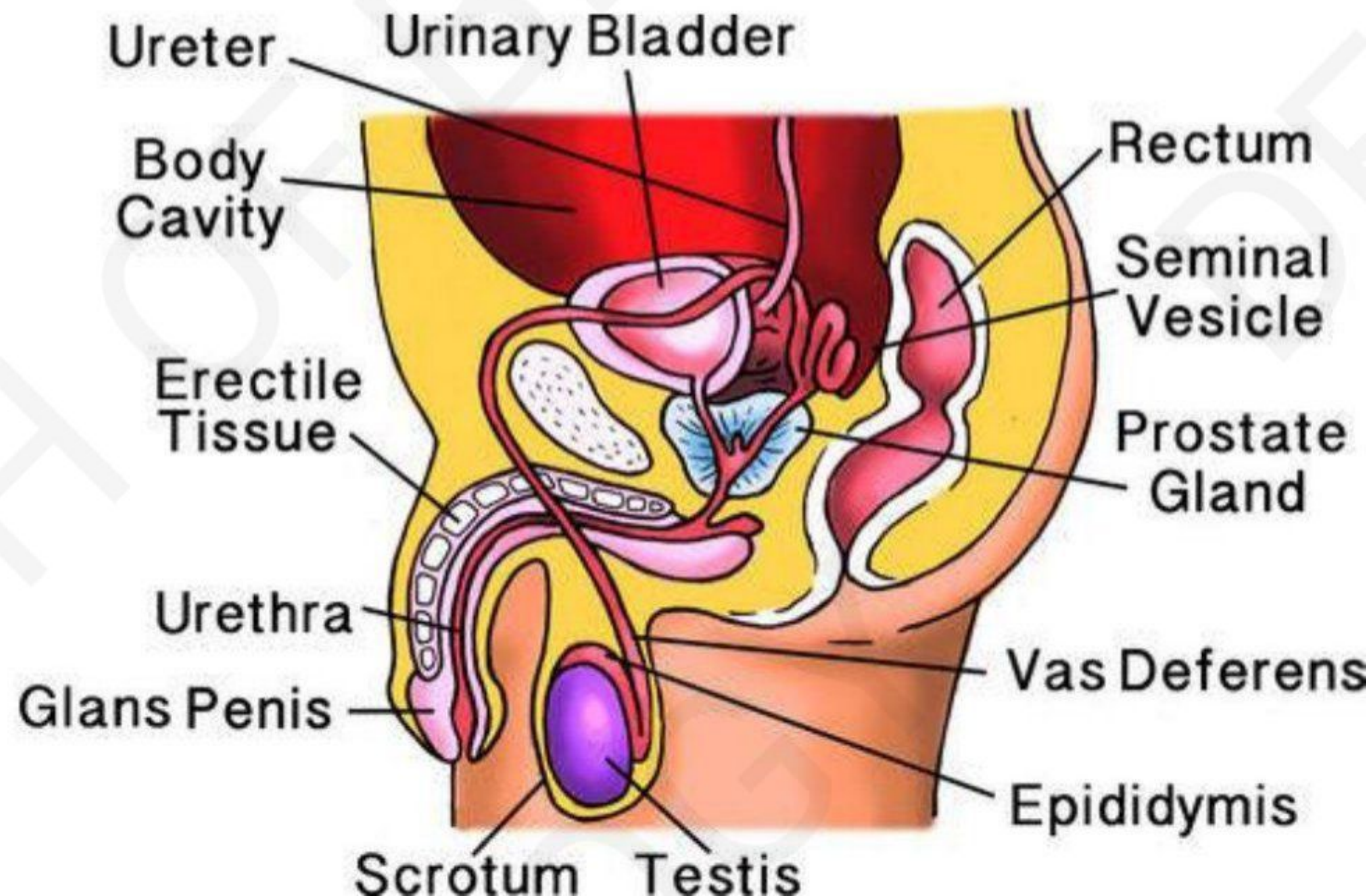


# MALE REPRODUCTIVE SYSTEM

DEPTH OF BIOLOGY

- Situated in pelvic girdle
- Includes testes, external genitalia, accessory ducts and glands





