



INDIAN SCHOOL AL WADI AL KABIR



CLASS: XII	DEPARTMENT: SCIENCE 2026 – 2027 SUBJECT: BIOLOGY	DATE: 18/04/2026
WORKSHEET NO. 3	UNIT- I- REPRODUCTION CHAPTER:03 REPRODUCTIVE HEALTH	NOTE: A4 FILE FORMAT
NAME OF THE STUDENT:	CLASS & SEC:	ROLL NO.

I. OBJECTIVE-TYPE QUESTIONS

- According to the World Health Organization (WHO), reproductive health means total well-being in which of the following aspects?
 - Physical and Emotional only
 - Physical, Emotional, and Behavioral only
 - Physical, Emotional, Behavioral, and Social
 - Physical and Social only
- Which of the following is a non-medicated Intrauterine Device (IUD)?
 - CuT
 - LNG-20
 - Lippes loop
 - Multiload 375
- Medical Termination of Pregnancy (MTP) is considered safe up to how many weeks of pregnancy?
 - 8 weeks
 - 12 weeks
 - 18 weeks
 - 24 weeks
- The technique of directly injecting a sperm into the ovum is called:
 - GIFT
 - ZIFT
 - ICSI
 - IUI
- Transfer of an ovum collected from a donor into the fallopian tube of another female who cannot produce one is:
 - ZIFT
 - GIFT
 - ICSI
 - IUT

For the following questions, two statements are given, one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (i), (ii), (iii), and (iv) as given below:

- A. Both A and R are true, and R is the correct explanation of the assertion.
- B. Both A and R are true, but R is not the correct explanation of the assertion
- C. A is true, but R is false.
- D. A is false, but R is true

6. **Assertion (A):** Use of condoms is a safeguard against AIDS and STIs besides checking pregnancy.

Reason (R): Condoms are barriers made of thin rubber or latex sheath that prevent the meeting of the ovum and sperm.

7. **Assertion (A):** In zygote intra-fallopian transfer (ZIFT), the zygote is transferred to the fallopian tubes of the female.

Reason (R): ZIFT is an *in-vivo* fertilization method.

8. **Assertion (A):** Artificial insemination (AI) is used in cases where the male partner has a very low sperm count.

Reason (R): In this technique, semen is artificially introduced either into the vagina or the uterus.

II. VERY SHORT QUESTIONS (2M):

- 9. Why is 'Saheli' considered a better oral contraceptive pill for females?
- 10. What do you think is the significance of reproductive health in a society?
- 11. Define amniocentesis. Why is there a statutory ban on amniocentesis in India? (Board question 2026)

III. SHORT ANSWER TYPE QUESTIONS: (3M)

- 12. Compare and contrast Vasectomy and Tubectomy as terminal methods of contraception.
- 13. Removal of gonads cannot be considered as a contraceptive option. Why?
- 14. Explain the various types of Intrauterine Devices (IUDs) and how they prevent conception.

IV. SOURCE-BASED/ CASE STUDY-BASED QUESTIONS

- 15. A young couple, married for over three years, visited a fertility clinic because they were unable to conceive despite unprotected cohabitation. After a thorough medical examination, the doctor found that the husband had a very low sperm count (oligospermia), while the wife was healthy but had blocked fallopian tubes. The doctor suggested they opt for Assisted Reproductive Technologies (ART) to help them have a child.
 - A. Based on the husband's condition (low sperm count), which specific ART technique would be most suitable for directly fertilizing the egg in a laboratory?
 - B. Since the wife has blocked fallopian tubes, can she undergo GIFT (Gamete Intra Fallopian Transfer)? Why or why not?
 - C. If the couple chooses IVF (In-vitro Fertilization), at what stage should the embryo be transferred if the doctor decides to perform ZIFT?
 - D. What is the difference between ZIFT and IUT in the context of embryo transfer?

V. LONG ANSWER TYPE QUESTIONS. (5M)

- 16. Suggest some methods to assist infertile couples to have children.
- 17. (i) Do you think that reproductive health in our country has improved in the past 50 years? If yes, mention some such areas of improvement.
(ii) Is sex education necessary in schools? Why?

