

# REPRODUCTIVE HEALTH

## BIOLOGY

### Single Correct Answer Type

- What are the various ways through which the reproductive health can be improved?  
I. Education  
II. Awareness  
III. Encouraging myths  
IV. Ban on amniocentesis  
a) I and II                      b) II and III                      c) III and IV                      d) I, II and IV
- Which IUD increases the phagocytosis of the sperms within the uterus?  
a) Non-medicated IUD                      b) Copper releasing IUD  
c) Both (a) and (b)                      d) Hormone releasing IUD
- The permissible use of the technique amniocentesis is for  
a) Detecting any genetic abnormality  
b) Detecting sex of the unborn foetus  
c) Artificial insemination  
d) Transfer for embryo into the uterus of a surrogate mother
- Find out the natural contraception methods  
I. Implantation  
II. Lactational (amenorrhoea)  
III. Condoms  
IV. Vasectomy  
V. Tubectomy  
VI. Sterilisation  
a) I and II                      b) III and IV                      c) V and VI                      d) Only II
- “Theory of four humors” was proposed by:  
a) Theophrastus                      b) Aristotle                      c) Alexander                      d) Pluto
- Female condoms are called  
a) Femidom                      b) Female condom  
c) Contraceptive condom                      d) None of these
- NSEP stands for  
a) National Smallpox Eradication Programme                      b) National Sickness Eradication Programme  
c) National Syphilis Eradication Programme                      d) None of the above
- Study of population trends is:  
a) Kalography                      b) Psychobiology                      c) Biography                      d) Demography
- Find out sexually transmitted diseases among the given below  
I. AIDS                      II. Syphilis  
III. Gonorrhoea                      IV. Malaria  
V. Hepatitis-B                      VI. TB  
a) I, II, V and VI                      b) VI, I, II and III                      c) I, II, III and V                      d) I, II, III, IV, V and VI
- What is the difference in oral contraceptives and hormonal implants?  
a) They differ in their sites of implantation                      b) They differ in their duration of action  
c) Both (a) and (b)                      d) None of the above
- ICSI stands for  
a) Inter Cytoplasmic Semen Injection                      b) Intra Cytoplasmic Semen Injection  
c) Inter Cytoplasmic Semen Injection                      d) In Cytoplasmic Semen Injection
- CDRI is situated in  
a) Delhi                      b) Kanpur                      c) Lucknow                      d) Tamil Nadu

13. Find out the right aspects of lactational amenorrhoea  
 I. Ovulation do not occur during the lactational period  
 II. Chances of the failure of contraception are almost nil upto six months following parturition  
 III. Side effects are almost nil  
 IV. It is a natural method of contraception  
 V. It increases phagocytosis of sperms  
 a) II, III, IV and V                      b) All except V                      c) II, III, IV and V                      d) All of these
14. 'Population explosion' being witnessed is mainly due to:  
 a) Better job facilities                      b) Increase in agricultural production  
 c) Better health care                      d) None of these
15. Maximum growth rate occurs in:  
 a) Lag phase                      b) Exponential phase                      c) Stationary phase                      d) Senescent phase
16. What is the purpose of surgical method of contraception?  
 a) Prevent gamete motility                      b) Prevent gamete formation  
 c) Gametogenesis promotion                      d) Facilitate implantation
17. Choose the WHO's statement about reproductive health.  
 I. Healthy reproductive organs with normal functions.  
 II. Total well being of physical, emotional, behavioural and social aspects.  
 III. Free of all STD (Sexually Transmitted Disease)  
 a) I and II                      b) I and III                      c) II and III                      d) Only II
18. Lactational amenorrhoea is  
 a) Absence of menses in adult age  
 b) Absence of menses in elderly age  
 c) Absence of menses during lactation  
 d) No menses during pregnancy
19. Most thickly populated country is:  
 a) Bangladesh                      b) Australia                      c) U.S.A                      d) India
20. What is the use of condoms?  
 a) Decreases sperm motility                      b) Increases sperm motility  
 c) Barrier to prevent fusion of sperm and ova                      d) Increases phagocytosis
21. Amniocentesis is a technique to:  
 a) Estimate essential amino acids in the body                      b) Detect chromosomal anomalies in the foetus  
 c) Reverse sex of the foetus                      d) Correct genetic disorders of the foetus
22. Test tube baby is a technique where:  
 a) Zygote is taken from the oviduct cultured and then implanted  
 b) Ovum is taken out, then fertilized and implanted  
 c) Sperm and ovum are fused and zygote grown in a test tube  
 d) None of the above
23. In a population, the condition at which the rate of addition of new members is more than the rate of individuals lost indicates:  
 a) Zero population growth                      b) Exponential growth  
 c) Declining growth                      d) None of these
24. Which oral contraceptive is developed by CDRI?  
 a) Saheli                      b) Mala-D                      c) Both (a) and (b)                      d) None of these
25. Identify the correct statements  
 I. Infertility is the inability to produce viable offsprings due to the defects in the female partner  
 II. Complete lactation helps in contraception  
 III. Spreading awareness can help to create a reproductively healthy society  
 a) II only                      b) I, II and III                      c) II and III                      d) I and III
26. What is true about 'Saheli'?  
 I. Developed at CDRI, Lucknow  
 II. Contains a steroidal preparation

III. 'Once-a-week' pill

IV. Many side effects

V. High contraceptive value

VI. Very few side effects

VII. Low contraceptive value

a) I, II, III, V and VI

b) I, III, V and VI

c) I, II, III, IV and V

d) I, III, IV and V

27. Which of the following match is the correct?

I. STDs – Sexually Transmitted Diseases

II. VD – Venereal Disease

III. RTI – Reproductive Tract Infection

a) I and II

b) II and IV

c) I and III

d) I, II and III

28. NCFP stands for

a) National Filaria Control Programme

b) National Smallpox Control Programme

c) National Fever Control Programme

d) None of the above

29. The technique called Gamete Intra Fallopian Transfer (GIFT) is recommended for the females

a) Who can't produce an ovum

b) Who can't retain the foetus inside the uterus

c) Whose cervical canal is too narrow to allow the passage for the sperms

d) Who can't provide suitable environment for fertilisation

30. IVF involves the fertilisation ...A... the body followed by ...B...

a) A-outside; B-test tube

b) A-outside; B-embryo transfer

c) A-inside; B-embryo transfer

d) A-inside; B-embryo transfer

31. Greatest biological problems faced by human beings is:

a) Population explosion

b) Depletion of ozone layer

c) Depletion of natural resources

d) Land erosion

32. Which one of the following is the most widely accepted method of contraception in India, as at present?

a) Cervical caps

b) Tubectomy

c) Diaphragms

d) IUDs (Intra uterine devices)

33. Common STD in India is

a) Syphilis

b) Gonorrhoea

c) AIDS

d) Herpes

34. The prenatal technique to determine the genetic disorders in a foetus is called

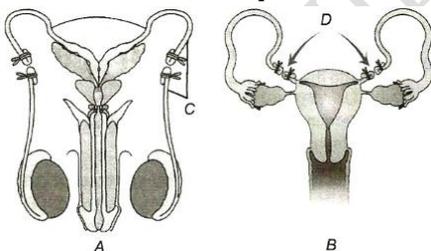
a) Laparoscopy

b) Amniocentesis

c) Abstinence

d) Coitus interruptus

35. Choose the correct option for A, B, C and D



a) A-Tubectomy, B-Vasectomy, C-Fallopian tube cut and tied, D-Vas-deferens cut and tied

b) A-Tubectomy, B-Vasectomy, C-Cervix, D-Vas-deferens cut and tied

c) A-Vasectomy, B-Tubectomy, C-Vas deferens cut and tied, D-Fallopian tube cut and tied

d) A-Tubectomy, B-Vasectomy, C-Vas deferens cut and tied, D-Fallopian tube cut and tied

36. What is correct about a test tube baby?

a) Fertilization in female's genital tract and growth in test tube

b) Rearing of premature born baby in an incubator

c) Fertilization outside and gestation inside mother's womb

d) Both fertilization and development are done outside the female genital tract

37. NLCP stands for

a) National Lyme Control Programme

b) National Leprosy Control Programme

c) National Lesion Control Programme

d) None of the above

38. The main factor of population growth in India is:  
 a) More of birth rate      b) less of death rate      c) Lack of education      d) All the above
39. Which of the following is a mechanical barrier used in birth control:  
 a) Loop      b) Copper-T      c) Diaphragm      d) Dalcon shield
40. Copper-T prevents:  
 a) Ovulation      b) Fertilization of egg      c) Implantation      d) Both (B) and (C)
41. Find out the correct statement  
 I. Pills prevents ovulation of contraception technique  
 II. Copper-T prevents implantation  
 III. Vasectomy produces semen containing no sperm  
 a) I and II      b) II and III      c) I and III      d) I, II and III
42. 1st, 2nd, 3rd dose of DPT is given by  
 I. 6 weeks after birth  
 II. 10 weeks after birth  
 III. 14 weeks after birth  
 IV. 24 weeks after birth  
 V. 29 weeks after birth  
 a) I, III and IV      b) III, IV and V      c) I, II and III      d) V, I and II
43. Which hormone of the female body is suppressed by the oral contraceptive pills?  
 a) FSH      b) Inhibit      c) Progesterone      d) Testosterone
44. Growth curve is normally:  
 a) J-shaped      b) V-shaped      c) S-shaped      d) C-shaped
45. Which one of the following statements is incorrect about menstruation?  
 a) At menopause in the female, there is especially abrupt increase in gonadotropic hormones  
 b) The beginning of the cycle of menstruation is called menarche  
 c) During normal menstruation about 40 ml blood is lost  
 d) The menstrual fluid can easily clot
46. Which of the following birth control measures can be considered as the safest?  
 a) The rhythm method      b) The use of physical barriers  
 c) Termination of unwanted pregnancy      d) Sterilization techniques
47. Sterilization method used in human beings is/are called  
 a) Vasectomy      b) Tubectomy      c) Both (a) and (b)      d) None of the above
48. The first case of IVF-ET techniques success, was reported by:  
 a) Bayliss and Starling Taylor      b) Robert Steptoe and Gilbert Brown  
 c) Louis Joy Brown and Banting best      d) Patrick Steptoe and Robert Edwards
49. Spermicidal cream used on the coating of condoms, diaphragms, cervical cap and vaults are  
 a) For lubrication      b) For shining  
 c) For increasing effectiveness      d) None of the above
50. NMEP stands for  
 a) National Measal Eradication Programme      b) National Mumps Eradication Programme  
 c) National Malaria Eradication Programme      d) None of the above
51. Example of the non-medicated IUD is  
 a) Cu-T      b) Cu-7      c) Multiload-375      d) Lippes loop
52. A national level approach to build up a reproductively healthy society was taken up in our country in:  
 a) 1950s      b) 1960s      c) 1980s      d) 1990s
53. Condition in which motility remains very less is  
 a) Azospermia      b) Polyspermia      c) Oligospermia      d) Asthenospermia
54. Diaphragms, cervical caps and vaults are  
 a) Are non-usable      b) For female use only  
 c) For male use only      d) None of these
55. Detection technique for AIDS is  
 a) PCR      b) ELISA      c) Both (b) and (c)      d) Clinical culture