- Testes are present in scrotum sac (located outside the body) because sperm formation requires 2-3 degree lower temperature than the body
- Length= 4-5 cm
- Width= 2-3 cm
- Each testes has 250 compartement, covered by dense covering
- Each compartment has highly coiled 3 seminiferous tubules

DEPTH OF BIOLOGY



- **Seminiferous tubules are lined by 2 type of cells**

- **INTERSTITIAL SPACE:**

**Contains small blood vessels and interstitial/ leydig cells**

- **Synthesise and secrete**

**Testicular hormone called androgen**

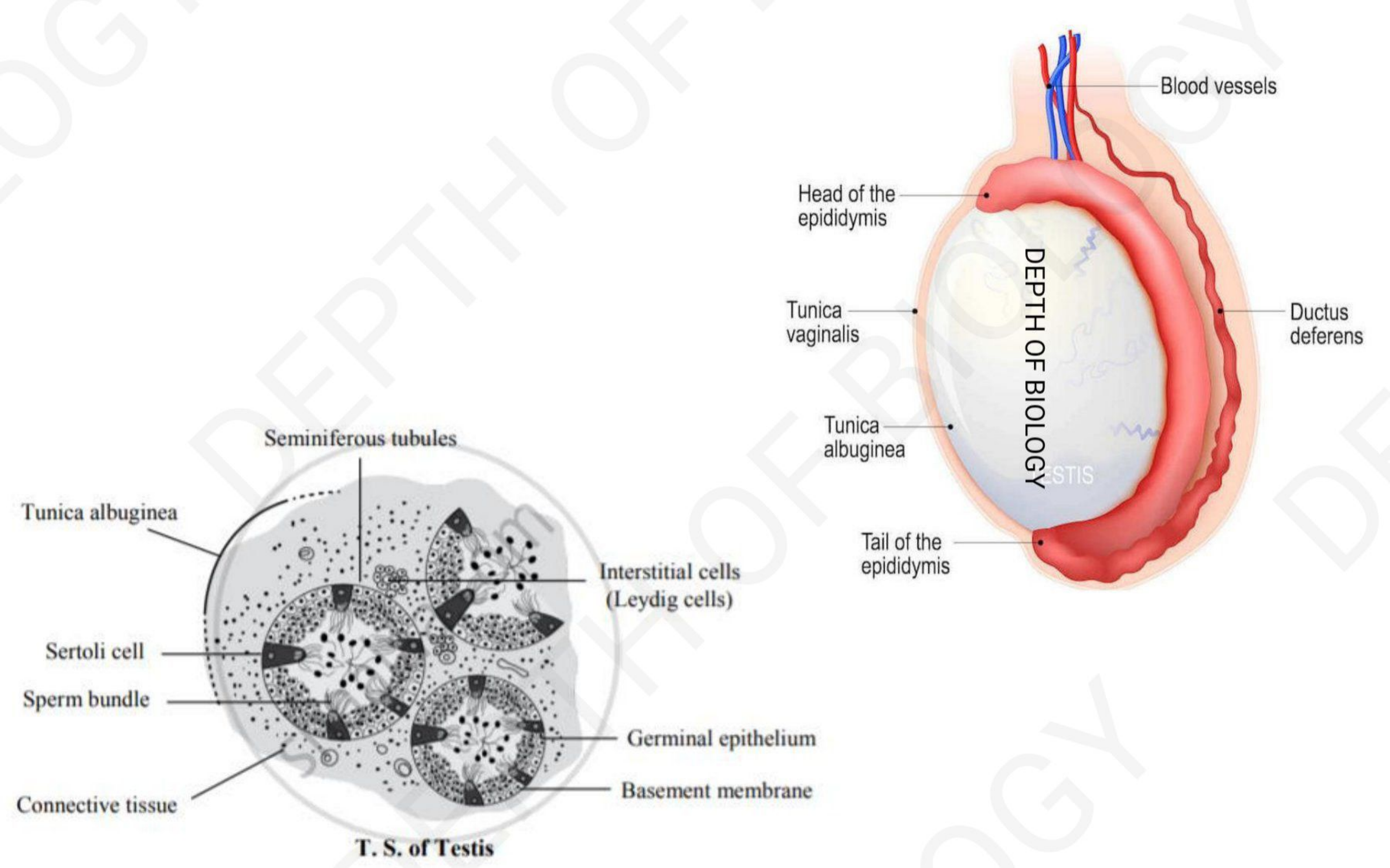
- **Immunological competent cells are also present**

```
graph TD; A[• Seminiferous tubules are lined by 2 type of cells] --> B[Male germ cell]; A --> C[Sertoli cells/nurse cell];
```

