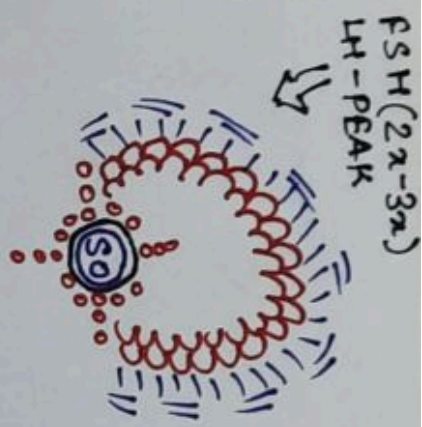




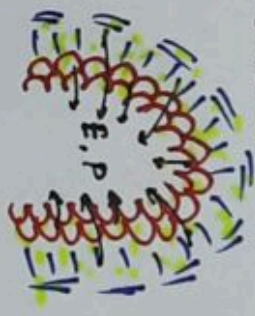
FSH →



(E) ↑



LH & FSH ACTS SYNERGISTICALLY



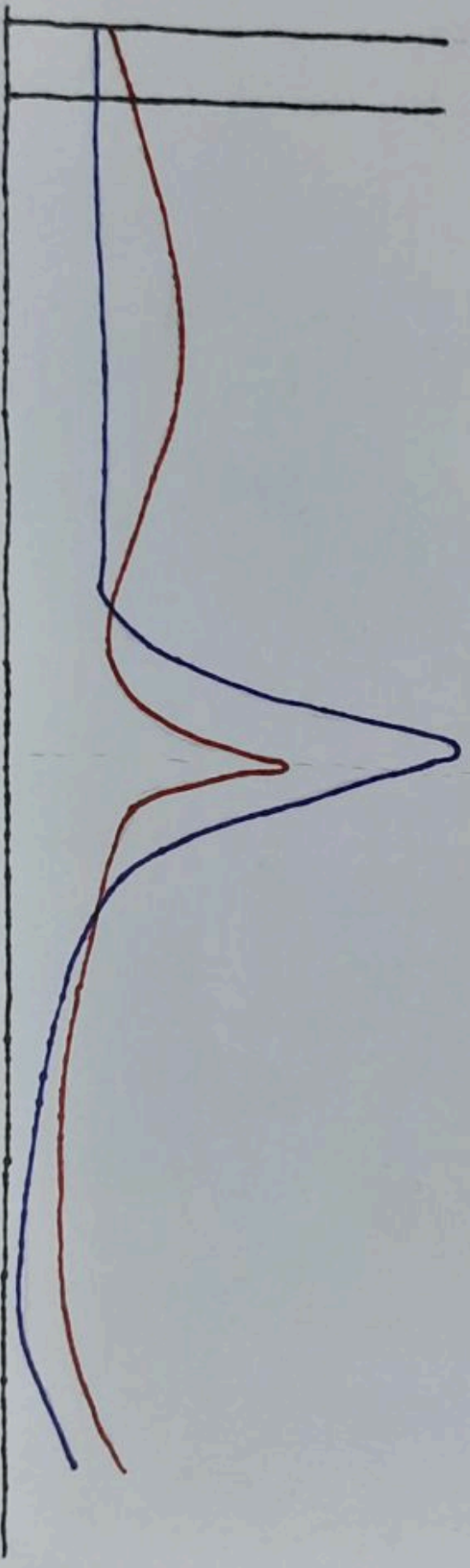
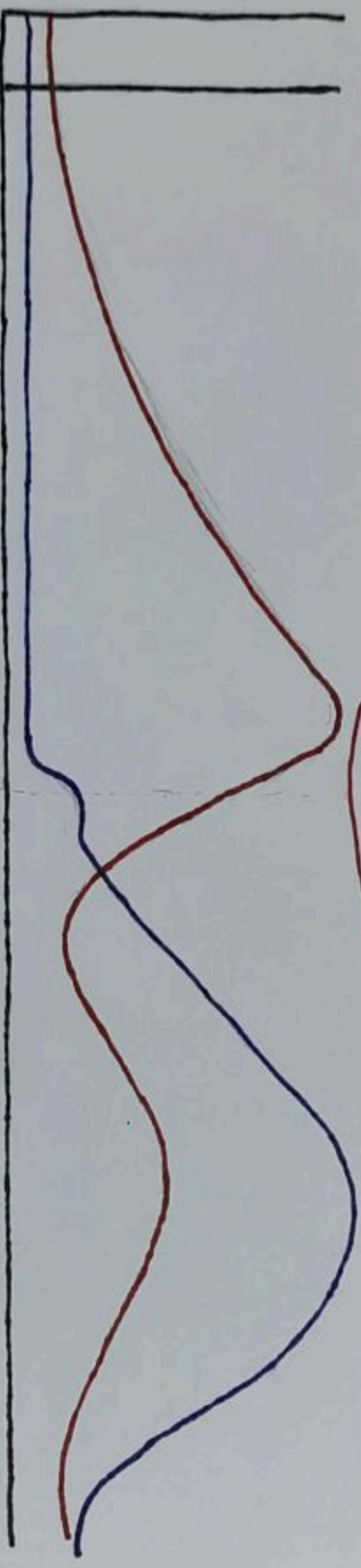
(E) ↑ (P) ↑
(P) > (E)

