Chapter 2 Genetics and Prenatal Development

TOTAL ASSESSMENT GUIDE

Chapter 2-Section 1

Genetics and Prenatal Development

Learning Objective		Remember	Understand	Apply
Learning Objective 2.1	Multiple Choice	1, 2, 3, 4, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 23, 33, 34, 36,	5, 7, 24, 28, 29, 30, 31, 32, 35	18, 19, 20, 21, 25, 26, 27
	Short Answer			116
	Essay			121
Learning Objective 2.2	Multiple Choice	40, 42, 44, 45, 50, 52, 53, 55	37, 38, 39, 41, 43, 46, 49, 51	47, 48, 54
	Short Answer		117, 118	
	Essay			
Learning Objective 2.3	Multiple Choice	56, 57, 58, 59, 60, 61, 62, 63, 67, 68, 69, 71, 72, 76, 78, 80, 82	64, 65, 70, 74, 77, 81	66, 75, 79, 83, 84
	Short Answer		119	
	Essay			
Learning Objective 2.4	Multiple Choice	85	86, 87, 90	88, 89
	Short Answer			120
	Essay			
Learning Objective 2.5	Multiple Choice		91, 92, 93	
	Short Answer			
	Essay			
Learning Objective 2.6	Multiple Choice	94, 95, 96, 97, 98, 99, 100, 101, 102, 104, 105, 106, 107, 108	103	109
	Short Answer			
	Essay			
Learning Objective 2.7	Multiple Choice	110, 112, 114, 115	111, 113	
	Short Answer			
	Essay			122

Section 1 Genetic Influence on Development

Test Item File

Difficulty
1=Easy; 2=Moderate; 3=Difficult

Learning Objective number refers to the textbook's learning objectives.

MDL Parallel Question ID refers to the correlating question found in MyDevelopmentLab. For your convenience, the MyDevelopmentLab items for this chapter are included in this document after the Test Item File.

Pre=Pre-Test
Post=Post-Test
CE=Chapter Exam
QR=Quick Review

Multiple Choice Questions

1. The human body contains how many chromosomes?
   a. 23
   b. 46
   c. 69
   d. 92

Answer: B
Difficulty: 1
Page: 45
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Pre 2.1.1

2. The average human cell has ____ chromosomes.
   a. 42
   b. 46
   c. 23
   d. 26

Answer: B
Difficulty: 1
Page: 45
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Post 2.1.1
% correct 84 a= 1 b= 84 c= 14 d= 1 r = .19

3. How many pairs of chromosomes do humans have?
   a. 23
   b. 46

c. 69
d. 92

Answer: A
Difficulty: 1
Page: 45
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.1.2
% correct 76 a= 76 b= 24 c= 0 d= 0 r = .33

4. How many chromosomes from each pair of chromosomes are generally inherited from the father?
a. 1
b. 2
c. 3
d. 4

Answer: A
Difficulty: 1
Page: 46
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

5. According to the text, chromosomes are composed of complex molecules known as _____.
a. nucleotides
Incorrect. The complex molecules are known as DNA.
b. genes
c. DNA
Correct. DNA is a long strand of cell material that stores and transfers genetic information.
d. RNA

Answer: C
Difficulty: 2
Page: 45
Skill: C
Learning Objective: 2.1
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Pre 2.1.5

6. Chromosomes are composed of complex molecules known as ____.
a. DNA
b. nucleotide pairs
c. genetic
d. dominant recessive

Answer: A
Difficulty: 1
Page: 45
Skill: F

Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

7. Chromosomes are organized into segments called ____.
   a. DNA
   Incorrect. The segments are called genes.
   b. RNA
   c. genes
   Correct. Genes are segments of DNA that contain coded instructions for the growth and functioning of an organism.
   d. nucleotides

Answer: C
Difficulty: 1
Page: 45
Skill: C
Learning Objective: 2.1
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

8. Genes contain paired sequences of chemicals called ____.
   a. genes
   b. RNA
   c. DNA
   d. nucleotides

Answer: D
Difficulty: 2
Page: 45
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

9. Genes are made of ____.
   a. protein segments
   b. nucleotides
   c. fatty cells
   d. chromosomes

Answer: B
Difficulty: 2
Page: 45
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Post 2.1.2

10. Approximately how many genes comprise the human genome?
   a. 10,000
   b. 23,000
   c. 50,000
   d. 100,000

Answer: B
Difficulty: 2
Page: 45
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

11. How many nucleotide pairs comprise the human genome?
    a. 100,000
    b. 150 million
    c. 3 billion
    d. 5 trillion

Answer: C
Difficulty: 1
Page: 45
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

12. The totality of an individual's genes is referred to as his or her ____.
    a. phenotype
    b. genotype
    c. inheritance
    d. environment

Answer: B
Difficulty: 1
Page: 45
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Post 2.1.3

13. An individual's complete genetic makeup is his or her ____.
    a. genotype
    b. phenotype
    c. allele
    d. reaction range

Answer: A
Difficulty: 1
Page: 45
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.1.4

14. A person's ____ is/are their genetic makeup, whereas a person's ____ is/are their characteristics.
    a. phenotype; genotype
    b. genotype; phenotype

c. nucelotides; DNA
d. DNA; nucleotides

Answer: B
Difficulty: 3
Page: 45
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: QR 2.1.3
% correct 88 a= 12 b= 88 c= 0 d= 0 r = .43

15. The expression of an individual's genetic material is referred to as his or her _____.
a. phenotype
b. genotype
c. inheritance
d. environment

Answer: A
Difficulty: 2
Page: 45
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

16. A person's characteristics are known as his or her ____.
a. phenotype
b. genotype
c. chromosomes
d. DNA

Answer: A
Difficulty: 1
Page: 45
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

17. The difference between an individual's genotype and its expression in his or her phenotype is a consequence of the person's ____.
a. genes
b. DNA
c. environment
d. parents

Answer: C
Difficulty: 2
Page: 45
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.1.5

18. Fred was born into a family with high musical talent. Both his parents were professional musicians who encouraged and fostered his musical development. Throughout childhood he practiced the guitar whenever he could and eventually became a professional musician himself. Which of the following best describes Fred's genotype?
    a. Fred's musical genes
    Correct. One's genotype is his or her complete genetic makeup.
    b. Fred's musical talent
    Incorrect. Musical talent is the characteristic, or the phenotype.
    c. Fred's nurturing parents
    d. Fred's musical genes and musical talent

Answer: A
Difficulty: 2
Page: 45
Skill: A
Learning Objective: 2.1
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: Pre 2.1.10, Post 2.1.10

19. Jill's mother was an All-American in the 1,500m and qualified for the Olympic team in the marathon. Jill is a freshman in high school and does not think that she will need to train to become a member of the school's cross country team. Jill keeps telling you that her mother was a great runner, so she will also be a great runner. What do you think?
    a. She is correct; she will be a great runner no matter what she does.
    Incorrect. Jill will need to train to become a great runner; that is, she will need to interact with the environment to express those genes.
    b. It is unlikely that Jill even has the genotype for running.
    c. Jill might have the genotype for running ability, but she will need to train become a great runner.
    Correct. The athletic ability that may be present in Jill's genotype will not express itself if she does nothing to encourage it, such as training.
    d. Jill has also inherited the genes for superior intelligence.

Answer: C
Difficulty: 2
Page: 45–46
Skill: A
Learning Objective: 2.1
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A

20. Alejandro was born into a family with high musical talent. Both his parents were professional musicians who encouraged and fostered his musical development. Throughout childhood he practiced the guitar whenever he could and eventually became a professional musician himself. Which of the following best describes Alejandro's phenotype?
    a. Alejandro's musical genes
    Incorrect. Alejandro's musical genes are his genotype.
    b. Alejandro's musical talent
    c. Alejandro's nurturing parents
    Correct. Alejandro's genotype includes exceptional musical ability, but it's his parents' support of this ability that encouraged those genes to be expressed.
    d. Alejandro's practice of the guitar

Answer: C
Difficulty: 2
Page: 46
Skill: A
Learning Objective: 2.1
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A

21. Thomas's biological mother and father are both gifted athletes. He was adopted by a couple who had no interest in him being involved in sports. Although Thomas likely inherited athletic ability, it was never expressed in his _____.
    a. genotype
    b. phenotype
    Correct. Thomas likely inherited his biological parents' genotype, but his adoptive parents' disinterest in sports likely inhibited the development of athletic ability in Thomas's phenotype.
    c. genes
    Incorrect. His genetic potential was not expressed in his phenotype.
    d. alleles

Answer: B
Difficulty: 2
Page: 46
Skill: A
Learning Objective: 2.1
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A
% correct 89 a= 7 b= 89 c= 3 d= 2 r = .18

22. On every pair of chromosomes there are how many forms of each gene?
    a. 1
    b. 2
    c. 3
    d. 4

Answer: B
Difficulty: 1
Page: 46
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: QR 2.1.1

23. Each form of a gene that is contained within a chromosome is referred to as a ____.
    a. dominant gene
    b. recessive gene
    c. allele
    d. single gene

Answer: C
Difficulty: 1
Page: 46
Skill: F
Learning Objective: 2.1

Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

24. What type of gene, if it is present, will be expressed in the phenotype?
    a. recessive gene
    b. dominant gene
    Correct. Recessive genes will only be expressed when there is no dominant gene present.
    c. expressed gene
    d. controller gene
    Incorrect. If a dominant gene is present it will be expressed in the phenotype.

Answer: B
Difficulty: 1
Page: 46
Skill: C
Learning Objective: 2.1
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

25. If having more than five fingers occurs because of a dominant gene, what needs to happen for a person to have more than five fingers?
    a. A person must have that dominant gene.
    Correct. If a dominant gene is present it will be expressed in the phenotype.
    b. A person must have two recessive genes.
    c. The gene must mutate.
    d. Both dominant genes must be present.
    Incorrect. For a dominant cell trait to be expressed, all that is needed is the presence of the dominant cell.

