

# SEM IV ZOOA

## CC8 UNIT 5: URINOGENITAL SYSTEM

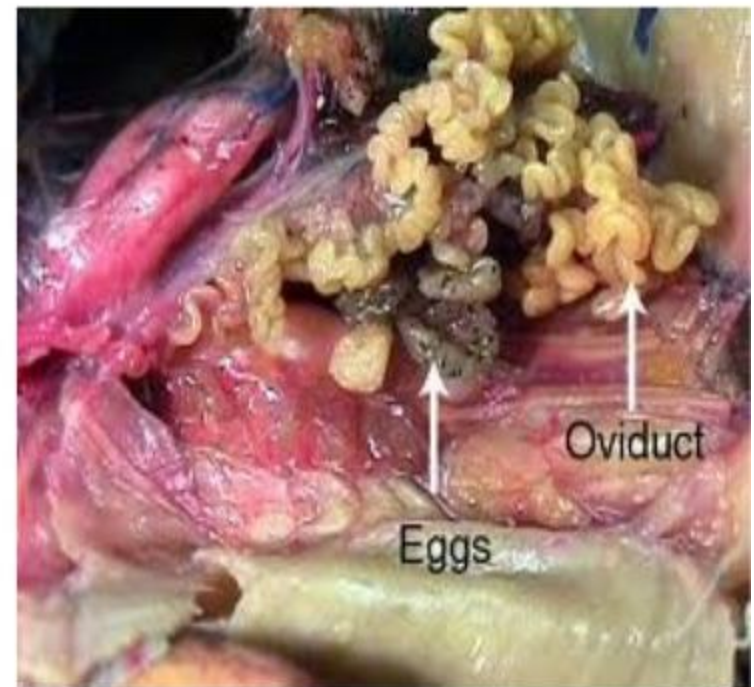
(Part - 6)

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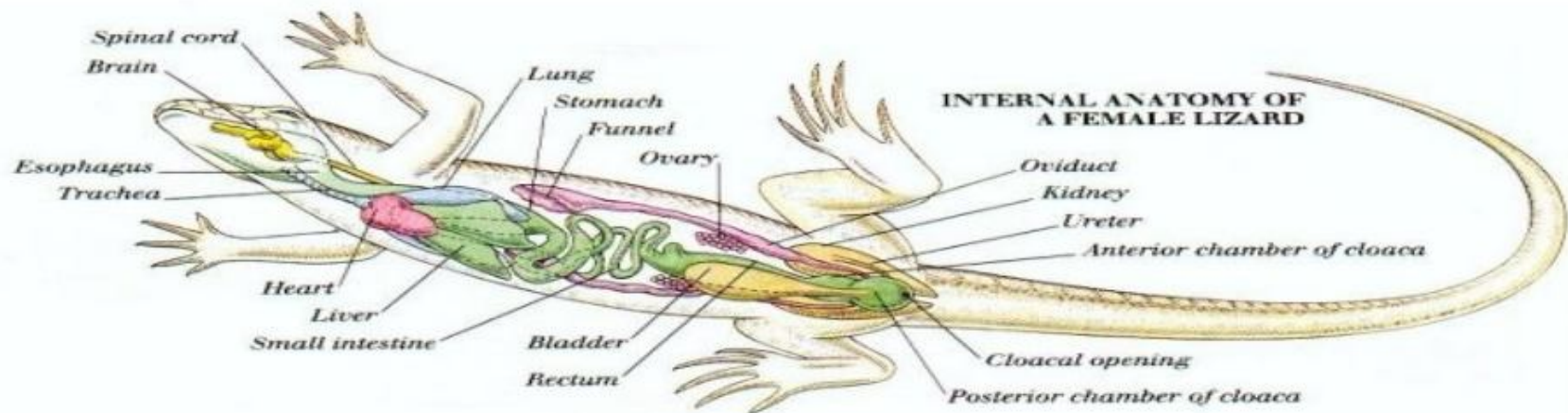
# OVIDUCTS: AMPHIBIANS

- Paired, elongated tubes with ostia.
- Enlarged posteriorly to form a short **uterus** or **uterine enlargement** .
- **Uterus** opens independently into the cloaca.
- **Uteri** in most amphibians serve for temporary storage for ova.
- Lining of the oviducts have glands that secrete jellylike material to envelop the passing eggs.
- Fertilization is external
- Male grasp the female in **amplexus**.



