*Student:* _____

1. Your spouse is a carrier of a recessive trait for a disability. If you are also a carrier, what is the chance that your offspring will have the disability?
   A. 100%
   B. 50%
   C. 75%
   D. 25%

2. When monozygotic twins are more similar on a trait than dizygotic twins, the trait is considered to be more rooted in:
   A. genetics.
   B. prenatal exposures.
   C. environment.
   D. discontinuity.

3. A child's sex is determined by:
   A. the mother.
   B. the time of month.
   C. the father.
   D. prenatal hormones.

4. A sudden but permanent change in a segment of DNA is known as:
   A. mutation.
   B. gametes.
   C. allele.
   D. zygote.

5. Prenatal exposure to alcohol that impacts cognitive function but physical appearance is known as:
   A. Fetal Alcohol Syndrome.
   B. Fetal Alcohol Effects.
   C. Alcohol-Related Neurodevelopmental Disorder.
   D. Alcohol-Related Birth Defects.

6. One prenatal genetic test that involves withdrawing fluid from the amniotic sac that is called:
   A. amniocentesis.
   B. chorionic villus sampling.
   C. implantation.
   D. synaptogenesis.

7. Fraternal twins share what percentage of their genetic information?
   A. 100%
   B. 75%
   C. 50%
   D. more than nontwin siblings

8. Siblings who are conceived from ovum that splits after fertilization with each half having the same genetic material are known as:
   A. fraternal twins.
   B. identical twins.
   C. dizygotic twins.
   D. nontwin siblings.

9. One month, Mary's ovaries released two ova, which were each fertilized. Mary's twins will be:
   A. identical.
   B. fraternal.
   C. monozygotic.
   D. diova.

10. Each cell contains:
   A. 23 chromosomes.
   B. 23 pairs of chromosomes.
   C. 46 pairs of chromosomes.
   D. thousands of chromosomes.

11. Which of the following is a possible pairing of bases in DNA?
   A. adenine-cytosine
   B. thymine-guanine
   C. adenine-guanine
   D. adenine-thymine

12. The molecule that contains genetic information is known as:
   A. a chromosome.
   B. a gene.
   C. deoxyribonucleic acid.
   D. guanine.

13. The sections of DNA that control the development of inherited characteristics is known as:
   A. chromosomes.
   B. genes.
   C. mitosis.
   D. cytosine.

14. A group of 20,000 to 25,000 genes, arranged in a long string, is known as a:
   A. chromosome.
   B. gene.
   C. deoxyribonucleic acid.
   D. mitosis.

15. Cell division that results in two different cells with 23 chromosomes is known as:
   A. DNA.
   B. mitosis.
   C. meiosis.
   D. mutation.

16. In males, gametes are known as:
   A. ovum.
   B. sperm.
   C. zygote.
   D. gene.

17. For each matching pair of chromosomes, two versions of each gene exist, one from the mother and one from the father. Each version is called an:
   A. zygote.
   B. gamete.
   C. gene pair.
   D. allele.

18. Scott has blond hair; he must be _____ for the hair color allele.
    A. homozygous
    B. heterozygous
    C. polygenic
    D. dominant

19. A trait in which both alleles influence the expression of the trait is known as:
    A. dominant recessive.
    B. X-linked inheritance
    C. biallele.
    D. codominance.

20. Compared to other chromosomes, the Y chromosome is:
    A. longer.
    B. shorter.
    C. more fragile.
    D. less fragile.

21. Skin color is determined by the action of many genes in conjunction with some environmental factors this. This form of inheritance is known as:
    A. dominant recessive.
    B. X-linked.
    C. multi-allele.
    D. polygenic.

