Human Reproductive System

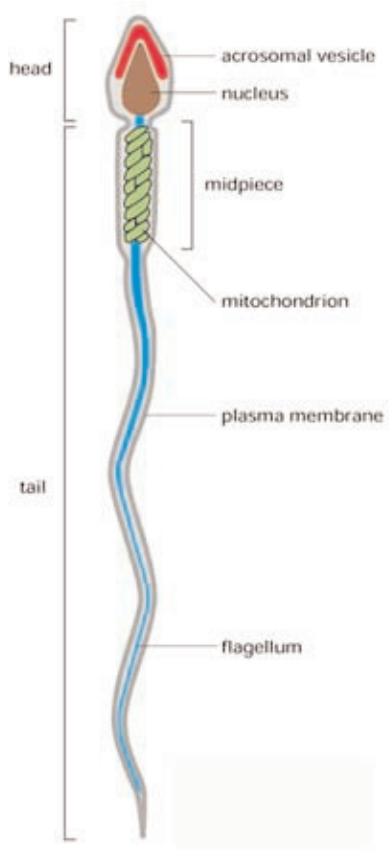
1. Why should we have a knowledge of human Reproductive system?

- It is essential to have a knowledge of human Reproductive system such as the process of reproduction, embryonic development and child birth to control the growth of population and to prevent diseases like AIDS.

2. Describe the structure of Human spermatozoa?

Structure of Human spermatozoa

- Human sperms are minute, microscopic and motile Human sperm has mainly four parts, they are head, neck, middle piece and long tail.
- Head piece consist of a large haploid nucleus.
- A sac like structure present as Head piece is called Acrosome which helps to penetrate the sperm cell into the ovum during Fertilization.
- Middle piece contains several mitochondria which produce energy required for the movement of sperm cells.
- Tail piece helps in swimming the spermatozoa to reach the ovum for fertilization.
- Spermatozoa live for a period of 24-72 hours in the female reproductive system.



3. Give an account of Fallopion tubules.

- The tubes which are present on either side of the uterus are called fallopion tubule.
- The ovum released from the ovarian follicle enters into fallpion tubule.
- The Anterior end of fallopian tubule in funnel like structure with several finger like structure and they are ciliated. posterior end of the fallopion tube opens into uterus.
- Ovum that is released from the graffian follicle enters into uterus through fallopion tube.
- Cilia helps in the movement of ovum from fallopion into uterus. Fertilization occurs in the fallopian tubule of human beings.

4. Explain the menstrual cycle?

Menstrual cycle:

In the female reproductive system several changes takes place mainly in ovaries fallopain tubes and uterus in a cyclic manner during ovulation is called menstrual cycle.

- The time period for each menstrual cycle is 28-30 days mestrual cycle has two phases. They are
  1. Proliferative phase
  2. Secretary phase

Proliferative Phase:

The first phase of menstrual cycle is called proliferative phase and it takes 12-14 days.

- The cells present in the follicle, fallopian tube uterus and vagina increase in number by repeated mitotic divisions during proliferative phase.
- During proliferative phase the follicle mature and releases ovule usually on 14th day of menstrual ovule usually on 14th day of menstrual cycle.

Secretory Phase:

The Secondary phase of menstrual cycle is called secretory phase. It takes 14-16 days. The ruptured follicle is converted to corpus luteum and uterine walls are thickened during secretory phase.

- The uterus is ready to attach the embryo during secretory phase.
- If fertilization does not occur within 26th day of menstrual cycle the cells of corpus luteum and are expelled out along with some amount of blood.

5. Give an account of the various contraceptive method?

There are two methods to control the child births. They are abortions and contraceptive methods.

Abortion:

Pregnancy terminated by using drugs is called abortion. It is not safe to the health of the mother.

Contraceptive Methods:

The method which prevent pregnancy are called contraceptive methods. These are different in males and females.

Contraceptive methods in males:

1. Use of condoms
2. Use of drugs to prevent the production of spermatozoa.
3. Vas differences is blocked to prevent the fertilization is called 'vasectomy'
4. In recent years, efforts are being made to develop nasal sprays and vaccines to prevent ovulation.

Contraceptive methods in females:

1. Ovulation is prevented by using hormonal tablets.
2. Inter-uterine devices are used to prevent the sperm from reaching the ovum.
3. Spermicidal drugs are used to kill the sperms.
4. In addition to these surgical methods are used to block the fallopian tubes to prevent the entry of spermatozoa, which is called "Tubectami".

6. What is ovulation?

- The discharge of the ovum from ovarian follicle is called corpus luteum.

8. What is implantation?

- The attachment of the embryo to the walls of uterus is called implantation.

Fill up the blanks

1. Foetus is _____ to the walls of uterus by _____
2 The third month of uterus is called _____
3. Acrosome of spermatozoan helps in _____
4. Hormone that control menstrual cycle are secreted by _____
5. After releasing from follicle the ovum enters _____
6. Semen is produced by _____ glands.
7. Leutinizing Hormone is secreted by _____
8. The first phase of menstrual cycle is _____
9. The outer layer of the embryo is called _____

Answers

1. attached, placenta
2. connected, umbilical cord
3. Foetus
4. Fertilization
5. Pitutiary Gland
6. Fallopian Tube
7. Accessory
8. Pituitary Gland
9. Proliferative phase
10. Chorion