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Class - XII H

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## Ovary of mammal

### Structure -

A pair of ovaries is the main or primary sex organ of female reproductive system of mammal. Each ovary is attached to the posterior layer of broad ligament (Peritoneal ligament) with the help of mesovarium.

The outer most layer of ovary is called germinal epithelium while the inner layer is called tunica albuginea.

Inner mass of connective tissue, the stroma. It is differentiated into 2 parts, outer cortex and inner medulla. Stroma consists of follicles, connective tissues, blood vessels & lymphatics. Numerous oogonia are found in cortical region in intrauterine life. Follicles develop from the cells of germinal epithelium. The cell undergo the process of maturation to form minute yolkless ova.

### Mature graffian follicle -

Mature follicle presents an outer multilayered membrana granulosa enclosing a follicular cavity filled with colourless fluid. Oocyte is situated inside the follicular cavity. Oocyte is surrounded by inner thin vitaline membrane and outer thick transparent Zona pellucida or Zona radiata. The follicular cells lying immediately outside the Zona radiata are differentiated from the rest so as to form corona radiata. The follicular cells which connect the mature ovum with the membrana granulosa constitute

discuss proligerus. (2)  
After ovulation the ruptured Graafian follicle is called corpus luteum (yellowish structure). Lutein cells of corpus luteum synthesise the progesterone hormone. Corpus luteum persists only if the ovum is fertilized.

### Function -

① Ovaries are female sex organ that produce the female gamete ovum. New born female has around 150,000 to 500,000 follicles in ovaries. Sexually mature females have around 34,000 follicles.

② Several steroid hormones are produced by ovary. Graafian follicles of ovary produce sex hormone called estrogen, progesterone and lesser hormone called relaxin. 3 types of estrogen are - estrone, estradiol and estriol. These hormone help to develop adult female characteristics.

Progesterone hormone maintains pregnancy. Relaxin hormone loosens the pelvic ligaments so they can stretch during labor.

Inhibin - prevents the pituitary gland from producing hormone.

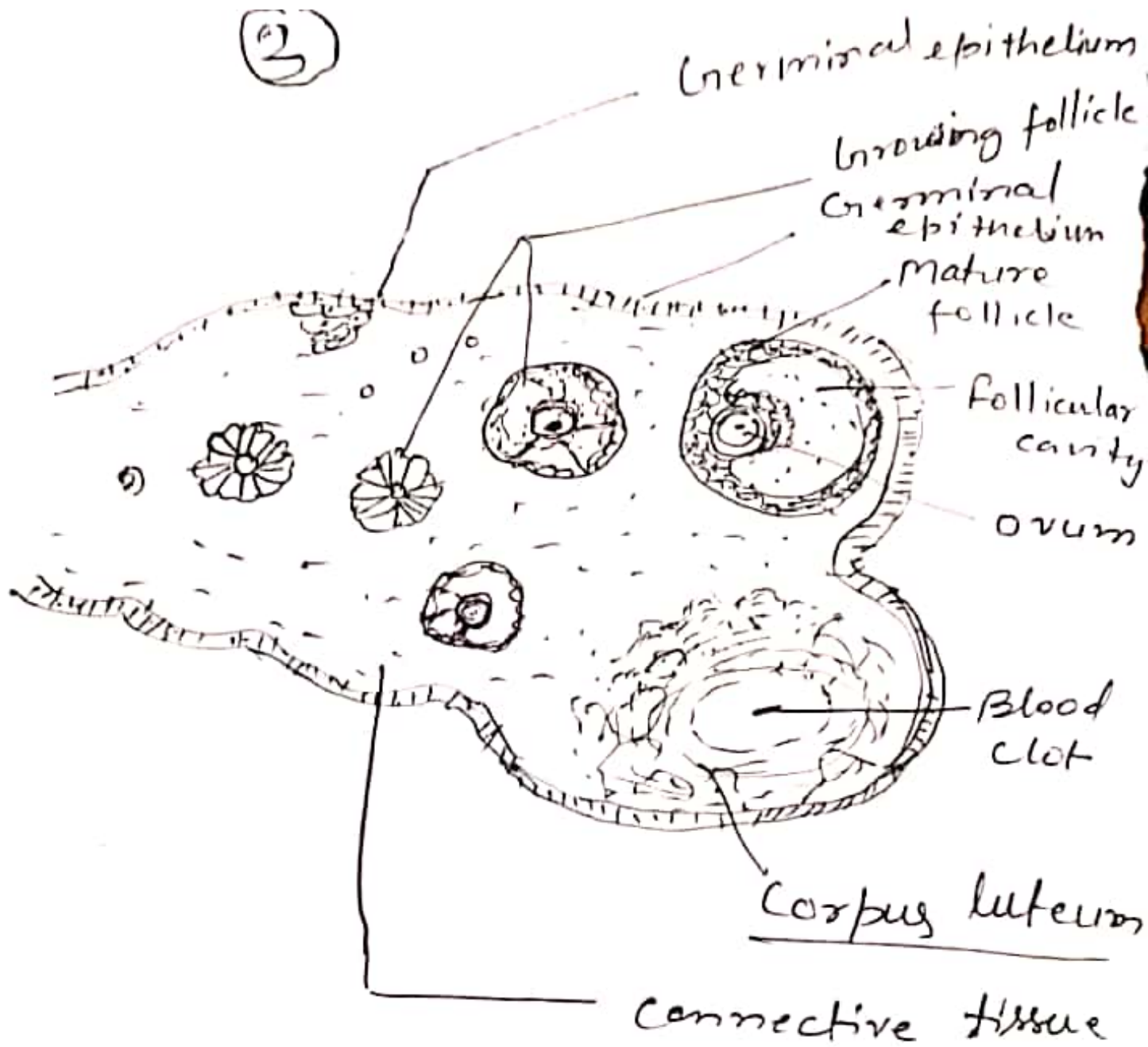


Fig - T.S of ovary of mammal