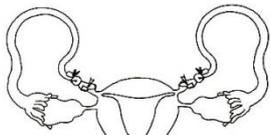
- IV. They are inter uterine devices  
 V. Widely accepted in India  
 a) I, III, IV and V                      b) I, II, III and V                      c) I, II, IV and V                      d) I, III, IV and V
70. Later complications of STDs are  
 I. Pelvic inflammation disease  
 II. Abortion  
 III. Still birth  
 IV. Ectopic pregnancies  
 V. Infertility  
 VI. Cancer  
 Choose the correct combinations  
 a) I, II, III, IV and V                      b) I, II, III, V and VI                      c) I, III, IV, V and VI                      d) I, II, III, IV, V and VI
71. Which of the following parameter of the population can be negative?  
 a) Birth rate                      b) Replacement level                      c) Growth rate                      d) All of these
72. Condoms are made up of thin rubber/latex sheath which is used to cover  
 a) Penis in male                      b) Cervix in female                      c) Both (a) and (b)                      d) None of the above
73. Write one or the following correctly matched Sexually Transmitted Disease (STD) with its pathogen?  
 a) AIDS—*Bacillus anthracis*                      b) Syphilis—*Treponema pallidum*  
 c) Urethritis—*Entamoeba gingivalls*                      d) Gonorrhoea—*Leishmania donovani*
74. Choose the right one among the statements given below:  
 a) IUDs are generally inserted by the user herself  
 b) IUDs increase phagocytosis reaction in the uterus  
 c) IUDs suppress gametogenesis  
 d) IUDs once inserted need not be replaced
75. MTP is of much risk in the phase of the pregnancy  
 a) 2nd trimester                      b) 1st trimester                      c) 1st week                      d) 2nd week
76. Which of the following cannot be detected in developing foetus by amniocentesis?  
 a) Sex of the foetus                      b) Down syndrome                      c) Jaundice                      d) Klinefelter syndrome
77. If the rate of addition of new members increases with respect to the individual host of the same population, then the graph obtained has:  
 a) Declined growth                      b) Exponential growth  
 c) Zero population growth                      d) None of these
78. Replacement rate is estimated to be:  
 a) 1.8                      b) 2.0                      c) 2.1                      d) 3.5
79. NCCP stands for  
 a) National Cholera Control Programme                      b) National Chickenpox Control Programme  
 c) National Chickenguhya Control Programme                      d) None of the above
80. Hormone releasing IUDS among the following are  
 a) Copper-T                      b) LNG-20                      c) Saheli                      d) Diaphragm
81. Given below the symptoms of a disease 'x' Infection in urinogenital tract, yellow discharge, fever, headache, feeling of illness are the common symptoms. Identify (x)  
 a) AIDS                      b) Syphilis                      c) Gonorrhoea                      d) Hepatitis-B
82. Condoms are one of the most popular contraceptives because of the following reasons:  
 a) These are effective harriers for insemination                      b) They do not interfere with coital act  
 c) These help in reducing the risk of STDs                      d) All of the above
83. Which of the following is a technique of direct introduction of gametes into the oviduct:  
 a) MTS                      b) ET                      c) IVF                      d) POST
84. Correct surgical method of contraception is  
 a) Ovariectomy                      b) Hysterectomy                      c) Vasectomy                      d) Castration
85. Infant mortality rate is minimum in:  
 a) Sweden                      b) Japan                      c) England                      d) USA
86. Consider the statements given below regarding contraception and answer as directed there after:

- (1) Medical termination of pregnancy (MTP) during first trimester is generally safe  
 (2) Generally chances of conception are nil until mother breast-feeds the infant upto two years  
 (3) Intrauterine devices like copper-T are effective contraceptives  
 (4) Contraception pills may be taken upto one week after coitus to prevent conception  
 Which two of the above statements are correct?

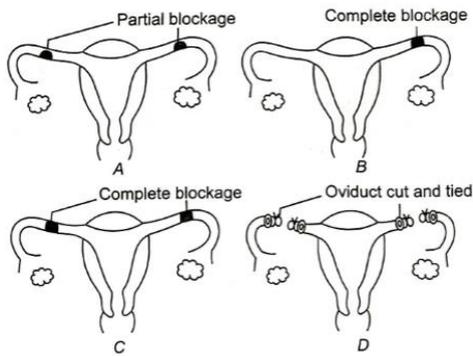
- a) 1,3                                      b) 1,2                                      c) 2,3                                      d) 3,4
87. Vitamin-E is also called  
 a) Antisterility vitamin                                      b) Antihelmenthic hormone  
 c) Inorganic antisterility vitamin                                      d) None of the above
88. Choose the correct statement regarding the ZIFT procedure:  
 a) Ova collected from a female donor are transferred to the fallopian tube to facilitate zygote formation                                      b) Zygote is collected from a female donor and transferred to the fallopian tube  
 c) Zygote is collected from a female donor and transferred to the uterus                                      d) Ova collected from a female donor and transferred to the uterus
89. First dose of BCG vaccine is given at the time of  
 a) Birth                                      b) 6 months after birth  
 c) 8 months after birth                                      d) 10 months after birth
90. RCH stands for  
 a) Reproduction and Child Healthcare                                      b) Reproductive Cum Hygiene  
 c) Routine Check-up of Health                                      d) Reproduction of Child Health and Care
91. Following statements are given regarding MTP. Choose the correct options given below:  
 i. MTPs are generally advised during first trimester  
 ii. MTPs are used as a contraception method  
 iii. MTPs are always surgical  
 iv. MTPs require the assistance of qualified medical personnel  
 a) ii and iii                                      b) ii and i                                      c) i and iv                                      d) i and ii
92. Oral contraceptives have hormonal preparation of  
 a) Progesterone                                      b) Oestrogen                                      c) Both (a) and (b)                                      d) None of the above
93. ...A... makes the uterus unsuitable for implantation and the cervix hostile to ...B... . Find out the correct option for A and B to complete the given NCERT statement  
 a) A-Hormonal releasing IUD; B-spermatogonia                                      b) A-Hormonal releasing IUD; B-sperms  
 c) A-Sperms; B-Hormonal releasing IUD                                      d) A-Sperms; B-ova
94. Reproductive health involves which of the following?  
 a) Creating awareness                                      b) Providing facilities and support  
 c) Finding new techniques                                      d) All of these
95. Match the given fertilisation methods (A-H) to their respective characteristic (I-VI)  
 I. Collected gametes are made to form the zygote in the laboratory  
 II. Zygote or early embryo with upto 8 blastomeres is transferred into the oviduct  
 III. Zygote with more than 8 blastomeres, is transferred into the uterus  
 IV. Fusion of the gametes in the female reproductive tract  
 V. Transfer of the ovum from a donor to the oviduct of the recipient  
 VI. Sperm is injected into the ovum, *in vitro*  
 A. GIFT                                      B. ZIFT  
 C. AI                                      D. ICSF  
 E. IUT                                      F. IVF  
 G. IUI                                      H. *In vivo* fertilisation
- Codes**  
 a) I-F; II-B; III-E; IV-H; V-A; VI-D                                      b) I-G; II-B; III-F; IV-H; V-A; VI-D  
 c) I-G; II-B; III-F; IV-H; V-C; VI-F                                      d) I-F; II-B; III-A; IV-H; V-A; VI-G
96. STDs caused by bacteria is/are  
 a) Syphilis                                      b) Gonorrhoea                                      c) Both (a) and (b)                                      d) None of the above
97. Which of the following method is used when male partner is unable to inseminate into the female partner



111. Indian population forms what percentage of world population?  
 a) About 16%                      b) About 7%                      c) About 20%                      d) About 21%
112. Every ..... person is Indian in world  
 a) Fifth                      b) Sixth                      c) Ninth                      d) First
113. On which day, world population touched 5th billion?  
 a) May 11, 1985                      b) July 11, 1986                      c) May 11, 1987                      d) July 11, 1987
114. Diaphragms are contraceptive devices used by the females. Choose the correct option from the statements given below:  
 i. They are introduced into the uterus  
 ii. They are placed to cover the cervical region  
 iii. They act as physical barriers for sperm entry  
 iv. They act as spermicidal agents  
 a) i and ii                      b) i and iii                      c) ii and iii                      d) iii and iv
115. From the sexually transmitted diseases mentioned below identify the one which does not specifically affect the sex organs:  
 a) Syphilis                      b) AIDS                      c) Gonorrhoea                      d) Genital warts
116. Family planning program was initiated in  
 a) 1941                      b) 1951                      c) 1961                      d) 1981
117. Withdrawl method of natural contraception  
 a) Withdrawl of penis before ejaculation                      b) Withdrawl of penis after ejaculation  
 c) Avoid sex in ovulation                      d) Prefer sex in ovulation
118. MTP is being ...A... to abort even normal fetuses. Specially when sex of the foetus is ...B... .  
 Choose the correct option for A and B to complete the given NCERT statement  
 a) A-used; B-male                      b) A-misused; B-female  
 c) A-used; B-abnormal                      d) A-female; B-misused
119. Example of copper releasing IUD is  
 a) Cu-T                      b) Cu-7                      c) Multiload-375                      d) All of these
120. Which is related to males?  
 a) Oral pill                      b) Tubectomy                      c) Vasectomy                      d) None of these
121. Medical termination of Pregnancy (MTP) is considered safe up to how many weeks of pregnancy?  
 a) Eight weeks                      b) Twelve weeks                      c) Eighteen weeks                      d) Six weeks
122. Identify the false statement regarding the techniques of contraception  
 I. There are many side effects of tubectomy and vasectomy  
 II. Purpose of tubectomy is to prevent egg formation  
 III. The most important component of the oral contraceptive pill is progesterone  
 IV. Contraceptive oral pills help in birth control by preventing ovulation  
 a) I, II and III                      b) I and II                      c) III, IV and II                      d) IV and II
123. What measures should be taken to avoid the transmission of STD?  
 I. Avoid sex with unknown  
 II. Avoid sex with multiple partner  
 III. Do protected sex  
 IV. Avoid sharing needle  
 a) I, II and IV                      b) I, II and III                      c) I, II and IV                      d) All of these
124. When MTP was legalized in India?  
 a) 1951                      b) 1971                      c) 1981                      d) 1924
125. Injections and implants (the progesterone or progesterone oestrogen combination) are used by the females under the  
 a) Skin of the inner arm above elbow                      b) Vagina  
 c) Stomach's upper skin                      d) Cervix
126. Higher population in cities is mainly due to:  
 a) More opportunities for education                      b) Availability of clean drinking water

- c) Better sanitation  
d) Higher income resources.
127. Population explosion is  
a) Increased frequency of diseases in population  
b) Rapid increase in population number  
c) Rapid decrease in population number  
d) None of the above
128. The most important component of contraceptive pills is:  
a) Progesterone  
b) Growth hormone  
c) Thyroxine  
d) Luteinising hormone
129. Find out correct choice for IUD  
I. Increases phagocytes of sperms  
II. Releases  $\text{Cu}^{2+}$  ions that suppresses the sperms motility and fertilizing capacity of sperms  
III. Make the uterus unsuitable for implantations  
a) I, II and III  
b) I and II  
c) Only I  
d) None of the above
130. Which is the figure given below showing in particular?  
  
a) Uterine cancer  
b) Tubectomy  
c) Vasectomy  
d) Ovarian cancer
131. In India, first census was conducted in:  
a) 1851  
b) 1872  
c) 1921  
d) 1951
132. Infertile couples can produce a baby with the help of  
a) ART  
b) AIT  
c) GIFT  
d) All of the above
133. What is the function of copper T?  
a) Prevents mutation  
b) Prevents fertilization  
c) Prevents zygote formation  
d) (B) and (C)
134. What was the world human population in 2000?  
a) 6 billion  
b) 5 billion  
c) 3 billion  
d) 2 billion
135. When the ovulation is expected in a normal menstrual cycle?  
a) 10-17 day of menstrual phase  
b) 12-14 day of menstrual phase  
c) 10-20 day of menstrual phase  
d) 6-7 day of menstrual phase
136. The best way to decrease population of a country is:  
a) To educate people  
b) To have better houses  
c) To kill people on large scale  
d) To practise and implement family planning
137. Oral polio vaccine and hepatitis first dose is given to a child at  
a) 6 weeks after birth  
b) 10 weeks after birth  
c) 20 weeks after birth  
d) 24 weeks after birth
138. Age for marriage in India is  
**Male      Female**  
a) 21 years    18 years  
b) 25 years    17 years  
c) 20 years    20 years  
d) 28 years    22 years
139. Which of the following techniques are used in IVF?  
I. ZIFT    II. IUT    III. ICSI    IV. AI    V. IUI  
a) I and III  
b) I and II  
c) II and III  
d) All of these
140. High increase in human population is due to:  
a) Increase in average life span  
b) Better medical facilities  
c) Decrease in death rate  
d) All of these
141. According to 2001 census, Indian population was:  
a) 684 millions  
b) 844 millions  
c) 1027 millions  
d) 1128 millions
142. Chancroid is a sexually transmitted disease caused by:  
a) *Treponema*  
b) *Haemophilus*  
c) *Nlisseiria*  
d) *Chlamydia*





