

Fate of the flower after fertilization:

Ovary develops into fruit.

Ovules develop into seeds.

Integuments become seed coat - outer integument - testa - inner integument - tegmen

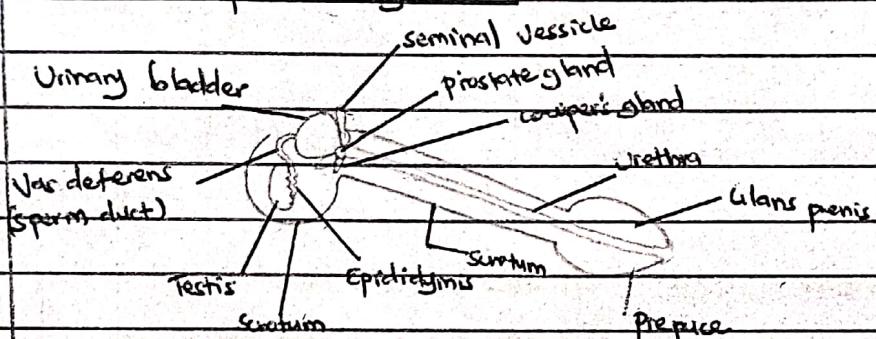
Petals, style and stigma wither to form a fleshy fruit cover

Synnergids and antipodal cells degenerate.

SEXUAL REPRODUCTION IN MAMMALS

CASE STUDY: HUMAN BEINGS:

The male Reproductive system:



FUNCTIONS OF THE PARTS:

- ① Scrotum: Is a erectile skin relaxing in heat and contracting in cold. Maintains sperm formation temperature at 34 to 35°C.
- ② Testis (singular) Testes (plural)
Organs where sperms are manufactured.
- ③ Epididymis.
Is coiled and around 6m long. Epididymis temporary stores sperms.
- ④ Vas deferens (sperm duct)
Conducts sperms to the urethral path way.
- ⑤ Seminal vesicle
Secretes nutrient rich fluid which nourish the sperms before fertilization.
- ⑥ Prostate gland.
Secretes alkaline solutions which neutralizes acidic urethral pH.
- ⑦ Cervix gland.
Secretes yellowish slippery mucus fluid which enables sperm mobility.
- ⑧ Penis
Causes copulation and erection.
- ⑨ Glands penis
One stimulated induces ejaculation.

⑩ Ureters:

Flux of semen or Urine

N.B.: Semen and urine cannot flow at the same time through the same tube.

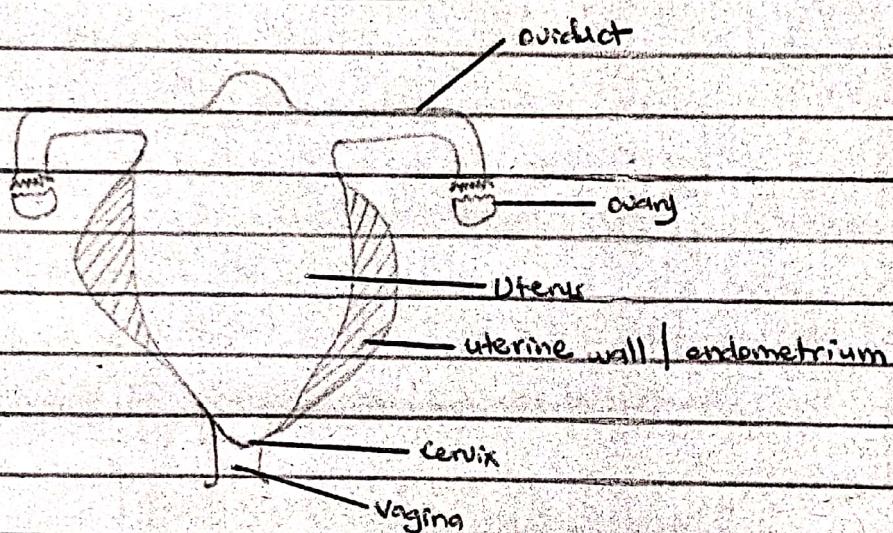
⑪ Prepuce:

Retractable skin that prevents the delicate glans penis from labia majora.

N.B.: The prepuce can be removed in a localised surgical procedure known as Safe Male circumcision.

2. Addition of sperms to secretions of the seminal vesicle, prostate gland and cuvier's gland result into formation of semen.

FEMALE REPRODUCTIVE SYSTEM.



Functions of the parts:

① Ovary: Organs that manufacture ova.

② Oviduct / Fallopian tube:

This is where fertilization occurs.

③ Uterus:

Implantation occurs in the uterus.

