UNIT 12 - REPRODUCTIVE SYSTEM

ACTIVITY- Reproductive System Worksheet

Name _____ Period _____

1. Describe the two main functions of the reproductive system:
   a.

   b.

2. Define:
   a. Gonads

   b. Gametes

3. The temperature in the scrotum is about 3 degrees (lower / higher) than normal body temperature. Why?

4. a. Gametes are (haploid / diploid) and contain _____ chromosomes.
   b. Number of sperm produced in a normal male per day:
   c. Life expectancy of sperm once ejaculated:

5. Testosterone is the principal male hormone. List several functions of testosterone.

6. Number the structures in the male reproductive system in the order that sperm take from their site of origin to the point where they exit from the body.

_____a. ductus (vas) deferens
_____b. epididymis
_____c. urethra
_____d. ejaculatory duct
_____e. testes

7. Match the accessory male sex glands with their descriptions:
   1. seminal vesicles
   2. prostate gland
   3. bulbourethral (Cowper's) gland

_____a. Single donut shaped gland located inferiorly to the bladder and surrounds the urethra.
_____b. Provides carbohydrate that is used as an energy source for sperm.
_____c. Often the site of cancerous cell growth in males.
_____d. Pea sized glands located underneath the prostate gland.
_____e. Contributes about 60 percent of seminal fluid.
_____f. Produces alkaline fluid to allow the sperm to survive in the acidic female reproductive tract. (two answers)

8. The average amount of semen per ejaculation is _____.
   The average range of number of sperm is _____/ml. When the count falls below _____/ml, the male is considered infertile.

9. The penis consists of three regions. They are: _____ _____ _____
   The _____, or foreskin, is a covering over the _____ of the penis. Surgical removal of the foreskin is known as _____.

10. Number the structures in the female reproductive system in order taken by ova from the site of formation to the point of exit from the body.
    _____a. Vagina
    _____b. Uterine (fallopian) tubes
    _____c. Uterus (body)
    _____d. Uterus (cervix)
    _____e. Ovary

    Which of the above structures are paired?

11. What are the functions of the ovaries?

12. Arrange in sequence according to chronological appearance, from first to develop to last:
    1_____2._____3._____4._____

    CL. Corpus luteum
    OF. Ovarian follicle
    CA. Corpus Albicans
    VOF. Vesicular ovarian (Graafian) follicle

13. Uterine tubes are also known as _____ tubes.

A. Define: Infundibulum and fimbriae

B. What are two functions of the uterine tubes?

C. What is an ectopic pregnancy?

List the three anatomical subdivisions of the uterus.

1.
2.
3.

List three functions of the uterus.

1.
2.
3.

15. Matching:

1. Vagina
2. Clitoris
3. Skene's glands
4. Vulva
5. Perineum
6. Mons pubis
7. Vaginal orifice
8. Labia majora
9. Labia minora

_____a. The distal end of the vagina that opens into the external environment.
_____b. A small, cylindrical mass of nervous and erectile tissue.
_____c. The prominent skin-covered fat pad over the symphysis pubis which, after puberty , becomes covered with hair.
_____d. Glands embedded in the wall of the urethra that secrete mucus.
_____e. Two longitudinal folds of skin on each side of the vaginal opening; covered by pubic hair.
_____f. Two longitudinal folds of epithelial tissue located within the labia majora; no pubic hair.
_____g. The diamond shaped area between the thighs and buttocks.
_____h. A general term used to describe the external genitalia of the female.
_____i. A tubular fibromuscular organ which serves as a passageway for spermatozoa and menstrual flow.

16. Matching:
    M. Myometrium
    E. Endometrium
    P. Perimetrium
    _____a. The outermost layer of the uterus.
    _____b. The layer that sloughs off during menstruation.
    _____c. The innermost layer of the uterus.
    _____d. Makes up the majority of the uterus.
    _____e. Consists of three layers of smooth muscle fibers.

17. Here is a list of hormones which influence the female reproductive system:

    Estrogen
    Follicle-stimulating hormone (FSH)
    Gonadotropin-releasing hormone (GnRH)
    Luteinizing hormone (LH)
    Progesterone
    Relaxin

    Which hormones are produced by each of these endocrine glands?
    Hypothalamus:_____
    Anterior pituitary:_____
    Ovary:_____

    Now match the hormones listed with the descriptions below.