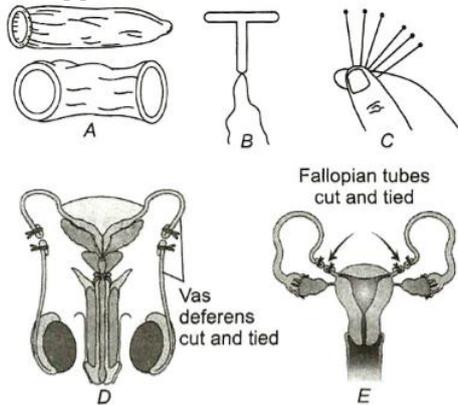
- a) A and B                      b) B and C                      c) C and D                      d) A and D
157. According to the ...A... census report, the population growth rate was still around ...B..., a rate at which our population could double in ...a... years.  
Choose the correct option for A, B and C to complete the given NCERT statement
- a) A-2003; B-1.8%; C-20 years                      b) A-2001; B-1.5%; C-33 years  
c) A-2004; B-2%; C-34 years                      d) A-2010; B-3%; C-22 years
158. In male sterilization ...A... is cut and tied. This process is called ....B... .  
Fill correct option for A and B
- a) A-vas deferens; B-tubectomy                      b) A-vas deferens; B-vasectomy  
c) A-vas efferentia; B-tubectomy                      d) A-vas efferentia; B-vasectomy
159. Day of periodic abstinence is
- a) 10-11 days of menstrual phase  
b) 10-17 days of menstrual phase  
c) 17-20 days of menstrual phase  
d) 20-28 days of menstrual phase
160. One of the legal methods of birth control is:
- a) By abstaining from coitus from day 10 to 17 of the menstrual cycle  
b) By having coitus at the time of day break  
c) By a premature ejaculation during coitus  
d) Absorption by taking an approximate medicine
161. Natural methods of contraception are the natural ways to
- a) Increase spermicidal activity                      b) Prevent fertilisation  
c) Decrease mortality                      d) Increase mortality
162. Progestasert and LNG-20 are the examples of
- a) Non-mediated IUDs  
b) Copper releasing IUDs  
c) Hormonal releasing IUDs  
d) All of the above
163. Identify the correct statements
- i. Birth control pills are likely to cause cardiovascular problem  
ii. A woman who substitutes or takes the place of the real mother to nurse to embryo is called surrogate mother  
iii. Numerous children have been produced by *in vitro* fertilisation but with some abnormalities  
iv. Woman plays a key role in the continuity of the family and human species  
v. Foetal sex determination test should not be banned
- a) I and II                      b) II and IV                      c) III and V                      d) I, II and IV
164. Pills have to be taken daily for period of ...A... days. Starting preferably within first five days of menstrual cycle?  
After a gap of ...B... days, it has to be repeated in the same pattern  
Complete the given NCERT statement by filling up the blanks A and B
- a) A-27; B-1                      b) A-21; B-7                      c) A-22; B-5                      d) A-24; B-4
165. Amniocentesis is a process to

- a) Determine any disease of heart  
 b) Determine any hereditary disease of the embryo  
 c) Know about the diseases of the brain  
 d) Grow the cells on the culture medium
166. Secondary infertility is  
 a) Patient who can't do coitus (sex)  
 b) Sterility  
 c) Impotency  
 d) It indicate previous pregnancy but failure to conceive subsequently
167. What is false for GIFT?  
 a) It is Gamete Intra Fallopian Transfer  
 b) Ovum is transferred into the oviduct  
 c) Zygote is transferred into Fallopian tube  
 d) Used when the receptive is sterile (don't produce ova)
168. Misuse of amniocentesis results in  
 a) Male foeticide                      b) Female foeticide                      c) Both (a) and (b)                      d) None of these
169. World's AIDS day and world earth day are celebrated on  
 AIDS Day                      World Earth Day  
 a) 22 April                      1 December                      b) 2 December                      24 April  
 c) 1 December                      22 April                      d) 2 December                      24 April
170. Copper releasing IUDs are used for suppressing the  
 a) Activity of ova                      b) Activity of the uterus  
 c) Motility of the sperms                      d) Motility of ova
171. 'Hum Do Hamare Do' slogan for encourages  
 a) Family planning                      b) Immunisation                      c) Electric growth                      d) Patriotism
172. The birth control device not used by women is:  
 a) Diaphragm                      b) Oral pill                      c) Condom                      d) Copper T
173. Incidents of STD are very high among persons, in the age group of  
 a) 15 to 35 years                      b) 15 to 30 years                      c) 15 to 24 years                      d) 15 to 45 years
174. Infant mortality in India is:  
 a) 14/1000                      b) 45/1000                      c) 62/1000                      d) 72/1000
175. Full form of CDRI is  
 a) Central Development Research Institute                      b) Child Development Research Institute  
 c) Central Drug Research Institute                      d) Common Development Research Institute
176. The formula for exponential population growth is:  
 a)  $dt/dN = rN$                       b)  $dN/rN = dt$                       c)  $rN/dN = dt$                       d)  $dN/dt = rN$
177. MTP stands for  
 a) Medical Termination of Pregnancy                      b) Mental Trauma Phase  
 c) Menstrual Pain                      d) None of the above
178. IVF in which the early zygote with up to ...A... blastomere is transferred to the Fallopian tube is called ...B...  
 a) A-8; B-ZIFT                      b) A-16; B-ZIFT                      c) A-32; B-ZIFT                      d) A-64; B-ZIF
179. False statement about ZIFT is  
 a) Zygote in the Fallopian transfer                      b) Type of IVF  
 c) More than 8 blastomeres are used                      d) Zygote or embryo are used
180. In contraception, sperm motility decreases due to  
 a) Cu ion                      b) Fe ion                      c) Zn ion                      d) Se ion
181. July 11 is :  
 a) World Environment day                      b) World Population day  
 c) World AIDS day                      d) World Education day
182. What was the world human population in 2011?  
 a) 6 billion                      b) 7 billion                      c) 3 billion                      d) 5 billion

183. "Saheli" contraceptive oral pill was developed at:  
 a) Department of Biotechnology, New Delhi      b) CDRI, Lucknow  
 c) NEERI, Nagpur      d) Department of Molecular Biology, Hyderabad
184. STDs caused by viruses are  
 I. AIDS  
 II. Hepatitis-B  
 III. Genital herpes  
 a) I, II and III      b) I and III      c) II and III      d) I and II
185. Artificial insemination means:  
 a) Transfer of sperms of husband to a test tube containing ova  
 b) Artificial introduction of sperms of a healthy donor into the vagina  
 c) Introduction of sperms of a healthy donor directly into the ovary  
 d) Transfer of sperms of a healthy donor to a test tube containing ova
186. Emergency contraceptives are effective if used within:  
 a) 72 hrs of coitus      b) 72 hrs of ovulation  
 c) 72 hrs of menstruation      d) 72 hrs of implantation
187. The number of organisms in population are added by:  
 a) Immigration      b) Birth      c) Emigration      d) Both (A) and (B)
188. Certain characteristic demographic features of developing countries are:  
 a) High fertility, high density, rapidly rising mortality rate and a very young age distribution  
 b) High infant mortality rate, low fertility, uneven population growth and a very young age distribution  
 c) High mortality, high density, uneven population growth and a very old age distribution  
 d) High fertility, low rapidly falling mortality rate, rapid population growth and a very young age distribution
189. India's population in June 2011 was  
 a) 121 carore      b) 115 carore      c) 110 carore      d) None of these
190. The Test-tube Baby Programme employs which one of the following techniques?  
 a) Intra uterine insemination (IUI)      b) Gamete intra fallopian transfer (GIFT)  
 c) Zygote intra fallopian transfer (ZIFT)      d) Intra cytoplasmic sperm injection (ICSI)
191. Primary infertile patient is the person who;  
 a) Never conceived      b) Could conceive  
 c) Can't produce ova      d) None of the above
192. IVF in which zygote with ...A... then 8 blastomere is transferred into female body it is called ...B...  
 a) A-more; B-IUT      b) A-less; B-IUT      c) A-less; B-ZIFT      d) A-less; B-ICSI
193. Indicators of the improved reproductive health of the society are  
 a) Better detection and cure of STD  
 b) Improved medical facilities  
 c) Decreased maternal and infant mortality rates  
 d) All of the above
194. MMR (Measles, Mumps, Rubella) vaccine is given at  
 a) 15-25 months      b) 15-18 months      c) 2 years      d) 5 years
195. Amniocentesis is the detection of  
 a) Chromosomal pattern by taking amniotic fluid  
 b) Chorionic fluid from developing embryo  
 c) Chromosomal pattern after child birth  
 d) Chromosomal pattern before fertilisation
196. Ovulation does not occur in lactational period because of  
 a) Inhibin      b) Prolactin      c) Prostaglandin      d) Oxytocin
197. Hepatitis-B and HIV spreads through  
 a) Sharing needles      b) Transfusion of blood  
 c) Infected mother to child      d) All of the above

198. Match the following figures with their respective identify

- I. Tubectomy
- II. Vasectomy
- III. Implants
- IV. Condoms
- V. Copper-T



- a) A-IV; B-V; C-III; D-II; E-I
- c) A-I; B-II; C-III; D-IV; E-V

- b) A-IV; B-IV; C-II; D-I; E-V
- d) A-III; B-IV; C-V; D-I; E-II

199. Oral contraceptives are prescribed in females to check:

- a) Ovulation
- b) Fertilization
- c) Implantation
- d) Entry of sperms in vagina

SMART ACHIEVERS LEARNING PVT. LTD.

# REPRODUCTIVE HEALTH

## BIOLOGY

### : ANSWER KEY :

|      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
|------|---|------|---|------|---|------|---|------|---|------|---|------|---|------|---|
| 1)   | d | 2)   | c | 3)   | a | 4)   | d | 173) | c | 174) | d | 175) | c | 176) | d |
| 5)   | a | 6)   | a | 7)   | a | 8)   | d | 177) | d | 178) | a | 179) | c | 180) | a |
| 9)   | c | 10)  | c | 11)  | b | 12)  | c | 181) | b | 182) | b | 183) | b | 184) | a |
| 13)  | b | 14)  | c | 15)  | b | 16)  | a | 185) | b | 186) | a | 187) | d | 188) | d |
| 17)  | d | 18)  | c | 19)  | a | 20)  | c | 189) | a | 190) | c | 191) | a | 192) | a |
| 21)  | b | 22)  | b | 23)  | b | 24)  | a | 193) | d | 194) | b | 195) | a | 196) | b |
| 25)  | c | 26)  | b | 27)  | d | 28)  | a | 197) | d | 198) | a | 199) | a |      |   |
| 29)  | a | 30)  | b | 31)  | a | 32)  | b |      |   |      |   |      |   |      |   |
| 33)  | b | 34)  | b | 35)  | c | 36)  | c |      |   |      |   |      |   |      |   |
| 37)  | b | 38)  | d | 39)  | c | 40)  | d |      |   |      |   |      |   |      |   |
| 41)  | a | 42)  | c | 43)  | a | 44)  | c |      |   |      |   |      |   |      |   |
| 45)  | d | 46)  | b | 47)  | c | 48)  | d |      |   |      |   |      |   |      |   |
| 49)  | c | 50)  | c | 51)  | d | 52)  | a |      |   |      |   |      |   |      |   |
| 53)  | d | 54)  | b | 55)  | c | 56)  | a |      |   |      |   |      |   |      |   |
| 57)  | d | 58)  | b | 59)  | d | 60)  | d |      |   |      |   |      |   |      |   |
| 61)  | a | 62)  | c | 63)  | b | 64)  | b |      |   |      |   |      |   |      |   |
| 65)  | b | 66)  | b | 67)  | c | 68)  | a |      |   |      |   |      |   |      |   |
| 69)  | a | 70)  | d | 71)  | c | 72)  | c |      |   |      |   |      |   |      |   |
| 73)  | b | 74)  | b | 75)  | a | 76)  | c |      |   |      |   |      |   |      |   |
| 77)  | b | 78)  | b | 79)  | a | 80)  | b |      |   |      |   |      |   |      |   |
| 81)  | c | 82)  | d | 83)  | c | 84)  | c |      |   |      |   |      |   |      |   |
| 85)  | b | 86)  | a | 87)  | a | 88)  | b |      |   |      |   |      |   |      |   |
| 89)  | a | 90)  | a | 91)  | c | 92)  | c |      |   |      |   |      |   |      |   |
| 93)  | b | 94)  | d | 95)  | a | 96)  | c |      |   |      |   |      |   |      |   |
| 97)  | c | 98)  | a | 99)  | c | 100) | c |      |   |      |   |      |   |      |   |
| 101) | c | 102) | a | 103) | a | 104) | d |      |   |      |   |      |   |      |   |
| 105) | d | 106) | a | 107) | a | 108) | c |      |   |      |   |      |   |      |   |
| 109) | a | 110) | b | 111) | a | 112) | b |      |   |      |   |      |   |      |   |
| 113) | d | 114) | c | 115) | b | 116) | b |      |   |      |   |      |   |      |   |
| 117) | a | 118) | b | 119) | d | 120) | c |      |   |      |   |      |   |      |   |
| 121) | b | 122) | b | 123) | c | 124) | b |      |   |      |   |      |   |      |   |
| 125) | a | 126) | d | 127) | b | 128) | a |      |   |      |   |      |   |      |   |
| 129) | a | 130) | b | 131) | b | 132) | d |      |   |      |   |      |   |      |   |
| 133) | d | 134) | a | 135) | b | 136) | d |      |   |      |   |      |   |      |   |
| 137) | a | 138) | a | 139) | d | 140) | d |      |   |      |   |      |   |      |   |
| 141) | c | 142) | d | 143) | c | 144) | b |      |   |      |   |      |   |      |   |
| 145) | d | 146) | b | 147) | a | 148) | d |      |   |      |   |      |   |      |   |
| 149) | c | 150) | b | 151) | d | 152) | a |      |   |      |   |      |   |      |   |
| 153) | d | 154) | a | 155) | c | 156) | c |      |   |      |   |      |   |      |   |
| 157) | b | 158) | b | 159) | b | 160) | d |      |   |      |   |      |   |      |   |
| 161) | b | 162) | c | 163) | d | 164) | b |      |   |      |   |      |   |      |   |
| 165) | b | 166) | d | 167) | c | 168) | b |      |   |      |   |      |   |      |   |
| 169) | c | 170) | c | 171) | a | 172) | c |      |   |      |   |      |   |      |   |

