



RAMA UNIVERSITY

www.ramauniversity.ac.in

FACULTY OF NURSING

FEMALE REPRODUCTIVE SYSTEM

**BY....
MRS.JASMI MANU
ASSO .PROFESSOR
DEPT OF OBG
RAMA COLLEGE OF NURSING**

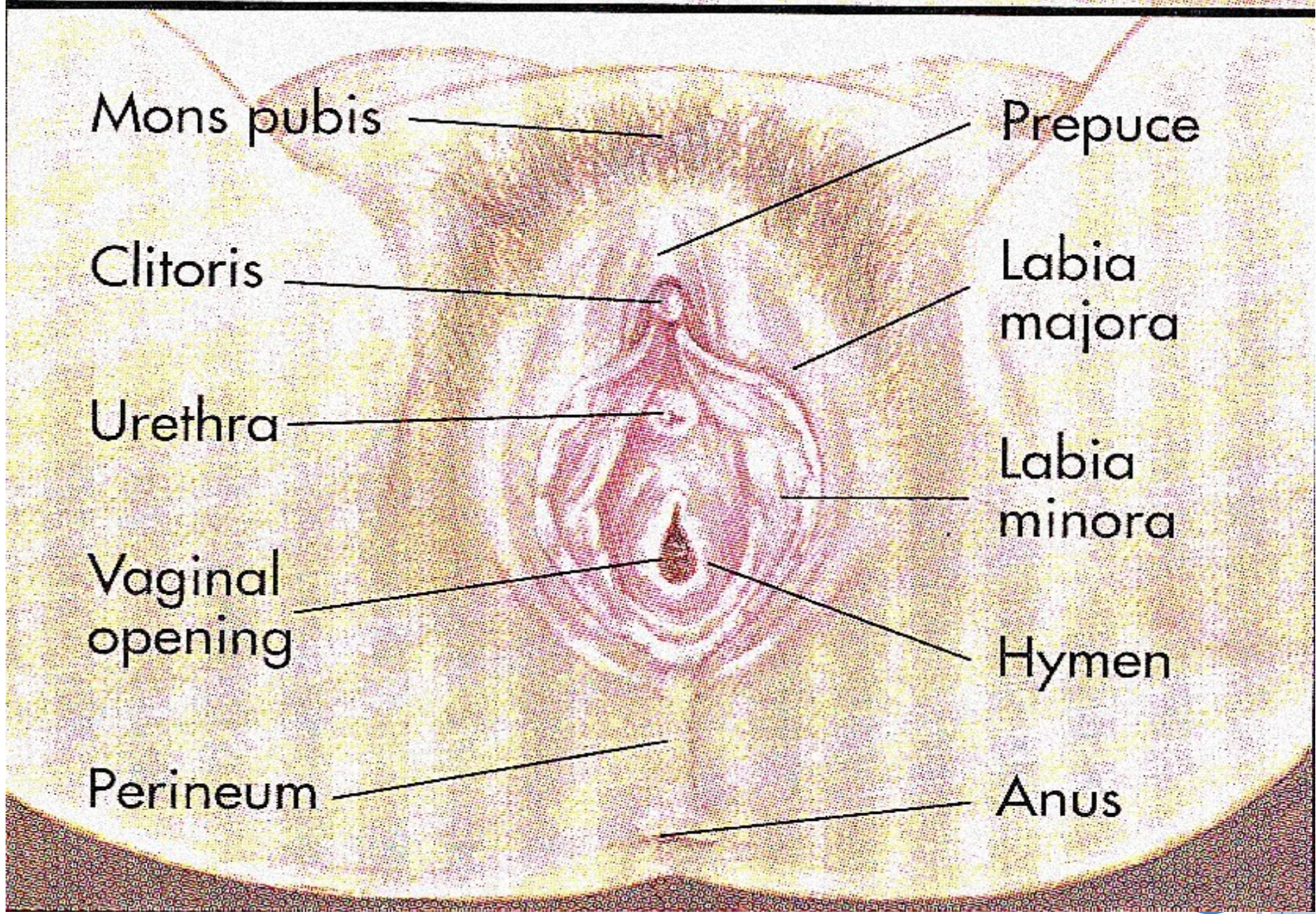
CLASSIFICATION

Female reproductive organs are divided into -
external and

- internal organs
- Accessory reproductive organs

EXTERNAL GENTILIA

- The vulva refers to those parts that are outwardly visible
- The vulva includes:
 - Mons pubis
 - Labia majora
 - Labia minora
 - Clitoris
 - Urethral opening
 - Vaginal opening
 - The vestibule
 - Hymen
 - Bartholin glands
 - Perineum



Mons pubis

Prepuce

Clitoris

Labia majora

Urethra

Labia minora

Vaginal opening

Hymen

Perineum

Anus

MONS PUBIS

- The triangular mound of fatty tissue that covers the pubic bone
- It protects the pubic symphysis
- During adolescence sex hormones trigger the growth of pubic hair on the mons pubis
- Hair varies in coarseness curliness, amount, color and thickness

LABIA MAJORA

- Referred to as the *outer lips*
- They have a darker pigmentation
- Composed of skin, fibrous tissue and fat and contains large numbers of sebaceous glands

The Labia Majora:

- Protect the introitus and urethral openings
- Are covered with hair and sebaceous glands
- Tend to be smooth, moist, and hairless
- Become flaccid with age and after childbirth

LABIA MINORA

- Referred to as the “*inner lips*”
- Made up of erectile, connective tissue that darkens and swells during sexual arousal
- Located inside the labia majora
- They are more sensitive and responsive to touch than the labia majora
- The labia minora tightens during intercourse
- The cleft between the labia minora is *vestibule*

CLITORIS

- Highly sensitive organ composed of nerves, blood vessels, and erectile tissue
- Located under the prepuce
- It is made up of a shaft and a glans
- Becomes engorged with blood during sexual stimulation
- Key to sexual pleasure for most women
- Urethral opening is located directly below clitoris

VAGINAL OPENING / INTROITUS

- Opening may be covered by a thin sheath called the *hymen*
- Using the presence of an intact hymen for determining virginity is erroneous
- Some women are born without hymens
- The hymen can be perforated by many different events

VESTIBULAR GLANDS

- Called as *bartholin glands*
- Are situated one each side near the vaginal opening
- They are about the size of a small pea and have ducts, opening into the vestibule.
- They secrete mucus that keeps the vulva moist.