_____a. Stimulates initial development of the ovarian follicles and secretion of estrogen by the follicles.
_____b. Relaxes the pubic symphysis and helps dilate the uterine cervix to facilitate delivery.
_____c. Stimulates the development and maintenance of the female reproductive system and secondary sex characteristics.
_____d. Stimulates the release of FSH and LH.
_____e. Works with estrogen to prepare the endometrium for implantation of a fertilized ovum.
_____f. Stimulates further development of the ovarian follicles and brings about ovulation.

18. Define:
    Menarche:

    Menopause:
19. Define:
    Impotence:

    Infertility:

20. Define
    Amenorrhea:

    Dysmenorrhea:

    Endometriosis:

21. What bacterium is associated with toxic shock syndrome?

    What are the symptoms of toxic shock syndrome?

22. List five symptoms of premenstrual syndrome (PMS).

    _____
    _____
    _____
    _____
    _____

23. Differentiate between Mitosis and Meiosis.

    Mitosis:

    Meiosis:

24. Match the stages of labor with the most appropriate description:

    a. First stage b. Second stage c. Third stage

    _____ The fetus is pushed though the birth canal

    _____ The placenta is expelled from the uterus

    _____ The water breaks, the cervix dilates, and strong uterine contractions

25. Identify the chromosome number that is responsible for the determination of gender.

    Which genotype on this chromosome represents male gender?

    Which genotype on this chromosome represents female gender?

WORKSHEET - Reproductive System - KEY

1. a. Produce offspring (continuation of species)
   b. Produce and secrete hormones involved in the development and maintenance of the male and female reproductive organs as well as other metabolic and physiologic functions throughout the body
2. a. The organs in the body that produce the sex cells; testes and ovaries.
   b. Sex cells - sperm or ova cells.

3. lower; for optimal sperm production

4. a. haploid; 23
   b. 300 million
   c. 48 hours

5. Controls growth and development, maintenance of the male sex organs, stimulates bone growth, stimulates protein anabolism, closure of the epiphyseal plate, influences sexual behavior, final maturation of sperm, stimulates development of secondary male sex characteristics.

6. testes, epididymis, ductus deferens, ejaculatory duct, urethra,

7. a. 2 d. 3
   b. 1 e. 1
   c. 2 f. 1,3

8. 2.5 to 5 ml.; 50 to 150 million; 20 million

9. root, body, glans penis; prepuce; glans penis; circumcision

10. ovary, uterine tubes, uterus (body), uterus (cervix), vagina
    Paired - ovary, uterine tubes

11. Produce mature ovum, ovulation, secretion of the sex hormones progesterone, relaxin, inhibin, and the estrogens.

12. Ovarian follicle, vesicular (Graafian) follicle, corpus luteum, corpus albicans.

13. fallopian; (A) (B) transport the ova from the site of ovulation to the uterus, site of fertilization. (C) Pregnancy following implantation at a location other than in the body of the uterus.

14. (A) Fundus, body, cervix; (B) Site of menstruation, implantation of the fertilized ovum, development of the fetus during pregnancy and labor.

15.
a. 7
b. 2
c. 6
d. 3
e. 8
f. 9
g. 5
h. 4
I. 1

16.
a. P
b. E
c. E
d. M
e. M

17. Hypothalamus: GnRH
Anterior pituitary: FSH, LH
Ovary: Estrogen, Inhibin, Progesterone, Relaxin

a. FSH
b. Relaxin
c. Estrogen
d. GnRH
e. Progesterone
f. LH

18. Menarche: The first menses.
Menopause: The cessation of menses.

19. Impotence: inability of a male to attain or hold an erection
Male infertility: inability by the male to fertilize a mature ovum

20. Amenorrhea: the absence of menstruation.
Dysmenorrhea: difficult or painful menstruation.
Endometriosis: a benign condition characterized by the growth of the endometrial tissue outside of the uterus.

21. Staphylococcus Aureus. Fever like symptoms that if left untreated could possibly lead to death.

22. weight gain, skin eruptions, fatigue and lethargy, depression, increased sleep needs, edema, mood swings, headache, anxiety, clumsiness, cravings for sweets or salty food.

23. Mitosis = somatic cell division which results in production of identical daughter cells with a diploid number of chromosomes Meiosis = sex cell division which results in the production of gametes with a haploid number of chromosomes

24. b,c,a

25. Chromosome #23 XY = Male Gender XX = Female Gender