Answer: A
Difficulty: 2
Page: 46
Skill: A
Learning Objective: 2.1
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: CE 2.1.6

26. If the gene for curly hair is dominant and the gene for straight hair is recessive, from a dominant-recessive pairing, which of the following would be an individual's phenotype?
    a. straight hair
    Incorrect. Straight hair is recessive.
    b. curly hair
    Correct. Since curly hair is a dominant trait and a heterozygotic pairing is present, the individual's phenotype would be the curly hair, because curly hair is dominant and straight hair is recessive.
    c. dominant-recessive
    d. their complete genetic makeup

Answer: B
Difficulty: 2
Page: 46
Skill: A
Learning Objective: 2.1
Bloom's Taxonomy Level: Apply

MDL Parallel Question ID: N/A

27. Jill's mother and father both have brown eyes yet she has blue eyes. She has come to believe that she is not her parents' actual biological daughter. What would you tell her?
    a. Her mother and father probably carry the recessive trait for blue eyes.
    Correct. The blue-eyed child of two brown-eyed parents probably inherited a recessive blue-eyed gene from each parent.
    b. She is correct; there is no way that she would have blue eyes if she were really her parents' biological daughter.
    Incorrect. Her parents most likely carry the recessive trait from blue eyes.
    c. Blue eyes are dominant, so her parents should have blue eyes too.
    d. Only the environment determines eye color once the fetus has been born.

Answer: A
Difficulty: 2
Page: 46
Skill: A
Learning Objective: 2.1
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A
% correct 97 a= 97 b= 2 c= 1 d= 0 r = .20

28. For a recessive gene to be expressed in the phenotype, it must be paired with a ____.
    a. dominant gene
    b. recessive gene
    Correct. Two recessive genes must be present for that trait to be expressed.
    c. expressed gene
    Incorrect. It must be paired with another recessive gene to be expressed.
    d. controller gene

Answer: B
Difficulty: 1
Page: 46
Skill: C
Learning Objective: 2.1
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

29. What is occurring when the phenotype is influenced primarily but not exclusively by the dominant gene?
    a. expression of the dominant gene
    b. expression of the recessive gene
    c. incomplete dominance
    Correct. The sickle-cell trait that is common among black Africans and African Americans is an example.
    d. failure of expression
    Incorrect. Incomplete dominance occurs when the phenotype is influenced primarily but not exclusively by the dominant gene.

Answer: C
Difficulty: 2
Page: 46
Skill: C
Learning Objective: 2.1

Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

30. In a dominant-recessive pairing, which of the following genes would be expressed in a person's phenotype?
    a. the dominant
    Correct. In a dominant-recessive pairing, the dominant gene will express itself in a person's phenotype. For example, if you inherited a gene for curly hair from one parent and straight hair from the other, you would have curly hair, because curly hair is dominant and straight hair is recessive.
    b. the recessive
    Incorrect. The recessive trait would not be expressed in the presence of a dominant gene.
    c. the dominant-recessive pairing
    d. it is too complicated to know which genes will be expressed

Answer: A
Difficulty: 2
Page: 46
Skill: C
Learning Objective: 2.1
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

31. Which of the following is an example of an incomplete dominant inheritance?
    a. Down syndrome
    Incorrect. Down syndrome is a genetic-linked disorder.
    b. Fragile X
    c. sickle-cell anemia
    Correct. Incomplete dominance occurs when the phenotype is influenced primarily but not exclusively by the dominant gene. One example of incomplete dominance involves the sickle-cell trait that is common among black Africans and their descendants, such as African Americans.
    d. HIV

Answer: C
Difficulty: 2
Page: 46
Skill: C
Learning Objective: 2.1
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: CE 2.1.7

32. Who is most likely to have sickle-cell anemia?
    a. European and European Americans
    b. Hispanics and Hispanic Americans
    c. Asians and Asian Americans
    Incorrect. Africans and African Americans are most likely to have sickle-cell Anemia.
    d. Africans and African Americans
    Correct. It also occurs more rarely in people whose ancestors came from India or the Mediterranean.

Answer: D
Difficulty: 1
Page: 46

Skill: C
Learning Objective: 2.1
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

33. What recessive disorder results in non-normal shaped blood cells that clog up blood vessels and cause pain, increased susceptibility to disease, and early death?
    a. Tay-Sachs
    b. trisomy-21
    c. sickle-cell anemia
    d. malaria

Answer: C
Difficulty: 1
Page: 46
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

34. Sickle-cell anemia is an evolutionary defense against what disease?
    a. sickle-cell trait
    b. malaria
    c. smallpox
    d. Nile fever

Answer: B
Difficulty: 1
Page: 47
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A
% correct 88 a= 6 b= 88 c= 0 d= 6 r = .57

35. Single gene pairs play a crucial role in development. However, it is more common that developmental outcomes occur because of the interaction of multiple genes. This is known as _____.
    a. inheritability
    b. polygenic inheritance
    Correct. Polygenetic inheritance accounts for characteristics such as height and weight as well as intelligence and personality.
    c. bimodal inheritance
    Incorrect. This type of inheritance is referred to as polygenic inheritance.
    d. single dominance

Answer: B
Difficulty: 2
Page: 47
Skill: C
Learning Objective: 2.1
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

36. Characteristics such as height, weight, and skin color are made up of a ____.
    a. homogenetic inheritance
    b. heterogenetic inheritance
    c. dominant-recessive inheritance
    d. polygenetic inheritance

Answer: D
Difficulty: 1
Page: 47
Skill: F
Learning Objective: 2.1
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A
% correct 47 a= 6 b= 18 c= 29 d= 47 r = .16

37. The chromosomes that determine if a fetus will be male or female are known as the _____.
    a. sex chromosomes
    Correct. These are called XX in females and XY in males.
    b. gender chromosomes
    Incorrect. The sex chromosomes determine the sex of the offspring.
    c. male chromosomes
    d. female chromosomes

Answer: A
Difficulty: 1
Page: 48
Skill: C
Learning Objective: 2.2
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

38. If the fetus has the sex chromosomes XX, its genotype is ____.
    a. female
    Correct. Males have XY sex chromosomes.
    b. male
    Incorrect. XX genotype for the sex chromosome would be female.
    c. undertermined
    d. dimorphic

Answer: A
Difficulty: 1
Page: 48
Skill: C
Learning Objective: 2.2
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

39. If the fetus has the sex chromosomes XY, its genotype is _____.
    a. female
    Incorrect. XY genotype for the sex chromosome would be male.
    b. male
    Correct. Females have XX sex chromosomes.
    c. undetermined

d. dimorphic
Answer: B
Difficulty: 1
Page: 48
Skill: C
Learning Objective: 2.2
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

40. A person with an XY pairing of chromosomes is a ____, whereas a person with an XX pairing of chromosomes is a ____.
a. male; female
b. female; male
c. homogenetic inheritance; polygenetic inheritance
d. polygenetic inheritance; homogenetic inheritance
Answer: A
Difficulty: 2
Page: 48
Skill: F
Learning Objective: 2.2
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

41. Which of the two sex chromosomes is significantly smaller and contains approximately 30% less genetic material?
a. X
Incorrect. The Y chromosome is notably smaller and contains less genetic material.
b. Y
Correct.
c. O
d. They are both the same
Answer: B
Difficulty: 1
Page: 48
Skill: C
Learning Objective: 2.2
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

42. Of the following, which best describes the Y chromosome?
a. The Y chromosome is bigger than X chromosome.
b. The Y chromosome contains 30% less genetic material than the X chromosome.
c. The Y chromosome is responsible for determining the sex of the child.
d. There are no differences between the Y chromosome and the X chromosome.
Answer: B
Difficulty: 2
Page: 48
Skill: F
Learning Objective: 2.2
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

43. All ova contain which sex chromosome?
    a. X
    Correct. Females carry no Y chromosomes.
    b. Y
    Incorrect. All ova contain only the X chromosome.
    c. O
    d. None
Answer: A
Difficulty: 1
Page: 48
Skill: C
Learning Objective: 2.2
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: QR 2.1.2

44. All ova, a female reproductive egg, are ____.
    a. X chromosome
    b. Y chromosome
    c. XY chromosome
    d. XX chromosome
Answer: A
Difficulty: 1
Page: 48
Skill: F
Learning Objective: 2.2
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

45. What determines the sex of the offspring?
    a. the ovum
    b. the first sperm cell to arrive at the ovum
    c. egg re-arrangement at fertilization
    d. time of the monthly cycle when fertilization occurs
Answer: B
Difficulty: 1
Page: 48
Skill: F
Learning Objective: 2.2
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

46. What happens that determines the sex of the offspring?
    a. The ovum contains the X chromosome and the sperm cells carry either the X or the Y. The sperm cell that is involved in fertilization determines the sex of the offspring.
    Correct. The woman's ova are not responsible for determining a child's sex as they carry only X chromosomes.
    b. The sperm cells all carry the X chromosome. The ovum contains both the X and Y so it is the ovum that determines the sex of the offspring.

Incorrect. The sperm cell determines the sex of the offspring because it either carries the Y or the X chromosome.

c. The ovum and sperm cells both carry X chromosomes. The placenta carries both the X and Y and it determines the sex of the offspring.

d. The ovum and the sperm cells both contain the X chromosome. During the course of fertilization either an X or a Y will be created, which determines the sex of the offspring.

Answer: A
Difficulty: 1
Page: 48
Skill: C
Learning Objective: 2.2
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

47. Your older brother has a friend who was angry with his wife because they have two sons and he wanted to have a daughter. He thought that she was responsible for having two boys rather than a boy and a girl. What would you tell your brother?

a. His friend was correct, she was purposefully having sons instead of a daughter.

b. It was not anyone's "fault," but the sperm determined the sex of the offspring.

Correct. The sex of the offspring is determined by which chromosome is contributed by the sperm.

c. It was not anyone's "fault" even though her ova determined the sex of the offspring.

Incorrect. The sperm cell determines the sex of the offspring.

d. Sex of the offspring is determined by day of the week. They both should have known what day they were trying to conceive.

Answer: B
Difficulty: 1
Page: 48
Skill: A
Learning Objective: 2.2
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A
% correct 76 a= 6 b= 76 c= 12 d= 6 r = .17

48. While having a conversation with a friend who is pregnant, she says to you that since she is "carrying high" she will have a girl. Based upon the textbook, which of the following statements are you thinking?

a. There is no scientific evidence to support her belief.