(iii) State any two main objectives of the 'Reproductive and Child Health Care' (RCH) programs.

VI BOARD QUESTIONS

18. Define Reproductive Health. (CBSE 2018/2020).
19. Why is Lactational Amenorrhea considered a natural contraceptive method? (CBSE 2021)
20. Name the IUD that you would recommend to promote cervical hostility to sperm. (CBSE 2023).
21. Identify the natural method of contraception where the male partner withdraws before ejaculation. (2024)

ANSWER KEY	
I. OBJECTIVE-TYPE QUESTIONS	
1.	C. Physical, Emotional, Behavioral, and Social
2.	C. Lippes loop
3.	B. 12 weeks
4.	C. ICSI
5.	B. GIFT
6.	A. Both A and R are true, but R is the correct explanation of the assertion.
7.	C. A is true, but R is false.
8.	A. Both A and R are true, and R is the correct explanation of the assertion.
II	VERY SHORT QUESTIONS (2M):
9.	Saheli is considered a superior oral contraceptive for females due to these two primary reasons: Non-Steroidal: It is a non-steroidal preparation, which results in very few side effects compared to traditional hormonal pills. High Efficacy: It has a high contraceptive value and is taken as a "once-a-week" pill, making it more convenient than daily doses.
10.	Reproductive health in a society is significant because people are aware of (i) birth control methods and the advantages of a small family, (ii) sexually transmitted diseases and methods to avoid them, (iii) importance of breastfeeding and postnatal care of the mother and baby, and (iv) equal opportunities for male and female children.
11.	Amniocentesis is a fetal sex determination and disorder test based on the chromosomal pattern in the amniotic fluid surrounding the developing embryo. There is a statutory ban on amniocentesis for sex determination in India for the following reasons: • Prevention of Female Foeticide: The technique was being widely misused to determine the sex of the foetus before birth. This often led to the illegal abortion of female foetuses, known as female foeticide. • Arresting Declining Sex Ratio: The ban was implemented to stop the sharp decline in the child sex ratio in many parts of the country. • Legal Framework: This ban is strictly enforced under the Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act, 1994.

III. SHORT ANSWER TYPE QUESTIONS: (3M)	
12.	Both are surgical methods (sterilization) used as terminal methods to prevent any more pregnancies. • Vasectomy (Male Sterilization): A small part of the vas deferens is removed or tied up through a small incision on the scrotum. This prevents sperm transport into the semen. • Tubectomy (Female Sterilization): A small part of the fallopian tube is removed or tied off through a small incision in the abdomen or through the vagina. This prevents the ova from meeting the sperm. • Common Feature & Limitation: Both methods are highly effective, but their reversibility is very poor, which is why they are advised only for couples who do not want any more children.
13.	The removal of gonads (gonadectomy) is not considered a contraceptive option for the following reasons: 1. Permanent and Irreversible Infertility: Contraceptive methods are ideally intended to be reversible, allowing a person to conceive in the future if they choose. Removal of the gonads (testes or ovaries) leads to permanent sterility, as the organs responsible for producing gametes (sperm or eggs) are completely removed. 2. Loss of Essential Hormones: Gonads are not just for reproduction; they are also endocrine glands that secrete vital sex hormones (like testosterone, estrogen, and progesterone). Their removal disrupts the body's hormonal balance, which is necessary for the normal functioning of accessory reproductive organs and the maintenance of secondary sexual characteristics. 3. Impact on Sexual Drive: An ideal contraceptive should not interfere with the sexual drive, desire, or the sexual act of the user. Because gonad removal eliminates the primary source of sex hormones, it can significantly alter a person's physiology and sexual life.
14.	IUDs are inserted by doctors or expert nurses into the uterus through the vagina. They are classified into three types based on their mechanism: • Non-medicated IUDs (e.g., Lippes loop): They increase the phagocytosis of sperm within the uterus, destroying them before they reach the fallopian tubes. • Copper-releasing IUDs (e.g., CuT, Cu7, Multiload 375): They release copper ions, which suppress sperm motility and the fertilizing capacity of the sperm. • Hormone-releasing IUDs (e.g., Progestasert, LNG-20): These make the uterus unsuitable for implantation and the cervix hostile to sperm by thickening the cervical mucus.
IV. SOURCE-BASED/ CASE STUDY-BASED QUESTIONS	
15.	A. The most suitable technique is ICSI (Intra Cytoplasmic Sperm Injection). In this specialized procedure, a single sperm is directly injected into the ovum in the laboratory to ensure fertilization. B. No, she cannot undergo GIFT. GIFT requires the fallopian tubes to be healthy because gametes are transferred into the fallopian tubes for in-vivo fertilization (fertilization inside the body) to occur. Blocked tubes would prevent the meeting of sperm and ovum. C. In ZIFT (Zygote Intra Fallopian Transfer), the zygote or early embryo must be transferred at the stage of up to 8 blastomeres. It is specifically transferred into the fallopian tube. D. The difference lies in the site of transfer and the embryo stage: - ZIFT: Embryos with up to 8 blastomeres are transferred into the fallopian tube. - IUT (Intra Uterine Transfer): Embryos with more than 8 blastomeres are transferred directly into the uterus.