# REPRODUCTIVE HEALTH

## BIOLOGY

### : HINTS AND SOLUTIONS :

- 1 **(d)**  
Myths are the false beliefs. They found in every religion. They can't give any help to reproductive health
- 2 **(c)**  
Both (a) and (b).  
Intra Uterine Devices (IUDs) for contraception  
(i) These devices are inserted by the doctors into the uterus through vagina.  
(ii) *There are three types of IUDs*  
**Non-medicated IUDs** They increases the phagocytosis of the sperm within the uterus, *e. g.*, Lippes loop  
**Copper Releasing IUDs** Along with phagocytosis of the sperms, the copper ions released, suppresses the sperm motility and the fertilizing capacity of the sperm. *e. g.*, Cu-T, Cu-7, multiload-375  
**Hormone Releasing IUDs** They makes the uterus unsuitable for implantation and the cervix hostile to the sperms, *e. g.*, progestasert, LNG-20
- 3 **(a)**  
**Amniocentesis** It is technique of drawing-amniotic fluid and testing it to find out the sex and disorders of the foetus. The amniotic fluid is usually taken at about the fourteenth or fifteenth week after conception.  
Sonography (a technique involving high frequency sound waves to locate tissues of different densities within the body) is used to determine the location of the foetus and the placenta just prior to perform amniocentesis. Therefore, accidental damage to the foetus and placenta is prevented.  
Amniotic fluid contains cell from the skin of the foetus and other sources. These cells can be used to determine the sex of the infant, to identify some abnormalities in the number of chromosomes and to detect certain biochemicals and enzymatic abnormalities.  
If it is established that, if the child is likely to suffer from a serious increase congenital defect, the mother should get the foetus aborted. However, these days, this technique is also being
- misused. Since, the sex of the foetus can be determined by this technique, normal female foetus is aborted. Therefore, this technique has been banned  
Population growth rate is the annual average growth rate. It can be negative.  
Birth rate replacement level can never be negative
- 4 **(d)**  
Lactational amenorrhoea is the natural way to prevent the unwanted pregnancies
- 6 **(a)**  
Femidom term is used the female condoms
- 7 **(a)**  
National Smallpox Eradication Programme.  
**Universal Immunisation Programme** WHO launched the programmes to immunise the children of the entire world against six diseases till 2000  
(i) Diphtheria (ii) Pertussis (whooping cough)  
(iii) Tetanus (iv) Polio  
1. Tuberculosis (vii) Measles
- National Programmes**  
These programmes were started by the government of India to erase the major communicable diseases  
*The major national programmes are*  
(a) National Malaria Eradication Programme (NMEP)  
(b) National Cholera Control Programme (NCCP)  
(c) National Leprosy Control Programme (NLCP)  
(d) National Smallpox Eradication Programme (NSEP)  
(e) National Filariasis Control Programme (NFCP)  
(f) Family Planning Programme (FPP)
- 9 **(c)**  
TB is caused by *Tuberculosis* bacteria. It is a non-sexual disease.  
Malaria is caused by protozoan parasite called *plasmodium vivax*. When female *Anopheles* mosquito bites then these parasites goes into the human body and causes malaria
- 10 **(c)**  
Hormonal implants and oral contraceptives have

the combination of oestrogen and progesterone hormones. Their mode of working is same but the site of implantation and the duration is different

11 (b)

ICCI - Intra Cytoplasmic Semen Injection

12 (c)

Lucknow, India

**Research in Reproductive Health** It should be encouraged and supported to find out the new methods in reproduction related areas. 'Saheli' a new oral contraceptive for the females was developed by scientists in Central Drug Research Institute (CDRI) in Lucknow

13 (b)

IUDs (Intra Uterine Devices) increases the phagocytosis of sperms.

Natural method of contraceptive are the natural ways to prevent fertilisation. These methods are

(i) **Periodic Abstinence**

Couple avoid coitus or intercourse from day 10 to 17 of the menstrual cycle when ovulation is expected to occur

(ii) **Coitus interruption or withdrawal method**

Withdrawal of penis from the vagina just before ejaculation so as to avoid insemination

(iii) **Lactational Amenorrhoea** (Absence of menstruation) This method is based on the fact that ovulation and therefore the cycle don't occur during the period of intense following parturition. Therefore, as long as the mother breast feeds the child, chances of conception are almost nil

16 (a)

**Surgical Method of Contraception** In that method the cutting of vas deferens in male and Fallopian tubes in female takes place due to which the motility of gametes (ova and sperm) inhibited. Vasectomy male semen have all the constituents (secretion of Cowper's glands, seminal vesicle and prostate gland) but don't have gametes (sperm)

17 (d)

According to the World Health Organisation (WHO), reproductive health means a total well being in all aspects of reproduction, *i.e.*, physical, emotional, behavioural and social. Therefore, a society with people having physically and functionally normal reproductive organs and normal emotional and behavioural interactions among them in all sex-related aspects might be called reproductively healthy

18 (c)

**Lactational Amenorrhoea Method LAM** (absence

of menstruation) This method is effective only upto maximum period of six months after child birth

20 (c)

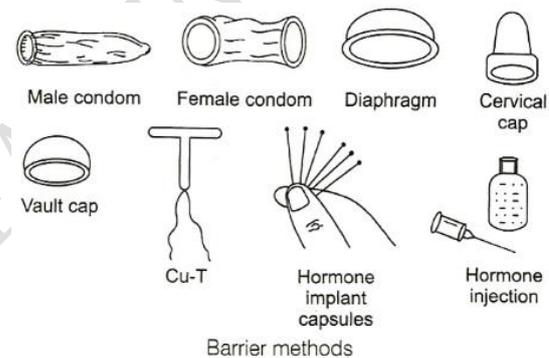
**Barrier Methods**

These methods prevent the contact of sperm and ovum with the help of barriers. *Such methods are*

(i) **Condoms** are the barriers made of thin rubber/latex sheath used to cover the penis in the male or vagina and cervix in female. It prevents the deposition of the ejaculated semen into the vagina of the female.

(ii) **Diaphragms, cervical cap and vaults** are the barriers made of rubber that are inserted into the female reproductive tract to cover the cervix during coitus.

(iii) **Spermicidal creams, jellies and foams** are used along with these barriers to increase their contraceptive efficiency



24 (a)

Saheli. *India*

**Research in Reproductive Health** It should be encouraged and supported to find out the new methods in reproduction related areas. 'Saheli' a new oral contraceptive for the females was developed by scientists in Central Drug Research Institute (CDRI) in Lucknow

25 (c)

Infertility is the inability to produce viable offspring due to the defects in its female or male partner

26 (b)

**Types of Oral Contraceptive Pills** They contains either progesterone alone or a combination of progesterone and oestrogen.

*Thus, oral contraceptive pills are of two types*

(i) **Mini Pills** They contains progestin only. Saheli contains a mosteroidal preparation called **centchroman**, which is taken once in a week after an initial intake of twice a week dose for 3 months. It has high contraceptive value with very

little side effects.

(ii) **Combined Pills** They are most commonly used oral contraceptive pills. They contain synthetic progesterone and oestrogen to check ovulation. Pill like **Mala D** and **Mala N** are commonly used combined contraceptive pills. They are taken daily

27 (d) 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup>.

Diseases or infections, which are transmitted through sexual intercourse with infected persons are collectively called Sexually Transmitted Diseases (STDs) or Venereal Diseases (VD) or Reproductive Tract Infections (RTI)

28 (a) National Filaria Control Programme.

**Universal Immunisation Programme** WHO launched the programmes to immunise the children of the entire world against six diseases till 2000

- (i) Diphtheria (ii) Pertussis (whooping cough)  
(iii) Tetanus (iv) Polio  
2. Tuberculosis (vii) Measles

#### **National Programmes**

These programmes were started by the government of India to erase the major communicable diseases

*The major national programmes are*

- (a) National Malaria Eradication Programme (NMEP)  
(b) National Cholera Control Programme (NCCP)  
(c) National Leprosy Control Programme (NLCP)  
(d) National Smallpox Eradication Programme (NSEP)  
(e) National Filaria Control Programme (NFCP)  
(f) Family Planning Programme (FPP)

29 (a) The women who can't conceive but can give the suitable environment to foetus. In this case, ZIFT is used

30 (b) In IVF, the fertilisation takes place outside the female body but in almost similar conditions as that inside the body

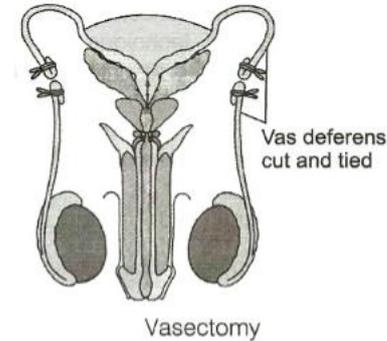
33 (b) Gonorrhoea is the common sexual transmitted disease in India

35 (c) A-Vasectomy, B-Tubectomy, C-Vas deferens cut and tied, D-Fallopian tube cut and tied.  
**Surgical Method of Contraception** (sterilization)

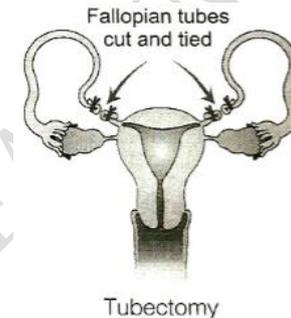
There are terminal and the permanent methods, which blocks the transport of gametes by preventing conception.

*They are two types*

**Vasectomy** In males a small portion of the vas deferens is removed or tied up through a small incision on the scrotum called vasectomy



**Tubectomy** In females a small part of the Fallopian tube is removed or tied up through a small incision in the abdomen called tubectomy



37 (b) National Leprosy Control Programme.