# OVIDUCTS: REPTILES

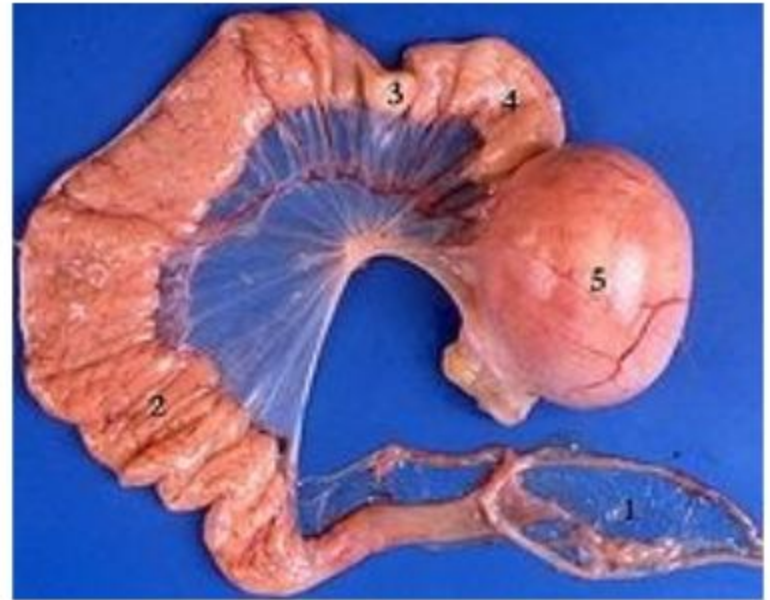
- Open into the coelom through slit-like **ostia**.
- Turtles and crocodilians have glands in the upper part that secrete **albumen**.
- **Shell** is deposited in the uterus or shell gland in snakes and lizards.
- Uteri enter cloaca independently.
- Fertilization occurs in the upper part.
- Some snakes and lizards are oviparous.
- Other reptiles are ovoviviparous.





# OVIDUCTS: BIRDS

- Most except birds of prey have only the *left oviduct* that is functional.
- Long, coiled, and consists of several regions.
- **Ostium** is bordered by fimbriae.
- **Albumen** is secreted by the glandular portion.
- **Isthmus** is found posterior to the glandular portion where inner and outer shell membranes are deposited around the albumen.

