two percent      D) More than six percent
18. Under what circumstances, the growth of population declines? **[Pg-59,M]**  
 a. Increased number of people in  
 b. Decreased infant mortality rate.  
 c. Increased maternal mortality rate.  
 Select the most appropriate option.  
 A) (a), (b), (c) are correct      B) (a) and (b) are correct  
 C) Only (c) is correct      D) Only (b) is correct
19. A population with declined infant mortality rate would show **[Pg-59,E]**  
 A) Zero growth      B) Increased growth  
 C) Decreased growth      D) Fluctuating growth
20. Which among the following measure can be opted to check the population growth rate? **[Pg-59,E]**  
 A) Contraceptives      B) MTP      C) Amniocentesis      D) ART
21. Consider the following statements. **[Pg-59,M]**  
 a. 'One child norm' is a threat to population growth rate of India.  
 b. Statutory raising of marriageable age of males and females check the population growth rate.  
 Select the correct option.  
 A) a is true, b is false      B) Both a and b are true  
 C) a is false, b is true      D) Both a and b are false
22. Marriageable age of males and female in India is **[Pg-59,E]**  
 A) 18 years      B) 21 years  
 C) 21 years and 18 years, respectively      D) 18 years and 21 years, respectively
23. An ideal contraceptive should have all the listed characteristics, except **[Pg-59,E]**  
 A) User friendly      B) Reversible      C) Easily available      D) Decrease sex drive
24. Consider the following statements: **[Pg-60,M]**



- A) These are made up of thin latex sheath.  
 B) These are used to cover penis or cervix.  
 C) They help the ejaculate to enter uterus but not into fallopian tube.  
 D) Nirodh is a popular brand of male condoms.
33. Use of condoms can help to prevent [Pg-60,E]  
 A) AIDS and other STDs B) Spermatogenesis  
 C) Coitus D) All of these
34. What is the similarity between vaults and diaphragms? [Pg-60,E]  
 A) They both prevent ovulation in females.  
 B) They are used to cover penis in males.  
 C) They are used to cover cervix during coitus.  
 D) They release copper ions to suppress sperm motility.
35. Consider the following statements: [Pg-60,M]  
 (a) Cervical caps and vaults are not cost effective as they cannot be reused.  
 (b) Contraceptive efficiency of vaults and cervical caps can be increased by using spermicidal creams along with these barriers.  
 Select the correct option  
 A) a is true, b is false B) Both a and b are true  
 C) a is false, b is true D) Both a and b are false
36. Select the correct statement regarding intra uterine devices (IUDs). [Pg-60,E]  
 A) They are used by females at the time of copulation.  
 B) IUDs are inserted in the uterus by doctors.  
 C) IUDs are not reliable contraceptives.  
 D) All IUDs release hormones which suppress sperm motility.
37. Match the following columns. [Pg-60,M]  

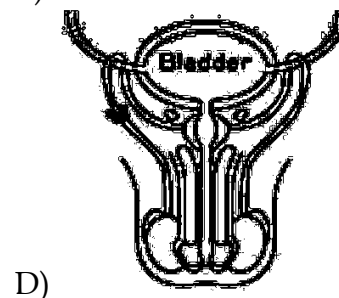
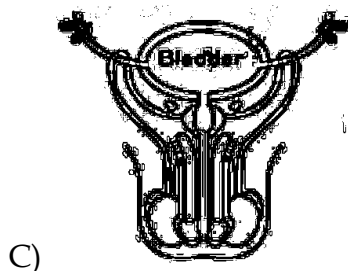
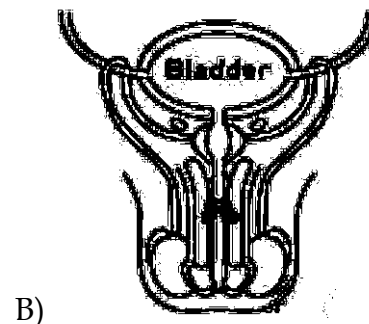
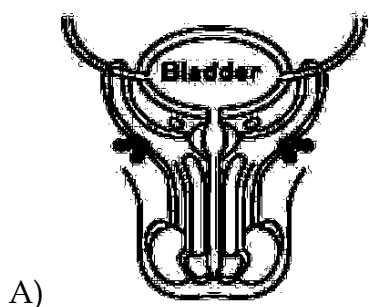
<b>Column I</b>	<b>Column II</b>	
(a) LNG 20	(1) Hormone-releasing IUD	
(b) Lippes loop	(2) Copper releasing IUD	
(c) Multiload 375	(3) Non medicated IUD	

 Select the correct option.  