**Male germ cell**  
Perform  
spermatogenesis  
DEPTH OF BIOLOGY

**Sertoli cells/  
nurse cell**  
Provide  
nourishment







# Pathway of sperm

DEPTH OF BIOLOGY

**Seminiferous tubule**

**Tubula recti**

**Rete testes**

**Vasa efferentia**

**Epididymus**

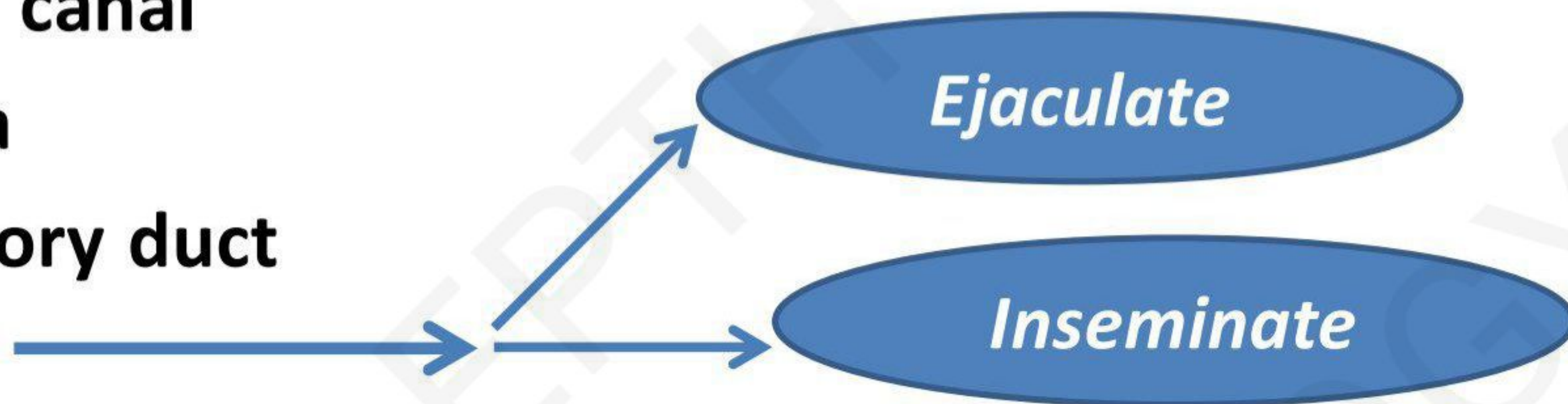
**Vasa deferens**

**Inguinal canal**

**Ampulla**

**Ejaculatory duct**

**Urethra**





# MALE ACCESSORY DUCTS

- It includes
  1. Rete testes
  2. Vasa efferentia
  3. Epididymus
  4. Vasa deferens