22. Which is a possible cause of genetic mutation?
    A. microwaves
    B. X-rays
    C. family members conceiving children together
    D. maternal smoking

23. Sickle cell anemia may have persisted in certain populations because of what survival advantage?
    A. reduces high blood pressure
    B. increases height
    C. protects against malaria
    D. prevents blood clotting

24. A genetic disorder that causes damage to the central nervous system if not controlled by special dietary measures is known as:
    A. phenylketonuria (PKU).
    B. sickle cell anemia.
    C. Fragile X Syndrome.
    D. Down Syndrome.

25. A genetic disorder in which blood cells have trouble passing through small blood vessels causing blood clots to occur is known as:
    A. phenylketonuria (PKU).
    B. sickle cell anemia.
    C. Fragile X Syndrome.
    D. Down Syndrome.

26. Although PKU is a genetic disorder that causes retardation it effects can be prevented by:
    A. educating parents in how to stimulate their infants.
    B. extra oxygen available to newborns.
    C. providing infants with a special diet.
    D. reducing maternal smoking during pregnancy.

27. Today all newborn babies in the United States are tested for:
    A. phenylketonuria (PKU).
    B. sickle cell anemia.
    C. Fragile X Syndrome.
    D. Down Syndrome.

28. John inherited a recessive allele for sickle cell anemia from his mother and a normal allele from her father. John:
    A. has sickle cell anemia.
    B. is a carrier of sickle cell anemia.
    C. neither has or is a carrier of sickle cell anemia.
    D. has a 25% chance of getting sickle cell anemia.

29. An inherited disorder in which blood fails to clot normally is known as:
    A. phenylketonuria (PKU).
    B. sickle cell anemia.
    C. Fragile X Syndrome.
    D. hemophilia.

30. Joey bruises easily and has prolonged bleeding after minor injuries. Joey may suffer from:
    A. phenylketonuria (PKU).
    B. sickle cell anemia.
    C. Fragile X Syndrome.
    D. hemophilia.

31. Josh has a long face and prominent ears. He is short and has social anxiety and language delays along with mild retardation. Josh may have:
    A. phenylketonuria.
    B. Down Syndrome.
    C. Fragile X syndrome.
    D. hemophilia.

32. An X-linked disorder in which a gene is unable to produce enough of a protein crucial to the functioning of the central nervous system is known as:
    A. phenylketonuria.
    B. Down Syndrome.
    C. Fragile X syndrome.
    D. hemophilia.

33. A chromosomal abnormality that results from an extra portion of the 21st chromosome is known as:
    A. phenylketonuria.
    B. Down Syndrome.
    C. Fragile X syndrome.
    D. hemophilia.

34. Down Syndrome is also known as:
    A. phenylketonuria.
    B. trisomy 21.
    C. Fragile X Syndrome.
    D. hemophilia.

35. Jane has a flat facial profile and almond shaped-eyes. She also has slow motor development and mental handicaps. She shows some symptoms of:
    A. phenylketonuria.
    B. hemophilia.
    C. Fragile X Syndrome.
    D. trisomy 21.

36. Ben and Lisa have an infant with trisomy 21. They can expect that their child will:
    A. live only into early adulthood.
    B. live only into early adolescence.
    C. live well into adulthood.
    D. have a normal lifespan.

37. The only known risk for trisomy 21 is:
    A. paternal age.
    B. maternal age.
    C. maternal smoking.
    D. maternal weight.

38. By the age of 40, a woman's chance of having a baby with Down Syndrome has increased to:
    A. 1 in 1,000.
    B. 1 in 400.
    C. 1 in 110.
    D. 1 in 60.

39. People who have Klinefelter's syndrome have a chromosomal abnormality that includes:
    A. XXY.
    B. XXX.
    C. XYY.
    D. XO.

40. Susan is shorter than normal and has impaired spatial intelligence. She may suffer from which chromosomal abnormality?
    A. Klinefelter's Syndrome
    B. Turner Syndrome
    C. Down Syndrome
    D. Fragile X Syndrome

41. Research on members of a single family that assesses the extent to which specific characteristics appear, in order to learn more about their hereditary and environmental causes is known as:
    A. twin studies.
    B. behavior genetics.
    C. genetic counseling.
    D. family studies.