BLOOD SUPPLY ,LYMPH DRAINAGE AND NERVE SUPPLY

-ARTERIAL SUPPLY:-

- From the internal pudental arteries
- External pudental arteries

• **VENOUS SUPPLY**

- Large plexus which eventually drains into the internal iliac veins

• **LYMPH DRAINAGE**

- Through the superficial inguinal nodes

• **NERVE SUPPLY**

- From pudental nerves

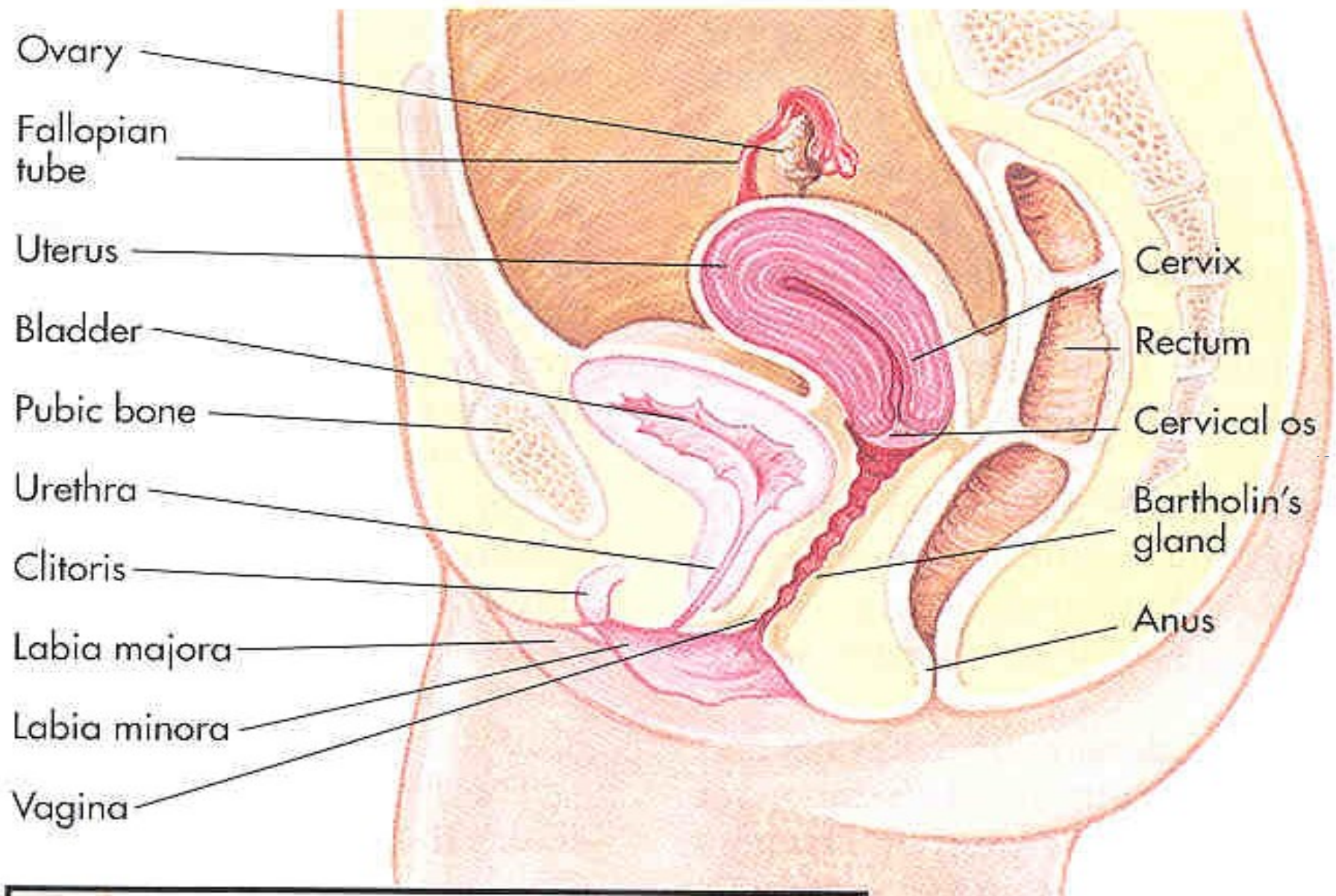
PERINEUM

- The muscle and tissue located between the vaginal opening and anal canal
- It supports and surrounds the lower parts of the urinary and digestive tracts
- The perineum contains an abundance of nerve endings that make it sensitive to touch
- It is roughly triangular and consist of connective tissue, muscle and fat
- An episiotomy is an incision of the perineum used during childbirth for widening the vaginal opening

INTERNAL GENITALIA

The internal genitalia consists of the:

- Vagina
- Uterus
- Fallopian Tubes
- Ovaries



VAGINA

The vagina connects the cervix to the external genitals

It is located between the bladder and rectum

Its functions :

As a passageway for the menstrual flow

For uterine secretions to pass down through the introitus

As the birth canal during labor

With the help of two Bartholin's glands becomes lubricated during SI

The diameter of this canal is about 2.5 cm

○ **Walls:-**

- anterior
- Posterior
- Two lateral walls

FOUR FORNICES:-

FORNICES are the clefts formed at the top of
vagina (vault)

STRUCTURE

- Mucous coat:- by stratified squamous epithelium without secreting glands
- Sub mucous layer:- by loose alveolar vascular tissues
- Muscular layer:- by circular and longitudinal muscles
- Fibrous coat from endo pelvic fascia and is highly vascular

VAGINAL SECRETION

- Ph from puberty to menopause is acidic with the presence of *doderlin's bacilli* which produce lactic acid
- Ranges from 4-5

BLOOD SUPPLY

○ ARTERIES

- Cervico vaginal branch of uterine artery
- Vaginal artery
- Middle rectal
- Internal pudental

○ VEINS

- Drain into internal iliac
- Internal pudental

NERVE SUPPLY

- By sympathetic and Para sympathetic from pelvic plexus
- Lower part is supplied by the pudental nerve

UTERUS

Commonly referred to as the womb

A hollow pyriform shaped muscular organ about the size of a clenched fist

It is made up of the endometrium, myometrium and perimetrium

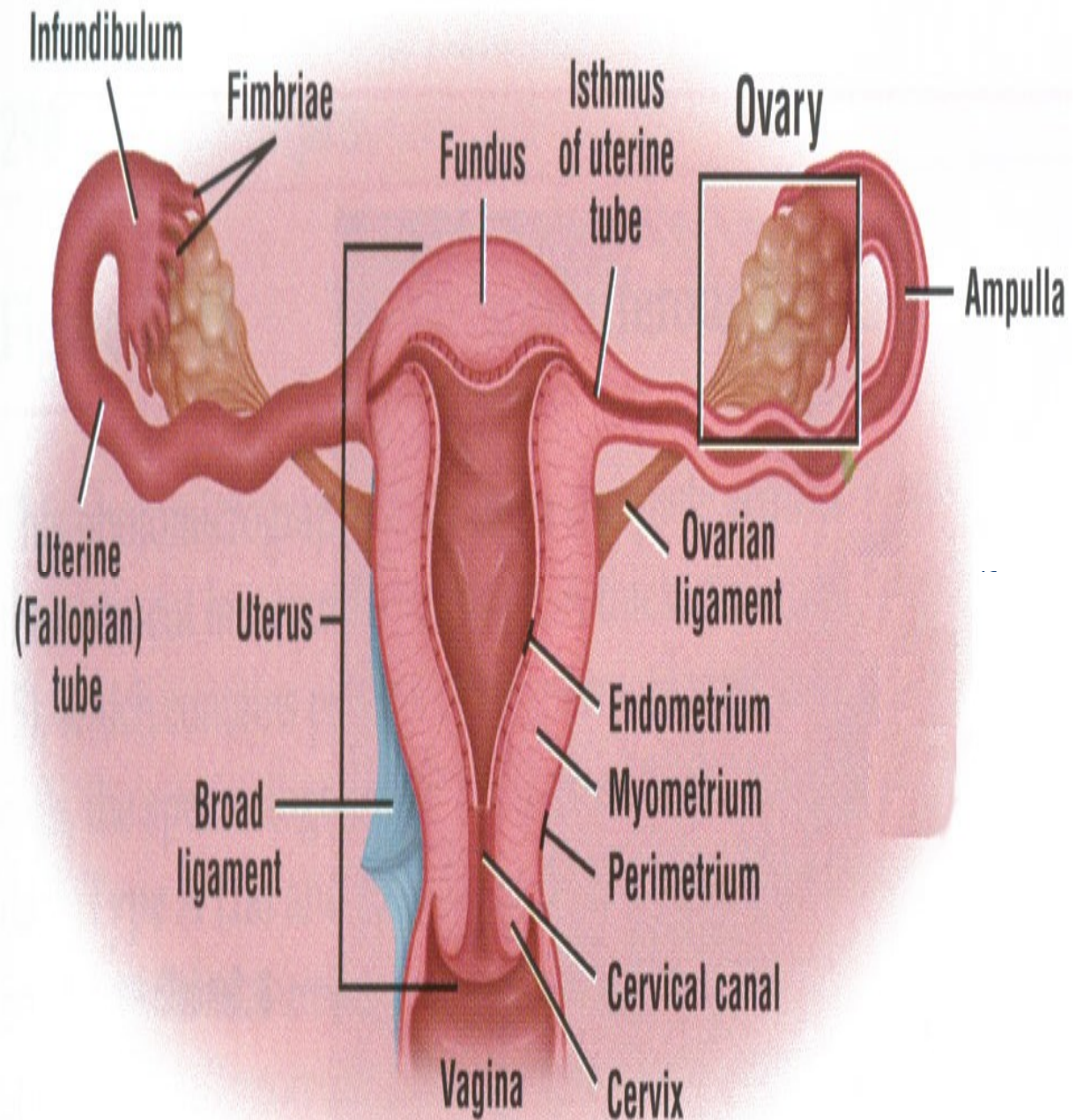
Consists of blood-enriched tissue that sloughs off each month during menstrual cycle

The powerful muscles of the uterus expand to accommodate a growing fetus and push it through the birth canal

- **Position:-**
- ante verted and
- ante flexed position

- **Parts:-**

- **FUNDUS**
- **CORPUS/BODY**
- **ISTHMUS**



○ MEASUREMENTS:-

- 8cm long 5cm wide at the fundus
- Walls are 1.25cm thick
- Weights ----- 50 -80 gm

