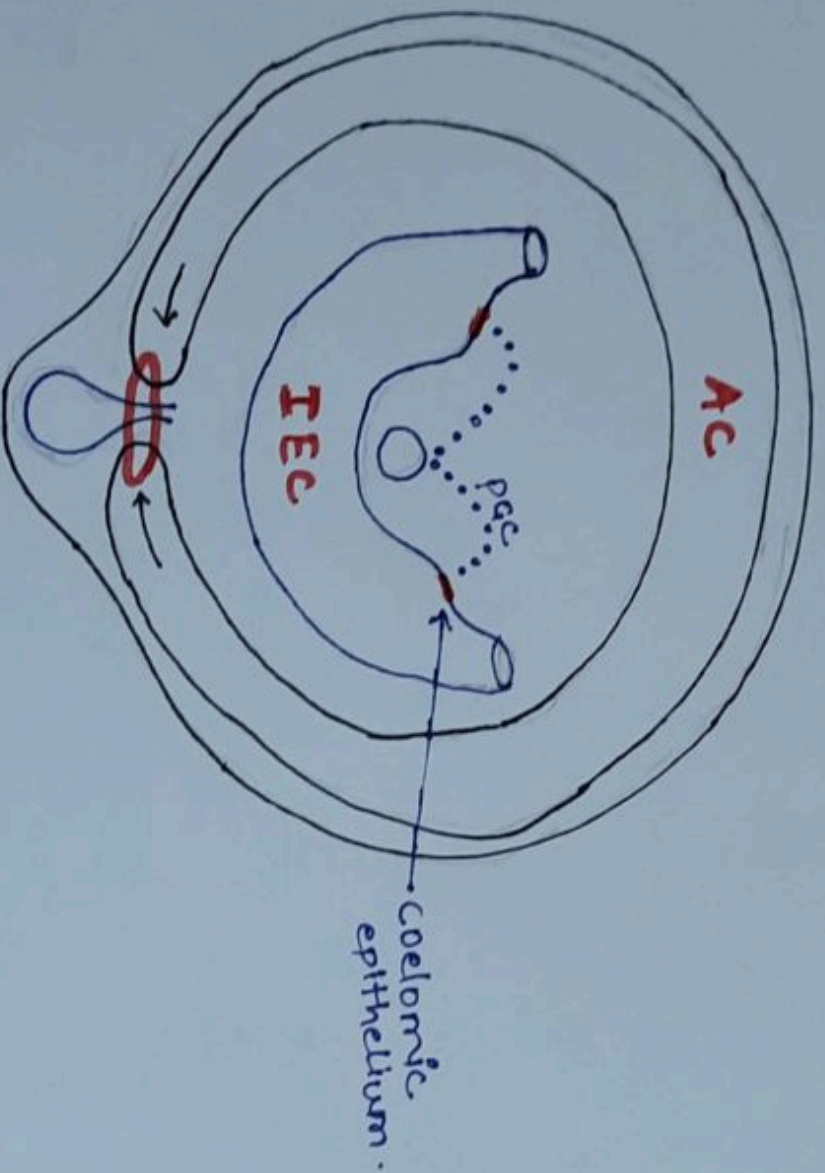


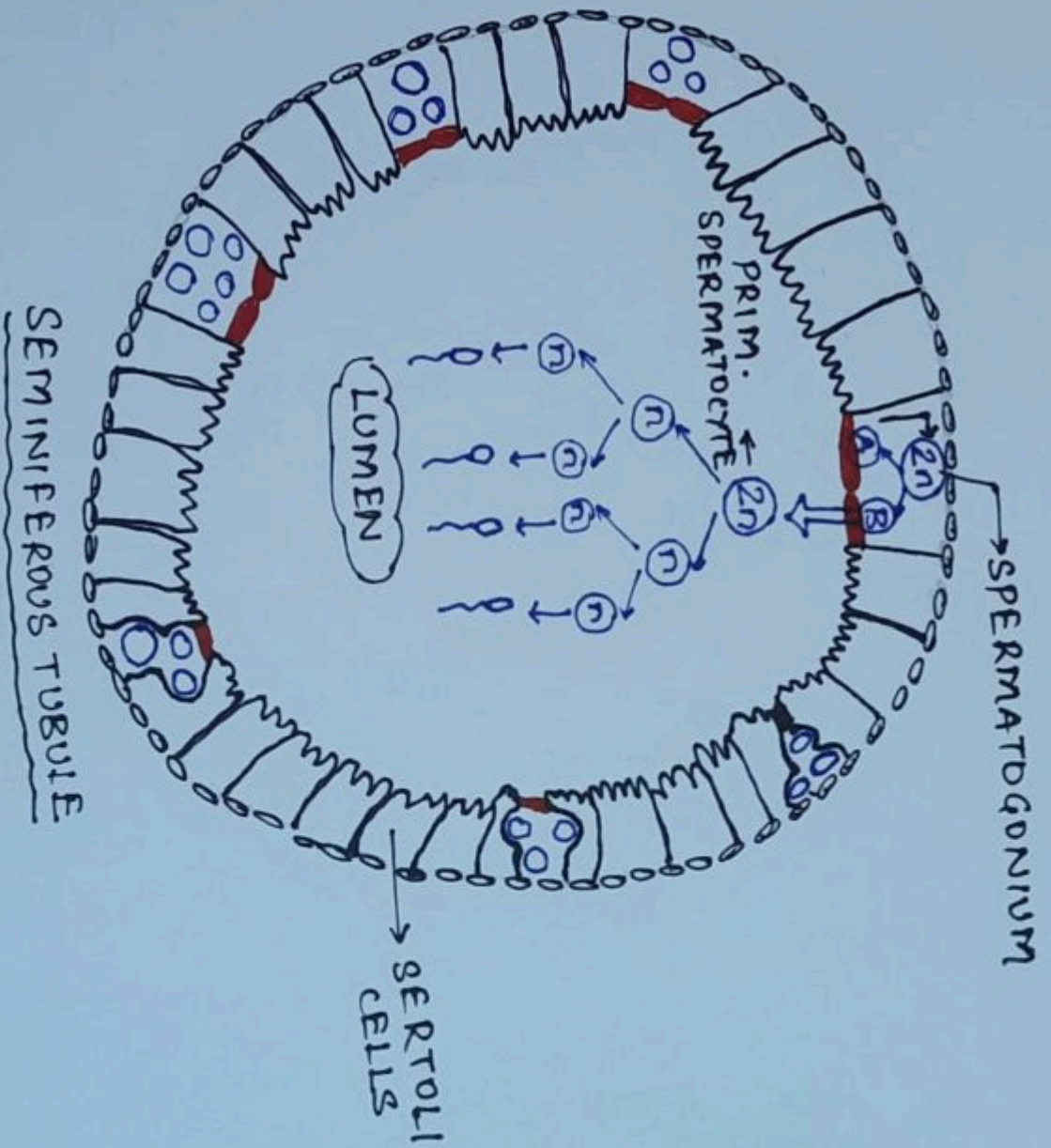