42. Genetic counselors gather family information and discuss with potential parents the likelihood that:
    A. they will have a child of the preferred sex.
    B. they will have a child with chromosomal or other genetic defects.
    C. they will experience a difficult pregnancy.
    D. they will have a baby born preterm.

43. What percentage of live births is the result of an unintended pregnancy?
    A. 10%
    B. 25%
    C. 44%
    D. 60%

44. The female reproductive tract which extends from the ovaries to the uterus is known as:
    A. ovum.
    B. fallopian tube.
    C. placenta.
    D. ovulation.

45. As the ovum moves through the fallopian tube, hormones from the ovaries triggers:
    A. the release of an egg from the ovaries.
    B. the opening of uterus to widen.
    C. the production of a soft lining for the uterus.
    D. the development of a primitive placenta.

46. Men create sperm in their testes:
    A. every day.
    B. every week.
    C. every month.
    D. during the prenatal period, and not after birth.

47. The likelihood of conception increases if the sperm enters the female reproductive tract:
    A. a week before ovulation.
    B. a week after ovulation.
    C. the day of ovulation.
    D. the day after ovulation.

48. The most common cause of infertility in couples is:
    A. low sperm count.
    B. ovulation occurring at unexpected times.
    C. blockage of the fallopian tubes.
    D. inhospitable uterine environment.

49. Which alternative reproductive technological method that involve inserting sperm and ovum into the fallopian tube?
    A. in vitro fertilization
    B. zygote intrafallopian transfer
    C. gamete intrafallopian transfer
    D. gamete infusion technique

50. Jody and Mitch have been unsuccessful in becoming pregnant for 12 months; their doctor recommends in vitro fertilization. This technique involves:
    A. transferring an egg and sperm into the fallopian tube.
    B. transferring a fertilized egg into the uterus.
    C. transferring a fertilized egg into the fallopian tubes.
    D. transferring an egg and sperm into the uterus.

51. About what percentage of births each year are a result of alternative reproductive technology?
    A. 1%
    B. 4%
    C. 7%
    D. 10%

52. Identical twins are also known as:
    A. monozygotic twins.
    B. dizygotic twins.
    C. bizygotic twins.
    D. fraternal twins.

53. Which group of women is not more likely to give birth to dizygotic twins?
    A. African American women
    B. younger women
    C. Asian American women
    D. women who use alternative reproductive technology

54. Of infants who are conceived with alternative reproductive technologies and who are born as triplets or higher order multiples, what is their chance of being born premature?
    A. 25%
    B. 33%
    C. 52%
    D. 95%

55. What percentage of infants born in the United States are twins or higher multiples?
    A. 1%
    B. 3%
    C. 5%
    D. 7%

56. From which two countries were the most number of children adopted by parents in the United States?
    A. Russia and China
    B. South Korea and Mexico
    C. Ethiopia and Brazil
    D. China and Mexico

57. Adopted children are more likely to show emotional and behavioral problems especially in which developmental period?
    A. toddlerhood
    B. preschool
    C. early adolescence
    D. late adolescence

58. The only known risk to infants born with the assistance of alternative reproductive technology is:
    A. less warm relationships with parents.
    B. the risk of being born as a multiple.
    C. more genetic abnormalities.
    D. adjust problems in early adolescence.

59. Which is not a difference between mothers who have children using alternative reproductive technology (ART) and mothers who conceive children in the conventional manner?
    A. ART mothers are more protective of their children
    B. ART mothers are more emotionally involved with their children
    C. ART mothers are more cognitively stimulating with their children
    D. There are no differences between these groups of mothers

60. The age of a zygote, embryo, or fetus, usually calculated in weeks after conception, is known as:
    A. functional age.
    B. gestational age.
    C. prenatal age.
    D. conception age.