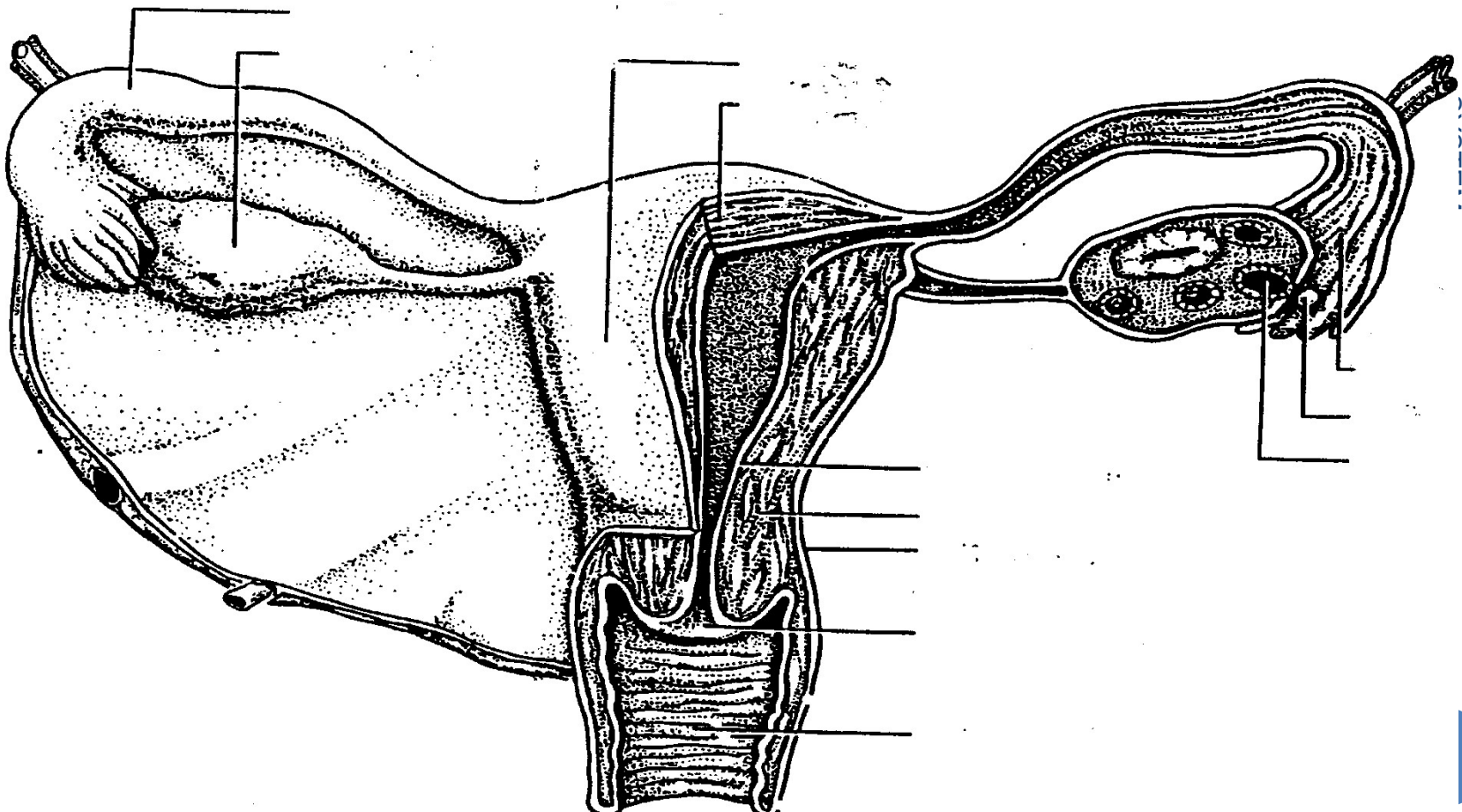
CERVIX

- The cervix connects the uterus to the vagina
- The cervical opening to the vagina is small
- This acts as a safety precaution against foreign bodies entering the uterus
- During childbirth, the cervix dilates to accommodate the passage of the fetus
- This dilation is a sign that labor has begun

- Cylindrical in shape
- About 2.5cm
- Internal os & external os

- BLOOD SUPPLY
- Uterine arteries
- Uterine veins
- NERVE SUPPLY
- Sympathetic
- parasympathetic

OVIDUCTS

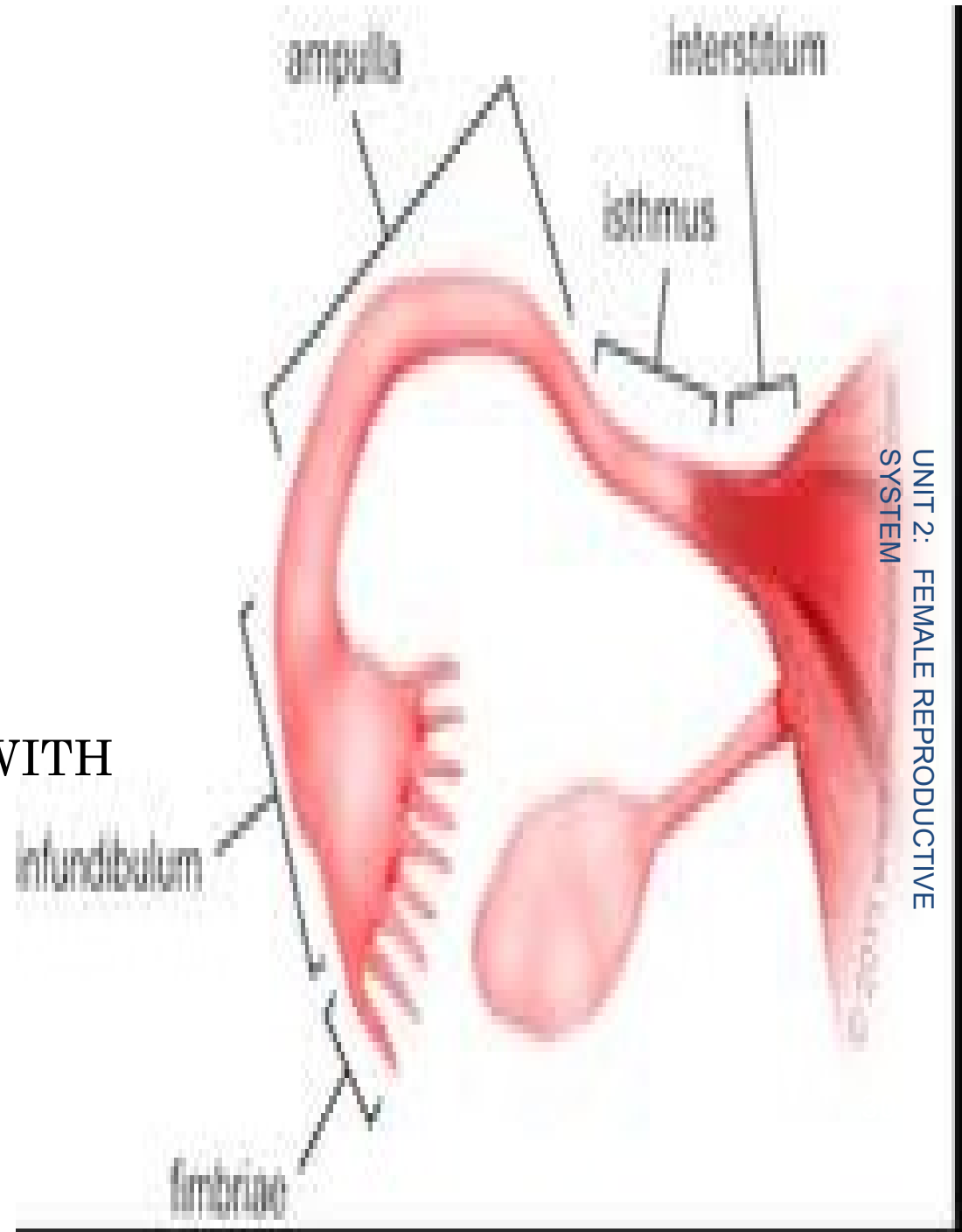


FALLOPIAN TUBES/UTERINE TUBES/SALPHINGEAN TUBES

- 10 cm long
- Two openings(uterine opening/pelvic opening)
- Functions:-
 1. Serve as a pathway for the ovum to the uterus
 2. Are the site of fertilization by the male sperm
 3. Survival of zygote through its secretion
- Fertilized egg takes approximately 6 to 10 days to travel through the fallopian tube to implant in the uterine lining