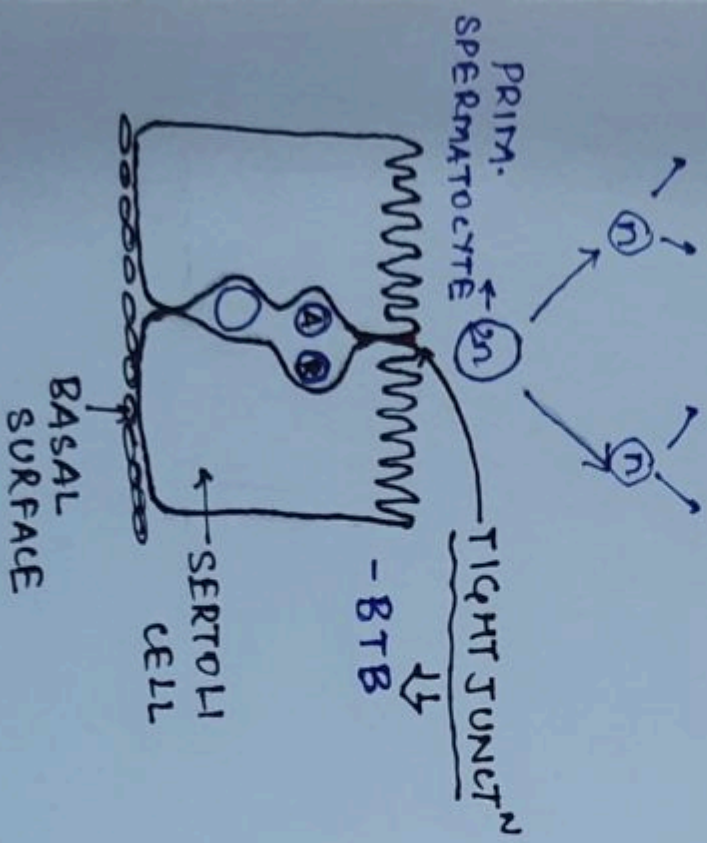
SPERMATOGENESIS:-