61. Which is not a stage of prenatal development?
    A. germinal period
    B. gestational period
    C. embryonic period
    D. fetal period

62. The prenatal development begins:
    A. at the moment of conception.
    B. when the zygote emerges from the fallopian tube.
    C. when the zygote implants in the uterus.
    D. when the placenta begins to form.

63. Amy's fetus is 5 inches long. The fetus is in which prenatal period?
    A. germinal period
    B. gestational period
    C. embryonic period
    D. fetal period

64. The multicell organism that grows from a fertilized ovum before implantation in the uterine wall is known as:
    A. zygote.
    B. blastocyst.
    C. embryo.
    D. fetus.

65. If the conception is going to develop into identical twins the cells will separate into two groups when they are still considered a:
    A. blastocyst.
    B. embryo.
    C. fetus.
    D. zygote.

66. Cells on the outside of the blastocyst that will develop into the structures that will support and protect the baby before birth.
    A. embryonic disk
    B. trophoblast
    C. villi
    D. germinal disk

67. Typically, the blastocyst is fully implanted in the uterine wall within:
    A. 2 days of conception.
    B. 1 week of conception.
    C. 2 weeks of conception.
    D. hours of conception.

68. What happens to the zygote if cell division does not occur normally in the germinal period?
    A. The child will have serious birth defects.
    B. The pregnancy will result in twins or triplets.
    C. The zygote will be absorbed in the mother's body.
    D. The pregnancy will end in the fetal period.

69. Within a week after conception, the blastocyst will contain at least:
    A. 50 cells.
    B. 100 cells.
    C. 200 cells.
    D. 1,000 cells.

70. The organ that connects the circulatory systems of mother and fetus is known as the:
    A. uterus.
    B. placenta.
    C. umbilical Cord.
    D. zygote.

71. Early in prenatal development, a structure of cells is formed from the ectoderm which will eventually develop into the brain and spinal cord. This structure is known as:
    A. neural plate.
    B. neural tube.
    C. gonodotrophin.
    D. neurons.

72. hCG is released by the:
    A. mother's ovaries.
    B. mother's pituitary glands.
    C. Embryo's pituitary glands.
    D. placenta.

73. During the embryonic period of prenatal development, the growth of new neural cells is called:
    A. aggregation.
    B. pruning.
    C. mylanation.
    D. proliferation.

74. How many weeks after conception will the brain have the shape of an adult brain?
    A. about 7 weeks
    B. about 12 weeks
    C. about 20 weeks
    D. about 28 weeks

75. The developing organism from 8 weeks after conception until birth is known as a:
    A. blastocyst.
    B. zygote.
    C. fetus.
    D. embryo.

76. The transparent fluid that surrounds the and buffers the fetus is known as:
    A. amniotic fluid.
    B. lanugo.
    C. vernix.
    D. dendrites.

77. The sticky white cheesy covering over the skin of the fetus, which is thought to protect the skin that is exposed for many weeks to amniotic fluid is known as:
    A. lanugo.
    B. vernix.
    C. dendrites.
    D. axons.

78. The point of connection between neurons is known as:
    A. an axon.
    B. a dendrite.
    C. a vernix.
    D. a synapse.

79. During the third trimester, the fetal heart rate:
    A. increases.
    B. decreases.
    C. reflects the mothers' heart rate.
    D. is very erratic.

80. One of the first tests that a pregnant woman may have to measure the baby's size and position is known as:
    A. amniocentesis.
    B. ultrosound.
    C. chorionic villus sampling.
    D. nuchal translucency.

81. Karen is an older mother and she is concerned with finding out if her child will have Down Syndrome. She wants the least invasive yet early test. What test could her doctor recommend for her?
    A. amniocentesis
    B. chorionic villus sampling
    C. nuchal translucency
    D. triple-screen blood test

82. Which test would reveal if an infant may suffer from spina bifida?
    A. amniocentesis
    B. chorionic villus sampling
    C. nuchal translucency
    D. triple-screen blood test

83. At what gestational age do fetuses begin to respond to music?
    A. 10 weeks
    B. 15 weeks
    C. 35 weeks
    D. fetuses do not respond to music

84. An environmental agents that interfere with normal prenatal development is known as:
    A. teratogens.
    B. proteonomics.
    C. choronics.
    D. toxemia.