	<b>a</b>	<b>b</b>	<b>c</b>	
A)	2	1	3	
B)	2	3	1	
C)	1	2	3	
D)	1	3	2	
38. All the listed IUDs release copper ions except [Pg-60,E]  
 A) LNG 20 B) Cu 7 C) Cu T D) Multiload 375
39. What is significance of copper ions in contraception? [Pg-60,E]  
 A) They delay ovulation in females.  
 B) They suppress sperm motility and fertilising capacity of sperms.  
 C) They increase the level of prolactin so as to suppress the activity of LH and FSH.  
 D) They decrease the libido and sexual desire of female.
40. Select the hormone-releasing Intra- Uterine Devices. [NEET-2019] [Pg-60,M]  
 A) Multiload 375, Progestasert B) Progestasert, LNG-20  
 C) Lippes Loop, Multiload 375 D) Vaults, LNG-20
41. Which of the following is a correct statement? [NEET-2019] [Pg-60,M]  
 A) IUDs suppress gametogenesis  
 B) IUDs once inserted need not be replaced  
 C) IUDs are generally inserted by the user herself  
 D) IUDs increase phagocytosis of sperms in the uterus

42. The hormones used for the purpose of contraception in pills and IUDs are [Pg-61,E]  
 A) Progesterone and estrogen                      B) Estrogen and testosterone  
 C) LH and progesterone                            D) Prolactin and testosterone
43. For the effective results of contraception pills, they should be taken [Pg-61,E]  
 A) Once every month on the day of ovulation  
 B) For 21 days daily, followed by a gap of seven days  
 C) For seven days daily, during the time of ovulation  
 D) Daily, without any gap
44. Consider the following statements. [Pg-61,M]  
 (a) Oral contraceptives inhibit ovulation and implantation to induce contraception.  
 (b) Menstrual flow does not occur in females after taking oral contraceptives.  
 Select the correct option.  
 A) a is true, b is false                              B) a is false, b is true  
 C) Both a and b are false                          D) Both a and b are true
45. Select the incorrect statement regarding 'Saheli'. [Pg-61,E]  
 A) It was developed by CDRI, Lucknow, India.  
 B) It contains high amount of progesterone and estrogen.  
 C) It is taken once in a week.  
 D) It has least side effects and high contraceptive value.
46. The contraceptive 'saheli' [NEET-2018] [Pg-61,M]  
 A) Blocks estrogen receptors in the uterus, preventing eggs from getting implanted.  
 B) Increases the concentration of estrogen and prevents ovulation in females  
 C) Is an IUD.  
 D) Is a post-coital contraceptive.
47. Which of the following statement is incorrect regarding implants? [Pg-61,E]  
 A) They are used by both males and females.  
 B) These are placed under the skin.  
 C) They contain progestogens or combinations of pills.  
 D) They are effective for longer period as compared to pills.
48. All the listed contraceptives are effective during emergency to avoid pregnancy, except [Pg-60,61,E]  
 A) Progestasert                                      B) Progestogen pills  
 C) Vaults    D) Progesterone-estrogen pills
49. Which of the following contraceptive methods do involve a role of hormone? [Pg-60,61,M]  
 [NEET-2019]  
 A) Barrier method, Lactational amenorrhea, Pills  
 B) CuT, Pills, Emergency contraceptives  
 C) Pills, Emergency contraceptives, Barrier methods  
 D) Lactational amenorrhea, Pills, Emergency contraceptives
50. Consider the following statements. [Pg-61,M]  
 (a) Emergency contraceptives are taken within 72 hours of coitus to avoid pregnancy.  
 (b) Sterilisation is the terminal method to prevent any pregnancy as it is irreversible.  
 Select the correct option.  
 A) a is true, b is false                              B) Both a and b are true  
 C) a is false, b is true                              D) Both a and b are false
51. Which of the following statement is incorrect? [Pg-62,E]  
 A) Vasectomy is the sterilisation procedure in males.  
 B) Sterilisation method blocks the transport of gametes to prevent conception.  
 C) In tubectomy, fallopian tubes are removed from female body completely.

- D) After tubectomy, menstrual cycle is not disrupted in females.
52. Which of the following approaches does not give the defined action of contraceptive? [NEET-2016] [Pg-60,61,62,M]
- A) Intra uterine devices - Increase phagocytosis of sperms, suppress sperm motility and fertilizing capacity of sperm  
 B) Hormonal contraceptives - Prevent/retard entry of sperm, prevent ovulation and fertilisation  
 C) Vasectomy - Prevents spermatogenesis  
 D) Barrier methods - Prevents fertilisation
53. The semen of male after vasectomy [Pg-62,E]
- A) Does not contain sperms  
 B) Is not produced in body  
 C) Lacks fructose and prostaglandins  
 D) Both (a) and (c)
54. Among the listed options, contraception is achieved through [Pg-62,E]
- A) Tubectomy  
 B) Ovariectomy  
 C) Hysterectomy  
 D) Castration
55. Which of the following diagram depict vasectomy accurately? [Pg-61,E]