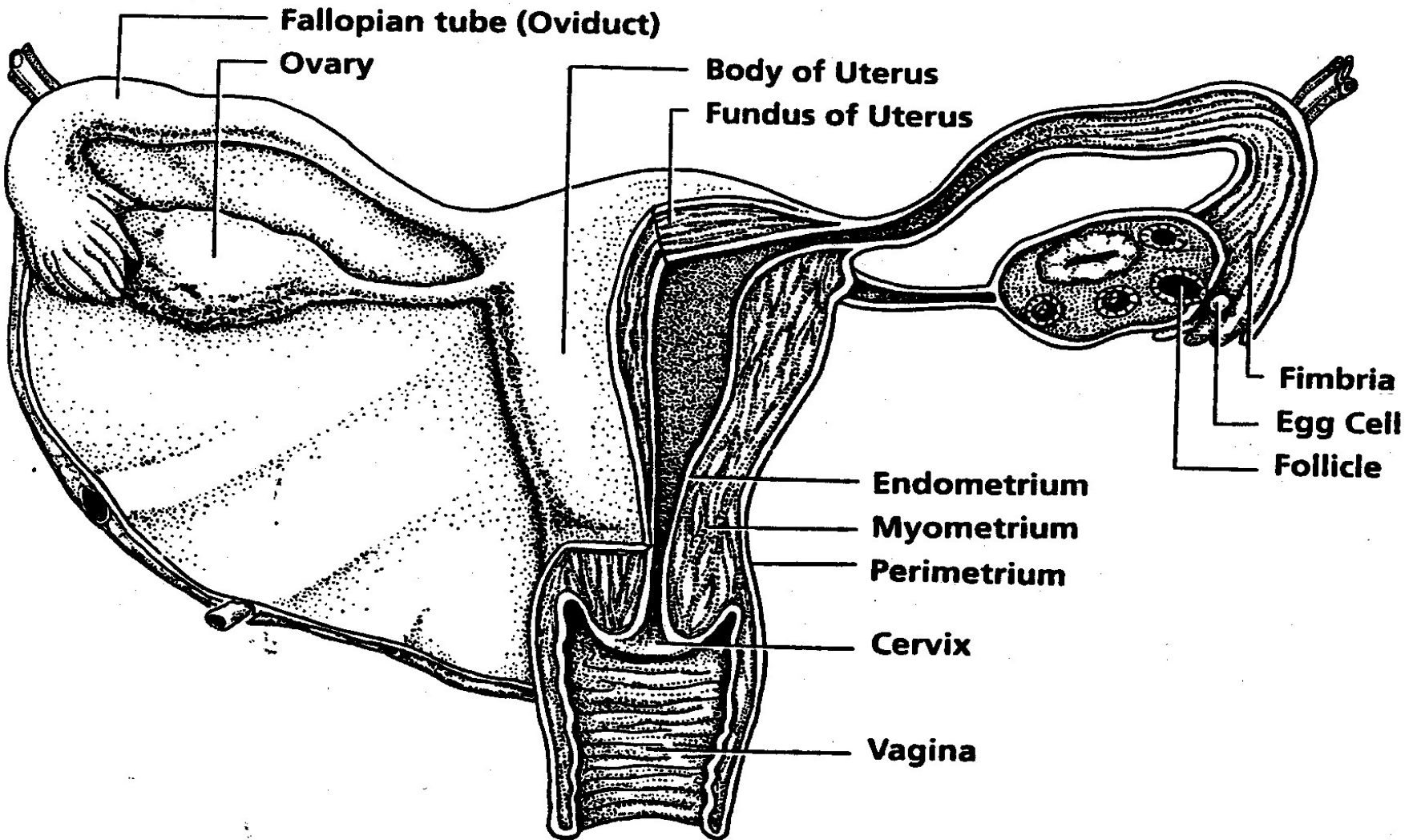
PARTS

- Four parts
 - INTRA MURAL OR INTERSTITIAL
 - ISTHMUS
 - AMPULLA
 - INFUNDIBULUM WITH FIMBRIAE



STRUCTURE

- 3 LAYERS
 - Serous
 - Muscular
 - Mucous membrane
 - Columnar ciliated epithelial cells
 - Secretory columnar cells
 - Peg cells



BLOOD SUPPLY

- From uterine and ovarian
- Nerve supply

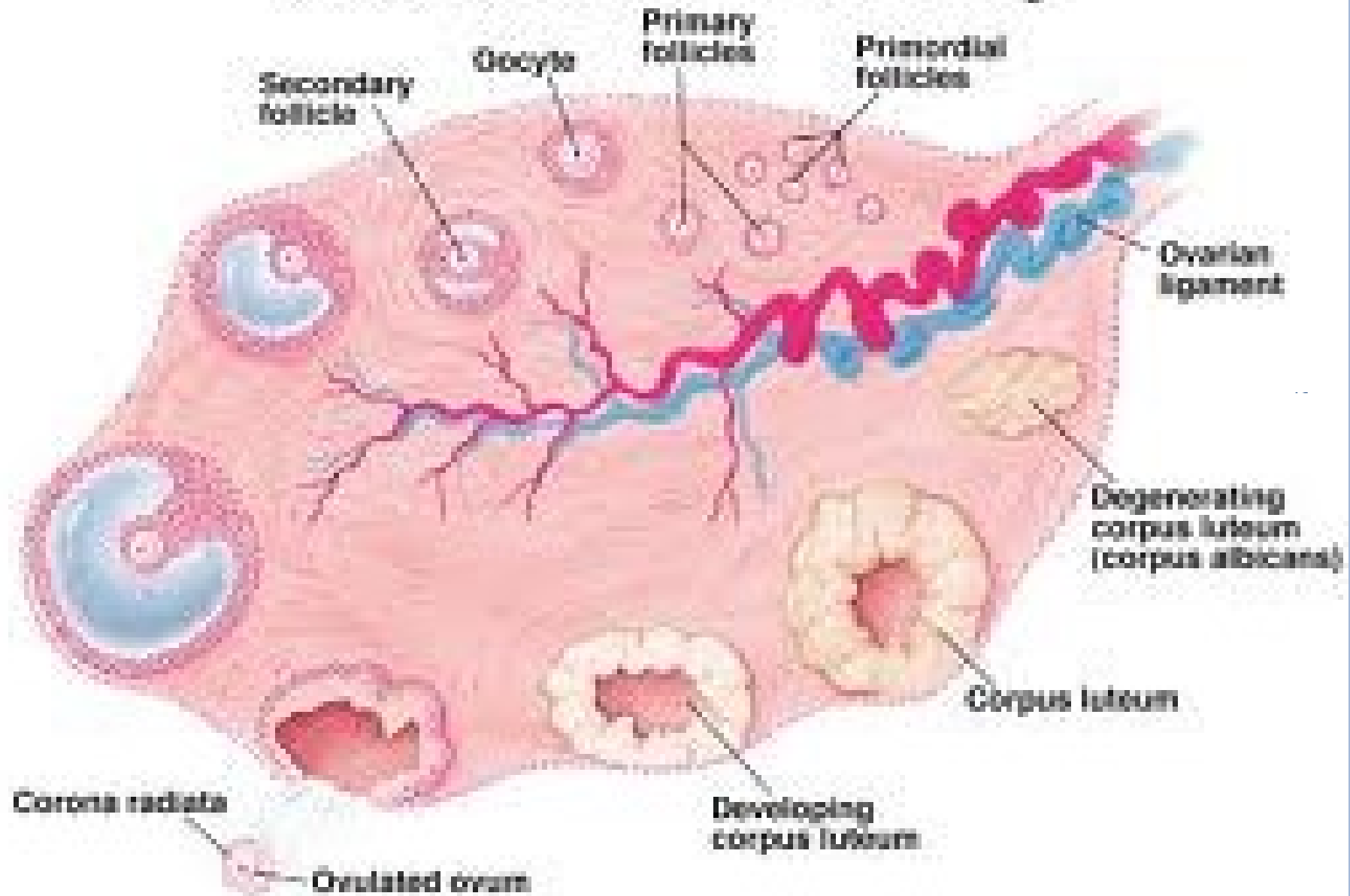
OVARIES

- The female gonads or sex glands
- Paired ,oval in shape and pinkish grey in colour
- They lie in a shallow fossa on the lateral walls of the pelvis
- They develop and expel an ovum each month
- A woman is born with approximately 400,000 immature eggs called follicles
- During a lifetime a woman release @ 400 to 500 fully matured eggs for fertilization
- The follicles in the ovaries produce the female sex hormones, progesterone and estrogen
- These hormones prepare the uterus for implantation of the fertilized egg