## **ACCESSORY GLANDS**

DEPTH OF BIOLOGY

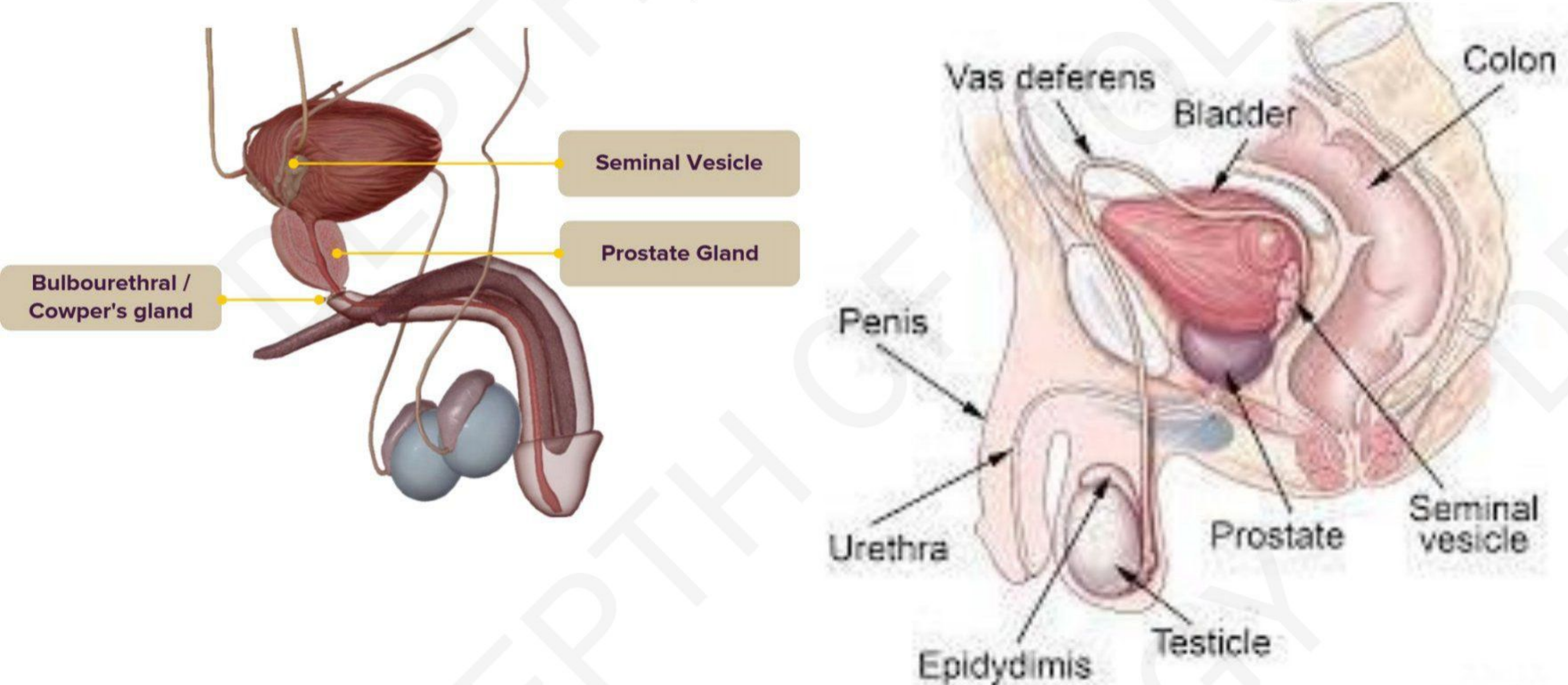
- 1. Paired seminal vesicle**
- 2. Single prostate gland**
- 3. Paired bulbo-urethral gland**