Correct. This is a common misconception that has no scientific basis.

b. There are countless research studies that support her belief.

c. Statistically speaking she is correct.

Incorrect. "Carrying high" is folklore.

d. She is wrong, a pregnant woman who is "carrying high" a more likely to be carrying a boy.

Answer: A
Difficulty: 1
Page: 49
Skill: A
Learning Objective: 2.2

Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A

49. Who is more affected by X-linked inherited disorders?
    a. females
    Incorrect. Males are more likely to be affected by X-linked inherited disorders.
    b. males
    Correct. Males are more affected because they do not have a second X chromosome that may be carrying a dominant gene to block the expression of an X-linked inherited disorder.
    c. children under one year of age.
    d. adults with mutations
Answer: B
Difficulty: 1
Page: 49
Skill: C
Learning Objective: 2.2
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

50. Who are generally carriers of X-linked disorders?
    a. females
    b. males
    c. individuals who have been exposed to teratogens
    d. individuals with a trisomy
Answer: A
Difficulty: 1
Page: 49
Skill: F
Learning Objective: 2.2
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

51. Why are males more likely to have X-linked inherited disorders?
    a. If the X chromosome contains the recessive gene for the disorder, their Y chromosome has no dominant gene to prevent it.
    Correct. Males also would not have a second X chromosome that may contain a dominant gene to block the X-linked inherited disorder.
    b. They are generally more immature at birth
    c. Androgen is a hormone that causes disorders to occur
    d. If the Y chromosome does not develop properly, the genes on this chromosome cannot prevent the disorder from occurring
    Incorrect. If the X chromosome contains the recessive gene for the disorder, the Y chromosome does not have the genes to counteract the gene on the X chromosome.
Answer: A
Difficulty: 1
Page: 49
Skill: C
Learning Objective: 2.2
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A% correct 91 a= 91 b= 0 c= 0 d= 9 r = .20

52. Why are males more susceptible to X linked disorders?
    a. Because males have an XX pairing of chromosomes; therefore, this increases their odds of a disorder.
    b. Because males have an XY pairing of chromosomes and the Y chromosome is more likely to host a genetic disorder.
    c. Because most genetic disorders are connected to the dominant gene and since men have an XY pairing a disorder is more likely to be expressed.
    d. Because males have one X chromosome and if a recessive gene for a disorder is present he does not have another X chromosome that may contain a dominant gene to block its expression.

Answer: D
Difficulty: 3
Page: 49
Skill: F
Learning Objective: 2.2
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

53. Which of the following is an example of an X-linked disorder?
    a. schizophrenia
    b. hemophilia
    c. bipolar Disease
    d. enuresis

Answer: B
Difficulty: 1
Page: 49
Skill: F
Learning Objective: 2.2
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

54. Your friend has hemophilia and was worried that he could pass it to his offspring when he had children. What would you tell him?
    a. He is probably correct, he will pass hemophilia on
    b. Hemophilia is an X-linked disorder and it would be impossible for him to pass it to any male offspring. It would be possible for his female offspring to be carriers though.

    Correct. Since his male offspring would inherit his Y chromosome, he cannot pass along an X-linked disorder to them.

    c. X-linked disorders are not inherited; he has no worries

    Incorrect. X-linked disorders are inherited.

    d. Since he has hemophilia, he is probably sterile and unable to father children.

Answer: B
Difficulty: 1
Page: 49
Skill: A
Learning Objective: 2.2
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A

55. Which of the following is an example of an X-linked inheritance disorder?

a. autism
b. Down syndrome
c. hemophilia
d. Turner's syndrome

Answer: C
Difficulty: 1
Page: 50
Skill: F
Learning Objective: 2.2
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

56. Nature is to ____ as nurture is to ____.
a. conditioning; learning
b. learning; conditioning
c. environment; genetics
d. genetics; environment

Answer: D
Difficulty: 1
Page: 50
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Pre 2.1.2
% correct 82 a= 0 b= 6 c= 12 d= 82 r = .32

57. According to your text, what have researchers concluded about the nature–nurture debate in terms of development?
a. Genetics is more important.
b. Environment is more important.
c. Both are important.
d. Genetics is more important in infancy and environment in childhood.

Answer: C
Difficulty: 1
Page: 50
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: QR 2.1.4

58. Which the following statement best describes the nature–nurture debate?
a. Most characteristics develop solely from nature or nurture, but not both.
b. Most characteristics develop from a combination of nature and nurture.
c. Most characteristics develop from only nature.
d. Most characteristics develop from only nurture.

Answer: B
Difficulty: 1
Page: 50
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember

MDL Parallel Question ID: N/A

59. What field is concerned with the question of how much genes influence development?
    a. embryology
    b. behavior genetics
    c. developmental psychology
    d. genetics

Answer: B
Difficulty: 1
Page: 50
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

60. A behavioral geneticist would use which of the following research methods to study the influence of genetics?
    a. longitudinal studies
    b. cross-sectional studies
    c. quasi-experimental studies
    d. twin and adoption studies

Answer: D
Difficulty: 1
Page: 50
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

61. Monozygotic (MZ) twins are also known as _____.
    a. fraternal twins
    b. identical twins
    c. dizygotic twins
    d. conjoined twins

Answer: B
Difficulty: 1
Page: 50
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Post 2.1.5

62. What percentage of their genes do monozygotic twins have in common?
    a. 40%
    b. 60%
    c. 80%
    d. 100%

Answer: D
Difficulty: 1
Page: 50
Skill: F

Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

63. Which of the following have a 100% genetic similarity to each other?
    a. brother and sister
    b. dizygotic twins
    c. cousins
    d. monozygotic twins
Answer: D
Difficulty: 1
Page: 50
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: QR 2.1.9

64. If temperament were genetically based, which of the following would have the greatest degree of similarity?
    a. monozygotic twins
    Correct. Monozygotic twins have a 100% genetic similarity.
    b. dizygotic twins
    Incorrect. Dizygotic twins have a 40 to 60% genetic similarity.
    c. parents and children
    d. cousins
Answer: A
Difficulty: 1
Page: 50
Skill: C
Learning Objective: 2.3
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Pre 2.1.6

65. Dizygotic (DZ) twins are also known as:
    a. fraternal twins
    Correct. Dizygotic twins result when a woman releases two ova and both are fertilized by sperm.
    b. identical twins
    Incorrect. Identical twins are monozygotic twins.
    c. monozygotic twins
    d. conjoined twins
Answer: A
Difficulty: 1
Page: 50
Skill: C
Learning Objective: 2.3
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

66. You are pushing a stroller that has two babies in it. One boy, dressed in blue, and one girl, dressed in pink. Someone stops you tells you how beautiful your baby boy and girl

are. Then they ask if they are "identical twins." You tell them they are not, but what are you thinking?

a. It is impossible to have identical twins of different sexes.

Correct. Identical twins have exactly the same genotype, including sex.

b. They could be identical; that was a great question.

Incorrect. Identical twins share 100% of their genes, so they would both be of the same sex.

c. Fraternal twins are usually both girls.

d. Fraternal twins are usually both boys.

Answer: A
Difficulty: 1
Page: 50
Skill: A
Learning Objective: 2.3
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: CE 2.1.14
% correct 85 a= 85 b= 13 c= 1 d= 1 r = .20

67. What percentage of their genes do dizygotic twins have in common?

a. 100%

b. 70 to 90%

c. 40 to 60%

d. 10 to 30%

Answer: C
Difficulty: 1
Page: 50
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

68. Which of the following have a 40 to 60% similarity of genetic inheritance?

a. identical twins

b. fraternal twins

c. cousins

d. adopted siblings

Answer: B
Difficulty: 1
Page: 50
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

69. What percentage of their genes do parents and their children have in common?

a. 10%

b. 30%

c. 50%

d. 70%

Answer: C
Difficulty: 1

Page: 50
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

70. What type of study allows researchers to study whether certain behaviors or traits are more closely related to their genetics or their environment?
    a. genetics
    Incorrect. Adoption studies examine the effects of environment.
    b. temperament
    c. chromosomal
    d. adoption
    Correct. Adoption studies let researchers observe the behavior of parents and children who share no genetic material.
Answer: D
Difficulty: 1
Page: 50
Skill: C
Learning Objective: 2.3
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: QR 2.1.10

71. ____ is an estimate of the extent to which genes are responsible for the differences among persons within a specific population.
    a. Heritability
    b. Reaction range
    c. Genetic ratio
    d. Environmental coefficient
Answer: A
Difficulty: 1
Page: 50
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

72. What is the name of the statistic that ranges from 0 to 1.00 and is used to estimate the degree to which genes are responsible for differences among people from a specific population?
    a. genetic correlation
    b. heritability estimate
    c. concordance rate
    d. chromosomal correction
Answer: B
Difficulty: 1
Page: 50
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

73. The heritability estimate ranges from ____.
    a. 1 to 100
    b. 0 to 1.00
    c. 1 to 5
    d. 0 to 20

Answer: B
Difficulty: 1
Page: 50
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

74. Professor Glossner proposes that the heritability of temperament is .80. Which of the following statements does Professor Glossner propose?
    a. A large portion of temperament is determined by genetics.
    Correct. Heritability is an estimate of the extent to which genes are responsible for the differences among persons within a specific population. The value of the heritability estimate ranges from 0 to 1.00. The higher the heritability, the more the characteristic is believed to be influenced by genetics.
    b. A large portion of temperament is determined by environment.
    Incorrect. From the estimate provided, 20% is determined by the environment.
    c. 80% of temperament is determined by the X chromosome.
    d. 20% of temperament is determined by the X chromosome.

Answer: A
Difficulty: 2
Page: 50
Skill: C
Learning Objective: 2.3
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Pre 2.1.7

75. Your friend's mother is extremely intelligent. As a result, even though he usually does OK in school (2.8 GPA) he is convinced that he is a genius. What do you think?
    a. Since heritability estimates for intelligence are .50, he is probably overestimating his intelligence.