85. During the third trimester, how many extra calories are needed per day by pregnant women?
    A. 100 calories
    B. 265 calories
    C. 430 calories
    D. 700 calories

86. A nutrient that when taken by pregnant women has been found to prevent neural tube defects is known as:
    A. calcium.
    B. iron.
    C. folic acid.
    D. vitamin D.

87. Studies of maternal malnutrition show that:
    A. effects of malnourishment may last well into adulthood.
    B. it is not harmful for malnourishment to occur in the first trimester.
    C. malnourishment is not a problem for families in the United States.
    D. malnourishment is only related to birth weight.

88. Research has indicated that the impact of stress in pregnant women's lives on their developing fetus is:
    A. some stress is beneficial to future cognitive development.
    B. some stress causes an infant to become more active.
    C. some stress will result in low birth weight.
    D. the results of research on maternal stress are mixed and inconclusive.

89. A medicine once prescribed to pregnant women to prevent miscarriages has been found to create reproductive defects, cancer, and other genital irregularities in their offspring. This drug is:
    A. thalidomide.
    B. diethylstilbestrol.
    C. tetracycline.
    D. dilantin.

90. What percentage of pregnant women report using tobacco?
    A. 5%
    B. 11%
    C. 18%
    D. 29%

91. Which harmful substance use is most common in pregnant women?
    A. illicit drug use
    B. any alcohol use
    C. heavy alcohol use
    D. cigarette use

92. Which statement is true about moderate or light drinking during pregnancy?
    A. There is no effect of light to moderate drinking on a fetus.
    B. Children whose mothers drink even a little show aggressive and disruptive behaviors.
    C. Children whose mothers drink even a little are more likely receive a psychiatric diagnosis later.
    D. The results of light to moderate drinking in pregnancy is inconclusive.

93. Mothers' heavy marijuana use during pregnancy is associated with:
    A. children's mental retardation.
    B. children's problems with addictive behaviors.
    C. children's depressive symptoms.
    D. children's diagnosis of ADHD.

94. Women who suffer from rubella during their first trimester were much more likely to give birth to an infant who:
    A. had specific cognitive delays.
    B. had deformed limbs.
    C. had defective reproductive systems.
    D. were blind.

95. Which of the following is not a way that an HIV-positive mother can transmit the disease to her infant?

    A. through the mother's bloodstream before birth
    B. contact with the mother's blood at birth
    C. contact with the mother's breast milk
    D. mother's daily care-giving to the child

96. Which is not a basic principle of teratogenic influences?
    A. timing is crucial
    B. each teratogen has a characteristics pattern of action
    C. not everyone is affected equally by teratogens
    D. a small exposure to teratogens is as damaging as a large exposure

97. A complication in pregnancy in which swelling of the hands and feet is accompanied by a rise in blood pressure is known as:
    A. teratogen.
    B. posteclampsia.
    C. toxemia.
    D. toxic shock syndrome.

98. Cell duplication that results in two identical and complete cells is known as meiosis.
    True  False

99. The first step in mitosis is DNA replication.
    True  False

100. When two alleles for a particular characteristic match, the person is called heterozygous for that characteristic.
True False

101. Genetic transmission of X-linked inherited disorder is most characteristic of men.
True False

102. Fragile X syndrome is more prevalent and more severe in females than in males.
True False

103. Twin studies focus on the special relationships and closeness of twins.
True False

104. Although thousands of sperm are released during ejaculation only about 250 survive the trip up the fallopian tube.
True False

105. Sperm usually live for only 48 hours.
True False

106. Children who are adopted as infants seem to adjust better and have fewer problems than children adopted later in childhood.
True False