→ THICKENING OF COELOMIC EPITHELIUM → GERMINAL EPITHELIUM.

→ PGc MIGRATE FROM YOLK SAC TO GERMINAL EPITHELIUM
STARTS IN 2ND MONTH OF IUL

! ! !
6TH MONTH OF IUL. ENTERS GERMINAL EPITH.



PGC ENTERS TESTES & BECOMES SPERMATOGONIUM
[LIES AT INNER SURFACES OF BASAL PART OF SEMINIFEROUS
TUBULE]

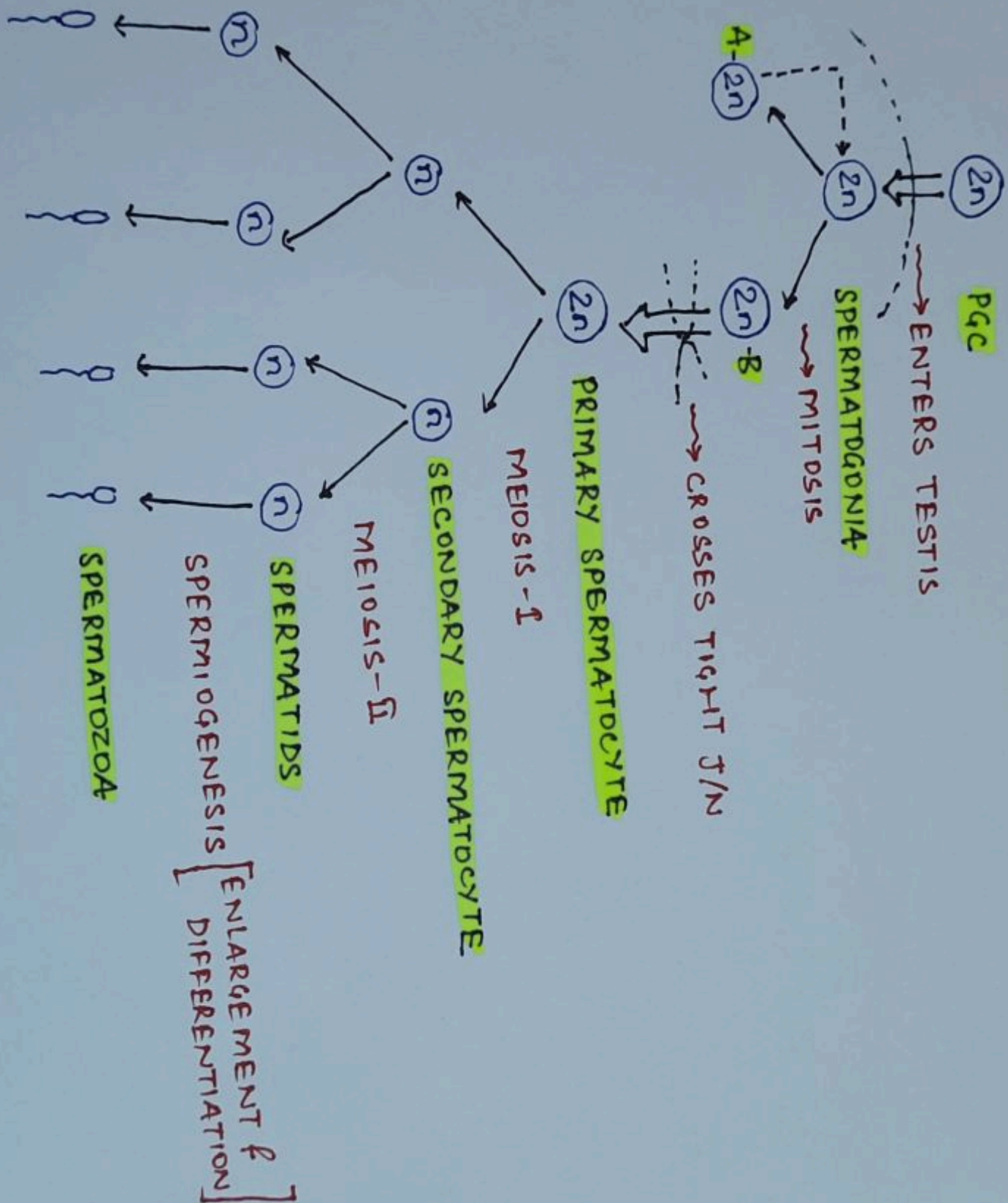
④ BY ANT. PITUITARY
HORMONES.