    Correct. Heritability estimates for intelligence are .50, so given his GPA, it is likely that he is exaggerating his level of intelligence.
    b. He is definitely correct; he is likely a genius.
    Incorrect. Heritability estimates for intelligence are .50, so given his GPA, it is likely that he is exaggerating his level of intelligence.
    c. Actually, children of intellectually gifted adults are usually much lower in intelligence.
    d. With a 2.8 GPA, he must be correct.

Answer: A
Difficulty: 2
Page: 51
Skill: A
Learning Objective: 2.3
Bloom's Taxonomy Level: Apply

MDL Parallel Question ID: N/A

76. According to your text, what percentage of variation of intelligence is estimated to be attributed to genetics?
    a. 25%
    b. 50%
    c. 75%
    d. 100%

Answer: B
Difficulty: 1
Page: 51
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Post 2.1.4

77. What measure allows researchers to estimate not just genetic influence, but of how much the environment allows the genes to be expressed?
    a. genetic correlation
    b. heritability estimate
    Correct. Heritability is an estimate of the extent to which genes are responsible for the differences among persons within a specific population.
    c. concordance rate
    Incorrect. The heritability estimate includes not just genetics, but how much the environment allows the genes to be expressed.
    d. chromosomal correction

Answer: B
Difficulty: 1
Page: 51
Skill: C
Learning Objective: 2.3
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

78. Concordance rate is defined as _____.
    a. the degree of similarity in characteristics among peoples of a cultural group
    b. the influence of genes on development by comparing people who share different amounts of their genes
    c. the percentage that indicates the degree of similarity in phenotype among pairs of family members
    d. the degree of difference as expressed by variations in environment

Answer: C
Difficulty: 3
Page: 51
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A
% correct 88 a= 6 b= 0 c= 88 d= 6 r = .29

79. If you were to design a research study that examines depression in relation to concordance rate, which of the following are the best groups to use for comparison?
    a. identical twins to and fraternal twins
    Correct. Monozygotic twins are identical with a 100% genetic similarity and dizygotic twins are fraternal with a 50% genetic similarity. Therefore, twin studies are important in estimating concordance rate.
    b. college students and the general public
    c. brothers and sisters
    Incorrect. Brothers and sisters have a 50% genetic similarity. Therefore, a comparison with the same environment will be of little value.
    d. parent(s) and children

Answer: A
Difficulty: 2
Page: 51
Skill: A
Learning Objective: 2.3
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: Pre 2.1.8

80. When concordance rates are higher among monozygotic twins than dizygotic twins, this indicates which of the following?
    a. There is partially a genetic basis.
    b. There is partially an environmental basis.
    c. There is a 100% environmental cause.
    d. There is a 100% genetic cause.

Answer: A
Difficulty: 2
Page: 51
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

81. Which measure allows behavior geneticists to determine the percentage of similarity in phenotype among pairs of family members and is used mostly to examine mental disorders?
    a. genetic correlation
    b. heritability estimate
    Incorrect. Similarity of phenotypes is estimated with the concordance rate.
    c. concordance rate
    Correct. Concordance rates range from 0 to 100%. The higher the concordance rate, the more similar two persons are.
    d. chromosomal correction

Answer: C
Difficulty: 1
Page: 51
Skill: C
Learning Objective: 2.3
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

82. Which of the following pairs would have a higher concordance rate for schizophrenia?
    a. monozygotic twins
    b. dizygotic twins
    c. adopted siblings
    d. cousins

Answer: A
Difficulty: 3
Page: 51
Skill: F
Learning Objective: 2.3
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: QR 2.1.5
% correct 80 a= 80 b= 18 c= 1 d= 1 r = .38

83. If John has schizophrenia, how likely is it that his monozygotic twin brother will also have schizophrenia?
    a. John's brother will also have schizophrenia.
    b. There is an 80% probability that John's brother will have schizophrenia.
    Incorrect. There is a 50% probability that his identical twin will also have schizophrenia.
    c. There is a 50% probability that John's brother will have schizophrenia.
    Correct. The concordance rate for schizophrenia among monozygotic, or identical, twins is 50%.
    d. John's brother will not have schizophrenia.

Answer: C
Difficulty: 1
Page: 51
Skill: A
Learning Objective: 2.3
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A

84. If John has schizophrenia, how likely is it that his dizygotic twin brother will also have schizophrenia?
    a. John's brother will also have schizophrenia.
    b. There is a 38% probability that John's brother will have schizophrenia.
    Incorrect. There is an 18% probability that his fraternal twin will also have schizophrenia.
    c. There is an 18% probability that John's brother will have schizophrenia.
    Correct. The concordance rate for schizophrenia among dizygotic, or fraternal, twins is 18%.
    d. John's brother will not have schizophrenia.

Answer: C
Difficulty: 1
Page: 51
Skill: A
Learning Objective: 2.3
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: Post 2.1.8, CE 2.1.15

85. The ____ is when genes establish boundaries for environmental influences rather than specifically denoting a particular characteristic.

a. reaction range
b. nature-nurture debate
c. genetic ratio
d. concordance rate

Answer: A
Difficulty: 1
Page: 52
Skill: F
Learning Objective: 2.4
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

86. Genes establish a potential of expression and environment determines where a person's phenotype will fall. What is this boundary of genetic influence?
a. Environmental influence
b. Gene boundaries
c. The inheritability estimate
Incorrect. The boundary of genetic influence is the reaction range.
d. The reaction range
Correct. The reaction range is when genes establish boundaries for environmental influences.

Answer: D
Difficulty: 2
Page: 52
Skill: C
Learning Objective: 2.4
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

87. The concept of reaction range proposes ____ establish(es) boundaries, whereas ____ determines where a person falls within that range.
a. genetics; environment
b. environment; genetics
c. phenotype; genotype
d. polygenetic inheritance; homogenetic inheritance

Answer: A
Difficulty: 2
Page: 52
Skill: F
Learning Objective: 2.4
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.1.3
% correct 53 a= 53 b= 12 c= 0 d= 29 r = .48

88. Elizabeth was just born. Her father is 6′ 8″ tall and her mother is 5′ 11″ tall. It is quite likely that Elizabeth will be tall as well. However, the environment will play a role in her eventual height as well. The genetic potential for Elizabeth's height is known as the ____.
a. environmental range
b. reaction range
Correct. The reaction range is when genes establish boundaries for environmental influences.

c. genetic range

Incorrect. Elizabeth's genetic potential for height is her reaction range.

d. Interaction range

Answer: B
Difficulty: 2
Page: 52
Skill: A
Learning Objective: 2.4
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: CE 2.1.8
% correct 50 a= 9 b= 50 c= 32 d= 8 r = .40

89. Which of the following individuals illustrates a person who is closer to the peak of their reaction range?

a. Samir was born with a potential IQ of 145 (gifted IQ), was raised in an educationally enriching environment, and is a highly motivated learner.

Correct. Reaction range proposes that genetics establishes limits, whereas one's environment places them on that scale. This means that Samir was born with a potential of an IQ of 145 and he is living within an environment that allows him to reach his fullest potential.

b. Joseppi, who was born with a potential IQ of 145 (gifted IQ), was raised in an educationally deprived environment and is an unmotivated learner.

Incorrect. Joseppi has the genetic potential; however, his environment is limiting.

c. Susan was born with the potential IQ of 80 (below average IQ), was raised in an educationally deprived environment and is an unmotivated learner.

d. Iman, who was born with the potential IQ of 80 (below average IQ), was raised in an educationally enriching environment and is an unmotivated learner who makes little progress.

Answer: A
Difficulty: 2
Page: 52
Skill: A
Learning Objective: 2.4
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: Post 2.1.9

90. In the past few decades, the average height of adults in Western countries has not changed much. This indicates that adult height for these countries has reached the upper boundary of their ____.

a. socio-economic range

b. health status

c. reaction range

Correct. Reaction range proposes that genetics establishes limits, whereas one's environment places them on that scale.

d. range of genetic dominance

Incorrect. Adult heigh in Western countries has reached the upper boundary of their reaction range.

Answer: C
Difficulty: 2
Page: 52
Skill: C
Learning Objective: 2.4

Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: QR 2.1.8

91. Sandra Scarr and Kathleen McCartney proposed the theory of genotype → environment effects. Which subtype occurs in biological families because parents provide both genes and environment for their children?

a. Passive genotype → environment effects

Correct. It's difficult to separate genetic influences from environmental influences because parents provide both.

b. Evocative genotype → environment effects

Incorrect. The genotype → environment effect in this case would be passive genotype → environment effect.

c. Active genotype → environment effects

d. Inactive genotype → environment effects

Answer: A
Difficulty: 1
Page: 52
Skill: C
Learning Objective: 2.5
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Post 2.1.7

92. Sandra Scarr and Kathleen McCartney proposed the theory of genotype → environment effects. Which subtype occurs when a person's inherited characteristics bring about responses from others in their environment?

a. Passive genotype → environment effects

Incorrect. The genotype → environment effect in this case would be evocative genotype → environment effect.

b. Evocative genotype → environment effects

Correct. An example would be a parent who buys more books for a child who seems to enjoy reading and thereby encourages the expression of her inherited interest in reading.

c. Active genotype → environment effects

d. Inactive genotype → environment effects

Answer: B
Difficulty: 1
Page: 53
Skill: C
Learning Objective: 2.5
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: CE 2.1.9

93. Sandra Scarr and Kathleen McCartney proposed the theory of genotype → environment effects. Which subtype occurs when people seek out environments that correspond to their genotypic characteristics?

a. Passive genotype → environment effects

b. Evocative genotype → environment effects

c. Active genotype → environment effects

Correct. An example would be an outgoing young adult seeking a career where she can interact with other people all day.

d. Inactive genotype → environment effects

Incorrect. The genotype → environment effect in this case would be active genotype → environment effect.