107. In one study, children who were born to mothers who had used in vitro fertilization were reported to have greater behavior problems than those in the control groups.
True False

108. Experts estimate that 25%-40% of pregnancies end in the germinal period without the woman knowing she was pregnant.
True False

109. Pregnancy tests work by detecting hCG in a woman's urine.
True False

110. The fetus can taste and smell amniotic fluid.
True False

111. There is evidence that exposing fetuses to music, particularly classical music, will increase their cognitive development.
True False

112. Maternal depression during pregnancy may be associated with preterm birth and low birth weight.
True False

113. Mother's exposure to secondhand smoke has harmful effects on her fetus.
True False

114. What does PKU (an infant's inability to metabolize milk) tell us about the interaction of genes and the environment?

115.Give two reasons why multibirths are on the rise and what risks are associated with them.

116.What are the four bases of DNA and what are the possible pairs of these bases?

117.Describe the process of how a zygote receives 23 pairs of chromosomes.

118.Why are men more likely to suffer from an inherited X-linked disorder?

119.List three reasons why adopted children may struggle with adjustment problems.

120.Describe the fetus from 8 to 12 weeks' gestation.

121.Describe what the "point of viability" is and when it occurs.

122.Give evidence that fetuses can learn in womb.

123.List five characteristics associated with maternal smoking.

# ch02 Key

1. *(p. 52)* D
2. *(p. 59)* A
3. *(p. 51)* C
4. *(p. 52)* A
5. *(p. 79)* C
6. *(p. 71)* A
7. *(p. 49)* C
8. *(p. 59)* B
9. *(p. 59)* B
10. *(p. 49)* B
11. *(p. 49)* D
12. *(p. 49)* C
13. *(p. 50)* B
14. *(p. 50)* A
15. *(p. 50)* C
16. *(p. 50)* B
17. *(p. 51)* D
18. *(p. 51)* A
19. *(p. 51)* D
20. *(p. 52)* B
21. *(p. 51)* D
22. *(p. 52)* B
23. *(p. 53)* C
24. *(p. 52)* A
25. *(p. 53)* B
26. *(p. 53)* C
27. *(p. 53)* A
28. *(p. 53)* B
29. *(p. 52)* D
30. *(p. 53)* D
31. *(p. 54)* C
32. *(p. 54)* C
33. *(p. 54)* B
34. *(p. 54)* B
35. *(p. 54)* D
36. *(p. 54)* C