**Universal Immunisation Programme** WHO launched the programmes to immunise the children of the entire world against six diseases till 2000

- (i) Diphtheria (ii) Pertussis (whooping cough)  
(iii) Tetanus (iv) Polio  
3. Tuberculosis (vii) Measles

#### **National Programmes**

These programmes were started by the government of India to erase the major communicable diseases

*The major national programmes are*

- (a) National Malaria Eradication Programme (NMEP)  
(b) National Cholera Control Programme (NCCP)  
(c) National Leprosy Control Programme (NLCP)  
(d) National Smallpox Eradication Programme (NSEP)  
(e) National Filaria Control Programme (NFCP)  
(f) Family Planning Programme (FPP)

41 (a)

Correct statements are

- (i) Pills prevent ovulation
- (ii) Copper-T prevents implantation
- (iii) Vasectomy causes semen having no sperm

42 (c)

6, 10 and 14 weeks after birth.

National Immunization Schedules

| Age          | Vaccine  | Optional Vaccines   |
|--------------|--|---|
| Birth        | BCG ( <i>Bacillus calmitte Guerin</i> )  | 6 weeks Haemophilus   |
| 6 weeks      | Oral Polio Vaccine 1st Dose<br>Hepatitis-B Vaccine 1st Dose<br>DPT 1st Dose<br>Oral Polio Vaccine 2nd Dose<br>Hepatitis-B Vaccine 2nd Dose | 10 weeks influenza Type B<br>14 weeks<br><br>2 years hepatitis-A vaccine<br>Two doses 6 months A part |
| 10 weeks     | DPT 2nd Dose<br><br>Oral Polio Vaccine 3rd Dose  | 2 years typhoid vaccine other<br>1 year chickenpox  |
| 14 weeks     | DPT 3rd Dose<br>Oral Polio Vaccine 4th Dose  |   |
| 6-9 months   | Oral Polio Vaccine 5th Dose<br>Hepatitis-B Vaccine 3rd Dose  |   |
| 9 months     | Measles Vaccine  |   |
| 15-18 months | MMR (Measles, Mumps, Rubella)<br>DPT 1st Booster Dose<br>Oral Polio Vaccine 6th Dose   |   |
| 5 years      | DPT 2nd Booster Dose<br>Oral Polio Vaccine 7th Dose  |   |
| 10 years     | TT (Tetanus) 3rd Booster Dose<br>Hepatitis-B Vaccine Booster Dose  |   |
| 15-16 years  | TT (Tetanus) 4th Booster Dose  |   |

43 (a)

Contraceptive pills contains progesterone and oestrogen hormones. These hormones suppresses

the FSH (Follicle Stimulating Hormone). FSH stimulates the ovulation

47

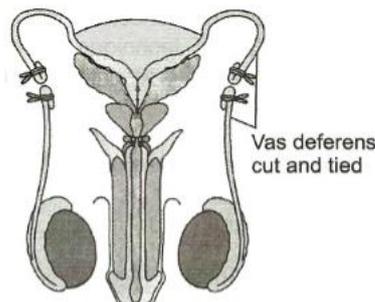
(c)

**Surgical Method of Contraception** (sterilization)

There are terminal and the permanant methods, which blocks the transport of gametes by preventing conception.

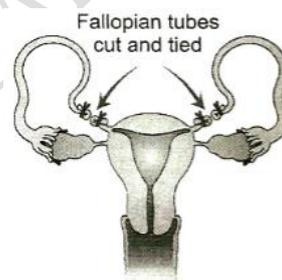
*They are two types*

**Vasectomy** In males a small portion of the vas deferens is removed or tied up through a small incision on the scrotum called vasectomy



Vasectomy

**Tubectomy** In females a small part of the Fallopian tube is removed or tied up through a small incision in the abdomen called tubectomy



Tubectomy

49

(c)

Spermicidal creams contains chemicals, which kills the sperms. If they are used along with the barrier contraceptive methods than it increases their effectibility

50

(c)

**Universal Immunisation Programme** WHO launched the programmes to immunise the children of the entire world against six diseases till 2000

- (i) Diphtheria (ii) Pertussis (whooping cough)
- (iii) Tetanus (iv) Polio
- 4. Tuberculosis (vii) Measles

**National Programmes**

These programmes were started by the government of India to erase the major communicable diseases

*The major national programmes are*

- (a) National Malaria Eradication Programme

- (NMEP)  
 (b) National Cholera Control Programme (NCCP)  
 (c) National Leprosy Control Programme (NLCP)  
 (d) National Smallpox Eradication Programme (NSEP)  
 (e) National Filaria Control Programme (NFCP)  
 (f) Family Planning Programme (FPP)
- 51 **(d)**  
 Lippes loop.  
 Intra Uterine Devices (IUDs) for contraception  
 (i) These devices are inserted by the doctors into the uterus through vagina.  
 (ii) *There are three types of IUDs*  
**Non-medicated IUDs** They increases the phagocytosis of the sperm within the uterus, *e. g.*, Lippes loop  
**Copper Releasing IUDs** Along with phagocytosis of the sperms, the copper ions released, suppresses the sperm motility and the fertilizing capacity of the sperm. *e. g.*, Cu-T, Cu-7, multiload-375  
**Hormone Releasing IUDs** They makes the uterus unsuitable for implantation and the cervix hostile to the sperms, *e. g.*, progestasert, LNG-20
- 53 **(d)**  
 Azospermia – No sperm movement  
 Asthenospermia – Less movement of sperm  
 Oligospermia – Very less amount of sperm  
 Polyspermia – Abundant amount of sperm
- 54 **(b)**  
 Mostly female barrier contraceptive like diaphragms, cervical caps, vaults are reusable
- 55 **(c)**  
 Generally, AIDS detection is done by ELISA (Enzyme Linked Immuno Sorbent Assay). But sometimes the results of this technique may prove false. So, by combining it with PCR (Polymerase Chain Reaction), the realibility of the detection of AIDS increases
- 56 **(a)**  
 IUD (Intra Uterine Devices) New improved IUD are coming, which have more durability to avoid unwanted conceiving. Some of them has time period from one year to five years. So in delaying pregnancy or spacing children, IUD is most ideal contraceptive
- 57 **(d)**  
 The term 'reproductive health' simply refers to healthy reproductive organs with normal functions. However, it has broader perspectives and includes emotional, physical and social aspects of reproduction also
- 58 **(b)**  
 A-Fallopian tube, B-Tubectomy
- 60 **(d)**  
 Number of the cells.  
 The zygote or the early embryo is transferred into Fallopian tube (ZIFT-Zygote Intra Fallopian Transfer). If embryo contains is more than 8 blastomere (cells) and it is transferred into uterus than, it is called IUT (Intra Uterine Transfer)
- 62 **(c)**  
 An ideal contraceptive should be user friendly, easily available, effective and reversible with least side-effects. It also, should not interface with the sexual drive, desire and sexual act of the user.  
*Contraceptive methods are grouped into the following categories*  
 (i) Natural/traditional methods  
 (ii) Barrier methods  
 (iii) Intra Uterine Devices (IUDs)  
 (iv) Oral contraceptive  
 (v) Injectables and implants  
 (vi) Surgical methods
- 63 **(b)**  
 Intra Uterine Devices (IUDs) for contraception  
 (i) These devices are inserted by the doctors into the uterus through vagina.  
 (ii) *There are three types of IUDs*  
**Non-medicated IUDs** They increases the phagocytosis of the sperm within the uterus, *e. g.*, Lippes loop  
**Copper Releasing IUDs** Along with phagocytosis of the sperms, the copper ions released, suppresses the sperm motility and the fertilizing capacity of the sperm. *e. g.*, Cu-T, Cu-7, multiload-375  
**Hormone Releasing IUDs** They makes the uterus unsuitable for implantation and the cervix hostile to the sperms, *e. g.*, progestasert, LNG-20
- 64 **(b)**  
**In vivo Fertilisation** In this technique, the fertilisation of the gametes takes place in the oviduct of the female rather than outside
- 65 **(b)**  
 A developing embryo is transplanted in the uterus of another female. A woman who substitutes or takes place of the real mother to nurse the embryo is called surrogate mother
- 67 **(c)**  
*Main causes for the population growth are*  
 (i) Decline in death rate  
 (ii) Rapid decline in Mother Mortality Rate (MMR)

- (iii) Increase in the number of people in the reproductive age group
- (iv) Better medical facilities

69 (a)

*True statements for IUDs are*

- (i) They are inserted by medical experts like nurses, doctors
- (ii) They may be non-medicated IUDs like hormone Releasing IUDs, copper releasing IUDs
- (iii) They (IUDs) are inserted in the uterine cavity of the females

70 (d)

**Common Symptoms** Early symptoms of most of these diseases are itching, fluid discharge, swelling, slight pain, etc.

**Consequences of Delayed Treatment** If proper and timely treatment is not given. STDs may lead to complications such as Pelvic Inflammatory Diseases (PID), abortions, still birth, ectopic pregnancies, infertility or even cancer of the reproductive tract

71 (c)

Population growth rate is the annual average growth rate. It can be negative.

Birth rate replacement level can never be negative

72 (c)

Penis in male or cervix and vagina in female.

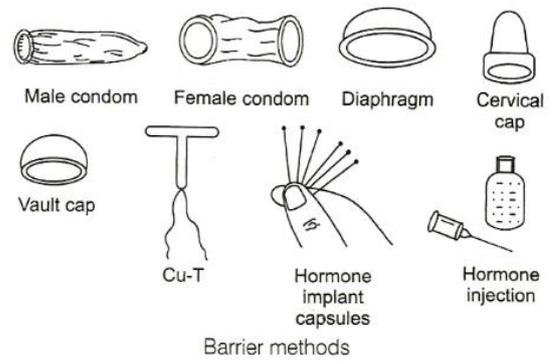
**Barrier Methods**

These methods prevent the contact of sperm and ovum with the help of barriers. *Such methods are*

(i) **Condoms** are the barriers made of thin rubber/latex sheath used to cover the penis in the male or vagina and cervix in female. It prevents the deposition of the ejaculated semen into the vagina of the female.

(ii) **Diaphragms, cervical cap and vaults** are the barriers made of rubber that are inserted into the female reproductive tract to cover the cervix during coitus.

(iii) **Spermicidal creams, jellies and foams** are used along with these barriers to increase their contraceptive efficiency



75 (a)

Second trimester.

MTP is safe until 1st trimester (12 weeks) of the pregnancy. It becomes more risky after the 1st trimester period of pregnancy as the foetus becomes intimately associated with the maternal tissue

79 (a)

National Cholera Control Programme

**Universal Immunisation Programme** WHO

launched the programmes to immunise the children of the entire world against six diseases till 2000

- (i) Diphtheria      (ii) Pertussis (whooping cough)
- (iii) Tetanus      (iv) Polio

5. Tuberculosis (vii) Measles

**National Programmes**

These programmes were started by the government of India to erase the major communicable diseases

*The major national programmes are*

- (a) National Malaria Eradication Programme (NMEP)
- (b) National Cholera Control Programme (NCCP)
- (c) National Leprosy Control Programme (NLCP)
- (d) National Smallpox Eradication Programme (NSEP)
- (e) National Filaria Control Programme (NFCP)
- (f) Family Planning Programme (FPP)

80 (b)

Hormonal Releasing IUD. is LNG-20.

Hormonal releasing IUDs.

Intra Uterine Devices (IUDs) for contraception

(i) These devices are inserted by the doctors into the uterus through vagina.

(ii) *There are three types of IUDs*

**Non-medicated IUDs** They increase the

phagocytosis of the sperm within the uterus, e. g., Lippes loop

**Copper Releasing IUDs** Along with phagocytosis of the sperms, the copper ions released, suppresses

the sperm motility and the fertilizing capacity of the sperm. *e. g.*, Cu-T, Cu-7, multiload-375

**Hormone Releasing IUDs** They makes the uterus unsuitable for implantation and the cervix hostile to the sperms, *e. g.* progestasert, LNG-20

81 (c)

Infection in the urinogenital tract, yellow discharge, fever, headache, feeling of illness are the common symptoms of gonorrhoea. These symptoms are common in men and women

84 (c)

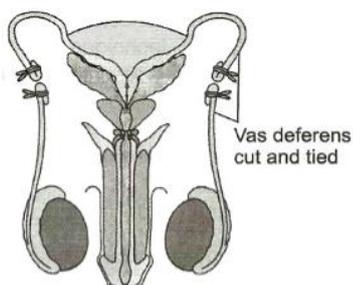
Vasectomy.