Answer: C
Difficulty: 1
Page: 53
Skill: C
Learning Objective: 2.5
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A
% correct 81 a= 7 b= 10 c= 81 d= 2 r = .37

94. What are the only cells in the human body that do not contain 46 chromosomes?
    a. lens cells
    b. neurons
    c. hair cells
    d. gametes

Answer: D
Difficulty: 1
Page: 55
Skill: F
Learning Objective: 2.6
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.1.10
% correct 81 a= 4 b= 8 c= 7 d= 81 r = .31

95. Human sex cells, sperm and ova, each contain how many chromosomes?
    a. 23
    b. 46
    c. 23 pairs
    d. 46 pairs

Answer: A
Difficulty: 1
Page: 55
Skill: F
Learning Objective: 2.6
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

96. Sperm and ova are produced by which of the following, respectively?
    a. penis and uterus
    b. scrotum and vulva
    c. testes and ovaries
    d. kidneys and pancreas

Answer: C
Difficulty: 1
Page: 55
Skill: F
Learning Objective: 2.6
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

97. Through what process are gametes formed?

a. mitosis
b. meiosis
c. sex differentiation
d. dimorphic cell division

Answer: B
Difficulty: 1
Page: 55
Skill: F
Learning Objective: 2.6
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: QR 2.1.6

98. What is the process of regular cell division called?
a. mitosis
b. meiosis
c. sex differentiation
d. dimorphic cell division

Answer: A
Difficulty: 1
Page: 55
Skill: F
Learning Objective: 2.6
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Pre 2.1.3

99. ____ is known as the normal process of cell reproduction in which chromosomes duplicate themselves and the cells divide to become two cells.
a. Meiosis
b. Mitosis
c. Polar bodies
d. Crossing over

Answer: B
Difficulty: 2
Page: 55
Skill: F
Learning Objective: 2.6
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

100. In the process of meiosis, how many chromosomes does the cell originally have and how many chromosomes are present when the gametes are formed?
a. 92, 46
b. 69, 46
c. 46, 23
d. 23, 23

Answer: C
Difficulty: 1
Page: 55
Skill: F
Learning Objective: 2.6
Bloom's Taxonomy Level: Remember

MDL Parallel Question ID: N/A

101. At the conclusion of meiosis how many sperm cells have been formed?
    a. 2
    b. 4
    c. 8
    d. 16

Answer: B
Difficulty: 1
Page: 56
Skill: F
Learning Objective: 2.6
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

102. At the conclusion of meiosis how may ova have been formed?
    a. 1 with 3 polar bodies
    b. 2 with 2 polar bodies
    c. 3 with 1 polar body
    d. 4 with no polar bodies

Answer: A
Difficulty: 1
Page: 56
Skill: F
Learning Objective: 2.6
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

103. According to the text, why does the ovum have an excessive amount of cytoplasm?
    a. so that there is ample room for the sperms nucleus once it arrives
    b. to help protect against invading cells
    Incorrect. Cytoplasm will be the main source of nutrition for the ovum.
    c. so that the ovum can be easily found by the sperm cells
    d. it will be the ovum's main source of nutrition
    Correct. Cytoplasm is the ovum's source of nutrients for the first two weeks after fertilization.

Answer: D
Difficulty: 1
Page: 56
Skill: C
Learning Objective: 2.6
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

104. What is the process that allows mixing the combinations of genes in a single chromosome resulting in a virtually infinite possible combination of genes?
    a. sampling from a large genetic pool
    b. gamete swapping
    c. crossing over
    d. mitosis

Answer: C

Difficulty: 1
Page: 56
Skill: F
Learning Objective: 2.6
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

105. The typical male ejaculation expels how many sperm?
    a. 100 to 300
    b. 100 to 300 thousand
    c. 100 to 300 million
    d. 100 to 300 billion
Answer: C
Difficulty: 2
Page: 56
Skill: F
Learning Objective: 2.6
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

106. Males begin producing sperm ____, whereas females produce ova ____.
    a. at puberty; at puberty
    b. while in the womb; at puberty
    c. at puberty; while in the womb
    d. while in the womb; while in the womb
Answer: C
Difficulty: 2
Page: 56
Skill: F
Learning Objective: 2.6
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.1.13

107. How many ova are present in a female adolescent's ovaries in puberty?
    a. 20,000
    b. 40,000
    c. 60,000
    d. 80,000
Answer: B
Difficulty: 1
Page: 56
Skill: F
Learning Objective: 2.6
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

108. Most women will run out of fertile ova by the time they reach their ____.
    a. 30s
    b. 40s
    c. 50s
    d. 60s

Answer: B
Difficulty: 1
Page: 56
Skill: F
Learning Objective: 2.6
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.1.1

109. Lamar and Chandra recently got married and have been discussing how long they could wait to have children. Based upon the text, at what age, statistically speaking, will Chandra run out of fertile ova?
a. 30s
Incorrect. Most women run out of ova some time in their 40s.
b. 40s
Correct. By contrast, men produce sperm throughout their adult lives although the quality and quantity may decline with age.
c. 50s
d. 60s
Answer: B
Difficulty: 1
Page: 56
Skill: A
Learning Objective: 2.6
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: Pre 2.1.9

110. How many days into the woman's menstrual cycle does ovulation occur?
a. 2
b. 14
c. 28
d. 40
Answer: B
Difficulty: 1
Page: 57
Skill: F
Learning Objective: 2.7
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.1.11

111. Fertilization is most likely to occur when intercourse occurs ____.
a. within 2 days before and on the day of ovulation
Correct. It can take sperm from a few hours to a whole day to travel up the fallopian tubes.
b. 2 days after ovulation
Incorrect. Fertilization is likely to occur within two days before and on the day of ovulation.
c. 5 days after ovulation
d. 1 week after ovulation
Answer: A
Difficulty: 1
Page: 57

Skill: C
Learning Objective: 2.7
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: QR 2.1.7

112. According to the text, how long can sperm live in the woman's body after ejaculation?
    a. 12 hours
    b. 1 day
    c. 5 days
    d. 1 week
Answer: C
Difficulty: 1
Page: 57
Skill: F
Learning Objective: 2.7
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.2.12

113. When the ovum and sperm cells unite and fertilization has occurred, what has just been formed?
    a. the fetus
    b. the embryo
    c. the blastocyst
    Incorrect. When the ovum and sperm cells unite, the zygote has been formed.
    d. the zygote
    Correct. The zygote's 46 paired chromosomes constitute the new organism's unique genotype.
Answer: D
Difficulty: 1
Page: 57
Skill: C
Learning Objective: 2.7
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Post 2.1.6

114. When the ovum is fertilized by the sperm this is called ____.
    a. fertility
    b. conception
    c. cervix
    d. gametes
Answer: B
Difficulty: 1
Page: 57
Skill: F
Learning Objective: 2.7
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

115. Which of the following has increased due to advancements in fertility treatments?
    a. monozygotic twins
    b. dizygotic twins

c. conjoined twins
d. Siamese twins

Answer: B
Difficulty: 2
Page: 57
Skill: F
Learning Objective: 2.7
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Pre 2.1.4

Short Answer Questions

116. Give an example that explains the difference between phenotype and genotypes.
Answer: Two identical twins will have the same genotype because their genetic make up is exactly the same, but if they were adopted into homes with parents who had different views about health, they may have different phenotypes. One may be overweight because eating junk food is the norm, whereas the other twin may have a trim athletic build because fitness was always a part of the family's routine and involvement in sports was encouraged.
Page 45-46
Learning Objective: 2.1
Bloom's Taxonomy Level: Apply

117. You have likely heard people say "the father is the one who determines the sex of the child." Explain whether or not this is true.
Answer: Females' eggs have two X chromosomes and males' sperm contains either an x or a y. When a zygote is formed, it always gets an x from the female, but it can get either an x or a y from the male. If it gets a y, the result is a male, if it gets an x, it becomes a female.
Page: 48
Learning Objective: 2.2
Bloom's Taxonomy Level: Understand

118. Although often viewed as the stronger sex, explain why males are actually more vulnerable.
Answer: Because the sex chromosome of females is composed of two Xs, if one of these Xs contains a recessive gene for a disorder or disease, it will not manifest itself due to the other X overriding it and not allowing it to be expressed. Since the sex chromosome make up of the male is XY, if there is a recessive gene for a disorder on his X chromosome it will express itself because there is not another X chromosome that may contain a dominant gene to block its expression.
Page: 49
Learning Objective: 2.2
Bloom's Taxonomy Level: Understand

119. The concordance rate for schizophrenia among identical twins is .40; the concordance rate for Schizophrenia is only .10 if a person's parent has schizophrenia. Explain what these number mean. Include a discussion of nature and nurture in your response.
Answer: This means that if one MZ twin has schizophrenia, there is a 40% chance that the other twin will also develop this disorder, whereas there is only a 10% chance of developing it if your mother or father has it. The higher rate for identical twins means that there is a

genetic component to schizophrenia. However, there is still a 60% of not getting schizophrenia if your MZ has it, so environment plays a greater role than genes.
Page: 51
Learning Objective: 2.3
Bloom's Taxonomy Level: Understand

120. What is a reaction range? Provide an example to illustrate.
Answer: A reaction range refers to the range of possibilities that a person is capable of as set forth by their genetic make up. It is similar to one's genetic potential. If a person's parents are both short in stature with a petite frame, it is genetically possible that the child have a body type suitable to be a jockey. However, the environment plays an important role; if the person eats a high fat diet and does not maintain her health, she may not have the trim, strong build required for this work.
Page: 52
Learning Objective: 2.4
Bloom's Taxonomy Level: Apply

Essay Questions

121. Explain the phenomenon of incomplete dominance in sickle cell inheritance.
Answer: Incomplete dominance occurs when there is a dominant-recessive pair of genes and the phenotype is affected mostly by the dominant gene, but the recessive gene also becomes expressed partially. In sickle cell anemia, a person inherits two recessive genes for the sickle-cell trait and their blood cells are disk-shaped rather than round, causing clogging and a number of problems, such as pain. If the person only inherits one recessive gene for the sickle cell trait, they will not have sickle cell anemia, but some of their blood cells will be misshaped. This condition causes resistance to malaria, an often fatal disease that is common in Africa. It would be adaptive to carry this recessive trait in Africa, so this explains the higher prevalence of sickle-cell diseases among people of African heritage.
Page: 46-47
Learning Objective: 2.1
Bloom's Taxonomy Level: Apply