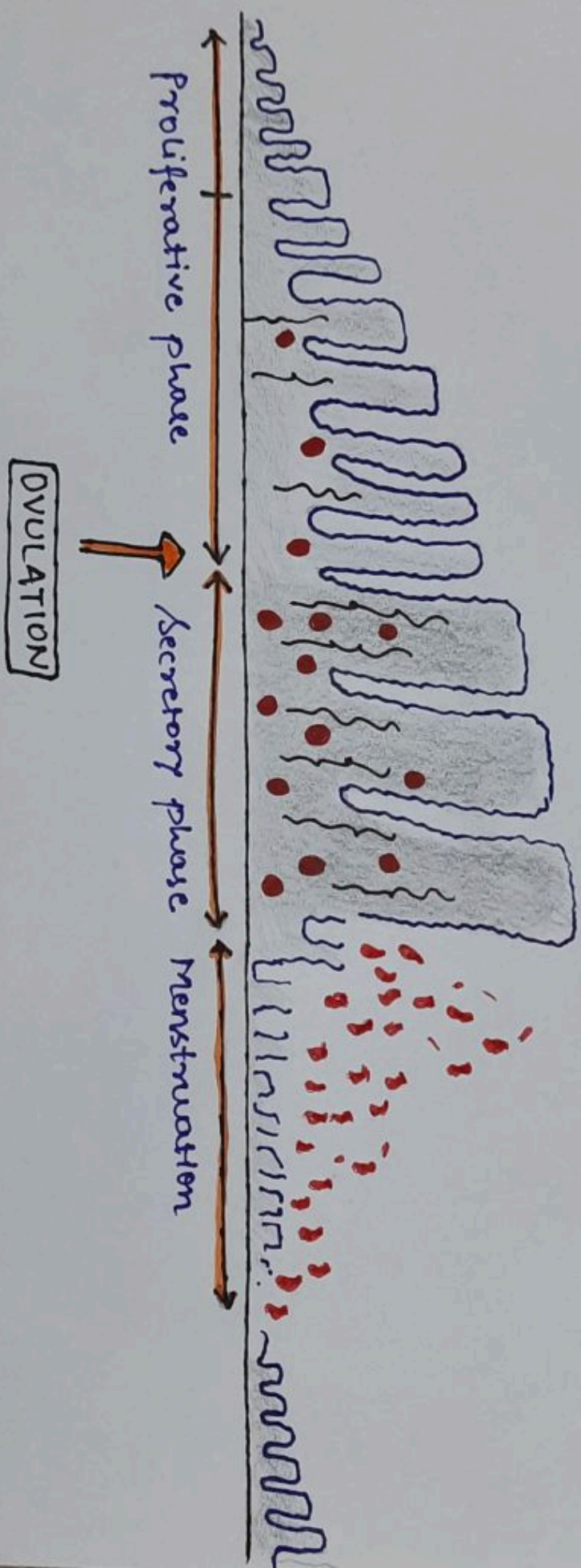
E x
P x

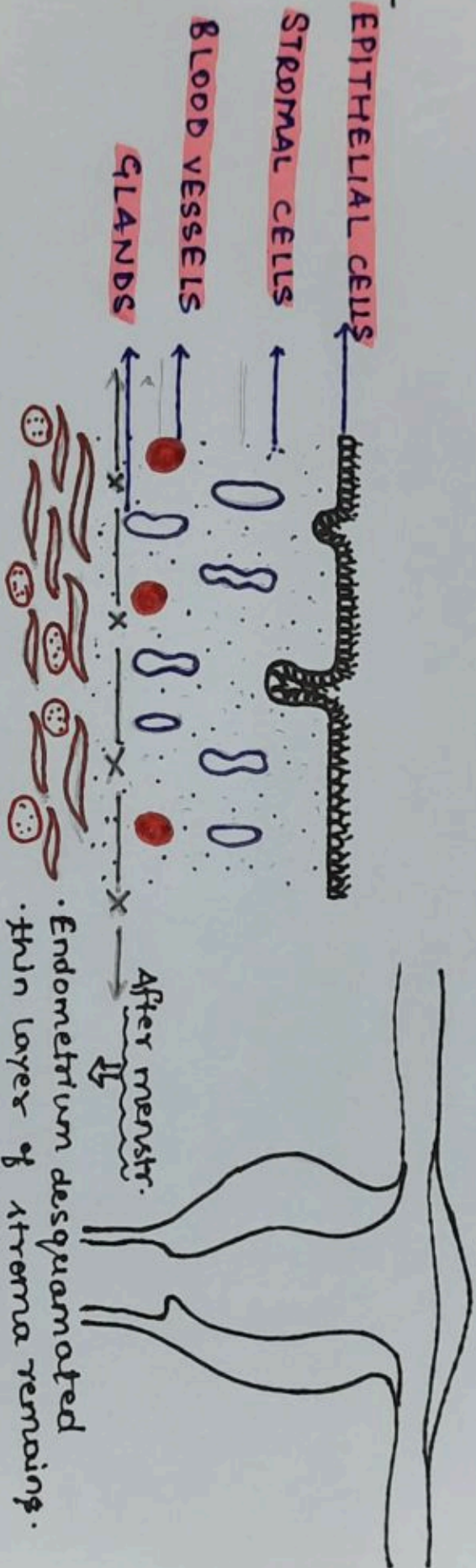
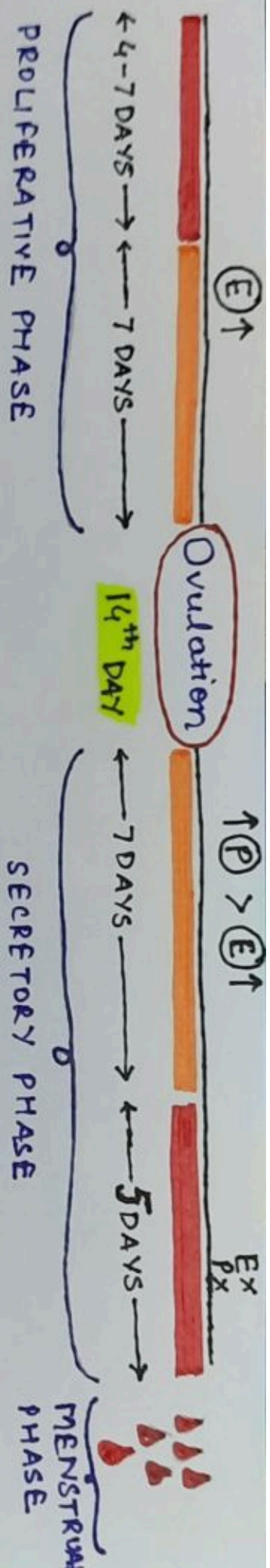
Ovulation

— ESTROGEN
— PROGESTERONE

— FSH
— LH







PROLIFERATIVE PHASE :-

- FIRST 4-7 DAYS :-
- RAPID PROLIFERATION OF EPITHELIAL CELLS.
 - ENDOMETRIAL SURFACE IS RE-EPITHELIALISED

NEXT 7 DAYS :-
(7th - 14th DAY)

- $\uparrow$ no. of stromal cells
 - $\uparrow$ growth of endometrial glands
 - $\uparrow$ vascularity (Blood vessels $\uparrow$)
- Endometrium thickness $\uparrow$

DURING OVULATION, THICKNESS OF ENDOMETRIUM = 3-5mm

SECRETORY PHASE :-

FIRST 7 DAYS :-

(14th - 21th DAY)

↑ (P) > (E) ↑ → slight additional cellular proliferation
+ swelling of secretory dev. of endometrium

- Cytoplasm of stromal cells ↑
- Lipids & glycogen deposits ↑ in stromal cells
- Blood supply of endometrium ↑
- Blood vessels tortuous
- Accumulation of secretory substances in glandular epithelial cells
- Glands tortuous.

Purpose of this highly secretory & vascular endometrium

provide large amount of stored nutrients & blood supply to implanted ovum.

thickness of endometrium = 5-6mm

Implantation

Nutrition provided by "uterine milk"

If fertilisation followed by implantation occurs

* At peak of secretory phase, ovum entering uterine cavity

NEXT 5 DAYS :-
(22nd - 27th Day)

If fertilisation does not occur :-

Corpus luteum degenerate $\Rightarrow$ $\text{E} \downarrow$ $\text{P} \downarrow$ $\Rightarrow$ Menstruation

24 hrs before menstruation

- Blood vessels become vasospastic (maybe d/t PG)
- Hge area grows over 24-36 hrs
- Necrosis of endometrium
- Necrotic outer layers separates from uterus at site of Hge
- Involution of Endometrium

$\Downarrow$
All superficial layers of Endometrium desquamated

Mass of desquamated + Blood in uterine cavity
tissue

+ Contractile effect of PG & others



Uterine contents expelled = Menstrual flow.

MENSTRUATION :-

- LOSS of 40ml of Blood + 35ml of serous fluid
- Non-clotting Blood → Because of fibrinolysin released along with endometrial material.
- ↑ no. of leukocytes also released along with necrotic material + blood.

↓
uterus becomes highly resistant to infection during menstruation.

AT END OF MENSTRUATION

- Loss of blood ceases because endometrium starts to become reepithelialized.