SPERMATOGONIA PROLIFERATE BY MITOTIC DIVISION &
FORMS SPERMATOGONIA-A & B

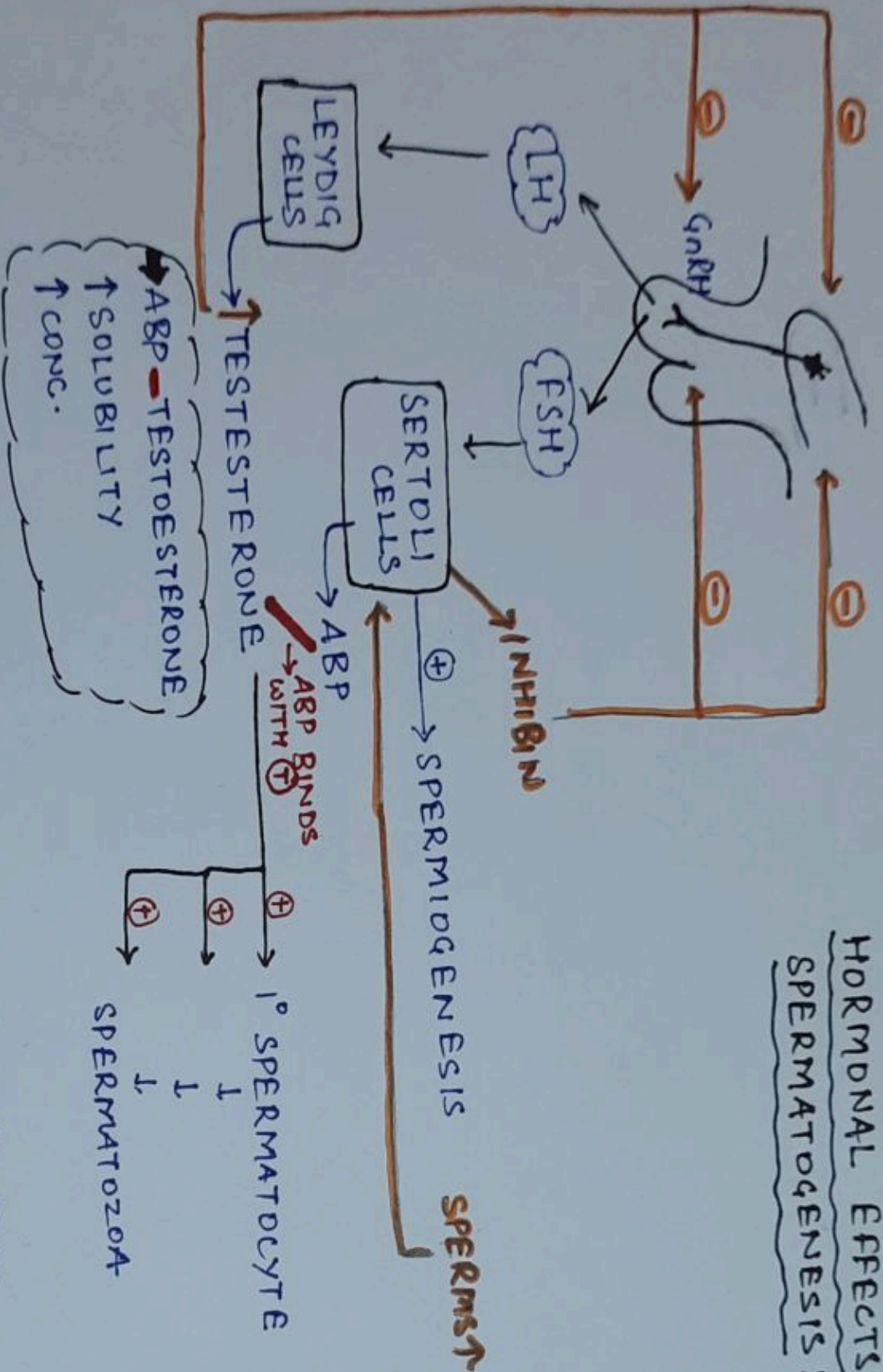
SPERMATOGONIA-B CROSSES BLOOD TESTIS BARRIER
FORMED BY TIGHT JUNCTION OF SERTOLI CELLS