**Secretion of all three glands constitutes seminal plasma or semen .**

DEPTH OF BIOLOGY

**Semen is rich in fructose ,  $\text{Ca}^{2+}$  and certain enzymes.**





# MALE EXTERNAL GENITALIA

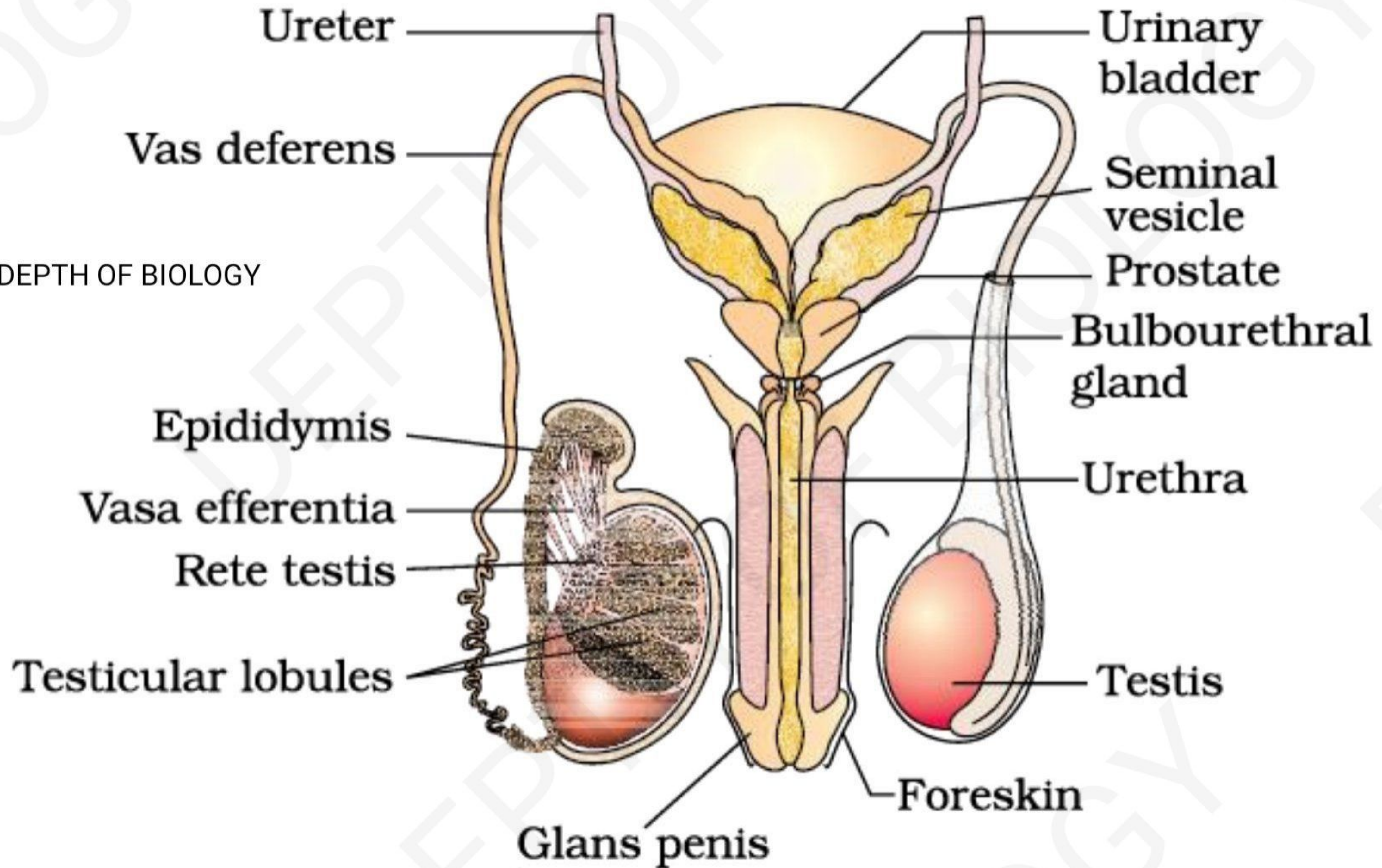
DEPTH OF BIOLOGY

**PENIS**- made up of specialised tissue that helps in erection to facilitate insemination

enlarged end of penis – **GLANS PENIS**

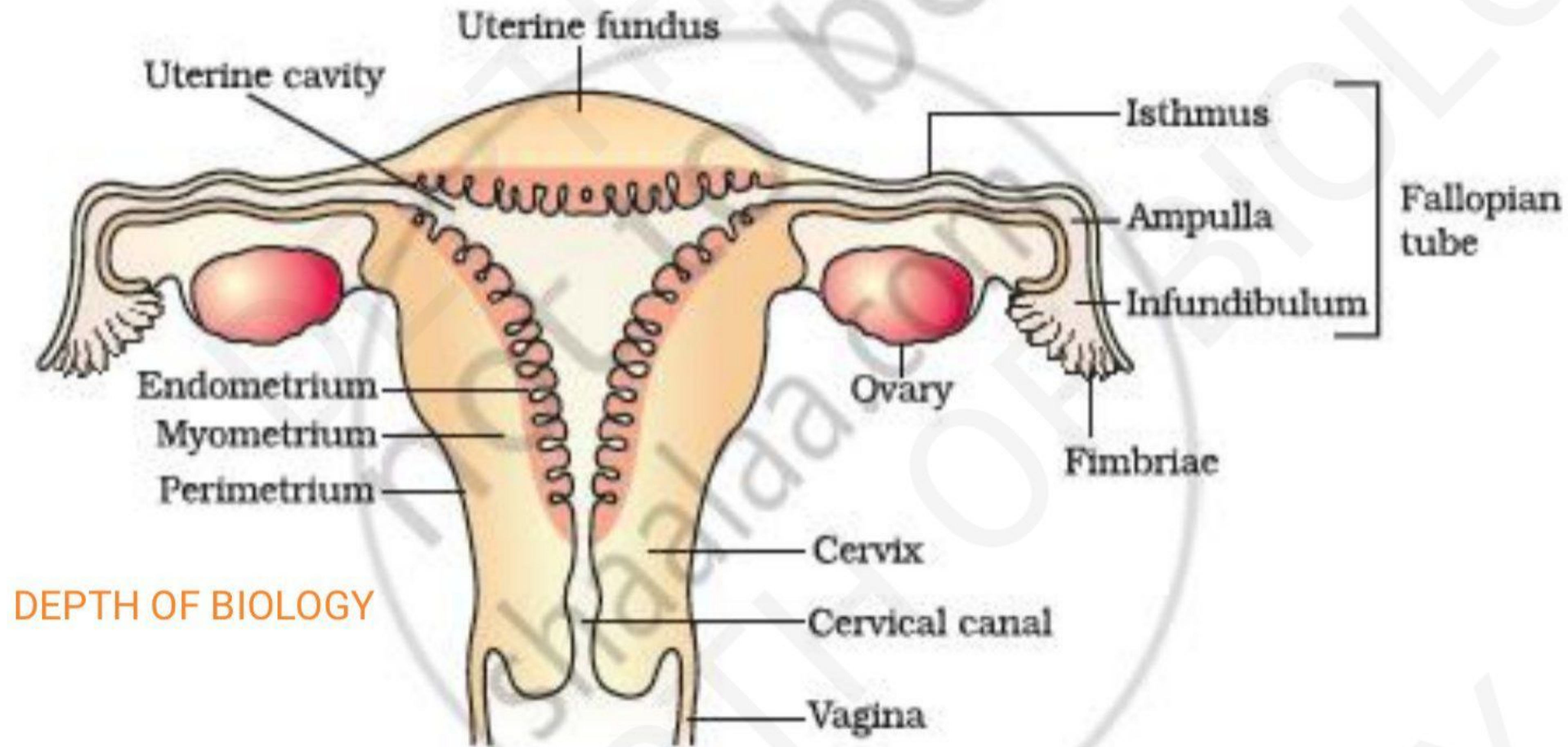
Covered by foreskin







# FEMALE REPRODODUCTIVE SYSTEM



DEPTH OF BIOLOGY

Diagrammatic sectional view of the female reproductive system



- **A pair of ovaries**
- **A pair of oviduct/fallopian tube**
- **Uterus, cervix, vagina and external genitalia**
- **Paired mammary glands**

**ALL these are to structurally and functionally support the process of ovulation, fertilization, pregnancy, birth & child care**



# OVARY

DEPTH OF BIOLOGY

- Present on each side of lower abdomen, connected to the pelvic wall
  - Covered by thin epithelium encloses ovarian stroma
  - Releases egg every month
  - Fimbriae (finger like projections) catch the egg and facilitate its transfer to further part of fallopian tube
- \*\* Females should not smoke.....because the ciliary movements in fallopian tube gets disturbed and hence egg may not be transported to site of fertilization which may lead to ectopic pregnancy**



# UTERUS/WOMB

- Its shape is like an inverted pear
- 3 walls are present -**1. Endometrium:** undergoes cyclic changes in menstrual cycle
- **2. Myometrium:** exhibit strong contraction during parturation
- **3. Perimetrium :** thin external lining

