

Name: \_\_\_\_\_ Block: \_\_\_\_\_ Date: \_\_\_\_\_

## Biology 12 - The Reproductive System!

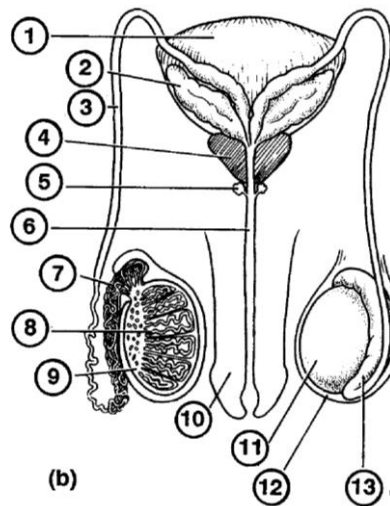
- **Part A:** Definitions: Please define or explain the following terms, in your **OWN WORDS**, in as few words as **clarity allows**.

a)	testes	
b)	scrotum	
c)	seminiferous tubules	
d)	epididymis	
e)	sperm	
f)	vas deferens	
g)	acrosome	
h)	spermatogenesis	
i)	penis	
j)	Interstitial cells	
k)	Sertoli cells	
l)	Semen	
m)	seminal fluid	
n)	seminal vesicles	
o)	prostate gland	
p)	Cowper's glands	
q)	urethra	
r)	testosterone	
s)	FSH (in males)	
t)	LH (in males)	
u)	ovaries	
v)	oviducts	
w)	uterus	
x)	cervix	
y)	vagina	
z)	follicles	
aa)	oocyte	
bb)	zona pellucida	
cc)	ovulation	
dd)	corpus luteum	
ee)	clitoris	
ff)	hypothalamus	
gg)	FSH	

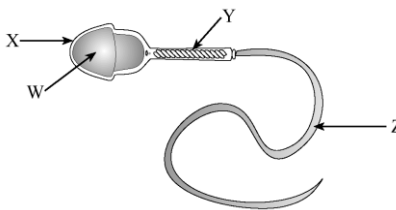
**Part B: Fill In The Blanks**

- The part of the male reproductive system that creates an antacid secretion is called the \_\_\_\_\_.
- Semen is composed of \_\_\_\_\_, which is made in the \_\_\_\_\_ tubules, and secretions from the \_\_\_\_\_ gland, \_\_\_\_\_ glands, and \_\_\_\_\_ vesicles.
- The seminal vesicles secrete a fluid that is rich in the monosaccharide \_\_\_\_\_, which serves as \_\_\_\_\_ for the sperm.
- Cowper's glands secrete a fluid that acts as a \_\_\_\_\_.
- The \_\_\_\_\_ cells in the testes produce testosterone in response to the hormone **LH**.
- The hormone \_\_\_\_\_ promotes spermatogenesis.
- The male hormone testosterone is a \_\_\_\_\_ hormone, meaning that it is \_\_\_\_\_ - soluble. Like all steroid hormones, it is derived from the steroid hormone \_\_\_\_\_.
- \_\_\_\_\_ is made inside the seminiferous tubules and sent from there to the \_\_\_\_\_ for storage.
- Label the diagram of the male reproductive system.

1.	
2.	
3.	
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9.	
10.	
11.	
12.	
13.	



- List the structures through which sperm passes in order, from the following list: epididymis, seminiferous tubules, urethra, penis, vas deferens. \_\_\_\_\_
- Label the parts of the diagram of the sperm cell and list a function for each part:



	Name	Function
W		
X		
Y		
Z		

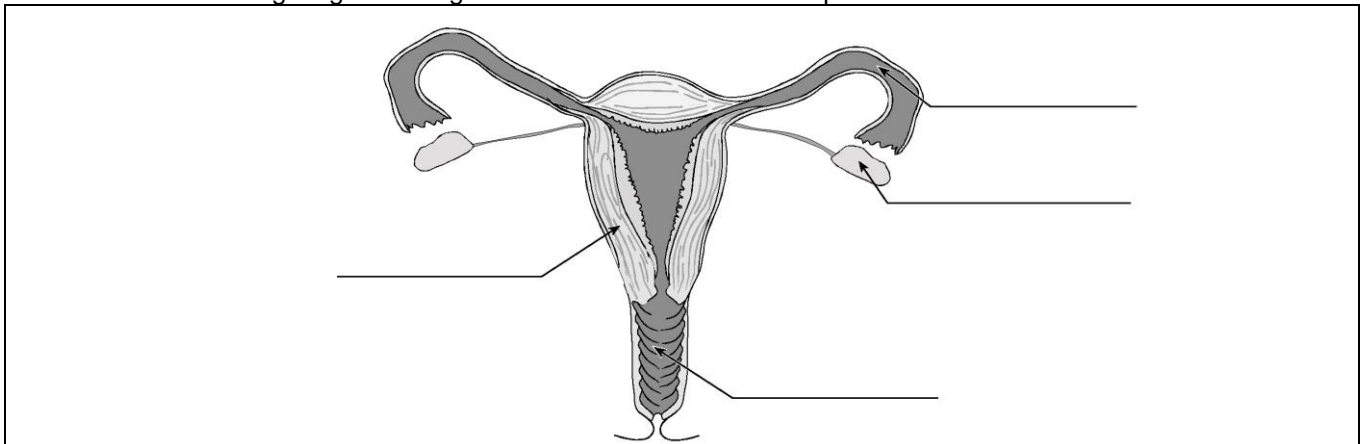
- List 3 function of testosterone

A	
B	
C	

- The \_\_\_\_\_ produces the hormone GnRH when testosterone and \_\_\_\_\_ levels are \_\_\_\_\_.
- This causes the \_\_\_\_\_ pituitary gland to release \_\_\_\_\_ and \_\_\_\_\_.
- LH causes \_\_\_\_\_ cells in the testes to release more \_\_\_\_\_.
- FSH causes the seminiferous tubules to absorb more \_\_\_\_\_, which in turn causes them to produce more \_\_\_\_\_. As it makes more sperm, it also releases more of the hormone \_\_\_\_\_.

\_\_\_\_\_. High levels of this hormone feedback to the \_\_\_\_\_ and \_\_\_\_\_, causing them to release less of their hormones.

17. Label the following diagram and give a function for each labeled part.



	Name	Function

18. List 3 functions of estrogen:

A	
B	
C	

19. The entrance to the uterus is called the \_\_\_\_\_.
20. The female erectile organ containing many sensory nerve receptors is called the \_\_\_\_\_.
21. the menstrual cycle lasts on average \_\_\_\_\_ days. **Day 1** is the first day that \_\_\_\_\_ starts, and usually finishes by day 5.
22. During menstruation, levels of female \_\_\_\_\_ are low.
23. In the follicular phase (days 1 – 14), low levels of hormones are detected by the hypothalamus, which releases \_\_\_\_\_. This is sent to the pituitary gland, which releases \_\_\_\_\_ and \_\_\_\_\_.
24. FSH causes several immature \_\_\_\_\_, along with their surrounding \_\_\_\_\_ cells, in the ovaries to begin to develop. The developing follicle cells release increasing amounts of \_\_\_\_\_.
25. This hormone is responsible for the \_\_\_\_\_ phase of the uterine cycle. In the uterus, \_\_\_\_\_ vessels and \_\_\_\_\_ proliferate.
26. Rising levels of estrogen cause the release of a large amount of **LH** on about day 13 which causes \_\_\_\_\_.
27. Ovulation normally occurs on day \_\_\_\_\_. In ovulation, the \_\_\_\_\_ is released from the ovary, leaving behind the \_\_\_\_\_ cells, which go on to form the \_\_\_\_\_. This structure continues to release the hormones estrogen and progesterone. Of these two hormones, \_\_\_\_\_ is most important for the luteal phase of the ovarian cycle. This hormone cause the \_\_\_\_\_ phase of the uterine cycle. The uterine glands mature and release a thick mucus, and the endometrium \_\_\_\_\_ in thickness.
28. High levels of \_\_\_\_\_ cause \_\_\_\_\_ feedback to the anterior pituitary, shutting down the release of \_\_\_\_\_. Lower levels of LH cause the \_\_\_\_\_ to disintegrate. Since it is breaking down, it can no longer release estrogen and progesterone.
29. Low levels of female \_\_\_\_\_ by day 28 will cause the uterine \_\_\_\_\_ to be shed, and the cycle will start anew.
30. However, if fertilization happens, the \_\_\_\_\_ cycle will be interrupted. Fertilization usually occurs in the upper \_\_\_\_\_. The fertilized egg is first called a **ZYGOTE** and then an \_\_\_\_\_ as it divides through mitosis.
31. The embryo, upon reaching the **UTERUS**, will embed itself into the endometrium. This is called \_\_\_\_\_.
32. A shared set of membranes called the placenta forms around the embryo. This will begin to secrete the hormone HCG, which temporarily maintains the corpus luteum.

33. As the placenta develops and matures, it makes its own \_\_\_\_\_ and \_\_\_\_\_. This will maintain the uterine lining so that \_\_\_\_\_ does not occur during pregnancy.

34. After 9 months, the fetus is ready to be born. The pressure of the baby's head against the cervix causes a nerve impulse to be sent to the hypothalamus. This causes the hypothalamus to release the hormone \_\_\_\_\_ to the pituitary, which releases it into the blood. This hormone causes \_\_\_\_\_. It operates on a \_\_\_\_\_ feedback loop. The hormone causes the uterine muscles to \_\_\_\_\_ with ever greater intensity until the baby is pushed out of the uterus through the \_\_\_\_\_, which serves as the birth canal.

35.

COLUMN A	COLUMN B
prostate gland	
ovary	a) location for spermatogenesis _____
epididymis	b) has enzymes used to penetrate egg _____
seminiferous tubule	c) sperm mature here _____
uterus	d) secretes progesterone _____
fallopian tube	e) location of the developing fetus _____
ductus (vas) deferens	f) provides nutrients for sperm _____
acrosome	

COLUMN A	COLUMN B
acrosome	
corpus luteum	a) stimulates secretions from the corpus luteum _____
luteinizing hormone	b) causes the endometrium to thicken _____
estrogen	c) an organ of copulation _____
vagina	d) contains enzymes necessary to penetrate egg _____
urethra	e) area for maturation of sperm _____
epididymis	f) secretes testosterone _____
interstitial cell	