

BSC 2086L Exam 3 Practice questions

1. The end result of Spermatogenesis is:
  - a. Spermatids
  - b. Spermatozoa
  - c. Spermatocytes
  - d. Spermatogonia
2. The endocrine role of the interstitial cells of the testes is to product
3. Describe the function of the epididimus
4. Name the organ in which oogenesis occurs
5. What role does the corpus luteum play?
6. Place the following in the correct order in terms of follicle development:
  - a. Corpus luteum
  - b. Graafian follicle
  - c. Secondary follicle
  - d. Corpus albicans
  - e. Primary follicle
7. Describe the role of the fimbriae
8. What is the purpose of Meiosis?

9. What layer of the uterine wall is shed during menstruation?

10. Place the following structures in correct developmental order:

- a. Blastocyst
- b. Zygote
- c. 4 cell stage
- d. Embryo
- e. Morula
- f. Fetus

11. Describe the role of the placenta

12. Name the 3 germ layers

13. The allele for hemophilia is sex-linked and recessive.

- a. Use a Punnett square to determine the possible genotypes from the following cross:  $X^H X^h$  ;  $X^H Y$

	$X^H$	$X^h$
$X^H$		
Y		

- b. Determine the probability of producing male offspring with hemophilia
- c. Determine the percentage of offspring who will be carriers of the hemophilia allele

14. Match the key choices with the definitions given below:

- a. sex chromosomes      b. genotype      c. recessive

- \_\_\_\_\_ Actual genetic makeup
- \_\_\_\_\_ Chromosomes determining maleness/femaleness
- \_\_\_\_\_ Genes not expressed unless they are present in the homozygous condition

15. Match the key choices with the definitions given below:

- a. autosomes      b. homozygous      c. phenotype

- \_\_\_\_\_ Situation in which an individual has identical alleles for a particular trait
- \_\_\_\_\_ Expression of a genetic trait
- \_\_\_\_\_ Chromosomes regulating most body characteristics

16. Describe the difference between the terms 'genotype' and 'phenotype'

17. Match each structure in the left column with its correct description from the right column.

- |                      |                                      |
|----------------------|--------------------------------------|
| 1. Epididymis        | A. Space between labia minora        |
| 2. Infundibulum      | B. Female external genitalia         |
| 3. Vestibule         | C. Erectile tissue                   |
| 4. Corpora cavernosa | D. Site of Spermatozoa storage       |
| 5. Vulva             | E. First segment of urethra in males |
| 6. Prostatic urethra | F. Flared end of uterine tube        |

18. Match each structure in the left column with its correct description from the right column.

- |                          |  |
|--------------------------|--|
| 1. Areola                |  |
| 2. Bulbo-urethral glands |  |
| 3. Cervix                |  |
| 4. Ductus (vas) deferens |  |
| 5. Prepuce               |  |
| 6. Myometrium            |  |
- A. Also called foreskin
- B. Muscular layer of uterine wall
- C. Circular pigmented area around nipple
- D. Uterine protrusion into vagina
- E. Found on either side of membranous urethra
- F. Transports spermatozoa to urethra

KEY:

1. (b)
2. Testosterone
3. Storage area for sperm
4. Ovaries
5. Produces progesterone, a hormone that triggers preparation  
Of the endometrium for implantation
6. E,C,B,A,D
7. Catch the ovum after ovulation and draw it into  
The infundibulum
8. Produce haploid sex gametes
9. Endometrium
10. B,C,E,A,D,F
11. Temporary organ through which nutrients, blood gases  
And wastes are exchanged between mother and embryo/fetus
12. Ectoderm, mesoderm, endoderm
- 13.

	$X^H$	$X^h$
$X^H$	$X^H X^H$	$X^H X^h$
Y	$X^H Y$	$X^h Y$

- a. 50% of the male offspring will have hemophila
- b. 50% of the offspring will be carriers
14.
  - a. Chromosomes determining maleness/femaleness
  - b. Actual genetic makeup
  - c. Genes not expressed unless they are present in the homozygous condition
15.
  - a. Chromosomes regulating most body characteristics
  - b. Situation in which an individual has identical alleles for a particular trait
  - c. Expression of a genetic trait
16. Genotype: actual genetic makeup (eg. Tall (T)Dwarf(t):Tt)  
Phenotype: expression of a genetic trait  
(eg The Tt genotype will be expressed as Tall in the individual)
17. D,F,A,C,B,E
18. C,E,D,G,A,B