**Surgical Method of Contraception** (sterilization)

There are terminal and the permanent methods, which blocks the transport of gametes by preventing conception.

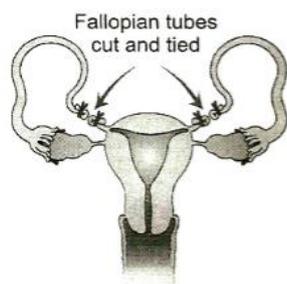
*They are two types*

**Vasectomy** In males a small portion of the vas deferens is removed or tied up through a small incision on the scrotum called vasectomy



Vasectomy

**Tubectomy** In females a small part of the Fallopian tube is removed or tied up through a small incision in the abdomen called tubectomy



Tubectomy

87 (a)

Vitamin-E is necessary for the maintenance and proper functioning of the reproductive organs. Hence, it is also called antifertility vitamin. All vitamins are organic compound

89 (a)

National Immunization Schedules

| Age   | Vaccine                                 | Optional Vaccines   |
|-------|---|---------------------|
| Birth | BCG ( <i>Bacillus calmitte Guerin</i> ) | 6 weeks Haemophilus |

|              |  |   |
|--------------|--|---|
| 6 weeks      | Oral Polio Vaccine 1st Dose<br>Hepatitis-B Vaccine 1st Dose<br>DPT 1st Dose<br>Oral Polio Vaccine 2nd Dose<br><br>Hepatitis-B Vaccine 2nd Dose | 10 weeks influenza Type B<br>14 weeks<br><br>2 years hepatitis-A vaccine<br>Two doses 6 months A part |
| 10 weeks     | DPT 2nd Dose<br><br>Oral Polio Vaccine 3rd Dose  | 2 years typhoid vaccine other<br>1 year chickenpox  |
| 14 weeks     | DPT 3rd Dose<br>Oral Polio Vaccine 4th Dose  |   |
| 6-9 months   | Oral Polio Vaccine 5th Dose<br>Hepatitis-B Vaccine 3rd Dose  |   |
| 9 months     | Measles Vaccine  |   |
| 15-18 months | MMR (Measles, Mumps, Rubella)<br>DPT 1st Booster Dose<br>Oral Polio Vaccine 6th Dose   |   |
| 5 years      | DPT 2nd Booster Dose<br>Oral Polio Vaccine 7th Dose  |   |
| 10 years     | TT (Tetanus) 3rd Booster Dose<br>Hepatitis-B Vaccine Booster Dose  |   |
| 15-16 years  | TT (Tetanus) 4th Booster Dose  |   |

90 (a)

Reproductive and child healthcare

India is amongst the first countries in the world to initiate action plans and programmes at a national level to attain total reproductive health as a social goal. These programme called 'family planning' were initiated in 1951 and were periodically assessed over the past decades.

Improved programmes covering wider reproduction related areas are currently in operation under the popular name 'Reproductive and Child Healthcare (RCH) programmes' creating awareness among people about various reproduction related aspects and providing

facilities and support for building up a reproductively healthy society are the major tasks under these programmes

- 92 (c) Oral contraceptives contains two hormones, progesterone and oestrogen.  
*Oral contraceptive pills works in four ways*  
 (i) Inhibition of ovulation  
 (ii) Inhibition of motility and the secretory activities of the oviducts (Fallopian tubes).  
 (iii) Changes in the cervical mucous, impairing its ability to allow passage and transport of the sperms.  
 (iv) Alteration in the uterine endometrium to make it unsuitable for implantation
- 93 (b) A-Hormonal releasing IUD, B-sperm
- 95 (a)  
 (i) Collected gamete are made to form zygote in laboratory, *in vitro* fertilisation (IVF)  
 (ii) Zygote or early embryo with up to 8 blastomeres is transferred into the oviduct (ZIFT)  
 (iii) Zygote with more than 8 blastomeres is transferred into uterus (IUT)  
 (iv) Fusion of gamete within the body of female (*In vivo* fertilisation)  
 (v) Transfer of ovum from the donor to the oviduct of the recipient (GIFT)  
 (vi) Sperms are injected into the ovum *in vitro* (ICSI)
- 96 (c)  
*Bacterial STDs are*  

| Diseases   | Pathogens                     |
|------------|-------------------------------|
| Syphilis   | - <i>Treponema pallidum</i>   |
| Gonorrhoea | - <i>Neisseria gonorrhoea</i> |
| Chancroid  | - <i>Haemophilus ducrey</i>   |
- 97 (c) Female do not produce sperms
- 98 (a)  
 IVF - *In vitro* fertilisation  
 IUI - Intra Uterine Insemination  
 ICSI - Intra Cytoplasmic Sperm Injection  
 ZIFT - Zygote Intra Fallopian Transfer
- 99 (c) Oral administration of the small doses of either progestogens or progestogen oestrogen combinations is one of the contraceptive method used by the females. They are used in the form of tablets and hence, are popularly called the pills. Pills have to be taken daily for a period of 21 days, starting preferably within the first five days of

menstrual cycle.

After a gap of 7 days (during which menstruation occurs) it has to be repeated in the same pattern till the female desires to prevent conception. They inhibit ovulation and implantation as well as alter the quality of cervical mucous to prevent/retard entry of sperms. Pills are very effective with lesser side effects and are well accepted by the females. Saheli the new oral contraceptive for the females contains a non-steroidal preparation. It is a once a week pill with very few side effects and high contraceptive value

- 100 (c) **Population** is defined as the total number of individuals of a species present in a particular area at a given time. A species has many populations living in different regions. The scientific study of human population is called **demography**
- 102 (a) Tetanus is caused by *Clostridium tetani*. It is an anaerobic bacteria. It invades the nervous tissue.  
 National Immunization Schedules

| Age          | Vaccine  | Optional Vaccines  |
|--------------|--|--|
| Birth        | BCG ( <i>Bacillus calmette Guerin</i> )  | 6 weeks Haemophilus  |
| 6 weeks      | Oral Polio Vaccine 1st Dose<br>Hepatitis-B Vaccine 1st Dose<br>DPT 1st Dose<br>Oral Polio Vaccine 2nd Dose | 10 weeks influenza Type B<br>14 weeks hepatitis-A vaccine<br>Two doses 6 months A part |
| 10 weeks     | DPT 2nd Dose<br>Oral Polio Vaccine 3rd Dose  | 2 years typhoid vaccine other 1 year chickenpox  |
| 14 weeks     | DPT 3rd Dose<br>Oral Polio Vaccine 4th Dose  |  |
| 6-9 months   | Oral Polio Vaccine 5th Dose<br>Hepatitis-B Vaccine 3rd Dose  |  |
| 9 months     | Measles Vaccine  |  |
| 15-18 months | MMR (Measles, Mumps, Rubella)  |  |

|             |  |  |
|-------------|--|--|
|             | DPT 1st Booster Dose<br>Oral Polio Vaccine 6th Dose                  |  |
| 5 years     | DPT 2nd Booster Dose<br>Oral Polio Vaccine 7th Dose                  |  |
| 10 years    | TT (Tetanus) 3rd Booster Dose<br>Hepatitis-B Vaccine<br>Booster Dose |  |
| 15-16 years | TT (Tetanus) 4th Booster Dose  |  |

103 (a)

Oral contraceptive pills increases the risk of intravascular clotting. Therefore, they are not recommended for women with a history of disorders of blood clotting. Administration of oral contraceptives and IUD are effective in 72 hours

104 (d)

Suppresses sperm motility.

Intra Uterine Devices (IUDs) for contraception

(i) These devices are inserted by the doctors into the uterus through vagina.

(ii) *There are three types of IUDs*

**Non-medicated IUDs** They increases the phagocytosis of the sperm within the uterus, *e. g.*, Lippes loop

**Copper Releasing IUDs** Along with phagocytosis of the sperms, the copper ions released, suppresses the sperm motility and the fertilizing capacity of the sperm. *e. g.*, Cu-T, Cu-7, multiload-375

**Hormone Releasing IUDs** They makes the uterus unsuitable for implantation and the cervix hostile to the sperms, *e. g.*, progestasert, LNG-20

105 (d)

Except HIV infection. Hepatitis-B and genital herpes all other STDs are completely curable if detected early and treated properly

106 (a)

A-Ovulation; B-Mucous

107 (a)

This method is only moderately effective because the time of ejaculation is very pleasant, specially for males. Some sperms may pass into the vagina before ejaculation.

Natural method of contraceptive are the natural ways to prevent fertilisation. These methods are

(i) **Periodic Abstinence**

Couple avoid coitus or intercourse from day 10 to

17 of the menstrual cycle when ovulation is expected to occur

(ii) **Coitus interruption or withdrawl method**

Withdrawl of penis from the vagina just before ejaculation so as to avoid insemination

(iii) **Lactational Amenorrhoea** (Absence of menstruation) This method is based on the fact that ovulation and therefore the cycle don't occur during the period of intense following parturition. Therefore, as long as the mother breast feeds the child, chances of conception are almost nil

108 (c)

NACO (National AIDS Control Organisation) was established in 1992 in India

112 (b)

*The countries with largest population are six.*

Country – Human population

China – 1341000000

India – 1210000000

USA – 311075000

Indonasia – 237556363

Brazil – 190732694

116 (b)

India is amongst the first countries in the world to initiate action plans and programmes at a national level to attain total reproductive health as a social goal. These programme called 'family planning' were initiated in 1951 and were periodically assessed over the past decades.

Improved programmes covering wider reproduction related areas are currently in operation under the popular name 'Reproductive and Child Healthcare (RCH) programmes' creating awareness among people about various reproduction related aspects and providing facilities and support for building up a reproductively healthy society are the major tasks under these programmes

117 (a)

Withdrawl of penis before ejaculation. Also This method is only moderately effective because the time of ejaculation is very pleasant, specially for males. Some sperms may pass into the vagina before ejaculation

Natural method of contraceptive are the natural ways to prevent fertilisation. These methods are

(i) **Periodic Abstinence**

Couple avoid coitus or intercourse from day 10 to 17 of the menstrual cycle when ovulation is expected to occur

(ii) **Coitus interruption or withdrawl method**

Withdrawal of penis from the vagina just before ejaculation so as to avoid insemination  
 (iii) **Lactational Amenorrhoea** (Absence of menstruation) This method is based on the fact that ovulation and therefore the cycle don't occur during the period of intense following parturition. Therefore, as long as the mother breast feeds the child, chances of conception are almost nil

118 (b)

**Significance of MTP**

- (i) It helps in getting rid of unwanted pregnancies and such pregnancies, which may be harmful or even fatal either to the mother or to the foetus or both
- (ii) MTP plays a significant role in decreasing the human population

**Drawback of MTP**

- (i) It is being misused to abort even the normal female foetuses
- (ii) Majority of MTPs are performed illegally by unqualified quacks which may be fatal
- (iii) It has raised many emotional, ethical, religious and social issues

119 (d)

Intra Uterine Devices (IUDs) for contraception

- (i) These devices are inserted by the doctors into the uterus through vagina.
- (ii) *There are three types of IUDs*

**Non-medicated IUDs** They increases the phagocytosis of the sperm within the uterus, *e. g.*, Lippes loop

**Copper Releasing IUDs** Along with phagocytosis of the sperms, the copper ions released, suppresses the sperm motility and the fertilizing capacity of the sperm. *e. g.*, Cu-T, Cu-7, multiload-375

**Hormone Releasing IUDs** They makes the uterus unsuitable for implantation and the cervix hostile to the sperms, *e. g.*, progestasert, LNG-20

122 (b)

There are little or no side effects of tubectomy and vasectomy.

The purpose of tubectomy and vasectomy is to block the passage of ova and sperm respectively

123 (c)

*Simple precautions that can prevent STDs are*

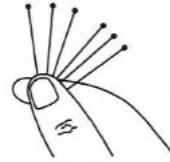
- (i) Avoid sex with unknown multiple partners
- (ii) Always use condoms during coitus
- (iii) In case of Doubt go to the qualified doctors

124 (b)

MTP was legalized in India in 1971

125 (a)

Six matchstick-sized capsules containing steroids are inserted under the skin of the inner arm above the elbow. These steroid capsules slowly releases the synthetic progesterone for about five years



Hormone implant capsules

127 (b)

Rapid increase in population.