SPERMATOGONIA-B AFTER CROSSING BARRIER
IS K/A PRIMARY SPERMATOCYTE

SPERMATOGENESIS CONTINUES TO FORM
SPERMATOZOAN.



HORMONAL EFFECTS ON SPERMATOGENESIS :-



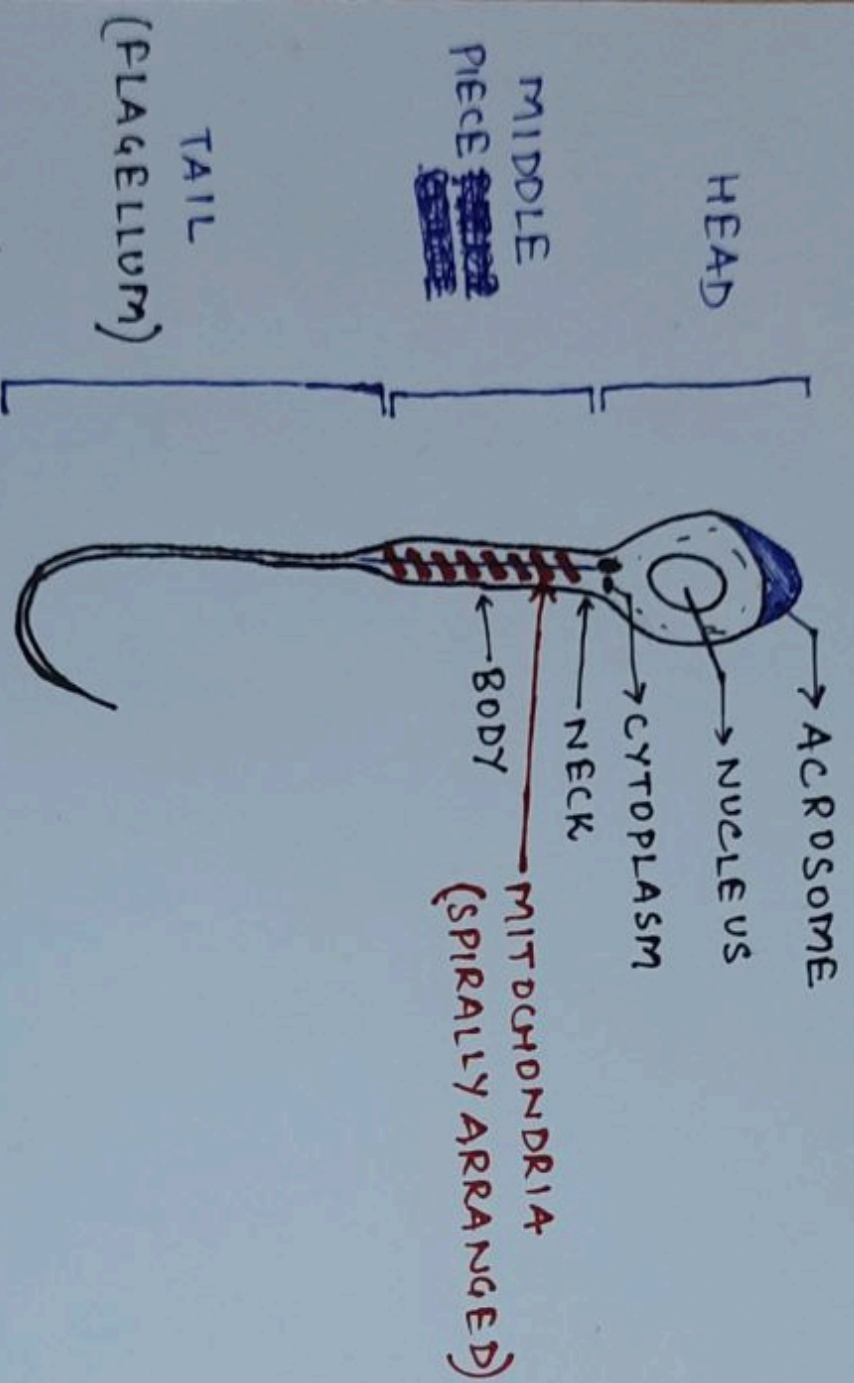
1) TESTOSTERONE ⇒ ⊕ GROWTH & DIVISION OF GERMINAL CELLS
 ⊕ SPERMATOGENESIS

2) LH ⇒ ⊕ LEYDIG CELLS TO SECRETE TESTOSTERONE

3) FSH ⇒ ⊕ SERTOLI CELLS → RELEASE ABP → ⊕ SPERMATOGENESIS

4) ESTROGENS ⇒ FORMED FROM TESTOSTERONE BY SERTOLI CELLS
 • PROBABLY ESSENTIAL FOR SPERMATOGENESIS

5) GROWTH HORMONE ⇒ BASIC GROWTH OF TESTIS



→ SPERMATIDS DIFFERENTIATE & ELONGATE → SPERMATOZOON
(EPITHELOID CELLS)