DEPTH OF BIOLOGY



# ACCESSORY DUCTS

- **10-12 cm long and comprises 3 main parts**

DEPTH OF BIOLOGY

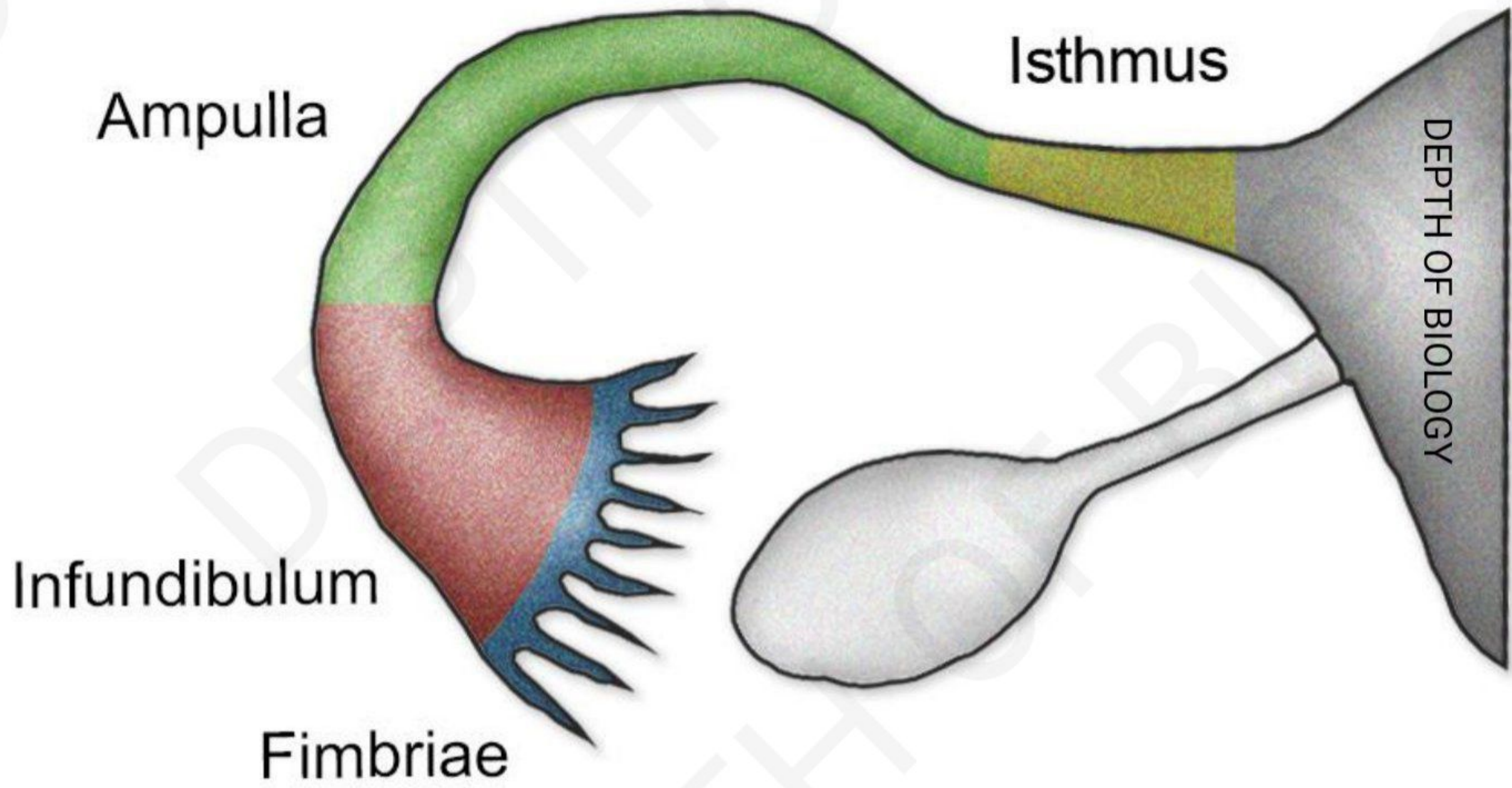
The part nearest to ovary is **INFUNDIBULUM**