④ Cervix

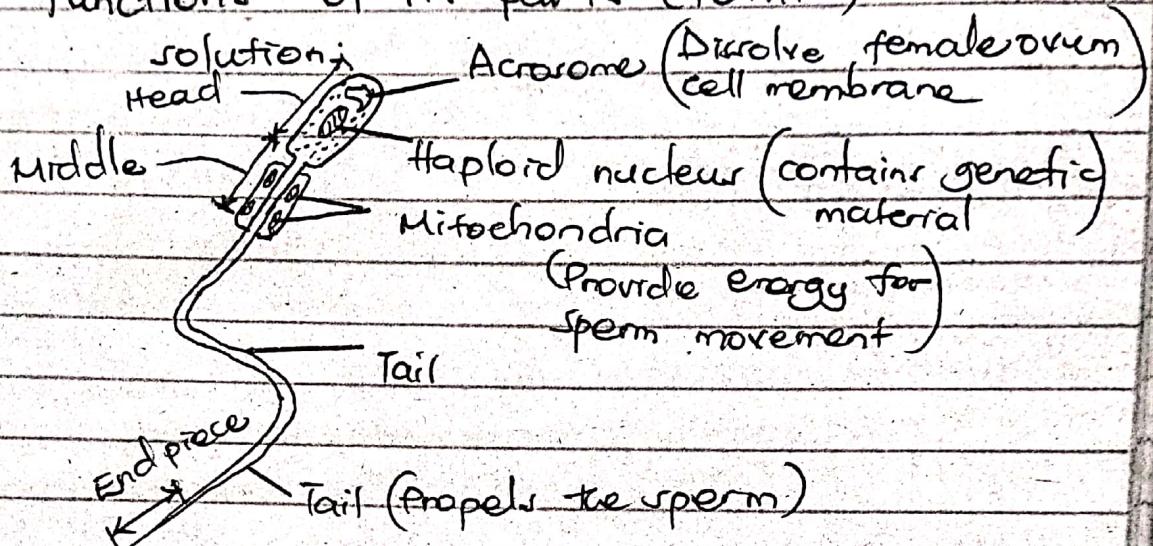
Prevents microbial invasion to the uterus.

⑤ Vagina:

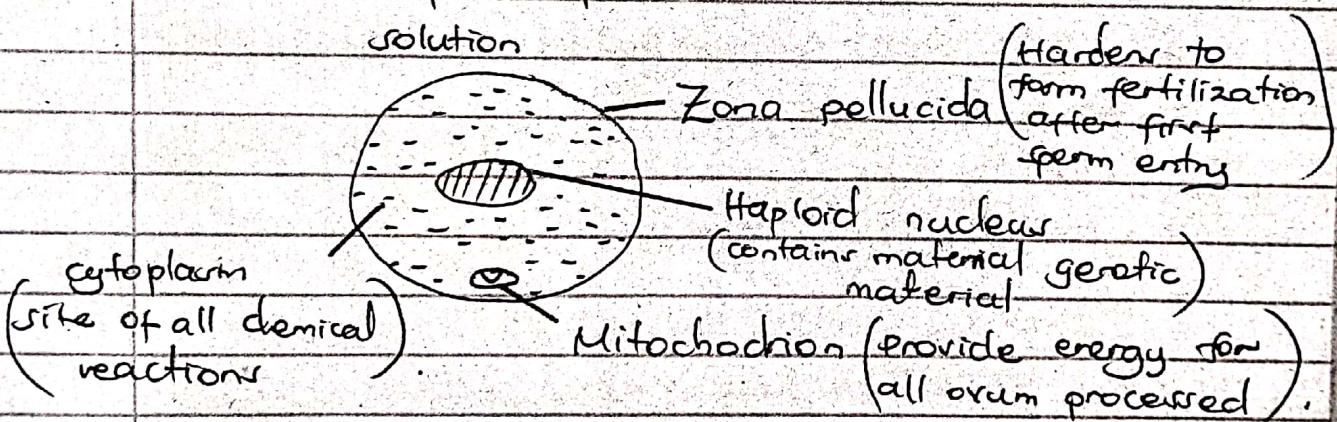
Is where copulation occurs.

Passage of the foetus during birth.

QN: Describe the structure of a human sperm cell and functions of its parts (10mks). 3



Describe the structure of human ovum and functions of its parts.



Define the following terms as applied to reproduction.

(a) Copulation

Is the back and forth movement of the penis inside the vagina.

(b) Coitus

Is the back and forth movement of the penis inside the vagina.

(c) Ejaculation

Is release of semen from the penis upon copulation and stimulation of the glans penis.

1° - primary.

4

THE MENSTRUAL CYCLE.

Menstruation / the menstrual cycle is shedding of the uterine wall / endometrium causing blood flow.