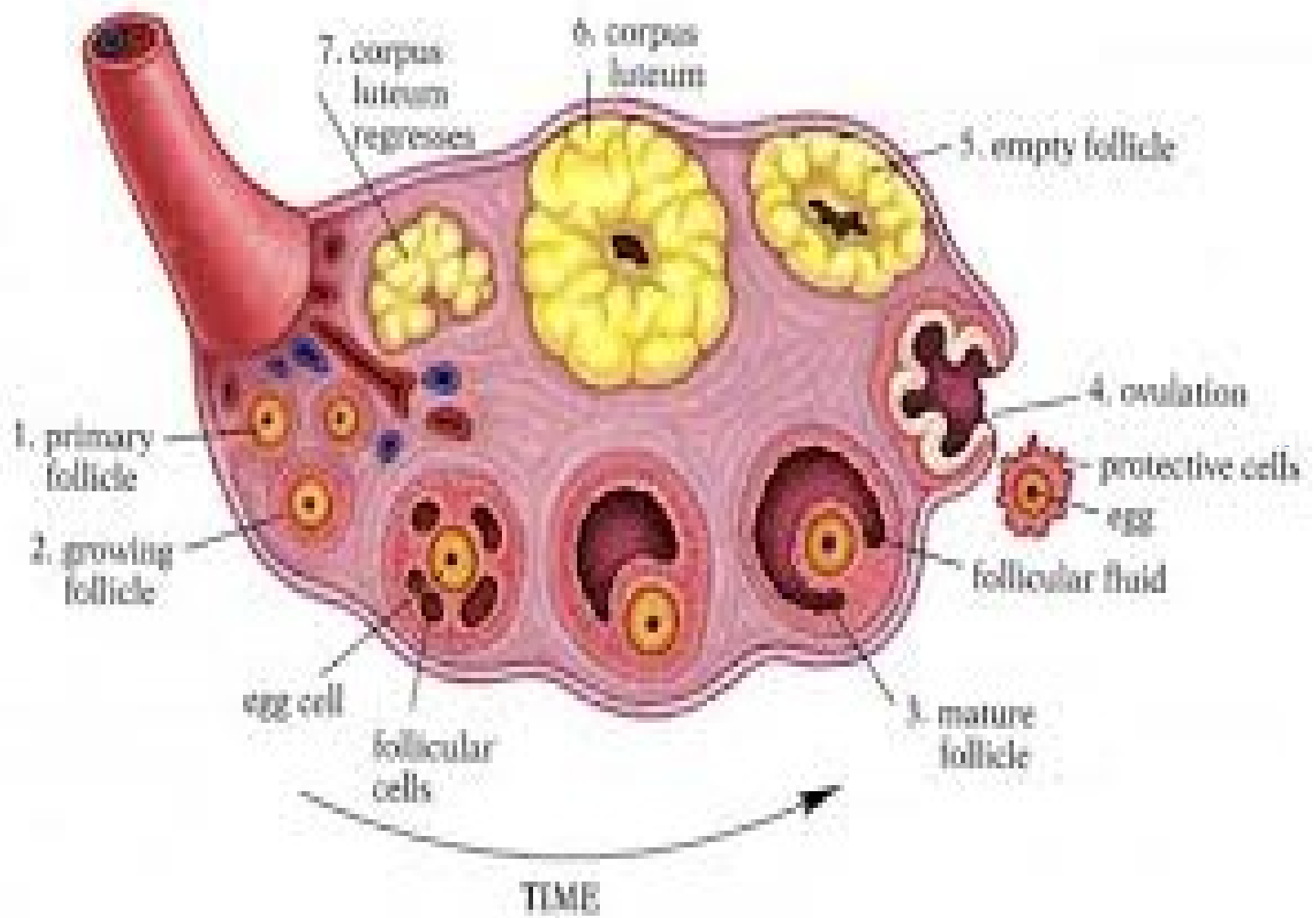
STRUCTURE

- It measured about 3cm long and 2cm breadth 1cm thickness
- Structure
 - OUTER CORTEX
 - INNER MEDULLA

Structure of an Ovary



- Each ovary is attached to the upper part of the uterus by the ovarian ligament
- To the back of the broad ligament by a broad band of tissue ,the mesovarium
- Blood vessels and nerves pass to the ovary through the mesovarium



○ **Medulla:-**

1. This lies in the centre
2. Consists of fibrous tissue ,blood vessels and nerves

CORTEX

- This surrounds the medulla
- Has a framework of connective tissue or stroma, covered by germinal epithelium
- It contains ovarian follicles
- Graafian follicles are the follicles which matures,ruptures and releases its ovum into the peritoneal cavity this is called **ovulation**