→ ACROSOME :- OUTSIDE OF ANT. 2/3RD OF HEAD, A THICK CAP PRESENT IS KNOWN AS ACROSOME.

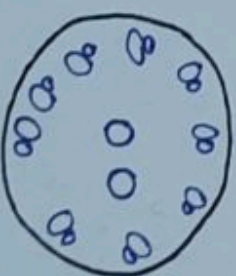
- FORMED MAINLY FROM GOLGI APPARATUS
- CONTAINS ENZYMES (LIKE LYSOSOMAL ENZYMES)
 - HYALURONIDASE
 - PROTEOLYTIC ENZYMES

- ALLOWS SPERM TO ENTER OVUM & FERTILIZE IT.

→ MIDDLE PIECE & TAIL :- 3 COMPONENTS

(i) CENTRAL SKELETON (9+2 MICROTUBULES)

(ii) CELL MEMB. COVERING AXONEME.
↓ COLLECTIVELY K/A "AXONEME"



(iii) COLLECTION OF MITOCHONDRIA SURROUNDING AXONEME IN ~~THE~~ MIDDLE PART OF TAIL (MIDDLE PIECE).

⇒ FUNCTION → MOTILITY TO SPERM

(ENERGY - ATP) ⇒ FROM MITO. OF MIDDLE PIECE.