Rapid growth is called **exponential growth**. In 1700 AD human population was about 0.6 billion. At the beginning of the twentieth century, it increased to 1.6 billion, and by the end of the century, the human population reached 6.1 billion. This rapid increase in population over a relatively short period is called **population explosion**.

In the 150 years from 1700 AD human population doubled from 0.6 billion to 1.2 billion. In contrast, it increased five time during the next 150 years. In 2011 it was 7 billion

129 (a)

**IUD**

- (i) Increases phagocytosis of sperms
- (ii) Releases ions that suppresses the sperm motility and fertilizing capacity of sperms
- (iii) Makes uterus unsuitable for implantation

Intra Uterine Devices (IUDs) for contraception

(i) These devices are inserted by the doctors into the uterus through vagina.

(ii) *There are three types of IUDs*

**Non-medicated IUDs** They increases the phagocytosis of the sperm within the uterus, *e. g.*, Lippes loop

**Copper Releasing IUDs** Along with phagocytosis of the sperms, the copper ions released, suppresses the sperm motility and the fertilizing capacity of the sperm. *e. g.*, Cu-T, Cu-7, multiload-375

**Hormone Releasing IUDs** They makes the uterus unsuitable for implantation and the cervix hostile to the sperms, *e. g.*, progestasert, LNG-20

132 (d)

**ART** (Assisted Reproductive Technologies) are the applications of reproductive technologies to solve infertility problems. *There are*

- (i) Test tube baby/*In vitro* fertilisation (IVF)
- (ii) Artificial Insemination Technologies (AIT)
- (iii) Gamete Intra Fallopian Transfer (GIFT)

(iv) Intra Cytoplasmic Sperm Injection (ICSI)

134 (a)

Tremendous increase in the size and growth of the population is called population explosion.

**Human World Population**

| Year    | Population  |
|---------|-------------|
| 1700 AD | 0.6 billion |
| 1850    | 1 billion   |
| 1930    | 2 billion   |
| 1965    | 3.5 billion |
| 1975    | 4 billion   |
| 1990    | 5 billion   |
| 2000    | 6.1 billion |
| 2011    | 7 billion   |

**Population of India 1901-2011**

| Year | Population      |
|------|-----------------|
| 1901 | 238, 396, 327   |
| 1911 | 252, 093, 390   |
| 1921 | 251, 321, 213   |
| 1931 | 278, 977, 238   |
| 1941 | 318, 660, 580   |
| 1951 | 361, 088, 090   |
| 1961 | 439, 234, 771   |
| 1971 | 548, 159, 652   |
| 1981 | 685, 148, 692   |
| 1991 | 843, 930, 861   |
| 2001 | 1,027, 015, 247 |
| 2011 | 1,210, 193, 422 |

135 (b)

Ovulation is expected to occur at the 12<sup>th</sup>-14<sup>th</sup> day of the menstrual cycle.

Probable ova releasing day is 12-14 day of menstrual phase, and sperm can live for 2-3 days in female reproductive system. So, 10-17 days are the most probable days for fertilisation.

**Draw backs** of periodic abstinence The effectiveness of this method is limited because only a few women have regular menstrual cycle and the actual time of ovulation can not be produced as the ovulation in humans occurs about 14 days before the onset of the next menstruation

137 (a)

Polio and hepatitis, both are dreadful diseases. They are caused by the virus. Polio and hepatitis, both diseases are non-communicable.

**National Immunization Schedules**

| Age     | Vaccine                                 | Optional Vaccines   |
|---------|---|---------------------|
| Birth   | BCG ( <i>Bacillus calmitte Guerin</i> ) | 6 weeks Haemophilus |
| 6 weeks | Oral Polio                              | 10 weeks            |

|              |   |   |
|--------------|---|---|
|              | Vaccine 1st Dose<br>Hepatitis-B<br>Vaccine 1st Dose<br>DPT 1st Dose<br>Oral Polio<br>Vaccine 2nd Dose | influenza<br>Type B<br>14 weeks<br><br>2 years<br>hepatitis-A<br>vaccine<br>Two doses 6<br>months A<br>part |
| 10 weeks     | Hepatitis-B<br>Vaccine 2nd Dose<br><br>DPT 2nd Dose<br><br>Oral Polio<br>Vaccine 3rd Dose             | 2 years<br>typhoid<br>vaccine other<br>1 year<br>chickenpox   |
| 14 weeks     | DPT 3rd Dose<br>Oral Polio<br>Vaccine 4th Dose  |   |
| 6-9 months   | Oral Polio<br>Vaccine 5th Dose<br>Hepatitis-B<br>Vaccine 3rd Dose                                     |   |
| 9 months     | Measles Vaccine   |   |
| 15-18 months | MMR (Measles,<br>Mumps, Rubella)<br>DPT 1st Booster<br>Dose<br>Oral Polio<br>Vaccine 6th Dose         |   |
| 5 years      | DPT 2nd Booster<br>Dose<br>Oral Polio<br>Vaccine 7th Dose   |   |
| 10 years     | TT (Tetanus) 3rd<br>Booster Dose<br>Hepatitis-B<br>Vaccine<br>Booster Dose                            |   |
| 15-16 years  | TT (Tetanus) 4th<br>Booster Dose  |   |

138 (a)

With 1.7% of the growth rate. India's population could double in 33 years. Such an alarming growth rate could lead to an absolute scarcity of even the basic requirement. Therefore, the government was forced to take up serious measures to check the population growth. The most important step to overcome this problem is to motivate smaller families by using various contraceptive methods. You might have seen advertisements in the media as well as posters/bills, etc., showing a happy couple with two children with a slogan *Hum Do Humare Do* (we two, our two). Many couples, mostly the young, urban, working

ones have even adopted 'one child norm'. Statutory raising of marriageable age of the female to 18 years and that of males to 21 years and incentives given to couples with small families are two of the other measures taken to tackle this problem

139 (d)

*In IVF (In vitro fertilisation) the technique used are*

ZIFT – Zygote Intra Fallopian Transfer

IUT – Intra Uterine Transfer

GIFT – Gamete Intra Fallopian Transfer

ICSI – Intra Cytoplasmic Sperm Injection

AI – Artificial Insemination

IUI – Intra Uterine Insemination

143 (c)

Diseases or infections, which are transmitted through sexual intercourse with infected persons are collectively called Sexually Transmitted Diseases (STDs) or Venereal Diseases (VD) or Reproductive Tract Infections (RTI)

144 (b)

**Medical Termination of Pregnancy** It is the intentional or voluntary termination of pregnancy before the full term. It is also called induced abortion.

About 45 to 50 million MTP are performed all over the world which accounts for 1/5 th of the total number of conceiving pregnancy. MTP was legalized by Government of India in 1971.

MTP is to get rid of unwanted pregnancy due to the failure of contraceptive, or rapes, and when continued pregnancy leads to harmful or fatal consequences for mother or foetus or both. MTP is considered safe during the first trimester of pregnancy

145 (d)

*Reason for high population growth are*

(i) Decline death rate

(ii) Decline Maternal Mortality Rate (MMR)

(iii) Decline infant mortality rate

These all factors are influenced by better medical services. According to 2001 census report, the population growth rate was about 1.7%. India's population got doubled in 33 years

147 (a)

350 billion.

Tremendous increase in the size and growth of the population is called population explosion.

**Human World Population**

| Year | Population |
|------|------------|
|------|------------|

|         |             |
|---------|-------------|
| 1700 AD | 0.6 billion |
| 1850    | 1 billion   |
| 1930    | 2 billion   |
| 1965    | 3.5 billion |
| 1975    | 4 billion   |
| 1990    | 5 billion   |
| 2000    | 6.1 billion |
| 2011    | 7 billion   |

**Population of India 1901-2011**

| Year | Population      |
|------|-----------------|
| 1901 | 238, 396, 327   |
| 1911 | 252, 093, 390   |
| 1921 | 251, 321, 213   |
| 1931 | 278, 977, 238   |
| 1941 | 318, 660, 580   |
| 1951 | 361, 088, 090   |
| 1961 | 439, 234, 771   |
| 1971 | 548, 159, 652   |
| 1981 | 685, 148, 692   |
| 1991 | 843, 930, 861   |
| 2001 | 1,027, 015, 247 |
| 2011 | 1,210, 193, 422 |

148 (d)

*MTP is used to get rid of unwanted pregnancy due to*

(i) Genetic abnormality

(ii) Failure of contraceptive method

(iii) rapes

150 (b)

Avoid sex in ovulatory phase.

Probable ova releasing day is 12-14 day of menstrual phase, and sperm can live for 2-3 days in female reproductive system. So, 10-17 days are the most probable days for fertilisation.

**Draw backs** of periodic abstinence The effectiveness of this method is limited because only a few women have regular menstrual cycle and the actual time of ovulation can not be produced as the ovulation in humans occurs about 14 days before the onset of the next menstruation

153 (d)

Swelling, itching, fluid discharge, slight pain

**Common Symptoms** Early symptoms of most of these diseases are itching, fluid discharge, swelling, slight pain, etc.

**Consequences of Delayed Treatment** If proper and timely treatment is not given. STDs may lead to complications such as Pelvic Inflammatory Diseases (PID), abortions, still birth, ectopic pregnancies, infertility or even cancer of the

- reproductive tract
- 154 (a) MTP is safe until 1st trimester (12 weeks) of the pregnancy. It becomes more risky after the 1st trimester period of pregnancy as the foetus becomes intimately associated with the maternal tissue
- 156 (c) Because as we can see in diagram III and IV there is complete blockage, so there is no passage for sperm to go to ova for fertilisation
- 157 (b) A-2001, B-1.5%, C-33 years
- 158 (b) A-Vas deferens, B-Vasectomy
- 159 (b) Probable ova releasing day is 12-14 day of menstrual phase, and sperm can live for 2-3 days in female reproductive system. So, 10-17 days are the most probable days for fertilisation.  
**Draw backs** of periodic abstinence The effectiveness of this method is limited because only a few women have regular menstrual cycle and the actual time of ovulation can not be produced as the ovulation in humans occurs about 14 days before the onset of the next menstruation
- 161 (b) Natural method of contraceptive are the natural ways to prevent fertilisation. These methods are  
(i) **Periodic Abstinence**  
Couple avoid coitus or intercourse from day 10 to 17 of the menstrual cycle when ovulation is expected to occur  
(ii) **Coitus interruption or withdrawal method**  
Withdrawal of penis from the vagina just before ejaculation so as to avoid insemination  
(iii) **Lactational Amenorrhoea** (Absence of menstruation) This method is based on the fact that ovulation and therefore the cycle don't occur during the period of intense following parturition. Therefore, as long as the mother breast feeds the child, chances of conception are almost nil
- 162 (c) Hormonal releasing IUDs.  
Intra Uterine Devices (IUDs) for contraception  
(i) These devices are inserted by the doctors into the uterus through vagina.  
(ii) *There are three types of IUDs*  
**Non-medicated IUDs** They increases the phagocytosis of the sperm within the uterus, e. g.,

- Lippes loop  
**Copper Releasing IUDs** Along with phagocytosis of the sperms, the copper ions released, suppresses the sperm motility and the fertilizing capacity of the sperm. e. g., Cu-T, Cu-7, multiload-375  
**Hormone Releasing IUDs** They makes the uterus unsuitable for implantation and the cervix hostile to the sperms, e. g, progestasert, LNG-20
- 163 (d) Oral contraceptive pills increases the risk of intra vascular clotting. Therefore, they are not recommended for women with a history of disorders of blood clotting, careful blood vessel damage, hypertension, liver malfunction, heart disease or cancer of the breast or reproductive system
- 164 (b) **Oral Contraceptive Pills** (oral pills) They are used in the form of tablets therefore, they are called 'pills'. Pills have to be taken daily for 21 days starting within the first five days of menstrual cycle. After a gap of 7 days, it has to be repeated. They inhibit ovulation and implantation. Pills are very effective with lesser side effects
- 165 (b) Determine any hereditary disease of the embryo.  
**Amniocentesis** It is technique of drawing- amniotic fluid and testing it to find out the sex and disorders of the foetus. The amniotic fluid is usually taken at about the fourteenth or fifteenth week after conception.  
Sonography (a technique involving high frequency sound waves to locate tissues of different densities within the body) is used to determine the location of the foetus and the placenta just prior to perform amniocentesis. Therefore, accidental damage to the foetus and placenta is prevented.  
Amniotic fluid contains cell from the skin of the foetus and other sources. These cells can be used to determine the sex of the infant, to identify some abnormalities in the number of chromosomes and to detect certain biochemicals and enzymatic abnormalities.  
If it is established that, if the child is likely to suffer from a serious increase congenital defect, the mother should get the foetus aborted. However, these days, this technique is also being misused. Since, the sex of the foetus can be determined by this technique, normal female foetus is aborted. Therefore, this technique has