BLOOD SUPPLY

ARTERIAL SUPPLY

- Ovarian arteries

VENOUS DRAINAGE

- Ovarian vein

LYMPH DRAINAGE

- Lateral aortic and pre aortic lymph nodes

NERVE SUPPLY

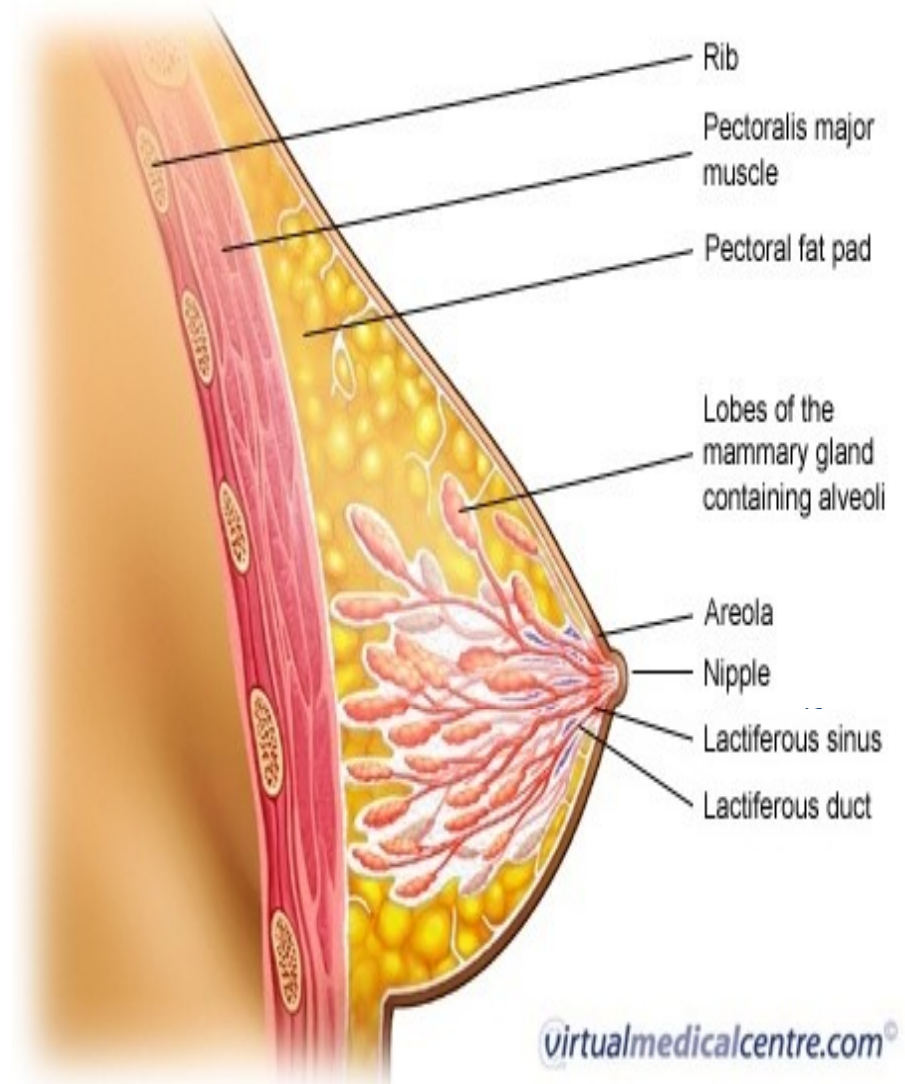
- Sympathetic and Para Sympathetic

BREASTS

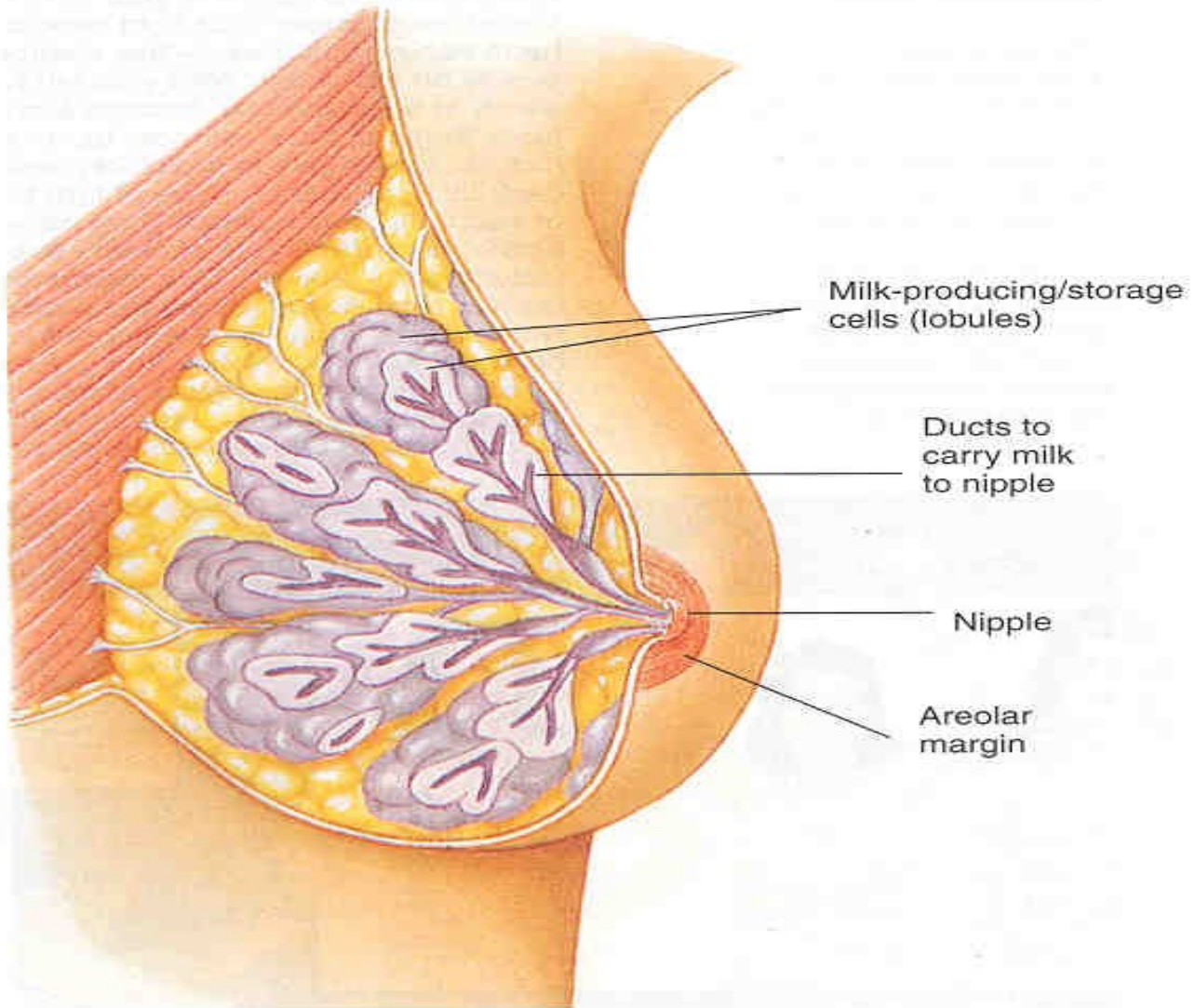
- Are mammary glands of the accessory glands of the female reproductive system
- Consist of connective tissue that serves as support
- Each breast contain 20 clusters called lobes
- Each lobule is connected by ducts that open into the nipples
- The nipples are made up of erectile tissue
- The pigmented around the nipples are called the areola
- AXILLARY TAIL OF SPENCE- A lateral projections of breast towards the axilla
- Weighs 200-300 gm during child bearing age