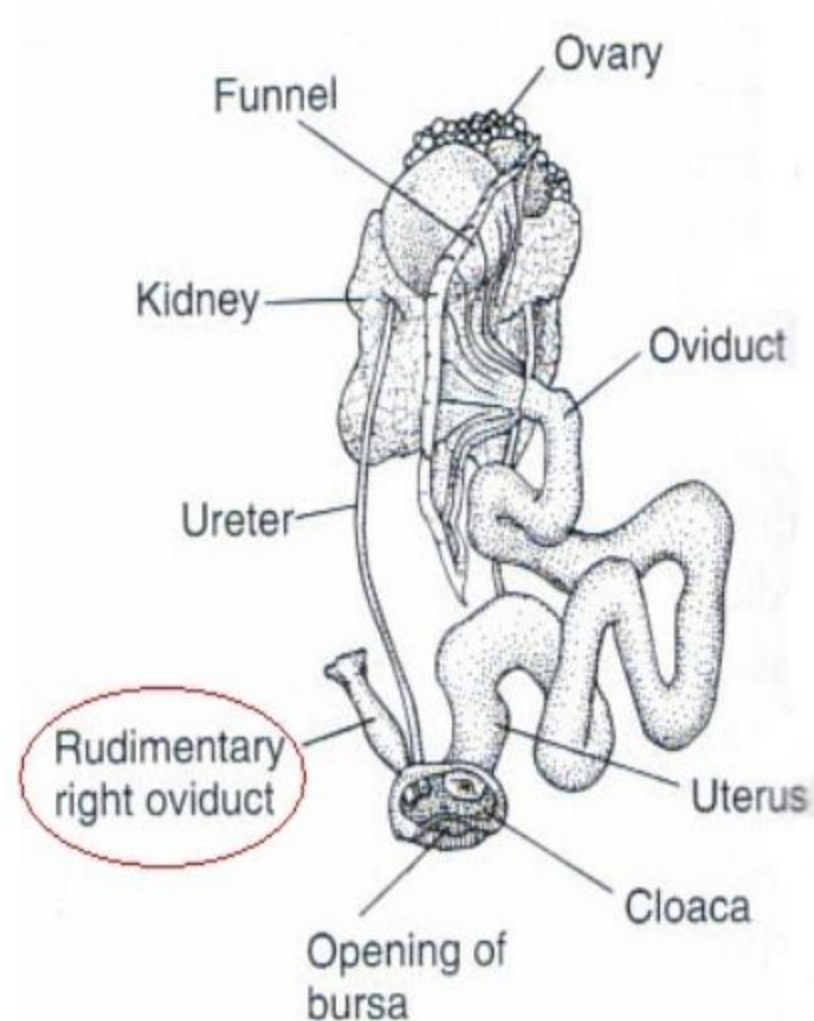


## Oviduct of a laying hen

- 1 Infundibulum,
- 2 Magnum,
- 3 Isthmus,
- 4 Shell Gland,
- 5 Uterus with egg  
inside

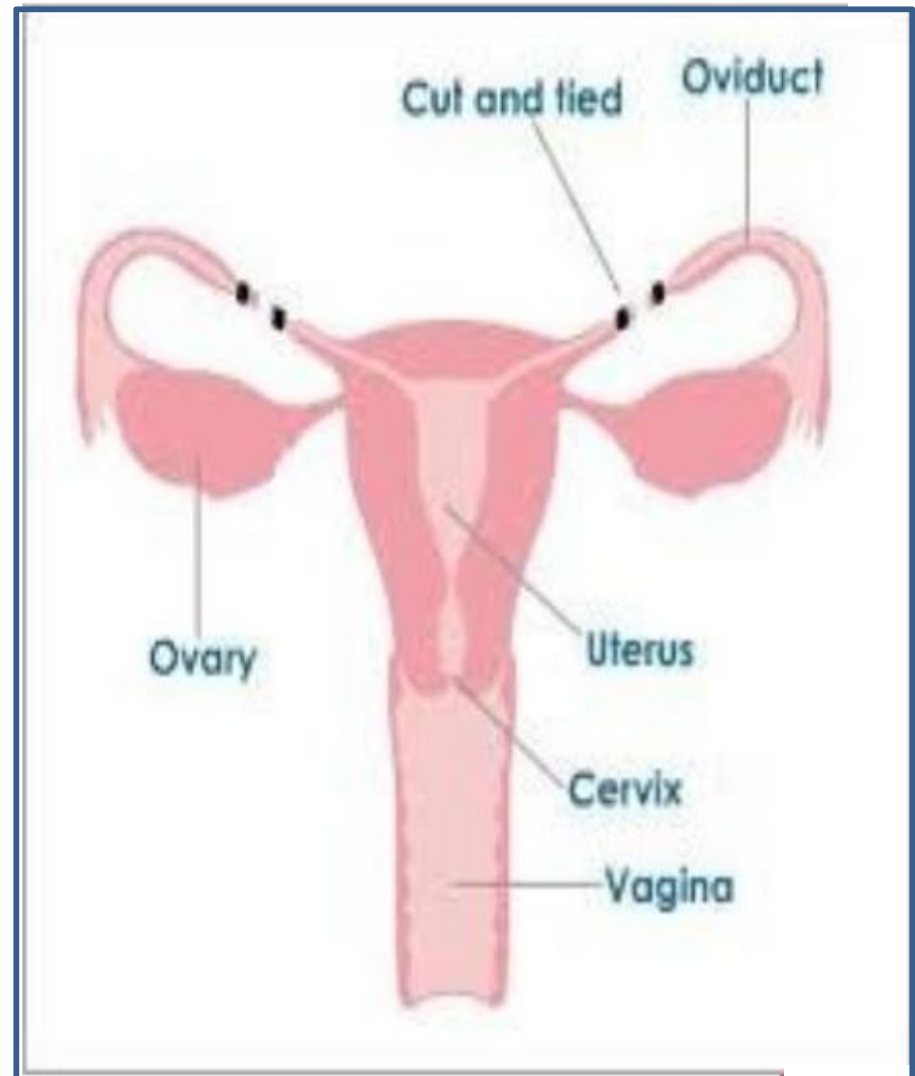
# OVIDUCTS: BIRDS

- **Uterus or shell gland** is where the hard calcareous shell of the egg is formed.
- Uterus opens into cloaca.
- Fertilization is internal and accomplished by cloacal kiss.