56. **Assertion:** Menstruation does not occur during the intense period of lactation.  
**Reason:** Chances of conception are higher after 1-2 months following parturition. [Pg-60,H]
- A) Both assertion and reason are true and the reason is the correct explanation of assertion.  
 B) Both assertion and reason are true but the reason is not the correct explanation of assertion.  
 C) Assertion is true but reason is false.  
 D) Both assertion and reason are false.
57. **Assertion:** Use of condoms can prevent the transmission of AIDS.  
**Reason:** AIDS is a fluid-transmitted disease. [Pg-60,H]
- A) Both assertion and reason are true and the reason is the correct explanation of assertion.  
 B) Both assertion and reason are true but the reason is not the correct explanation of assertion.  
 C) Assertion is true but reason is false.  
 D) Both assertion and reason are false.
58. **Assertion:** Emergency contraceptives contain high level of steroidal preparation.  
**Reason:** Saheli is an emergency contraceptive. [Pg-61,H]
- A) Both assertion and reason are true and the reason is the correct explanation of assertion.  
 B) Both assertion and reason are true but the reason is not the correct explanation of assertion.  
 C) Assertion is true but reason is false.  
 D) Both assertion and reason are false.
59. **Assertion:** After vasectomy, sperms are not found in the semen or ejaculate.

**Reason:** Vas deferens is cut and tied in vasectomy.

[Pg-62,H]

- A) Both assertion and reason are true and the reason is the correct explanation of assertion.
- B) Both assertion and reason are true but the reason is not the correct explanation of assertion.
- C) Assertion is true but reason is false.
- D) Both assertion and reason are false.

### PART-4.3

#### MEDICAL TERMINATION OF PREGNANCY

60. Medical termination of pregnancy is [Pg-62,E]  
A) Carried out by tubectomy in females      B) Induced abortion  
C) Inability to conceive due to certain problem      D) Menopause stage in females
61. Consider the following statements. [Pg-62,M]  
(a) One-fifth of total number of conceived pregnancies in a year, all over the world are terminated through MTP.  
(b) MTP restrictions help to check illegal female foeticide in India.  
Select the correct option.  
A) Both a and b are false      B) a is true, b is false  
C) a is false, b is true      D) Both a and b are true
62. Government of India legalised MTP in the year [Pg-62,E]  
A) 1988      B) 1978      C) 1985      D) 1971
63. To reduce the incidences of illegal abortions, recent MTP (Amendment) Act in India was enacted in [Pg-62,E]  
A) 2009      B) 2011      C) 2017      D) 2019
64. According to MTP Act 2017, a pregnancy may be terminated [Pg-62,E]  
A) Within first 12 weeks of pregnancy on the opinion of one medical practitioner  
B) Before first six weeks of pregnancy, without any opinion  
C) Within first 24 weeks of pregnancy on the opinion of one medical practitioner  
D) All of these
65. On what grounds, pregnancy of more than 12 weeks is terminated through MTP in India? [Pg-62,M]  
A) If it imposes life threatening risks to pregnant woman.  
B) If the female already has three girl children.  
C) If the family history of parents has certain genetic disorder.  
D) If the female is widow or divorced
66. MTP is considered safe upto [Pg-62,E]  
A) 12 weeks      B) 24 weeks      C) 26 weeks      D) 28 weeks
67. A pregnant woman was denied for undergoing MTP as she was not having opinion documents from two registered medical practitioners. The duration of her pregnancy might be [Pg-62,E]  
A) 8 weeks      B) 12 weeks      C) 21 weeks      D) 29 weeks
68. Select the correct statement regarding MTP. [Pg-62,M]  
(a) It is carried out up to third trimester of pregnancy.  
(b) It is always surgical.  
(c) It is widely used as a method of contraception.  
(d) It requires the assistance of registered medical practitioner.  
Select the most appropriate option  
A) (a) and (b) are correct      B) Only (d) is correct  
C) (b) and (d) are correct      D) (a), (c) and (d) are correct
69. **Assertion:** MTP helps to get rid of unwanted pregnancies due to unprotected intercourse. **Reason:** MTPs are considered safe up to 28 weeks of pregnancy. [Pg-62,H]  
A) Both assertion and reason are true and the reason is the correct explanation of assertion.