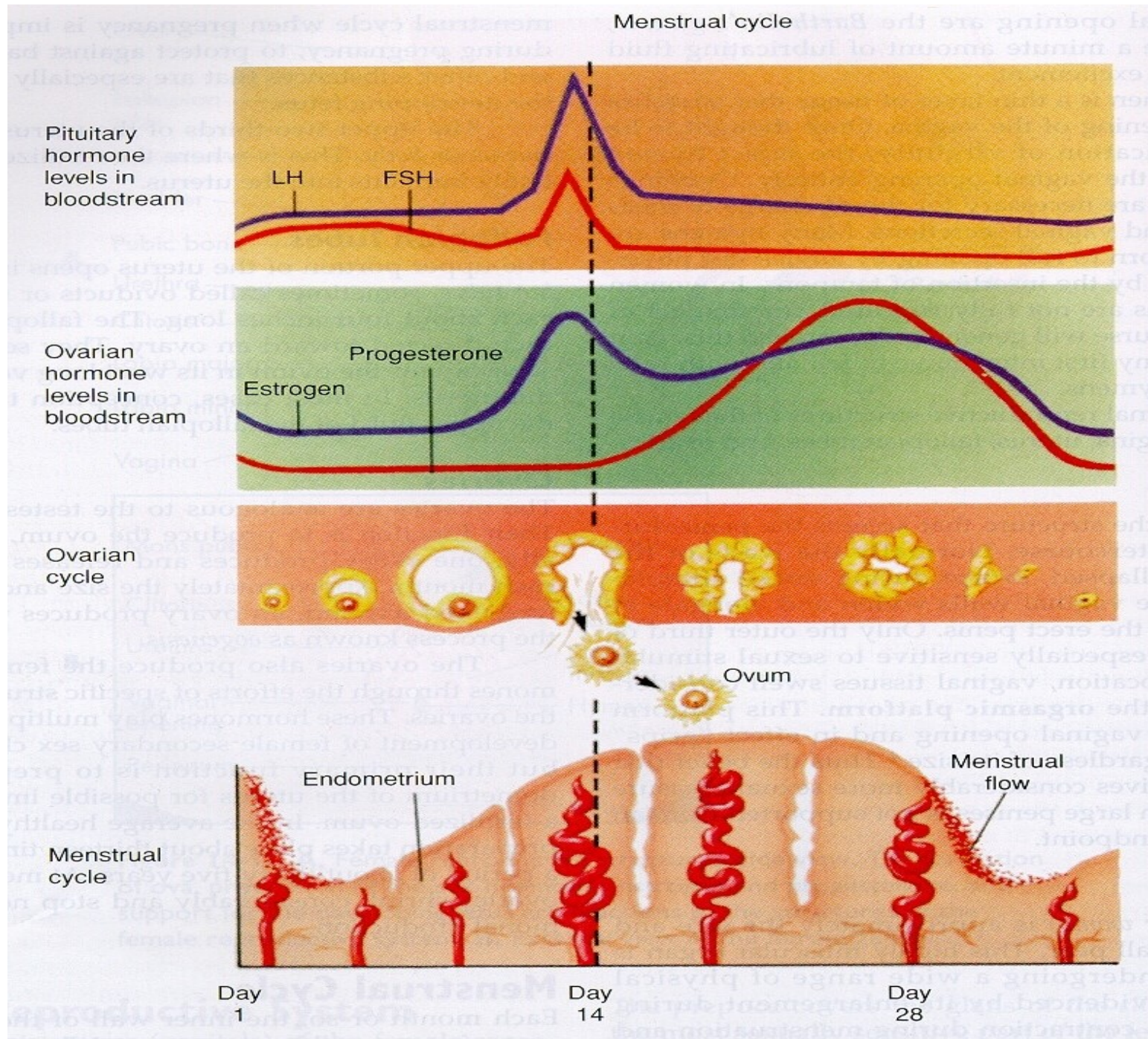
○ Structure

- AEROLA-2.5CM DIAMETER
- MONTGOMERY GLANDS
- NIPPLE
- LACTIFEROUS DUCTS 15-20

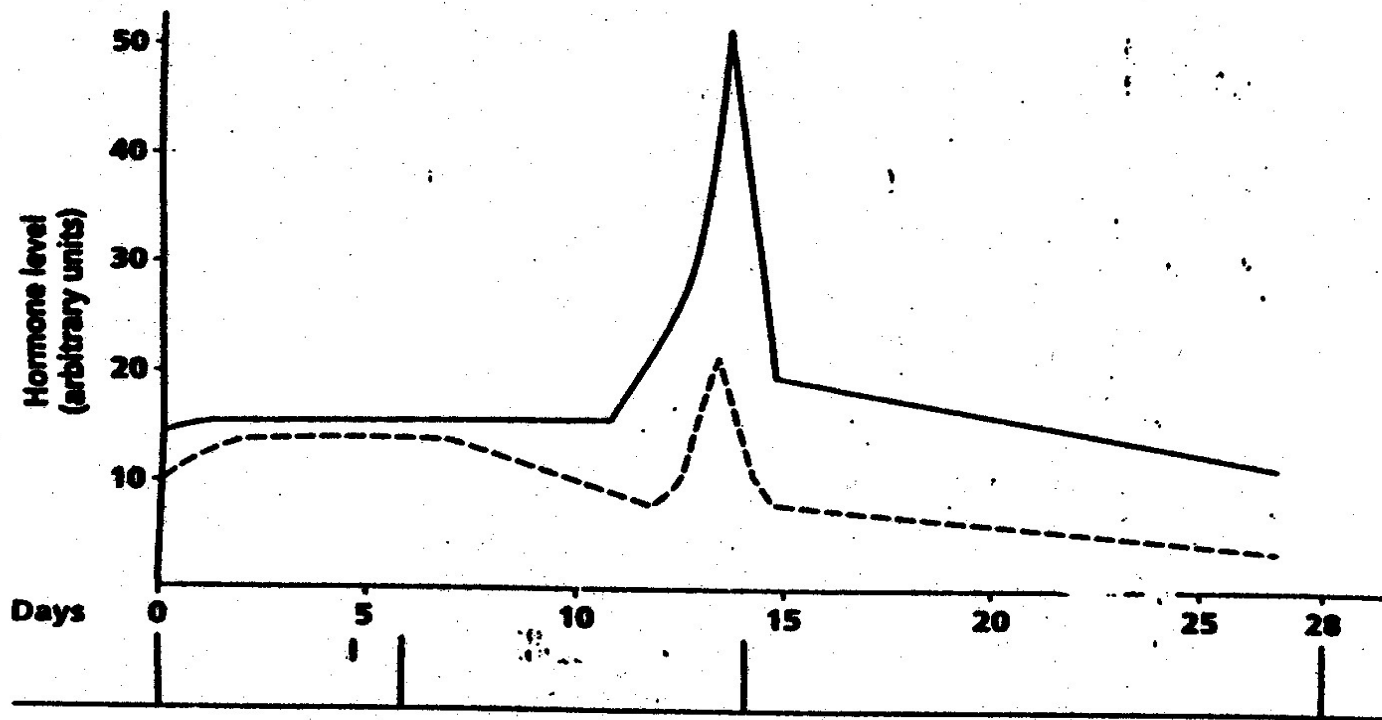


- ARTERY – VEINS AS same courses
 - ✓ Lateral thoracic
 - ✓ Internal mammary
 - ✓ Inter costal
- Nerve supply.....4th ,5th,6th intercostal nerves





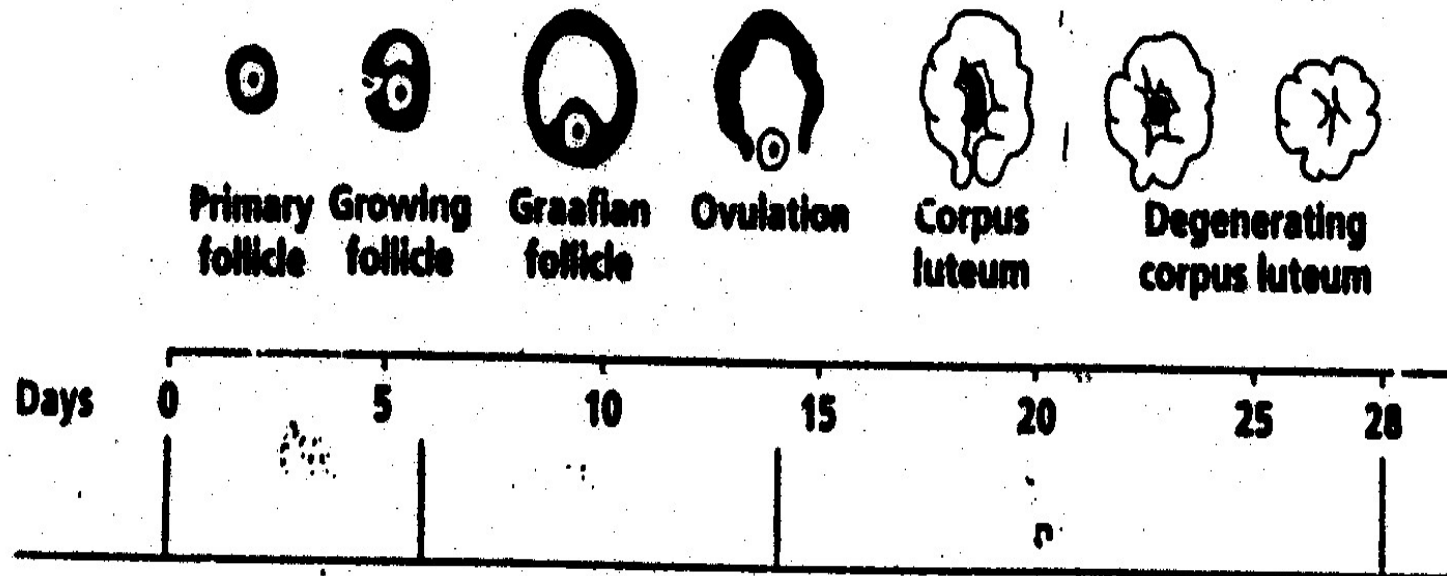
PITUITARY HORMONES



(A) F

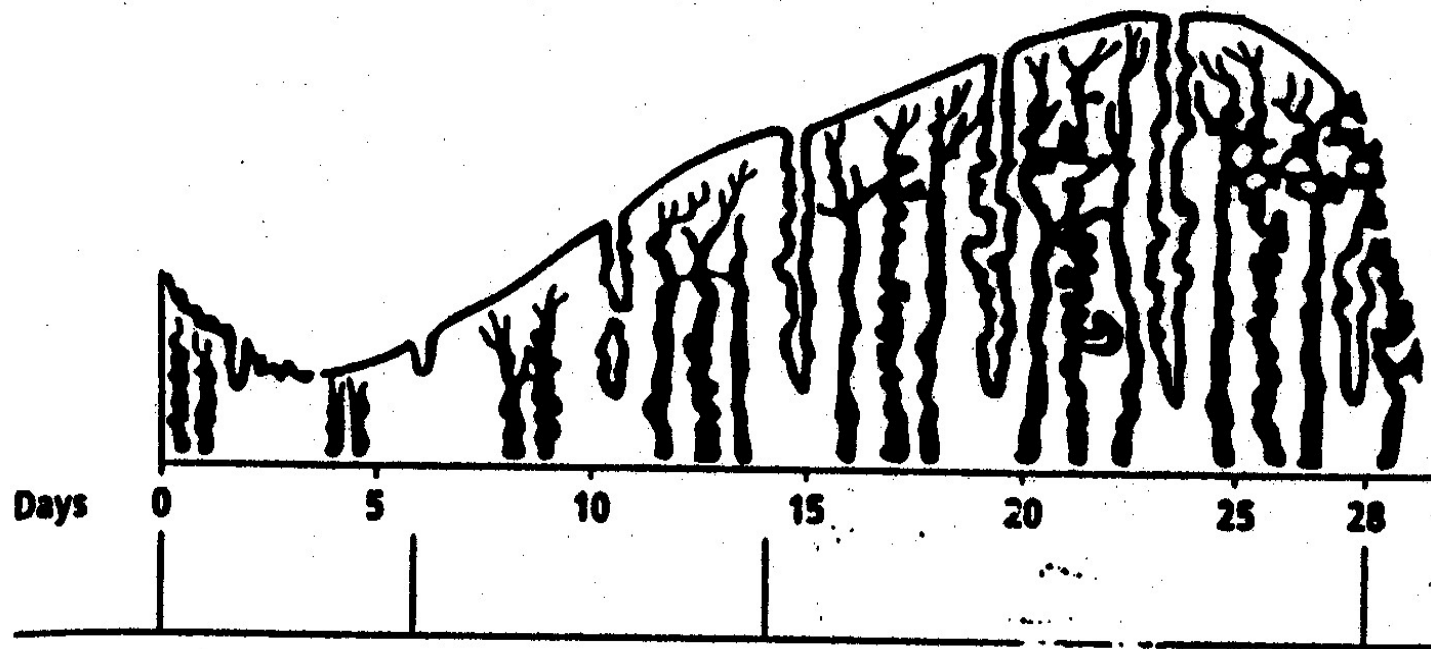
Topic:

FOLLICLE DEVELOPMENT



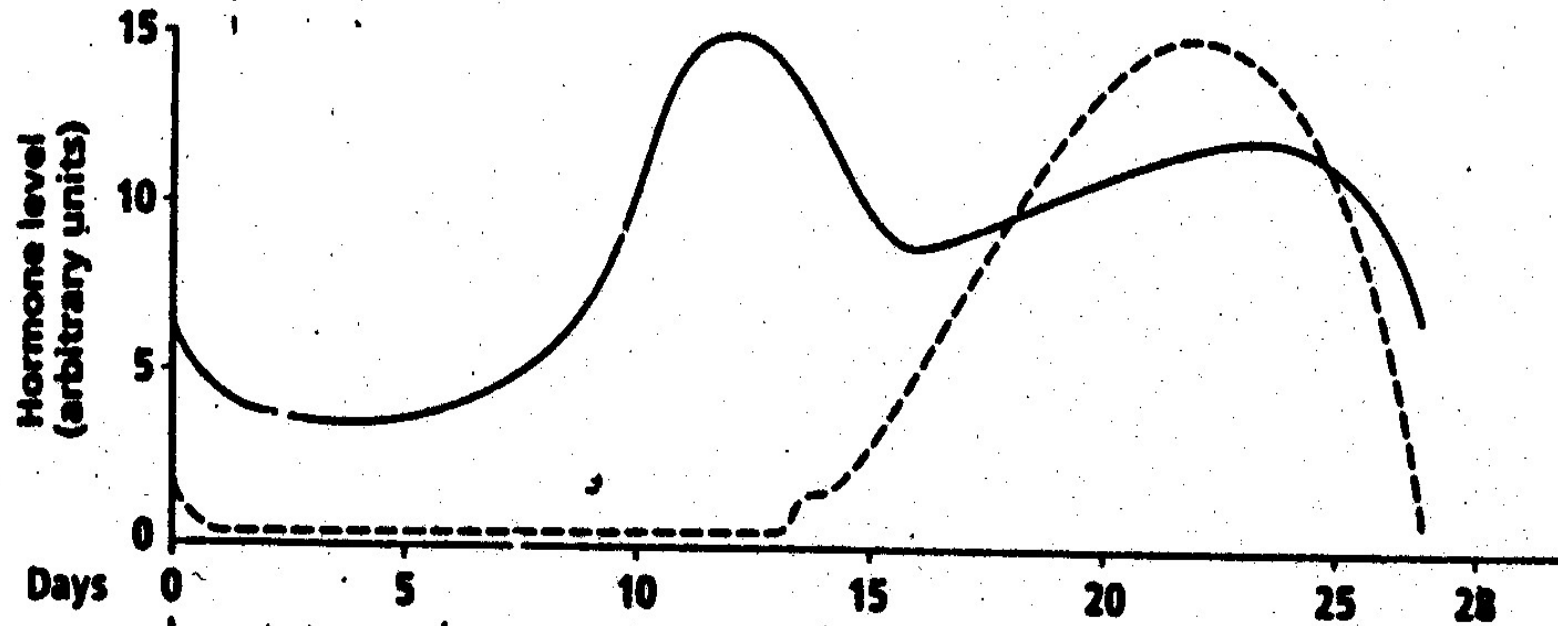
(8)

OVULATION



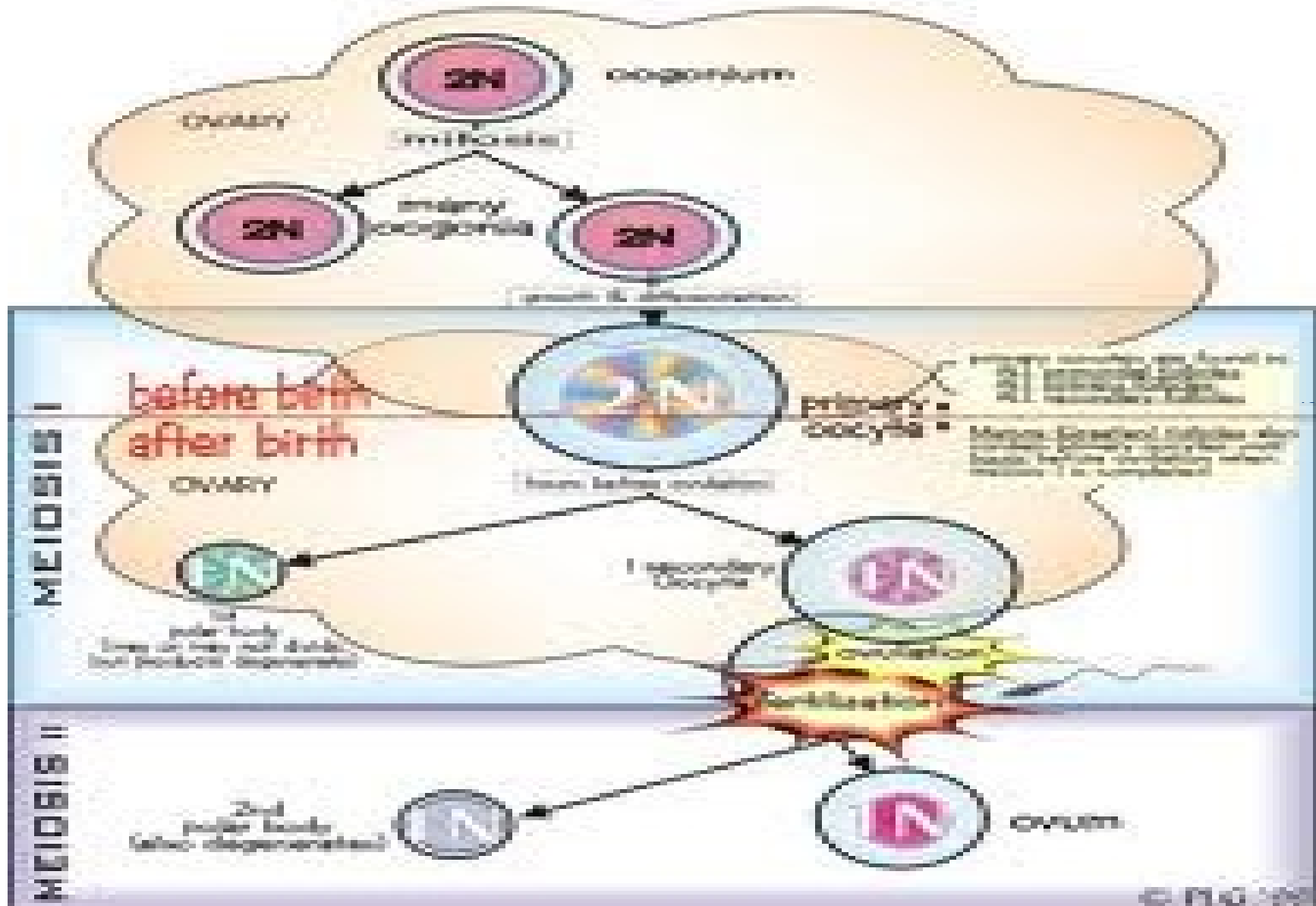
(C)

OVARIAN HORMONES



(D)

O O G E N E S I S



SEX HORMONES

- Follicle stimulating hormone **FHS**-
- Luteinizing hormone **LH**- signals ovulation
- **Estrogen**- produced throughout the menstrual cycle
- **Progesterone**-produced during second half of cycle
- Contributes to thickening of the endometrium which is shed during menstrual phase if fertilization does not take place
- Both FHS and LH are produced in the pituitary gland
- Both estrogen and progesterone are produced by the follicles in the ovaries