- been banned  
Population growth rate is the annual average growth rate. It can be negative.  
Birth rate replacement level can never be negative
- 166 (d) Secondary in fertility indicates the previous pregnancy but failure to conceive subsequently
- 167 (c) Zygote is transferred to the Fallopian tube.  
**ZIFT** (Zygote Intra Fallopian Transfer) In ZIFT, the embryo upto 8 celled stage is transferred to Fallopian tube. Rest of the development takes place as that of the natural zygote in the uterus  
(i) Collected gamete are made to form zygote in laboratory, *in vitro* fertilisation (IVF)  
(ii) Zygote or early embryo with up to 8 blastomeres is transferred into the oviduct (ZIFT)  
(iii) Zygote with more than 8 blastomeres is transferred into uterus (IUT)  
(iv) Fusion of gamete within the body of female (*In vivo* fertilisation)  
(v) Transfer of ovum from the donor to the oviduct of the recipient (GIFT)  
(vi) Sperms are injected into the ovum *in vitro* (ICSI)
- 168 (b) **Misuse of Amniocentesis** It is being used to kill the normal female foetus. It is legally banned for the determination of sex to avoid female foeticide
- 169 (c) World AIDS day - 1st December  
World earth day - 22th April  
World population day - 11th July
- 170 (c) Suppressing the mortality of sperm.  
Intra Uterine Devices (IUDs) for contraception  
(i) There devices are inserted by the doctors into the uterus through vagina.  
(ii) *There are three types of IUDs*  
**Non-medicated IUDs** They increases the phagocytosis of the sperm within the uterus, *e. g.*, Lippes loop  
**Copper Releasing IUDs** Along with phagocytosis of the sperms, the copper ions released, suppresses the sperm motility and the fertilizing capacity of the sperm. *e. g.*, Cu-T, Cu-7, multiload-375  
**Hormone Releasing IUDs** They makes the uterus unsuitable for implantation and the cervix hostile to the sperms, *e. g.* progestasert, LNG-20
- 171 (a) 'Hum do Humare Do' slogan encourages family planning.  
With 1.7% of the growth rate. India's population could double in 33 years. Such an alarming growth rate could lead to an absolute scarcity of even the basic requirement. Therefore, the government was forced to take up serious measures to check the population growth. The most important step to overcome this problem is to motivate smaller families by using various contraceptive methods. You might have seen advertisements in the media as well as posters/bills, etc., showing a happy couple with two children with a slogan *Hum Do Humare Do* (we two, our two).  
Many couples, mostly the young, urban, working ones have even adopted 'one child norm'.  
Statutory raising of marriageable age of the female to 18 years and that of males to 21 years and incentives given to couples with small families are two of the other measures taken to tackle this problem
- 173 (c) Incidents of STDs are very high in the population 15 to 24 years of age group
- 175 (c) **Research in Reproductive Health** It should be encouraged and supported to find out the new methods in reproduction related areas. 'Saheli' a new oral contraceptive for the females was developed by scientists in Central Drug Research Institute (CDRI) in Lucknow
- 177 (d) Induced abortion and intentional abortion, both the terms are used commonly for MTP (Medical Termination of Pregnancy)
- 178 (a) **ZIFT** (Zygote Intra Fallopian Transfer) In ZIFT, the embryo upto 8 celled stage is transferred to Fallopian tube. Rest of the development takes place as that of the natural zygote in the uterus
- 179 (c) In ZIFT, the zygote or embryo upto 8 cells/blastomeres are transferred to the Fallopian tube
- 180 (a) Sperm motility decreases due to Cu ion.  
Intra Uterine Devices (IUDs) for contraception  
(i) There devices are inserted by the doctors into the uterus through vagina.  
(ii) *There are three types of IUDs*  
**Non-medicated IUDs** They increases the

phagocytosis of the sperm within the uterus, *e. g.*, Lippes loop

**Copper Releasing IUDs** Along with phagocytosis of the sperms, the copper ions released, suppresses the sperm motility and the fertilizing capacity of the sperm. *e. g.*, Cu-T, Cu-7, multiload-375

**Hormone Releasing IUDs** They makes the uterus unsuitable for implantation and the cervix hostile to the sperms, *e. g.*, progesterone, LNG-20

182 (b)

Rapid growth is called **exponential growth**. In 1700 AD human population was about 0.6 billion. At the beginning of the twentieth century, it increased to 1.6 billion, and by the end of the century, the human population reached 6.1 billion. This rapid increase in population over a relatively short period is called **population explosion**.

In the 150 years from 1700 AD human population doubled from 0.6 billion to 1.2 billion. In contrast, it increased five times during the next 150 years. In 2011 it was 7 billion

184 (a)

*Viral STDs are*

|                 |                                       |
|-----------------|---------------------------------------|
| <b>Diseases</b> | <b>Pathogens</b>                      |
| AIDS            | - HIV (Human Immuno deficiency Virus) |
| Hepatitis-B     | - HBV (Hepatitis-B Virus)             |
| Genital herpes  | - Herpes simplex virus                |
| Genital warts   | - HPV (Human Papilloma Virus)         |

First three are incurable

189 (a)

121 crore.  
Tremendous increase in the size and growth of the population is called population explosion.

**Human World Population**

| Year    | Population  |
|---------|-------------|
| 1700 AD | 0.6 billion |
| 1850    | 1 billion   |
| 1930    | 2 billion   |
| 1965    | 3.5 billion |
| 1975    | 4 billion   |
| 1990    | 5 billion   |
| 2000    | 6.1 billion |
| 2011    | 7 billion   |

**Population of India 1901-2011**

| Year | Population    |
|------|---------------|
| 1901 | 238, 396, 327 |
| 1911 | 252, 093, 390 |
| 1921 | 251, 321, 213 |
| 1931 | 278, 977, 238 |

|      |                 |
|------|-----------------|
| 1941 | 318, 660, 580   |
| 1951 | 361, 088, 090   |
| 1961 | 439, 234, 771   |
| 1971 | 548, 159, 652   |
| 1981 | 685, 148, 692   |
| 1991 | 843, 930, 861   |
| 2001 | 1,027, 015, 247 |
| 2011 | 1,210, 193, 422 |

191 (a)

*Types of infertilities*

**Primary infertility** It denotes those patients who have never conceived pregnancy

**Secondary infertility** It indicates previous pregnancy but failure to conceive subsequently

192 (a)

The zygote or the early embryo is transferred into Fallopian tube (ZIFT-Zygote Intra Fallopian Transfer). If embryo contains more than 8 blastomere (cells) and it is transferred into uterus than, it is called IUT (Intra Uterine Transfer)

193 (d)

**Medical facilities.** Better awareness about sex-related problems, prenatal care of the mother, medically assisted deliveries, postnatal care of the mother and infant, decrease maternal and infant mortality, small families, better detection and cure of Sexually Transmitted Diseases (STDs), increased medical facilities for sex-related problems, etc., indicates improved reproductive health of the society

194 (b)

15-18 months.

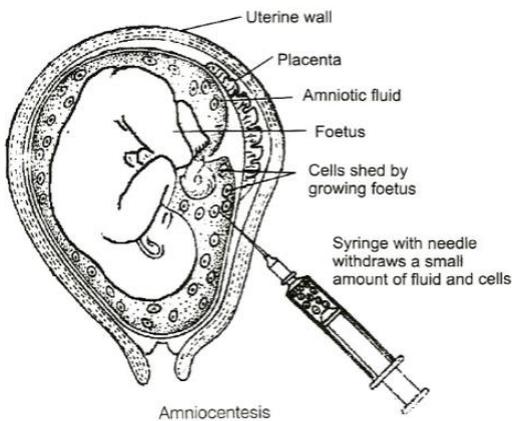
**National Immunization Schedules**

| Age      | Vaccine  | Optional Vaccines   |
|----------|--|---|
| Birth    | BCG ( <i>Bacillus calmette Guerin</i> )  | 6 weeks Haemophilus   |
| 6 weeks  | Oral Polio Vaccine 1st Dose<br>Hepatitis-B Vaccine 1st Dose<br>DPT 1st Dose<br>Oral Polio Vaccine 2nd Dose<br>Hepatitis-B Vaccine 2nd Dose | 10 weeks influenza Type B<br>14 weeks<br>2 years hepatitis-A vaccine<br>Two doses 6 months A part |
| 10 weeks | DPT 2nd Dose<br>Oral Polio Vaccine 3rd Dose  | 2 years typhoid vaccine other<br>1 year chickenpox  |

|              |   |  |
|--------------|---|--|
| 14 weeks     | DPT 3rd Dose<br>Oral Polio<br>Vaccine 4th Dose  |  |
| 6-9 months   | Oral Polio<br>Vaccine 5th Dose<br>Hepatitis-B<br>Vaccine 3rd Dose                             |  |
| 9 months     | Measles Vaccine   |  |
| 15-18 months | MMR (Measles,<br>Mumps, Rubella)<br>DPT 1st Booster<br>Dose<br>Oral Polio<br>Vaccine 6th Dose |  |
| 5 years      | DPT 2nd Booster<br>Dose<br>Oral Polio<br>Vaccine 7th Dose                                     |  |
| 10 years     | TT (Tetanus) 3rd<br>Booster Dose<br>Hepatitis-B<br>Vaccine<br>Booster Dose                    |  |
| 15-16 years  | TT (Tetanus) 4th<br>Booster Dose  |  |

195 (a)

**Procedure** Amniotic fluid contains cells from the skin



of the foetus and other sources. These cells can be used to determine the sex of the infant, to identify abnormalities in the number of chromosomes and to detect certain biochemicals and enzymatic abnormalities. If it is established that the child is likely to suffer from a serious incurable congenital defect, the mother should get the foetus aborted. Amniocentesis is the detection of the chromosomal pattern of developing foetus by taking the amniotic fluid

196 (b)

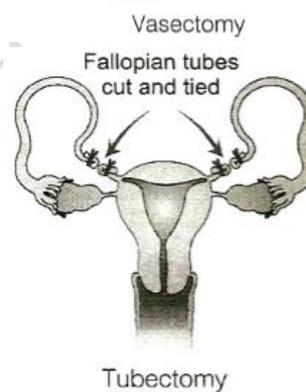
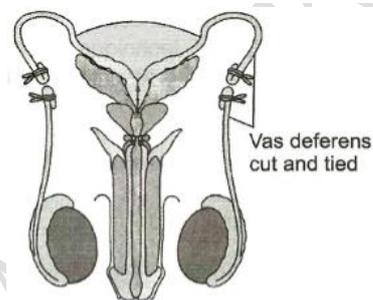
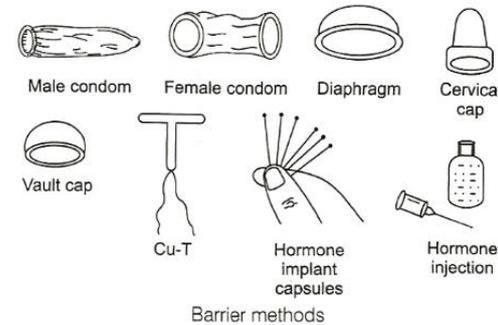
In lactating mother, there is the release and the production of milk secreting hormone. These hormones suppresses the release of Follicle

Stimulating Hormone (FSH), so during intense lactation there is no ovulation hence, no pregnancy

197 (d)

Mode of Infection (MOI) of AIDS and hepatitis are same and both are also incurable also

198 (a)



A-Condoms, B-Copper-T, C-Implants, D-Vasectomy, E-Tubectomy