# OVIDUCTS: MAMMALS

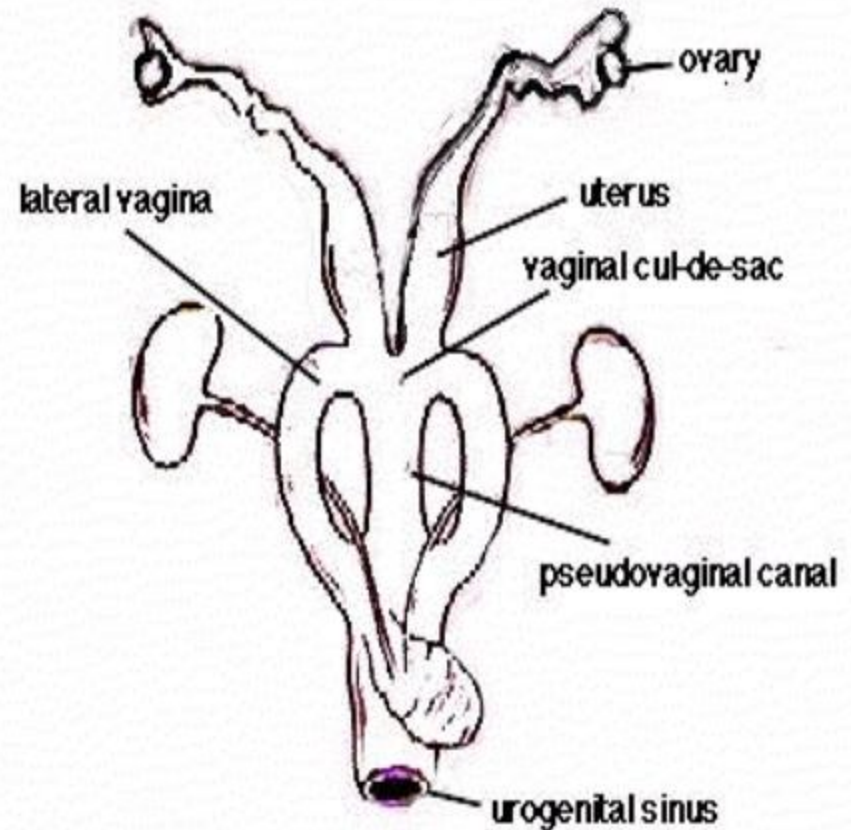
- Paired, with various degrees of fusion between the two sides.
- Three distinct regions in some: narrow **oviduct** or **fallopian tube**, the expanded **uterus**, and a terminal **vagina**.
- **Cervix** is the narrow lower part of the uterus which leads into the vagina.
- Opening of the uterus into the vagina is called ***os uteri***