37. *(p. 54)* B

38. *(p. 54)* C

39. *(p. 54)* A

40. *(p. 55)* B

41. *(p. 55)* D

42. *(p. 55)* B

43. *(p. 57)* C

44. *(p. 57)* B

45. *(p. 57)* C

46. *(p. 57)* A

47. *(p. 57)* C

48. *(p. 58)* C

49. *(p. 58)* C

50. *(p. 58)* B

51. *(p. 59)* A

52. *(p. 59)* A

53. *(p. 59)* C

54. *(p. 60)* D

55. *(p. 59)* B

56. *(p. 60)* D

57. *(p. 60)* C

58. *(p. 60)* B

59. *(p. 62)* C

60. *(p. 57)* D

61. *(p. 62)* B

62. *(p. 63)* A

63. *(p. 63)* D

64. *(p. 63)* B

65. *(p. 63)* D

66. *(p. 63)* B

67. *(p. 64)* C

68. *(p. 64)* C

69. *(p. 65)* B

70. *(p. 65)* B

71. *(p. 65)* A

72. *(p. 65)* D

73. *(p. 65)* D

74. *(p. 66)* D

75. *(p. 67)* C

76. *(p. 67)* A

77. *(p. 68)* B

78. *(p. 69)* D

79. *(p. 69)* B

80. *(p. 71)* B

81. *(p. 71)* C

82. *(p. 72)* D

83. *(p. 73)* C

84. *(p. 73)* A

85. *(p. 74)* C

86. *(p. 75)* C

87. *(p. 75)* A

88. *(p. 76)* D

89. *(p. 77)* B

90. *(p. 78)* C

91. *(p. 78)* D

92. *(p. 80)* D

93. *(p. 81)* C

94. *(p. 81)* D

95. *(p. 83)* D

96. *(p. 83)* D

97. *(p. 84)* C

98. *(p. 59)* FALSE

99. *(p. 50)* TRUE

100. *(p. 51)* FALSE

101. *(p. 53)* TRUE

102. *(p. 54)* FALSE

103. *(p. 55)* FALSE

104. *(p. 57)* FALSE

105. *(p. 57)* TRUE

106. *(p. 61)* TRUE

107. *(p. 62)* FALSE

108. *(p. 64)* TRUE

109. *(p. 65)* TRUE

110. *(p. 75)* TRUE

111. *(p. 70)* FALSE

112. *(p. 76)* TRUE

113. *(p. 78)* TRUE

114. *(p. 52)* PKU is an inherited recessive trait that results in an infant who lacks the enzyme to break down certain proteins. If untreated, this disorder can lead to mental retardation. With the early introduction of a special diet, retardation is prevented. This example shows that although children may be born with genetic risks or vulnerabilities, a change in the environment may reduce or remove these risks. The environment and genetic makeup are both intertwined and important to children's development.

115. *(p. 60)* Multibirths are on the rise because more couples are using alternative reproductive technologies to conceive children. These techniques are more likely to result in multibirths. Also, couples are more likely to delay childbearing and older women are more likely to carry twins. Twins or other multiples are at risk for premature birth and low birth weight.

116. *(p. 49)* adenine, cytosine, thymine, and guanine. Pairs are adenine-thymine and cytosine-guanine.

117. *(p. 50)* Gametes are cells in the body that contain only 23 chromosomes. The male gamete is the sperm cell and the female gamete is the ovum. When these cells meet during conception, they combine to form a zygote with 23 pairs of chromosomes. One in each pair is inherited from the mother and one in each pair is inherited from the father.

118. *(p. 53)* An inherited X-linked disorder is carried on the X chromosome. If a woman inherited one of these unfavorable alleles, she may be able to draw on the allele of her other X-chromosome to compensate for the problem. By contrast, if a man inherited an unfavorable allele, he does not have another X chromosome to draw on.

119. *(p. 61)* (1) They may have begun life in difficult or deprived backgrounds. (2) They may have been exposed to toxic substances in the prenatal period. (3) They may have been malnourished or exposed to environmental hazards after birth.

120. *(p. 68)* The fetus grows to about 3 inches long. The fetus is very active and the heartbeat can be heard with a stethoscope. The genitalia are beginning to form but are not yet discernable in an ultrasound. The fetus can react to loud noises.

121. *(p. 69)* The "point of viability" is the period in which if the baby was born it has an even chance of survival without special medical attention. The point of viability is at 28 weeks after conception.

122. *(p. 70)* Fetuses' heart rates slowed more for a familiar poem than for a similar poem read aloud, indicating that they recognized the poem. Also, after birth, babies showed a preference for hearing a story that was read aloud to them before they were born.

123. *(p. 78)* (1) Low birth weight; (2) colic; (3) shorter attention span; (4) poor memory; (5) behavioral and cognitive difficulties; (6) increased mortality; (7) increased risk of asthma.

# ch02 Summary

| *Category* | *# of Questions* |
|---|---|
| Book: Patterson | 123 |
| Difficulty: Easy | 1 |
| Difficulty: High | 15 |
| Difficulty: Low | 43 |
| Difficulty: Medium | 64 |
| Patterson - Chapter 02 | 123 |
| Style: Applied | 9 |
| Style: Conceptual | 33 |
| Style: Factual | 81 |
| Topic: Biological Foundations | 123 |