122. Explain how DZ and MZ twins are formed. Include a discussion of ethnic variations and factors that increase the chances of having twins.
Answer: DZ twins result when the female releases two eggs instead of one and each is fertilized with a sperm. MZ twins result when a zygote is formed and it divides. DZ twins are more common among Africans and least common among Asians. MZ twins are not more common in some ethnic groups. The chances of having DZ twins increase if they run in the family, if the person is in good health and if the mother is older. None of these variables predicts MZ twins.
Page: 57-58
Learning Objective: 2.7
Bloom's Taxonomy Level: Understand

MyDevelopmentLab Question Bank

Pre-Test

Pre 2.1.1. The average human cell has ____ chromosomes.
a. 23
b. 46
c. 78
d. 96
Answer: b
Page: 45

Pre 2.1.2. Nurture is to ____; whereas, nature is to ____.
a. environment; genetics
b. genetics; environment
c. learning; conditioning
d. conditioning; learning
Answer: a
Page: 50

Pre 2.1.3. The process of regular cell division is called _____.
a. mitosis
b. meiosis
c. metamorphosis
d. monophonic
Answer: a
Page: 55

Pre 2.1.4. Due to advancements in fertility treatments, ____ have increased in recent times.
a. monozygotic twins
b. dizygotic twins
c. conjoined twins
d. Siamese twins
Answer: b
Page: 57

Pre 2.1.5. Complex molecules that make up chromosomes are known as _____.
a. DNA
b. RNA
c. MRI
d. genes
Answer: a
Page: 45

Pre 2.1.6. If temperament was genetically based, which of the following would have the greatest degree of similarity?
a. identical twins
b. fraternal twins

c. cousins
d. step- brothers and sisters
Answer: a
Page: 50

Pre 2.1.7. If one proposes the heritability of IQ is .80, which of the following statements is correct?
a. A large portion of IQ is determined by genetics.
b. A large portion of IQ is determined by environment.
c. 80% of IQ is determined by the X chromosome.
d. 20% of IQ is determined by the X chromosome.
Answer: a
Page: 50

Pre 2.1.8. Which of the following subjects would be best for a research study that examines the concordance rate of intelligence?
a. identical twins to fraternal twins
b. college students to the general public
c. brothers to sisters
d. parent(s) to children
Answer: a
Page: 51

Pre 2.1.9. Keith and Carry have been discussing how long they could wait to have children. At what age, statistically speaking, will Carry run out of fertile ova?
a. 30s
b. 40s
c. 50s
d. 60s
Answer: b
Page: 56

Pre 2.1.10. Jack's father was an All-American in the 50M backstroke and qualified for the Olympic Team. Jack is a freshman in high school and does not think that he will need to train to become a member of the school's Swim team. Jack keeps telling you that his father was a great swimmer, so he will also be a great swimmer. What do you think?
a. He is correct; he will be a great swimmer no matter what he does.
b. It is unlikely that Jack even has the genotype for swimming.
c. Jack might have the genotype for swimming, but he will need to train to become a great swimmer.
d. Jack has also inherited the genes for any athletic sport.
Answer: c
Page: 45

Post-Test

Post 2.1.1. The average human cell (with exception to ova and sperm cells) contains how many chromosomes?

a. 23
b. 46
c. 52
d. 78
Answer: b
Page: 45

Post 2.1.2. ____ are the basic building block of chromosomes.
a. Genes
b. Fatty cells
c. Myelin
d. Nucleotides
Answer: a
Page: 45

Post 2.1.3. ____ is a person's complete genetic makeup.
a. Genotype
b. Phenotype
c. Reaction range
d. Necelotide
Answer: a
Page: 45

Post 2.1.4. According to the text, what percent of variation of intelligence is estimated to be the result of genetics?
a. 10%
b. 30%
c. 50%
d. 80%
Answer: c
Page: 51

Post 2.1.5. Fraternal twins are also known as _____.
a. dizygotic twins
b. monozygotic twins
c. conjoined twins
d. identical twins
Answer: a
Page: 50

Post 2.1.6. ____ is formed with the ovum and sperm unite and fertilization takes place.
a. The fetus
b. The embryo
c. The blastocyst
d. The zygote
Answer: d
Page: 57

Post 2.1.7. Scarr and McCartney proposed the theory of genotype ® environment effects. From their theory, which subtype occurs when people seek out environments that correspond to their genotypic characteristics?

a. Lateral genotype ® environment effects
b. Evocative genotype ® environment effects
c. Active genotype ® environment effects
d. Inactive genotype ® environment effects
Answer: c
Page: 52

Post 2.1.8. If an individual has schizophrenia, what is the probability that his dizygotic twin brother will also have schizophrenia?
a. about 5%
b. about 18%
c. about 62%
d. about 95%
Answer: b
Page: 51

Post 2.1.9. Which of the following individuals illustrates a person who is closer to the lower portion of their reaction range?
a. Martin, who was born with a potential IQ of 145 (gifted IQ), was raised in an educationally enriching environment, and is a highly motivated learner.
b. Nathan, who was born with a potential IQ of 145 (gifted IQ), was raised in an educationally deprived environment, and is an unmotivated learner.
c. Abby, who was born with a potential IQ of 80 (below average IQ), was raised in an educationally enriching environment, and is a motivated learner.
d. Roman, who was born with the potential IQ of 80 (below average IQ), was raised in an educationally enriching environment, and is an unmotivated learner who makes little progress,.
Answer: b
Page: 52

Post 2.1.10. Kendra is a professional singer who is the daughter of musical artists. Throughout her childhood, her parents encouraged and trained her to the best of their abilities. During school she enrolled in a specialized academy that continued to nurture her talent. Which of the following best describes Kendra's genotype?
a. Kendra's musical genes
b. Kendra's musical talent
c. Kendra's nurturing parents
d. Kendra's musical genes and musical talent
Answer: a
Page: 45

Chapter Exam

CE 2.1.1. By the time most women reach their ____ they will run out of fertile ova.
a. 30s
b. 40s
c. 50s
d. 60s

Answer: b
Page: 56

CE 2.1.2. Sperm and ova, human sex cells, each contain how many chromosomes?
a. 23
b. 46
c. 23 pairs
d. 46 pairs
Answer: c
Page: 45

CE 2.1.3. Reaction range proposes ____ establish(es) boundaries, and ____ determines where a person falls within that range.
a. genetics; environment
b. environment; genetics
c. phenotype; genotype
d. polygenetic inheritance; homogenetic inheritance
Answer: a
Page: 52

CE 2.1.4. An individual's complete genetic makeup is referred to as his or her _____
a. genotype
b. phenotype
c. archetype
d. prototype
Answer: a
Page: 45

CE 2.1.5. Which of the following factors when paired with an individual's genotype creates an expression on their phenotype?
a. environment
b. genes
c. DNA
d. parents
Answer: a
Page: 45

CE 2.1.6. Jackson was born with 5 fingers per hand (including the thumb). If having more than five fingers occurs because of a dominant gene, Jackson's genetic inheritance must be _____.
a. recessive-recessive
b. dominant-dominant
c. recessive-dominant
d. recessive-recessive-dominant
Answer: a
Page: 46

CE 2.1.7. ____ is an example of an incomplete dominant inheritance.
a. Down syndrome
b. HIV
c. Sickle-cell anemia

d. Fragile X
Answer: c
Page: 46

CE 2.1.8. Grant is 7 years old and has ambitions of becoming a professional basketball player. His father is 5' 7" tall and his mother is 5' 3" tall. It is quite likely that Grant will be 5' 7" tall or a little taller, but not of NBA height. Trying to explain genetics to a 7-year-old is hard; however, his genetic potential is known as _____.
a. reaction range
b. genetic loading
c. interaction range
d. chromosomal load
Answer: a
Page: 52

CE 2.1.9. Scarr and McCartney proposed the theory of genotype ® environment effects. Which subtype occurs when a person's inherited characteristics bring about responses from others in their environment?
a. Evocative genotype ® environment effects
b. Submissive genotype ® environment effects
c. Proactive ® environment effects
d. Active genotype ® environment effects
Answer: a
Page: 53

CE 2.1.10. According to the text, what are the only cells in the human body that do not contain 46 chromosomes?
a. Eardrum cells
b. Hair cells
c. Gametes
d. Capillaries
Answer: c
Page: 55

CE 2.1.11. Assume you have very close friends who are trying to get pregnant. To improve their odds you advise them that they should have intercourse when she is closer to ovulation and tell them that women generally ovulate ____ days into their menstrual cycles.
a. 3
b. 7
c. 14
d. 21
Answer: c
Page: 57

CE 2.1.12. After ejaculation, sperm can live for ___ days inside the human body.
a. 2
b. 5
c. 7
d. 9

Answer: b
Page: 57

CE 2.1.13. Females produce ova ____; whereas, males produce sperm ____.
a. while in the womb; at puberty
b. at puberty; while in the womb
c. at puberty; at puberty
d. while in the womb; while in the womb
Answer: a
Page: 56

CE 2.1.14. You are at the airport with your twin babies. Your son is dressed in blue and your daughter is dressed in pink. Someone stops you and tells you how beautiful they are and asks if they are "identical twins." You tell them no, but what are you thinking in your head?
a. It's impossible to have identical twins of different sexes.
b. That's a great question, they could be identical twins.
c. Usually fraternal twins are boys.
d. Usually fraternal twins are girls.
Answer: a
Page: 50

CE 2.1.15. If Frank has schizophrenia, how likely is it that his identical twin brother will also have schizophrenia?
a. Highly likely
b. Very likely
c. 50% chance
d. Highly unlikely
Answer: c
Page: 51

Quick Review

QR 2.1.1. How many chromosomes from each pair of chromosomes are generally inherited from the mother?
a. One
b. Two
c. Three
d. Four
Answer: a
Page: 46

QR 2.1.2. All ova (female eggs) contain which chromosome?
a. X
b. Y
c. O
d. A
Answer: a
Page: 48

QR 2.1.3. A person's ___ is/are their characteristics; whereas, a person's ____ is/are their genetic makeup.
a. phenotype; genotype
b. genotype; phenotype
c. nucleotides; DNA
d. DNA; nucleotides
Answer: a
Page: 45