- B) Both assertion and reason are true but the reason is not the correct explanation of assertion.  
 C) Assertion is true but reason is false.  
 D) Both assertion and reason are false.
70. **Assertion:** Ban on amniocentesis helped to reduce the incidences of MTP in India.  
**Reason:** Amniocentesis helps to determine the sex of unborn child. [Pg-58,H]  
 A) Both assertion and reason are true and the reason is the correct explanation of assertion  
 B) Both assertion and reason are true but the reason is not the correct explanation of assertion.  
 C) Assertion is true but reason is false.  
 D) Both assertion and reason are false.
- Para-4.4 Sexually Transmitted Infections**
71. Sexually transmitted diseases are alternatively known as [Pg-63,E]  
 A) Contagious diseases B) Venereal diseases  
 C) Viral diseases D) Degenerative diseases
72. RTI stands for [Pg-63,E]  
 A) Rubella-Typhoid Infection B) Rotavirus-Trichomoniasis Infection  
 C) Reproductive Tract Infection D) Rotavirus
73. Among the given options, which set represents sexually transmitted infections (STI) only? [Pg-63,E]  
 A) Gonorrhoea, Chlamydia, Trichomoniasis  
 B) Syphilis, Giardiasis, Genital warts  
 C) Taeniasis Genital herpes, Leishmaniasis  
 D) Hepatitis B, Trichinosis, Gonorrhoea
74. Consider the following statements. [Pg-63,M]  
 (a) AIDS and Hepatitis B are STIs which are caused by virus.  
 (b) Gonorrhoea and syphilis are caused by bacteria.  
 Select the correct option.  
 A) a is true, b is false B) a is false, b is true  
 C) Both a and b are false D) Both a and b are true
75. Which among the following STIs can be transmitted by blood transfusion and sharing of infected needles with infected person? [Pg-63,M]  
 A) AIDS B) Genital warts C) Gonorrhoea D) Both (A) and (C)
76. A pregnant lady was suffering from a STI and various tests confirmed that her baby has also contracted the disease. The pregnant lady must be suffering from [Pg-63,M]  
 A) Genital herpes B) Trichomoniasis C) Chlamydia D) Hepatitis B
77. Which of the following sexually transmitted diseases is not completely curable? [NEET-2017] [Pg-63,M]  
 A) Genital warts B) Genital herpes C) Chlamydia D) Gonorrhoea
78. The incidences of STDs are more frequent [Pg-63,E]  
 A) In age group of 15–24 years B) Before the beginning of puberty age  
 C) In a menopausal woman D) In elder generation
79. Consider the following statements. [Pg-63,M]  
 (a) Sexually transmitted diseases can be cured completely if detected early and treated properly.  
 (b) Early symptoms of STIs include itching, fluid discharge and swelling in genital areas.  
 Select the correct option.  
 A) a is true, a is false B) Both a and b are true  
 C) a is false, b is true D) Both a and b are false
80. The consequences of delayed treatment of STIs include [Pg-63,M]  
 (1) ectopic pregnancy (2) still births  
 (3) pelvic inflammatory diseases (4) uncontrolled growth of cells

Select the most appropriate option

- A) (1) and (2) are correct                      B) (3) and (4) are correct  
C) (1), (2), (3) and (4) are correct    D) (1), (2) and (3) are correct

81. Match the following sexually transmitted diseases in Column-I with their causative agent in Column II and select the correct option [NEET-2017] [Pg-63,M]

Column I	Column II
(a) Gonorrhoea	(1) HIV
(b) Syphilis	(2) Neisseria
(c) Genital Warts	(3) <i>Treponema</i>
(d) AIDS	(4) Human papilloma - virus

Select the correct option.

	a	b	c	d
A)	4	3	2	1
B)	2	3	4	1
C)	3	4	1	2
D)	4	2	3	1

82. W What measures can be taken to prevent STDs among population? [Pg-63,E]

- A) Use condom during coitus                      B) Avoid sex with multiple partners  
C) Do not share needles and syringes    D) All of these

83. Which of the following sexually transmitted diseases do not specially affect reproductive organs? [NEET-2019] [Pg-63,E]

- A) Chlamydia and AIDS                      B) Genital warts and Hepatitis-B  
C) Syphilis and Genital herpes              D) AIDS and Hepatitis B

84. **Assertion:** Gonorrhoea spreads through infected needles during blood transfusion.

**Reason:** Gonorrhoea cannot be cured completely. [Pg-63,H]

- A) Both assertion and reason are true and the reason is the correct explanation of assertion.  
B) Both assertion and reason are true but the reason is not the correct explanation of assertion.  
C) Assertion is true but reason is false.  
D) Both assertion and reason are false.

85. W **Assertion:** AIDS can be transmitted through body fluids of affected individual.

**Reason:** Hepatitis B virus can be found in blood and semen of affected individual. [Pg-63,H]

- A) Both assertion and reason are true and the reason is the correct explanation of assertion.  
B) Both assertion and reason are true but the reason is not the correct explanation of assertion.  
C) Assertion is true but reason is false.  
D) Both assertion and reason are false.