## OVIDUCTS: MAMMALS

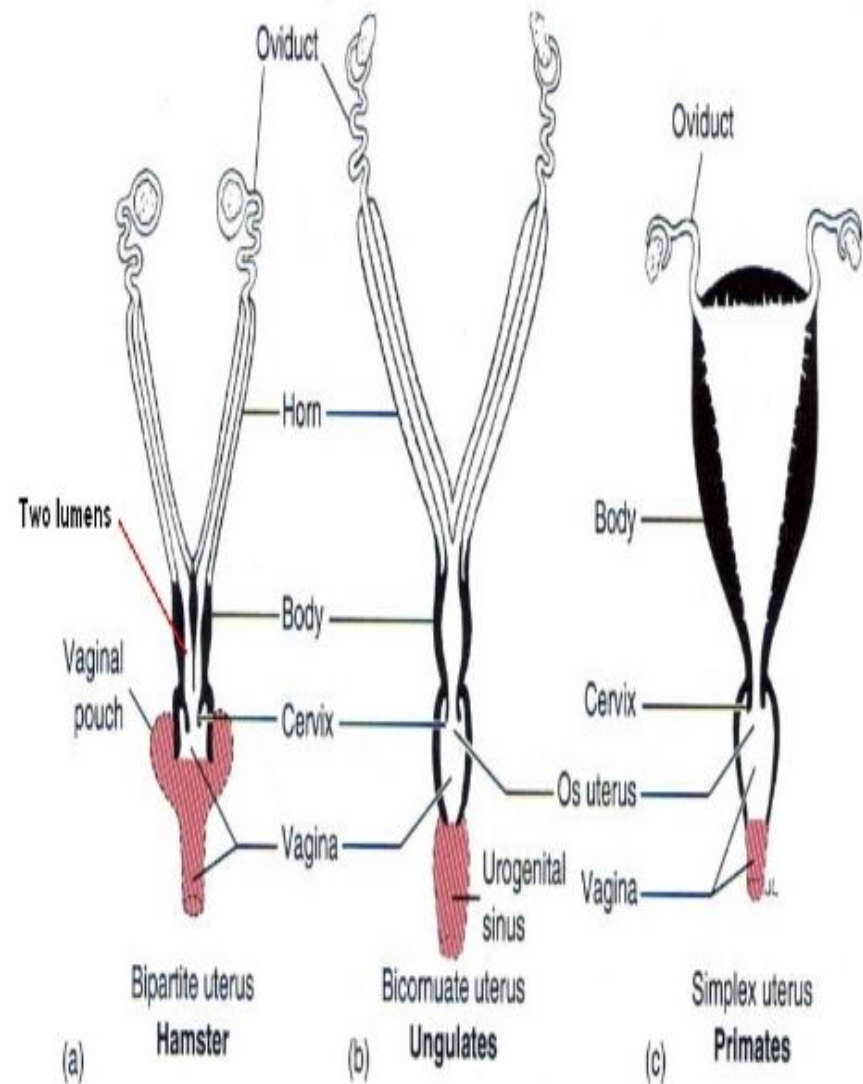
- Marsupials have paired *duplex uteri* and paired vaginae.



marsupial system, kangaroo form with fused vaginal culs-de-sac and open pseudovaginal canal

# OVIDUCTS: MAMMALS

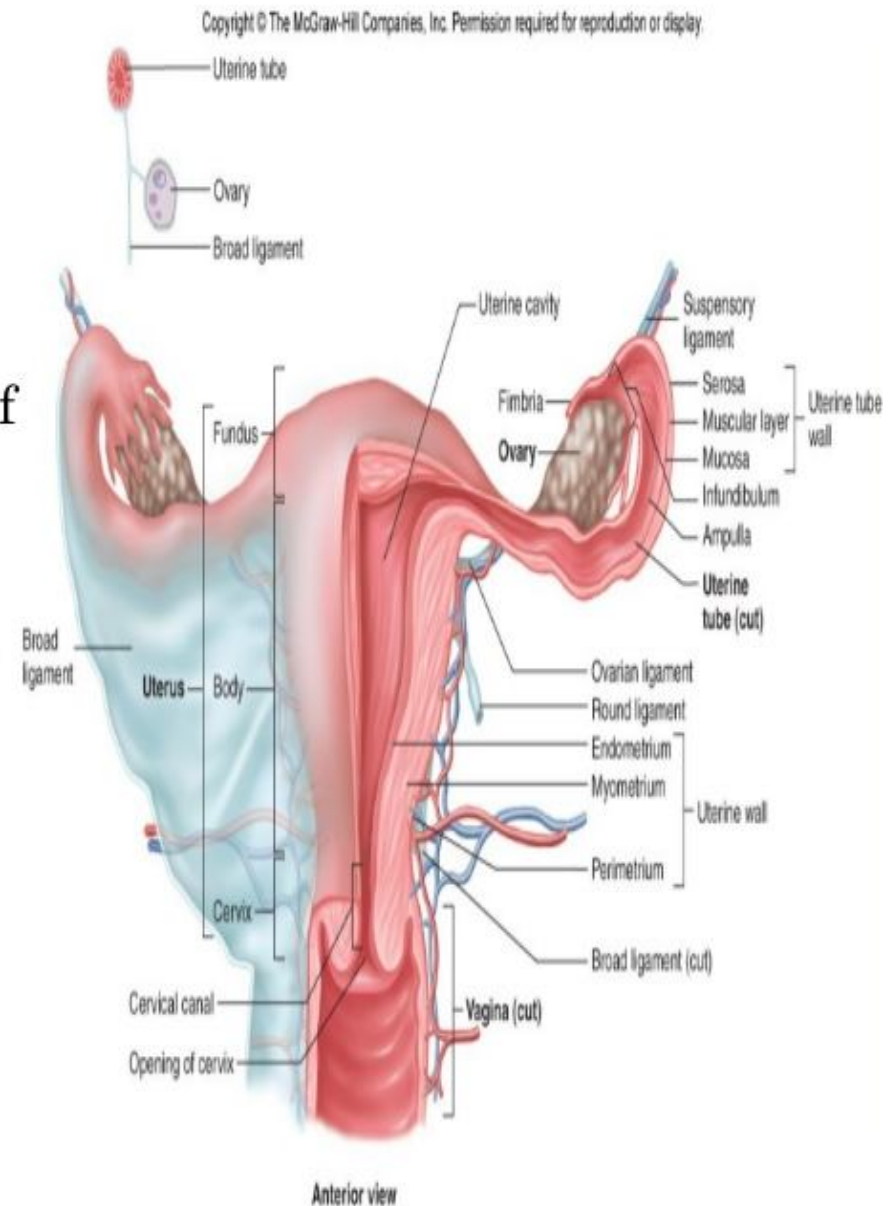
- Other placental mammals have horns of the uterus, uterine body, and a single vagina.
- Uterus are classified:
  1. **Bipartite** when there are two complete lumens within the body of the uterus.
  2. **Bicornuate** uterus has a single lumen within the body and with two horns
  3. **Simplex**, has no uterine horns, and the vagina opens directly into the body.