V. LONG ANSWER TYPE QUESTIONS. (5M)	
16.	(i) In vitro fertilization – The patient’s egg & her partner’s sperm are collected & mixed in a laboratory to achieve fertilization outside the body. The embryo produced may then be transferred into the female patient. It is commonly known as the test tube baby programme. (ii) Gamete Intra Fallopian Transfer (GIFT) – A procedure in which eggs are retrieved from a woman, mixed with sperm & immediately replaced in one or other of the woman’s fallopian tubes so that they fertilize inside the body (in vivo). (iii) Intra Cytoplasmic Sperm Injection (ICSI)– In this method, sperm & eggs are retrieved from both the parents. A single sperm is injected directly into an egg, and then the fertilized egg is implanted into the woman’s uterus. (iv) Artificial insemination – In this technique, the semen is collected either from the husband or a healthy donor & is artificially introduced either into the vagina or into the uterus of the female (IUI-Intra uterine insemination).
17.	(i) Yes, there has certainly been an enormous improvement in reproductive health in the past 50 years. Listed below are the areas of improvement: • The decrease in the infant mortality rate can be attributed to the massive child immunisation programmes. • Drastic decrease due to better post-natal care can be attributed to the maternal and infant mortality rate. • The awareness created through the family planning programmes has seen people opting for smaller families. • Decrease in the rate of sexually transmitted diseases and unwanted pregnancies due to the use of contraceptives. (ii) Yes, sex education is necessary in schools. It is because of the following reasons: • Imparts apt and necessary information to students to save them from misconceptions and myths about sex-related topics. • Provides appropriate knowledge about adolescence, reproductive organs, and related concepts. • Creates awareness amongst students about the need for hygienic and safe sexual practices and sexually transmitted diseases. This helps students, specifically those in adolescence, to lead a healthy reproductive life. (iii) 1. Creating Awareness: To spread information among people about various reproductive-related issues aspects like STIs, birth control, and postnatal care. 2. Providing Support: To provide medical facilities and infrastructure for building a reproductively healthy society (e.g., safe deliveries and child immunization).
VI	BOARD QUESTIONS
18.	Reproductive health refers to total well-being in all aspects of reproduction, including physical, emotional, behavioral, and social aspects.
19.	It is based on the fact that ovulation (and therefore the menstrual cycle) does not occur during the period of intense lactation following parturition. It is effective for up to six months post-delivery.
20.	Hormone-releasing IUDs like LNG-20 or Progestasert are recommended for this purpose.
21.	Coitus Interruptus (also known as the withdrawal method).

Prepared by: Ms Sreeja Aravindakshan	Checked by: HOD Science
---	----------------------------