#### Para-4.5 - INFERTILITY

86. Consider the following statements.

- (a) An infertile couple is unable to produce children due to immunological disorders only.  
(b) In human population, males are always fertile while females are either fertile or infertile. [Pg-63,64,M]

Select the correct option

- A) a is true, b is false                      B) Both a and b are true  
C) a is false, b is true                      D) Both a and b are false

87. How does assisted reproductive techniques, (ART) help an infertile couple to have children? [Pg-64,E]

- A) By easing the process and procedure of adoption.  
B) By treating the disease associated with infertility.  
C) By carrying out certain fertilisation processes through special techniques.  
D) Any of these





6. Hysterectomy is surgical removal of : [2015]  
 (a) Prostate gland (b) Vas-deference (c) Mammary glands (d) Uterus
7. Ectopic pregnancies are referred to as [2015]  
 (a) implantation of embryo at site other than uterus. (b) implantation of defective embryo in the uterus.  
 (c) pregnancies terminated due to hormonal imbalance.  
 (d) pregnancies with genetic abnormality.
8. A childless couple can be assisted to have a child through a technique called GIFT. The full form of this technique is: [2015]  
 (a) Gamete intra fallopian transfer (b) Gamete internal fertilisation and transfer  
 (c) Germ cell internal fallopian transfer (d) Gamete inseminated fallopian transfer
9. Tubectomy is a method of sterilisation in which [2014]  
 (a) small part of the fallopian tube is removed or tied up. (b) ovaries are removed surgically.  
 (c) small part of vas deferens is removed or tied up. (d) uterus is removed surgically.
10. Which of the following is a hormone releasing intra uterine device (IUD)? [2014]  
 (a) Multiload 375 (b) LNG – 20 (c) Cervical cap (d) Vault
11. Assisted reproductive technology, IVF involves transfer of : [2014]  
 (a) ovum into the fallopian tube. (b) zygote into the fallopian tube.  
 (c) zygote into the uterus. (d) embryo with 16 blastomeres into the fallopian tube.
12. Select the hormone-releasing Intra-Uterine Devices:- [NEET-2019]  
 (1) Vaults, LNG-20 (2) Multiload 375, Progestasert (3) Progestasert, LNG-20 (4) Lippes Loop, Multiload 375
13. Which of the following sexually transmitted diseases is not completely curable? [NEET-2019]  
 (1) Gonorrhoea (2) Genital warts (3) Genital herpes (4) Chlamydia
14. Which of the following contraceptive methods do involve a role of hormone? [NEET-2019]  
 (1) Lactational amenorrhoea, Pills, Emergency contraceptives  
 (2) Barrier method, Lactational amenorrhoea, Pills  
 (3) CuT, Pills, Emergency contraceptives (4) Pills, Emergency contraceptives, Barrier methods
15. Which of the following is a correct statement? [NEET-2019 ODISSA]  
 (1) IUDs once inserted need not be replaced. (2) IUDs are generally inserted by the user herself  
 (3) IUDs increase phagocytosis of sperms in the uterus. (4) IUDs suppress gametogenesis.
16. Which of the following sexually transmitted diseases do not specifically affect reproductive organs? [NEET-2019 ODISSA]  
 (1) Genital warts and Hepatitis-B (2) Syphilis and Genital herpes  
 (3) AIDS and Hepatitis B (4) Chlamydia and AIDS
17. Which of the following STDs are not curable? [NEET-2020 COVID]  
 (1) Genital herpes, Hepatitis B, HIV infection (2) Chlamydia, Syphilis, Genital warts  
 (3) HIV, Gonorrhoea, Trichomoniasis (4) Gonorrhoea, Trichomoniasis, Hepatitis B
18. Progestogens alone or in combination with estrogens can be used as a contraceptive in the form of – [NEET-2020 COVID]  
 (1) Implants only (2) Injections only (3) Pills, injections and implants (4) Pills only
19. Select the option including all sexually transmitted disease [NEET-2020]  
 1) Cancer, AIDS, Syphilis 2) Gonorrhoea, Syphilis, Genital herpes  
 3) Gonorrhoea, Malaria, Genital herpes 4) AIDS, Malaria, Filariasis
20. In which of the following techniques, the embryos are transferred to assist those females who cannot conceive? [NEET-2020]  
 1) GIFT and ICSI 2) ZIFT and IUT 3) GIFT and ZIFT 4) ICSI and ZIFT
21. **Match List – I with List – II** [NEET-2021]  
**List – I** **List – II**  
 a. Vaults i. Entry of sperm through cervix is blocked  
 b. IUDs ii. Removal of Vas deferens  
 c. Vasectomy iii. Phagocytosis of sperms within Uterus  
 d. Tubectomy iv. Removal of fallopian tube  
 Choose the correct answer from the options given below.
- |    |       |       |      |      |      |      |       |       |
|----|-------|-------|------|------|------|------|-------|-------|
|    | (a)   | (b)   | (c)  | (d)  | (a)  | (b)  | (c)   | (d)   |
| 1. | (i)   | (iii) | (ii) | (iv) | (ii) | (iv) | (iii) | (i)   |
| 3. | (iii) | (i)   | (iv) | (ii) | (iv) | (ii) | (i)   | (iii) |