QR 2.1.4. In terms of the nature-nurture debate, most researchers have concluded _____.
a. genetics is more important
b. environment is more important
c. both are important
d. genetics is more important in infancy and environment in childhood
Answer: c
Page: 50

QR 2.1.5. If schizophrenia had a strong genetic basis, which of the following pairs would have the highest concordance rate?
a. monozygotic twins
b. dizygotic twins
c. adopted siblings
d. cousins
Answer: a
Page: 51

QR 2.1.6. Gametes are formed through what process?
a. Mitosis
b. Meiosis
c. Osmosis
d. Orthosis
Answer: b
Page: 55

QR 2.1.7. To improve the odds of fertilization occurring, intercourse should occur _____.
a. within two days before and on the day of ovulation
b. two days after ovulation
c. five days after ovulation
d. one week after ovulation
Answer: a
Page: 57

QR 2.1.8. Over the past 30 years, the average height of adults in many developed countries has not changed much. Having reached a pinnacle, it is clear that adult height in these countries has reached the upper boundary of _____.
a. social-economic range
b. health status
c. reaction range
d. range of variation.
Answer: c
Page: 52

QR 2.1.9. Which of the following have a 100% similarity of genetic inheritance?
a. identical twins
b. fraternal twins
c. cousins
d. adopted siblings
Answer: a
Page: 50

QR 2.1.10. Studying which of the following would best allow researchers to examine the influence of genetics and environment on specific behaviors or traits?
a. Gender
b. Temperament
c. Chromosomal
d. Adoption
Answer: d
Page: 50

Video Guide Questions

Short Answer Questions

1. What are your thoughts on gender selective abortion in other countries? Did your viewing of this clip impact your thoughts?
Answer: Answers will vary.

2. Describe your reaction to IVH gender selection that occurs in some of the countries discussed in this clip.
Answer: Answers will vary.

3. What are some of the reasons provided by individuals in this clip why boys are preferred over girls in the countries of Taiwan, India, and South Korea?
Answer: Some of the reasons include the following: In some cultures, once a female is married and out of the house she is no longer considered part of the family to contribute or support the family. In these cultures it is appropriate for the family of the female to provide a bride's dowry to the husband's family. The male children will be able to carry on the family name.

Multiple Choice Questions

1. Which of the following countries was not mentioned in the video as having a strong preference for male children over female children?
   a. Taiwan
   b. Spain
   c. India
   d. South Korea
   Answer: B

2. Which of the following was listed as a reason why female children are not as preferred in these countries?
   a. Once a female is married, they no longer contribute financially.
   b. Females are less likely to carry heavy loads.
   c. Males are better equipped to deal with the weather conditions.
   d. Males understand the geography of the land much better than females.
   Answer: A

3. Which of the following was not listed as a reason that increases the pressure to have a son over a daughter?
   a. A son can carry on the family name.
   b. A daughter would require a bride’s dowry.
   c. A son is better able to parent the children.
   d. A daughter would no longer contribute financially once she has married.
   Answer: C

TOTAL ASSESSMENT GUIDE

Chapter 2-Section 2

Genetics and Prenatal Development

Topic		Remember	Understand	Apply
Learning Objective 2.8	Multiple Choice	1, 2, 3, 4, 7, 9, 11, 12, 13	5, 6, 8, 10	
	Short Answer			
	Essay		95	
Learning Objective 2.9	Multiple Choice	14, 15, 17, 21, 22, 23	16, 18, 19, 20, 24, 25, 26	
	Short Answer			
	Essay			
Learning Objective 2.10	Multiple Choice	28, 31, 34, 41, 43, 44, 45, 46, 50	27, 29, 30, 35, 36, 39, 47, 48, 49, 51, 52, 53	32, 37, 38, 40, 42, 54
	Short Answer	90		
	Essay		96	
Learning Objective 2.11	Multiple Choice	60	55, 56, 57, 58, 59	
	Short Answer		92	91
	Essay			
Learning Objective 2.12	Multiple Choice	61, 62, 66, 67, 68, 69, 74, 81, 87, 88, 89	64, 65, 72, 73, 76, 77, 78, 80, 82, 84, 86	63, 70, 71, 75, 79, 83, 85
	Short Answer		93, 94	
	Essay			

Section 2 Prenatal Development and Prenatal Care

Test Item File

Multiple Choice Questions

1. What are the first 2 weeks after fertilization referred to as?
    a. the germinal period
    b. the embryonic period
    c. the fetal period
    d. the fertilization period

Answer: A
Difficulty: 1
Page: 59
Skill: F
Learning Objective: 2.8
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

2. The first 2 weeks after fertilization is known as ____.
    a. conception
    b. the germinal period
    c. the embryonic period
    d. the fetal period

Answer: B
Difficulty: 1
Page: 59
Skill: F
Learning Objective: 2.8
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Pre 2.2.1
% correct 94 a= 0 b= 94 c= 6 d= 0 r = .18

3. By the end of the first week following conception the fertilized egg now has approximately 100 cells and is known as the _____.
    a. neonate
    b. fetus
    c. embryo
    d. blastocyst

Answer: D
Difficulty: 1
Page: 59
Skill: F
Learning Objective: 2.8
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Post 2.2.1
% correct 46 a= 15 b= 23 c= 15 d= 46 r = .47

4. The structure that will form the structures that will provide protection and nourishment for the newly formed organism is the ____.

a. umbilical cord
b. placenta
c. embryonic disk
d. trophoblast

Answer: D
Difficulty: 3
Page: 59
Skill: F
Learning Objective: 2.8
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: QR 2.2.2

5. The inner layer of blastocyst that will become the embryo is the ____.
a. umbilical cord
b. placenta
Incorrect. The inner layer of the blastocyst is the embryonic disk.
c. embryonic disk
Correct. This is part of the blastocyst that is formed about one week after conception.
d. trophoblast

Answer: C
Difficulty: 2
Page: 59
Skill: C
Learning Objective: 2.8
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Pre 2.2.7

6. Which of the following is a correct sequence of development during the germinal period?
a. placenta, implantation, blastocyst
Incorrect. During the germinal period, the zygote divides and forms blastocyst, which implants in the uterus and begins forming the amnion, placenta, and umbilical cord.
b. blastocyst, implantation, placenta
Correct. During the germinal period, the zygote divides and forms blastocyst, which implants in the uterus and begins forming the amnion, placenta, and umbilical cord.
c. placenta, blastocyst, implantation
d. implantation, placenta, blastocyst

Answer: B
Difficulty: 3
Page: 59
Skill: C
Learning Objective: 2.8
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: CE 2.2.2

7. The blastocyst will implant itself into the uterine wall during the ____ after conception?
a. first day
b. second day
c. first week
d. second week

Answer: D
Difficulty: 2

Page: 60
Skill: F
Learning Objective: 2.8
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

8. When the blastocyst becomes firmly embedded into the lining of the uterus, what has happened?
   a. implantation
   Correct. This occurs during the second week after conception.
   b. fertilization
   Incorrect. When the blastocyst becomes embedded into the uterus, implantation has occurred.
   c. conception
   d. pregnancy

Answer: A
Difficulty: 1
Page: 60
Skill: C
Learning Objective: 2.8
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

9. When does implantation of the blastocyst occur?
   a. at conception
   b. during the second week after conception
   c. during the second month after conception
   d. during the second trimester after conception

Answer: B
Difficulty: 2
Page: 60
Skill: F
Learning Objective: 2.8
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.2.3

10. According to the text, what structure provides a protective environment in which the fetus's temperature is well regulated and protects the fetus from friction caused by the mother's movements?
   a. The placenta
   Incorrect. The amnion protects the fetus.
   b. The umbilical cord
   c. The amnion
   Correct. The amnion develops from the trophoblast during the second week during the second week after conception.
   d. The germinal structure

Answer: C
Difficulty: 2
Page: 60
Skill: C
Learning Objective: 2.8

Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Post 2.2.5
% correct 64 a= 36 b= 0 c= 64 d= 0 r = .21

11. The ____ is/are the organ(s) that allow(s) nutrients to pass from the mother to the child and allow(s) waste to pass from the child to the mother during the course of pregnancy.
    a. uterus
    b. placenta
    c. fallopian tubes
    d. ovaries

Answer: B
Difficulty: 1
Page: 60
Skill: F
Learning Objective: 2.8
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

12. What structure provides nutrients from the mother to the fetus, takes waste products away from the fetus, and protects the fetus from bacteria and waste in the mother's blood?
    a. the placenta
    b. the umbilical cord
    c. the amnion
    d. the germinal structure

Answer: A
Difficulty: 2
Page: 60
Skill: F
Learning Objective: 2.8
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A
% correct 35 a= 35 b= 41 c= 12 d= 0 r = .42

13. What percentage of blastocysts do not implant successfully?
    a. 15%
    b. 25%
    c. 50%
    d. 75%

Answer: C
Difficulty: 1
Page: 60
Skill: F
Learning Objective: 2.8
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

14. The embryonic period lasts from the ____ to the ____.
    a. 1st week; 4th week
    b. 3rd week; 8th week
    c. 6th week; 16th week
    d. 12th week; 32nd week

Answer: B

Difficulty: 2
Page: 60
Skill: F
Learning Objective: 2.9
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A
% correct 78 a= 17 b= 78 c= 2 d= 3 r = .40

15. The embryonic period is ____ weeks long.
    a. 4
    b. 6
    c. 8
    d. 10

Answer: B
Difficulty: 1
Page: 60
Skill: F
Learning Objective: 2.9
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

16. During the embryonic period, the ectoderm is formed which will become the ____.
    a. skin, hair, nails, sensory organs and nervous system
    Correct. The ectoderm is formed within the third week after conception.
    b. muscles, bones, reproductive system and circulatory system
    Incorrect. During the embryonic period, the ectoderm will become the skin, hair, nails, sensory organs and nervous system.
    c. digestive and respiratory systems
    d. hormonal and endocrine systems

Answer: A
Difficulty: 2
Page: 60
Skill: C
Learning Objective: 2.9
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Pre 2.2.2, Pre 2.2.8, CE 2.2.4

17. The outer layer of the embryonic disk will become ____.
    a. the brain and spinal cord
    b. skin, hair, nails, and the nervous system
    c. muscle, bones, and the circulatory system
    d. the digestive and respiratory systems