The process of the Menstrual Cycle.

1. Follicle stimulating Hormone (FSH)

- ✓ Initiates development of primary follicles
- ✓ Causes secretion of Oestrogen from ovaries.

2. Oestrogen

- ✓ Causes healing of uterine wall / endometrium
- ✓ Causes further growth and development of primary follicles.
- ✓ It inhibits further secretion of follicle stimulating hormone.

3. Luteinising Hormone (L.H.)

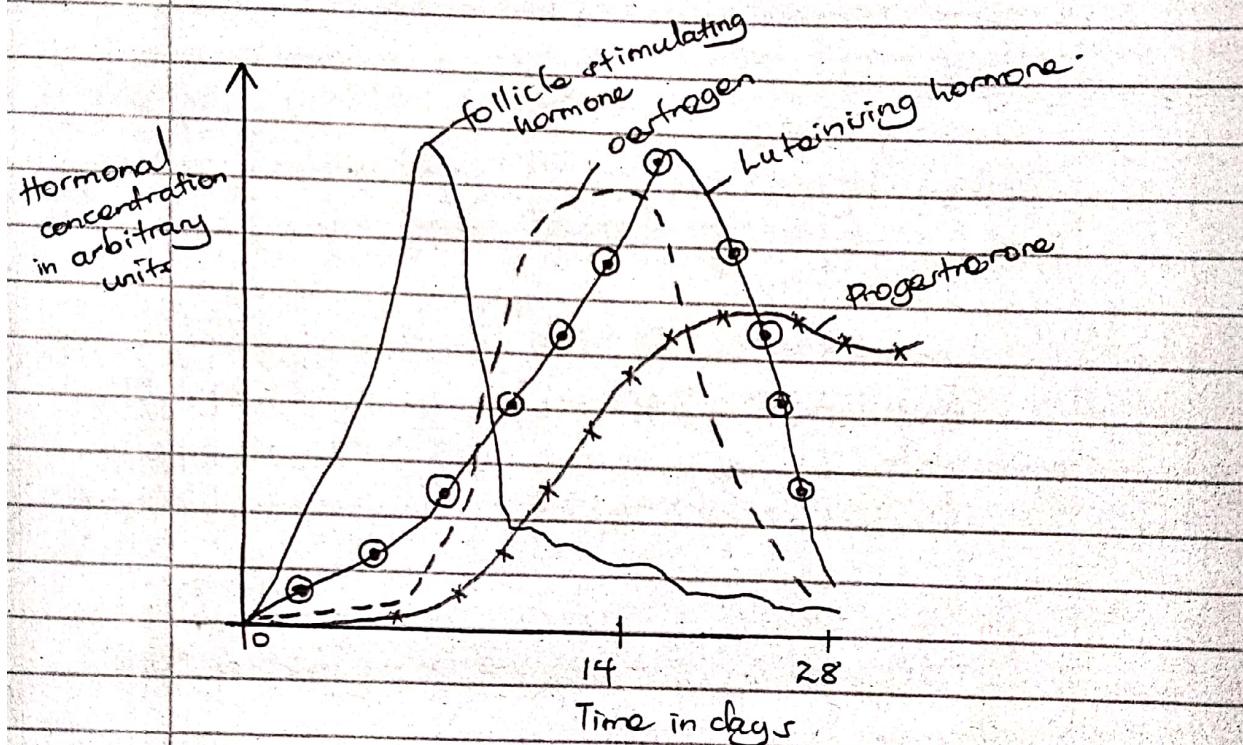
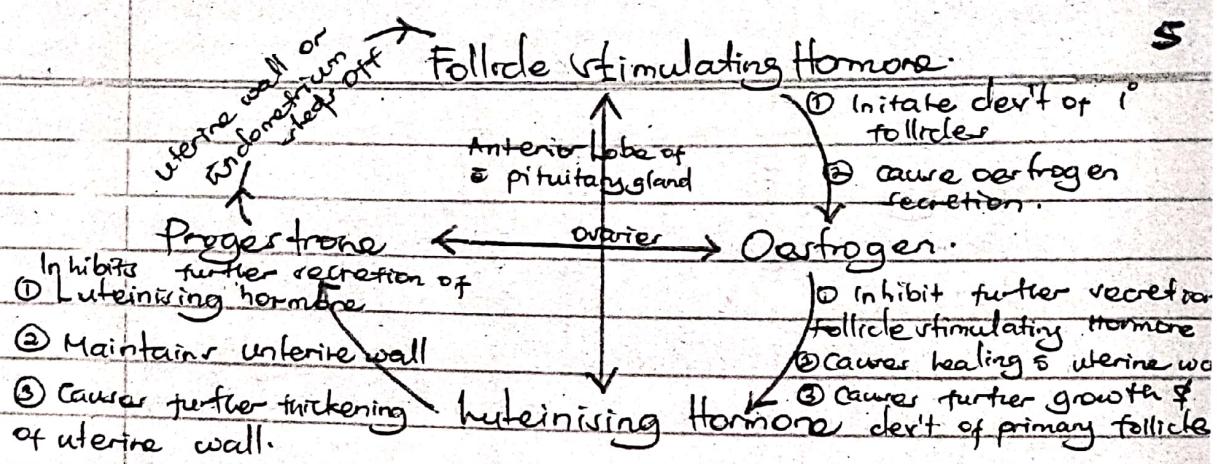
- ✓ Causes ovulation:

Dfn. Ovulation: is the release of ovum from ovary to oviduct.

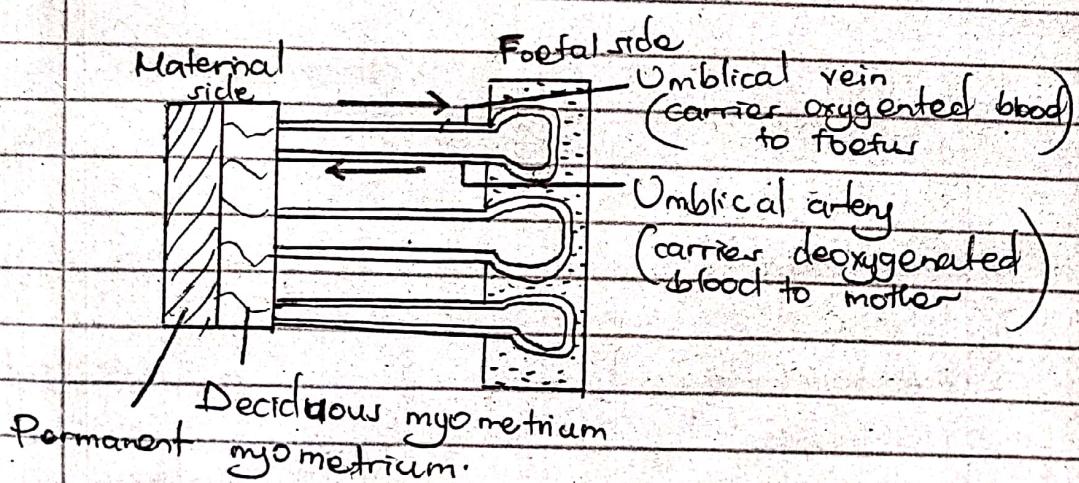
- ✓ Causes ripening of the yellow body / corpus luteum.
- ✓ Causes secretion of progesterone.

4. Progesterone

- ✓ Maintains the uterine wall awaiting pregnancy.
- ✓ It inhibits further secretion of Luteinising hormone.
- ✓ Causes further thickening of uterine wall.



THE PLACENTA:



Functions of the placenta.

1. Provides nutrients to foetus.
2. There is gaseous exchange with oxygen provision to foetus and carrying away carbon dioxide.
3. Transports away excretory waste products to the mother from foetus.

4. Prevents entry of harmful chemicals and disease causing agents from reaching the foetus.
5. Differentiates maternal ^{blood} pressure from foetal blood pressure.
6. Produces hormones which maintain pregnancy such as Human Chorionic Gonadotrophin Hormone (HCG) placenta progesterone and placental oestrogen.

TWINS

Defn: This is giving birth to two babies at the same time.

Types of twins (two):

(a) Identical twins:

A sperm fertilizes an ovum and the zygote splits into two and implants differently.

Identical twins look alike and are of similar sex.

(b) Fraternal / Non-Identical twins:

Two sperms fertilize 2 eggs and the two zygotes implant differently.

Fraternal twins may be of different sexes.

FAMILY PLANNING & BIRTH CONTROL

METHODS:

Natural

- ✓ Safe days
- ✓ Coitus interruptus / Withdrawal method
- ✓ Breast feeding
- ✓ Abstinence

Artificial

- ✓ Condom use
- ✓ Pills
- ✓ IUD (Intra Uterine Device)
- ✓ Implant
- ✓ Vasectomy (males)
- ✓ Tubal ligation (females)
- ✓ G.D.C.

INFERTILITY:

Afn: Is a condition in which an individual fails to impregnate or become pregnant with frequent sexual intercourse.

In males

- ✓ Impotence
- ✓ Erectile dysfunction
- ✓ Auto immunity
- ✓ Non-production of sperm
- ✓ Low sperm count.

In females

- ✓ Hormonal imbalance
- ✓ Non-production of ova
- ✓ Blocked oviduct
- ✓ Injured uterus
- ✓ Vaginal acidity.

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