- (b) Periodic abstinence
- (c) Lactational amenorrhea
- (d) Vaults

[NEET 2024]

28. Match List - I with List - II.

List - I

List - II

- (A) Non-medicated IUDs (I) Multiload 375
- (B) Copper releasing IUDs (II) Rubber barrier
- (C) Hormone releasing IUDs (III) Lippes loop
- (D) Vaults (IV) LNG-20

Choose the correct answer from the options given below :

- (a) A-(IV), B-(III), C-(I), D-(II)
- (b) A-(II), B-(IV), C-(III), D-(I)
- (c) A --(II), B-(I), C-(IV), D-(II)
- (d) A-(III), B-(IV), C-(II), D-(I)

[NEET 2023 Manipur]

29. Which of the following statements are correct?

- (A) Reproductive health refers to total well-being in all aspects of reproduction.
- (B) Amniocentesis is legally banned for sex determination in India.
- (C) "Saheli" - a new oral contraceptive for females was developed in collaboration with ICMR (New Delhi).
- (D) Amniocentesis is used to determine genetic disorders and survivability of foetus.

Choose the most appropriate answer from the options given below :

- (a) (B) and (C) only
- (b) (D) and (C) only
- (c) (A), (B) and (D) only
- (d) (A) and (C) only

[NEET 2023]

30. Given below are two statements: one is labelled as Assertion A and other is labelled as Reason R .

**Assertion A :** Amniocentesis for sex determination is one of the strategies of Reproductive and Child Health Care Programme.

**Reason R :** Ban on amniocentesis checks increasing menace of female foeticide.

In the light of the above statements, choose the correct answer from the options given below.

- (a) Both A and R are true and R is NOT the correct explanation of A.
- (b) A is true but R is false.
- (c) A is false but R is true.
- (d) Both A and R are true and R is the correct explanation of A.

[NEET 2023]

31. Match List I with List II.

	List I		List II
(A)	Vasectomy	(I)	Oral method
(B)	Coitus interruptus	(II)	Barrier method
(C)	Cervical caps	(III)	Surgical method
(D)	Saheli	(IV)	Natural method

Choose the correct answer from the options given below:

- (a) A-III, B-IV, C-II, D-I

- (b) A-II, B-III, C-I, D-IV  
 (c) A-IV, B-II, C-I, D-III  
 (d) A-III, B-I, C-IV, D-II

[NEET 2023]

32. Given below are two statements :

**Statement I :-** Intra Cytoplasmic Sperm Injection (ICSI) is another specialised procedure of in-vivo fertilisation.

**Statement II :-** Infertility cases due to inability of the male partner to inseminate female can be corrected by artificial insemination (AI).

In the light of the above statements, choose the correct answer from the options given below:

- (a) Statement I is correct but statement II is false  
 (b) Statement I is incorrect but Statement II is true  
 (c) Both Statement I and Statement II are true  
 (d) Both Statement I and Statement II are false.

[NEET 2023 Manipur]

33. What are the potential drawbacks in adoption of the IVF method?

- A. High fatality risk to mother  
 B. Expensive instruments and reagents  
 C. Husband/wife necessary for being donors  
 D. Less adoption of orphans  
 E. Not available in India  
 F. Possibility that the early embryo does not survive

Choose the correct answer from the options given below:

- (a) B, D, F only.  
 (b) A, C, D, F only  
 (c) A, B, C, D only  
 (d) A, B, C, E, F only

[NEET 2025]

## NCERT LINE BY LINE QUESTIONS – ANSWERS

1) D	2) C	3) C	4) D	5) B	6) D	7) A	8) C	9) B	10) C
11) D	12) C	13) A	14) C	15) B	16) A	17) C	18) C	19) B	20) A
21) C	22) C	23) D	24) C	25) D	26) C	27) B	28) C	29) D	30) A
31) C	32) C	33) A	34) C	35) C	36) B	37) D	38) A	39) B	40) B
41) D	42) A	43) B	44) A	45) B	46) A	47) A	48) C	49) D	50) B
51) C	52) C	53) A	54) A	55) A	56) C	57) A	58) C	59) A	60) B
61) C	62) D	63) C	64) A	65) A	66) A	67) C	68) B	69) C	70) B
71) B	72) C	73) A	74) D	75) A	76) D	77) B	78) A	79) B	80) D
81) B	82) D	83) D	84) D	85) B	86) D	87) C	88) A	89) C	90) D
91) B	92) C	93) C	94) A	95) C	96) D	97) B	98) B	99) B	100) D
101) D	102) C	103) C	104) D	105) A					