Next is the **AMPULLA**

The part near uterus is the **ISTHMUS**

Other accessory parts are uterus and vagina

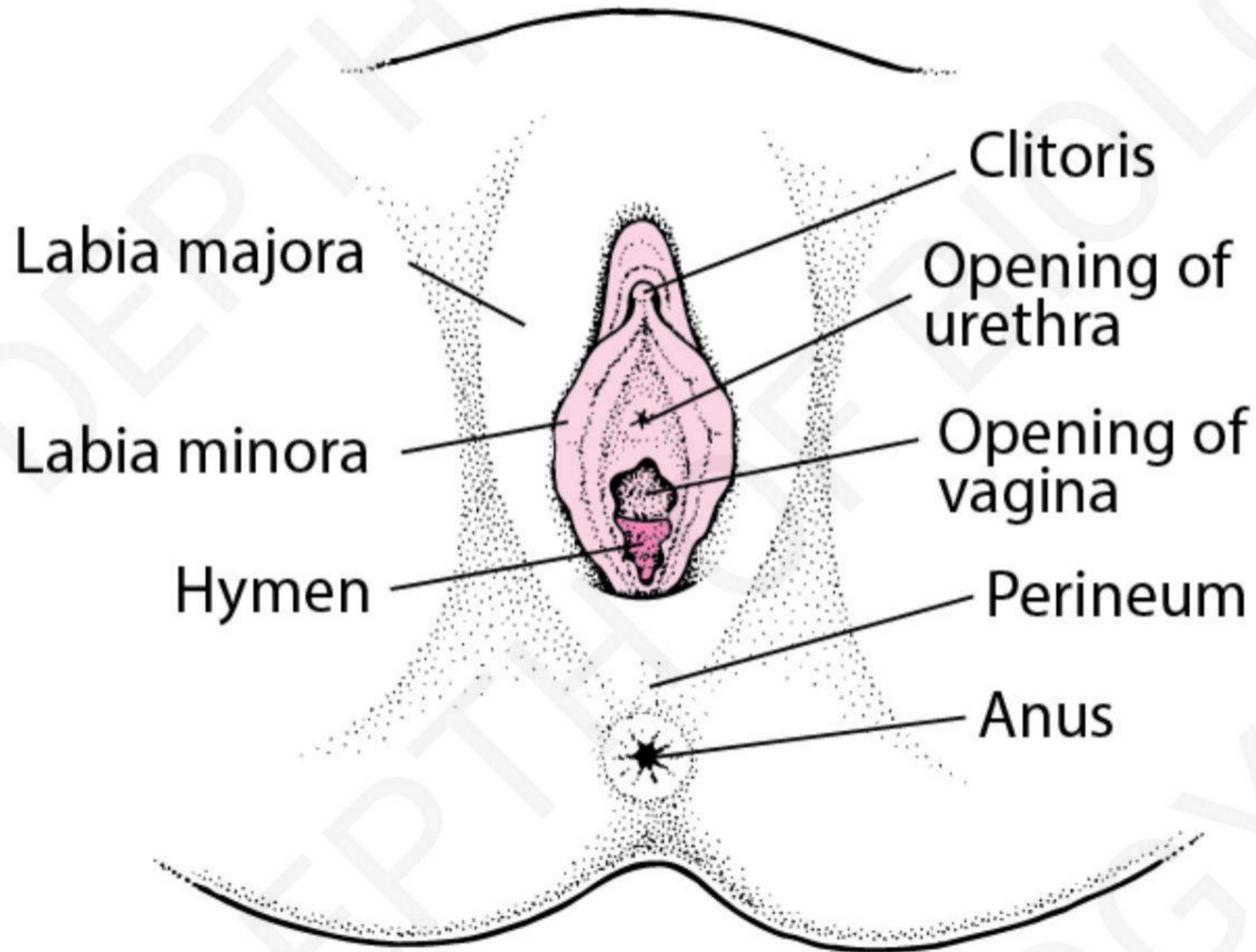






# EXTERNAL GENITALIA

DEPTH OF BIOLOGY





- It comprises of 5 parts
    1. Mons pubis-cushion of fatty tissue covered by skin and pubic hair
    2. Labia minora-pair of folded tissue under majora
    3. Labia majora-fleshy fold tissue surround vaginal opening
    4. Hymen- covers the vaginal opening
    5. Clitoris-tiny finger like structure
- \*not a true indicator of virginity**

DEPTH OF BIOLOGY



# MAMMARY GLANDS

DEPTH OF BIOLOGY

- **Functional mammary gland is the characteristic of all females**
- **It contains glandular tissue- 15 to 20 in each lobe**
- **Glandular tissue contains cluster of cell called alveoli (secrete milk)**
- **Milk is stored in lumen and transferred with the help of tubules and ducta**



# LACTATIONAL PATHWAY

DEPTH OF BIOLOGY

- **Lumen**
  - **Mammary tubule**
  - **Mammary duct**
  - **Ampulla**
  - **Lactiferous duct**
- Milk sucked out**