# OVIDUCTS: MAMMALS

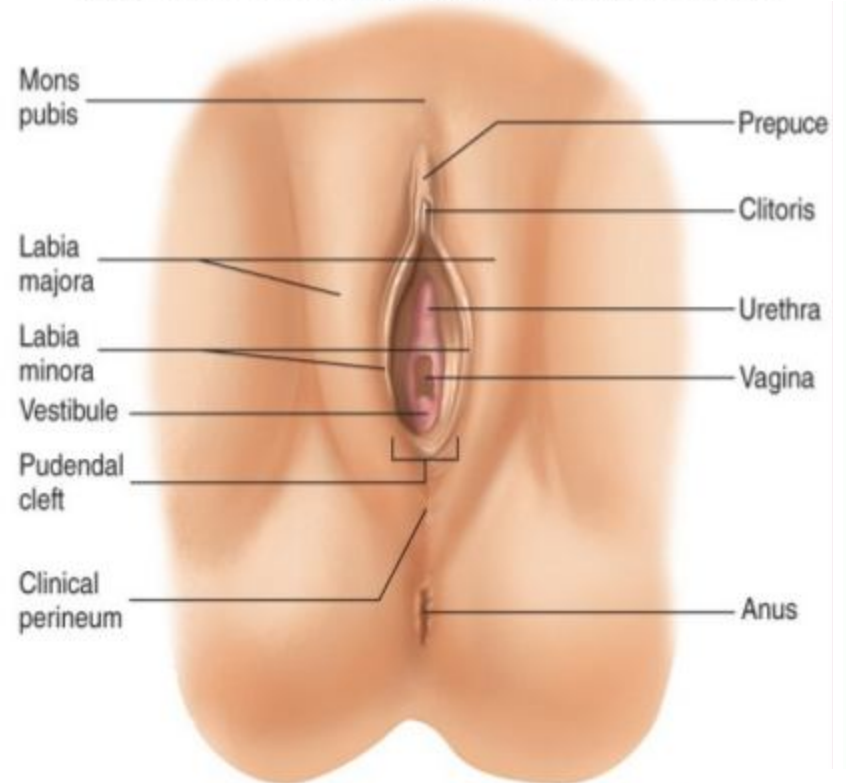
- Body of simplex uterus is where the fetus become implanted.
- Uterine wall is made up of:
  1. **Endometrium** – uterine lining which becomes highly vascular under the stimulus of hormones.
  2. **Myometrium** – thick muscular layer
  3. **Visceral peritoneum** – thin outer serous membrane.
  - Menstruation results from degeneration or sloughing of the uterine lining followed by hemorrhage from blood vessels.
  - Estrogen and progesterone control these endometrial changes.