## NEET PREVIOUS YEARS QUESTIONS-ANSWERS

- 1 (a)      2 (d)   3 (b)   4 (d)   5 (d)   6 (d)   7 (a)   8 (a)   9 (a)   10 (b)  
11 (b)     12 (3)   13 (3)   14 (1)   15 (3)   16 (3)   17 (1)   18 (3)   19 (2)   20 (2)  
21 (1)     22 (2)   23 (1)   24 (3)   25 (2)   26(d)   27(d)   28(c)   29(c)   30(c)   31(a)   32(b)   33(a)

## NEET PREVIOUS YEARS QUESTIONS-EXPLANATIONS

- (a) Saheli is world's first and only oral non-steroidal contraceptive pill. It is taken once in a week. Its function is based upon selective estrogen receptor modulation. It prevents egg from getting implanted.
- (d)  $\text{Cu}^{2+}$  interfere in the sperm movement, which suppress the sperm motility and fertilising capacity of sperms.
- (b) Infertility cases due to inability of the male partner to inseminate the female or due to very low sperm count in the ejaculates, could be corrected by using artificial insemination (AI) technique. In this procedure semen is injected directly into the vagina or uterus.
- (d) Amniocentesis (also referred to as amniotic fluid test or AFT) is a medical procedure used in prenatal diagnosis of chromosomal abnormalities and foetal infections, and also used for sex determination in which a small amount of amniotic fluid, which contains foetal tissues, is sampled from the amniotic sac. Cleft palate is a developmental abnormality which can only be detected by sonography.
- (d) Vasectomy is a surgical procedure for male sterilisation or permanent contraception. During the procedure, the male vas deferens are severed and then tied or sealed in a manner so as to prevent sperm from entering into the seminal stream (ejaculate) and thereby prevent fertilisation.
- (d) Hysterectomy is a surgery in which woman's uterus is removed. It is adopted for the treatment of uterine fibroids and cancer of uterine zone.
- (a) In ectopic pregnancies, the implantation of embryo does not occur in uterus but at other site.
- (a)
- (a) Tubectomy, also referred to as tubal sterilisation, is a surgical procedure done on women as a permanent method of contraception. In this method, fallopian tubes are blocked so that the ova or eggs are prevented from travelling to the uterus from the ovary. This prevents any future pregnancies to occur after the surgical procedure.
- (b) LNG-20 is a hormone releasing intrauterine device. It is so-called because it releases 20 micrograms of levonorgestrel per 24 hours, compared with 30 micrograms of levonorgestrel in some mini-pills.
- b)
- Gonorrhoea, Syphilis and Genital herpes are sexually transmitted diseases.  
Gonorrhoea is caused by a bacterium *Neisseria gonorrhoeae*.  
Syphilis is caused by a bacterium *Treponema pallidum*.  
Genital herpes is caused by a virus *Herpes simplex virus*.
- ART in which embryos are transferred, include ZIFT and IUT  
  
In GIFT (Gamete Intrafallopian Transfer), gamete is transferred into the fallopian tube of female who cannot produce ova.  
  
ICSI is Intra cytoplasmic sperm injection in which sperm is directly injected into the ovum.
- Vaults - (i) Entry of sperm through cervix is blocked  
IUDs - (iii) Phagocytosis of sperms within the uterus  
Vasectomy - (ii) Removal of vas deferens  
Tubectomy - (iv) Removal of fallopian tube
- \*Venereal diseases or sexually transmitted diseases or infections are transmitted by sharing of infected needles, surgical instruments with infected person, transfusion of blood or from an infected mother to foetus.  
\* Venereal diseases are not transmitted through kissing or inheritance.
- LNG 20 is an example of Hormone releasing IUD
- Lippel's loop-non medicated IUD
- Diaphragm – cover cervix  
Contraceptive pills – prevent ovulation

IUD- phagocytosis

Lactational amenorhea– Absence of menstrual cycle

**26.Ans.(d)**

**Explanation**

Correct answer is option (d) because

- Lippes loop is a non-medicated IUD.
- Multiload 375 is a copper releasing IUD.
- LNG -20 is a hormone releasing IUD.
- Progestogens are used as implants.

**27.Ans.(d)**

**Explanation**

The correct answer is option (d) as

Vault is a barrier method of contraception which is made of rubber that is inserted into the female reproductive tract to cover the cervix during the coitus.

Option (a) is incorrect as coitus interruptus is a natural method of contraception in which male partner withdraws his penis from the vagina just before ejaculation so as to avoid insemination.

Option (b) is incorrect as periodic abstinence is also a natural method of contraception in which couples avoid coitus during the fertile period.

Option (c) is incorrect as lactational amenorrhea is also a natural method of contraception which is based on the fact that ovulation and therefore the cycle do not occur during the period of intense lactational following parturition.

**28.Ans.(c)**

**Explanation**

The correct answer is :

Option c : A-(III), B-(I), C-(IV), D-(II)

Here's why :

(A) Non-medicated IUDs : These are intrauterine devices that do not release any copper or hormones. An example of this is the Lippes loop (III).

(B) Copper releasing IUDs : These IUDs gradually release copper, which has a spermicidal effect. Multiload 375 (I) is an example of this type of IUD.

(C) Hormone releasing IUDs : These IUDs release hormones to prevent pregnancy. LNG-20, also known as Mirena, (IV) is an example of this type of IUD.

(D) Vaults : This is another name for cervical caps, a type of barrier contraceptive method made of rubber (II).

**29.Ans.(c)**

**Explanation**

The correct answer is Option c: (A), (B) and (D) only.

(A) Reproductive health refers to total well-being in all aspects of reproduction.

This statement is correct. Reproductive health does indeed refer to a total state of physical, mental, and social well-being in all matters relating to the reproductive system at all stages of life.

(B) Amniocentesis is legally banned for sex determination in India.

This statement is also correct. The use of amniocentesis for sex determination is indeed illegal in India, due to the misuse of the technique leading to female feticide. However, it is permitted for the detection of genetic abnormalities.

(C) "Saheli" - a new oral contraceptive for females was developed in collaboration with ICMR (New Delhi).

This statement is incorrect. Saheli was developed by the Central Drug Research Institute (CDRI), Lucknow, India, not ICMR.

(D) Amniocentesis is used to determine genetic disorders and survivability of fetus.

This statement is correct. Amniocentesis is a prenatal test that allows doctors to diagnose a wide range of genetic disorders by testing a small sample of the amniotic fluid surrounding the fetus.

### 30. Ans.(c)

#### Explanation

The correct answer is Option c: A is false but R is true.

Assertion A is false because amniocentesis for sex determination is not a part of the Reproductive and Child Health Care Programme. In fact, the use of amniocentesis for the purpose of sex determination is illegal in many countries, including India, due to its association with sex-selective abortions and the societal preference for male children.

Reason R is true because a ban on amniocentesis for sex determination is indeed implemented in an attempt to reduce the incidence of female foeticide. The misuse of this medical procedure for sex-selective abortions has led to a gender imbalance in some societies, thus the need for regulatory measures

### 31. Ans.(a)

#### Explanation

A) Vasectomy : A surgical method of male sterilization that involves cutting or sealing the vas deferens to prevent sperm from entering the semen.

B) Coitus interruptus : A natural method of contraception that involves withdrawing the penis from the vagina before ejaculation to prevent sperm from entering the vagina.

C) Cervical caps : A barrier method of contraception that covers the cervix to prevent sperm from entering the uterus.

D) Saheli : An oral method of contraception that involves taking a nonsteroidal, non-hormonal birth control pill. So, the correct matching is: A-III, B-IV, C-II, D-I

### 32. Ans.(b)

#### Explanation

The correct answer is :

Option b : Statement I is incorrect but Statement II is true

Here's why :

Statement I is incorrect. Intra Cytoplasmic Sperm Injection (ICSI) is a specialized form of in-vitro (not in-vivo) fertilisation where a single sperm is injected directly into the egg to facilitate fertilisation. The fertilised egg (zygote) is then transferred to the woman's uterus.

Statement II is correct. Infertility cases due to inability of the male partner to inseminate the female can indeed be addressed through Artificial Insemination (AI). In AI, sperm (either from the woman's partner or a donor) is artificially inserted directly into the woman's cervix or uterus. This procedure can be used in cases where the male partner has low sperm count or poor sperm mobility, or if there are issues with sperm delivery.

### 33. Ans. (a)

#### Explanation

The potential drawbacks in adoption of the invitro fertilisation methods are;

1. Expensive instruments and reagents as the assisted reproductive techniques require extremely high precision handling by specialised professionals and expensive instrumentation.
2. Less adoption of orphans as in India we have so many orphaned and destitute children, who would probably not survive till maturity, unless taken care of. The in-vitro fertilisation methods reduce the chances of legal adoption of orphan children.

There is always a possibility that early embryos formed by in-vitro fertilisation methods do not survive.



## About us

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