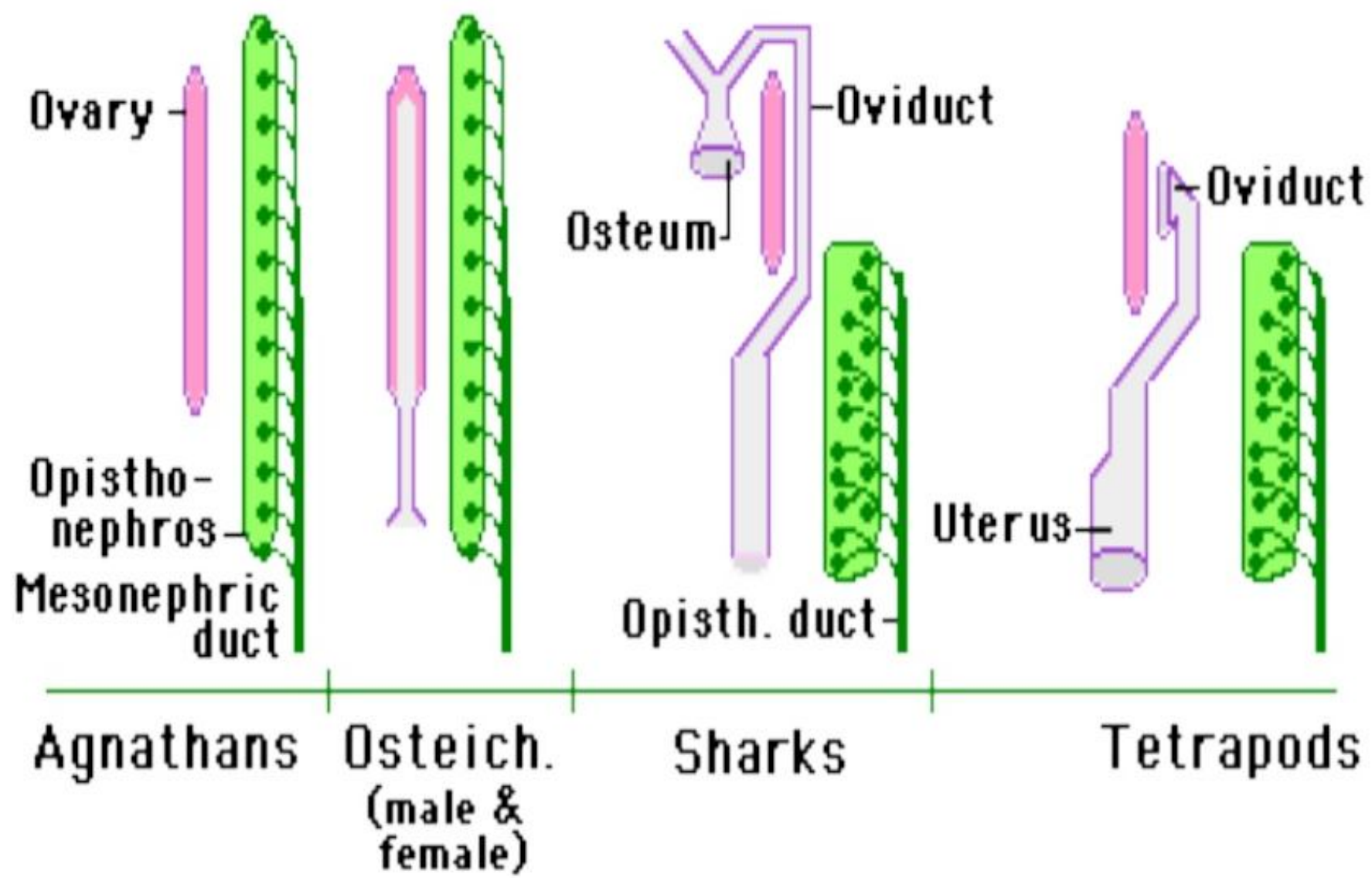


# OVIDUCTS: MAMMALS

- **Vagina** is the fused terminal portion of the mullerian ducts.
- It opens into a **urogenital sinus**.
- Higher primates' vagina extends almost to the exterior, opening into a shallow **vestibule**.
- Lining of vagina is cornified for reception of the penis.
- Marsupials have a median vagina which continue as paired lateral vaginae.
- Penis of male marsupials is forked at the tip.

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**Female Urogenital Relations**



## **REFERENCES:**

**Kent, George C & Carr, Robert K. Comparative Anatomy of the Vertebrates. *Urinogenital System.***