Answer: B
Difficulty: 3
Page: 60
Skill: F
Learning Objective: 2.9
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

18. During the embryonic period, the mesoderm is formed, which will become the ____.

a. skin, hair, nails, sensory organs, and nervous system
b. muscles, bones, reproductive system, and circulatory system
Correct. The mesoderm is formed within the third week after conception.
c. digestive and respiratory systems
Incorrect. During the embryonic period, the mesoderm is formed, which will become the muscles, bones, reproductive system and circulatory system.
d. hormonal and endocrine systems

Answer: B
Difficulty: 2
Page: 60
Skill: C
Learning Objective: 2.9
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

19. During the embryonic period, the endoderm is formed, which will become the ____.
a. skin, hair, nails, sensory organs and nervous system
Incorrect. During the embryonic period, endoderm is formed, which will become the digestive and respiratory systems are formed.
b. muscles, bones, reproductive system and circulatory system
c. digestive and respiratory systems
Correct. The endoderm is formed within the third week after conception.
d. hormonal and endocrine systems

Answer: C
Difficulty: 2
Page: 60
Skill: C
Learning Objective: 2.9
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

20. What embryonic structure will become the brain and spinal cord?
a. brain stem
b. neuralblast
Incorrect. The neural tube will become the brain and spinal cord.
c. neural tube
Correct. The neural tube is formed by the end of the third week after conception.
d. cerebral cortex

Answer: C
Difficulty: 2
Page: 60
Skill: C
Learning Objective: 2.9
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Post 2.2.2
% correct 65 a= 12 b= 6 c= 65 d= 18 r = .50

21. By the end of the third week the neural tube begins to form. This structure will eventually become ____.
a. the skull and torso
b. legs and arms
c. the spinal cord and brain

d. lungs and the digestive system
Answer: C
Difficulty: 2
Page: 60
Skill: F
Learning Objective: 2.9
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A
% correct 98 a= 0 b= 0 c= 98 d= 2 r = .22

22. At what rate are neurons produced during the embryonic period?
a. 25 per minute
b. 250 per minute
c. 250,000 per minute
d. 2 billion per minute
Answer: C
Difficulty: 1
Page: 60
Skill: F
Learning Objective: 2.9
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

23. By the end of the fourth week the embryo's head is apparent and the eyes, nose, mouth, and ears begin to form. How long is the embryo at this point?
a. ¼ inch
b. 4 inches
c. 8 inches
d. 12 inches
Answer: A
Difficulty: 1
Page: 60
Skill: F
Learning Objective: 2.9
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

24. Nearly all of the major organs are formed during what period?
a. genetic
b. zygotic
c. fetal
Incorrect. The major organs are formed during the embryonic period.
d. embryonic
Correct. This period lasts from the third to eighth week after conception.
Answer: D
Difficulty: 2
Page: 60
Skill: C
Learning Objective: 2.9
Bloom's Taxonomy Level: Understand

MDL Parallel Question ID: N/A
% correct 63 a= 0 b= 7 c= 29 d= 63 r = .33

25. At the end of the eighth week the embryo is only one inch long and weighs just one gram. According to the text, what can the embryo now do?
    a. Step in place
    b. Suck its thumb
    Incorrect: The embryo can respond to touch during this time.
    c. Vocalize
    d. Respond to touch
    Correct. The embryo's sense of touch is especially sensitive around its mouth at this point.
Answer: D
Difficulty: 2
Page: 60
Skill: C
Learning Objective: 2.9
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

26. By the end of the eighth week the embryo ____.
    a. is unrecognizable as human
    b. responds to touch and can move
    Correct. The embryo's sense of touch is especially sensitive around its mouth at this point.
    c. has yet to develop major organs
    d. has fully developed sex organs
    Incorrect. By the end of the eighth week, the embryo responds to touch and all of the main organs are formed except the sex organs.
Answer: B
Difficulty: 2
Page: 60
Skill: C
Learning Objective: 2.9
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

27. The fetal period ends at birth. When does it begin?
    a. 4 weeks after conception
    Incorrect. The fetal period begins nine weeks after conception.
    b. 9 weeks after conception
    Correct. The fetal period follows the embryonic period.
    c. 12 weeks after conception
    d. 15 weeks after conception
Answer: B
Difficulty: 2
Page: 61
Skill: C
Learning Objective: 2.10
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: QR 2.2.7

28. The ____ period lasts from the ninth week after conception until birth.
    a. germinal
    b. embryonic
    c. fetal
    d. zygote

Answer: C
Difficulty: 1
Page: 61
Skill: F
Learning Objective: 2.10
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

29. What is the average weight of babies at birth in developed countries?
    a. 5 pounds
    Incorrect. In developed countries the average size of babies is 7.5 pounds.
    b. 7.5 pounds
    Correct. The average length of babies at birth in developed countries is 20 inches.
    c. 10 pounds
    d. 12.5 pounds

Answer: B
Difficulty: 2
Page: 61
Skill: C
Learning Objective: 2.10
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: QR 2.2.5

30. Fernando and Rebecca are anxious to know the sex of their baby. It would not be until the end of the ____ month of pregnancy that they can find out because the genitalia will not have fully formed before then.
    a. 2nd
    b. 3rd
    Correct. Fingernails, toenails, and taste buds begin to develop at the same time.
    c. 4th
    Incorrect. By the end of the third month, genitalia are formed.
    d. 5th

Answer: B
Difficulty: 2
Page: 61
Skill: C
Learning Objective: 2.10
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

31. According to the text, at what month can the fetus's heartbeat be heard with a stethoscope?
    a. during the third week
    b. during the third month
    c. during the fifth month

d. during the seventh month

Answer: B
Difficulty: 1
Page: 61
Skill: F
Learning Objective: 2.10
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

32. Your friend just had her first pregnancy check-up and is just starting her second month of pregnancy. She is very upset that she was not given the chance to hear her fetus's heartbeat. Remembering what you learned in developmental class, what should you tell her?

a. That probably means that the fetus died.

Incorrect. It is not likely that the heartbeat can be heard until the third month.

b. She will not be able to hear the heartbeat with a stethoscope until the third month.

Correct. It is not until the third month of pregnancy that a fetal heartbeat can typically be heard using a stethoscope.

c. The fetus probably has a heart problem.

d. The doctor did not want her to hear the fetal heartbeat.

Answer: B
Difficulty: 2
Page: 61
Skill: A
Learning Objective: 2.10
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A

33. At three months the average fetus _____.

a. weighs three ounces and is three inches long
b. weighs three pounds and is three inches long
c. has developed three brain structures
d. has developed three sensory systems

Answer: A
Difficulty: 1
Page: 61
Skill: F
Learning Objective: 2.10
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

34. By the end of the third month the typical fetus can be described as "three times three" because ____.

a. it has been three months, the fetus weighs three ounces, and is three inches long
b. it weighs three pounds, is three inches long, and has three senses
c. three major systems have developed: brain, heart and, lungs
d. all three facial features are clearly distinguishable

Answer: A
Difficulty: 2
Page: 61
Skill: F

Learning Objective: 2.10
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

35. Prenatal development is divided into segments. What are these segments called?
    a. fetalesters
    b. prenatal sections
    c. semesters
    Incorrect. These segments are referred to as trimesters.
    d. trimesters
    Correct. Prenatal development is divided into 3-month trimesters.

Answer: D
Difficulty: 1
Page: 61
Skill: C
Learning Objective: 2.10
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

36. By the end of what month do pregnant women typically feel the movements of the fetus?
    a. second
    b. fourth
    Correct. The fetus's movements diversify over the course of the second trimester.
    c. sixth
    Incorrect: Pregnant women typically feel the movement of the fetus during the fourth month.
    d. eight

Answer: B
Difficulty: 1
Page: 61
Skill: C
Learning Objective: 2.10
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

37. Your sister-in-law just finished her fourth month of pregnancy. She swears that she can feel the movements of her fetus. Is this likely? After what month do women generally feel the fetus move?
    a. Yes, she has probably been feeling the fetus move since the second month.
    b. Yes, pregnant women can usually begin feeling the fetus's movements by the fourth month of pregnancy.
    Correct. The fetus's movements begin to diversify at this time, and include kicking, hiccupping, and thumb sucking.
    c. No, the fetus is not developed enough to move very much until the end of the sixth month of pregnancy.
    Incorrect. Pregnant women typically feel the movement of the fetus during the fourth month.
    d. No, it is very difficult for a pregnant woman to feel the fetus's movement until the fetus is viable, during the 8th month of pregnancy.

Answer: B
Difficulty: 1

Page: 61
Skill: A
Learning Objective: 2.10
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: CE 2.2.5

38. Susan is talking to her friend who is at the end of her second trimester. Lucila wants to be reassured that she is not crazy, but thinks her baby actually kicks, turns, and hiccups. Lucila even thinks that the baby becomes more active if she talks to it. If you were Susan how do you respond to Lucila's observations?
    a. "Lucila those activities are normal for the end of the second trimester, and fetuses can hear even in the womb."
    Correct. These are all normal actions and responses for a pregnant woman to feel
    b. "Lucila, I think you are going crazy. A fetus really doesn't kick that early in the pregnancy and it's crazy to think it can hear."
    c. "Lucila all those things do happen, but not really until the end of the third trimester."
    Incorrect. During the second trimester, the mother can feel movement from the fetus. The fetus kicks, turns, hiccups, sucks its thumb, breathes amniotic fluid, and responds to sounds, especially music and familiar voices.
    d. "Lucila, I think you need to go see your doctor because something is absolutely wrong."

Answer: A
Difficulty: 2
Page: 61
Skill: A
Learning Objective: 2.10
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A

39. It has been discovered that the fetus responds to sound at the end of the sixth month. What sound does the fetus prefer at this time?
    a. Mozart's music
    Incorrect. At the sixth month, the fetus is likely to respond to its mother's voice.
    b. rhythmic tapping
    c. its mother's voice
    Correct. We know this is true because an increase in fetal heart rate is observed when a fetus hears its mother's voice.
    d. a cat's meow

Answer: C
Difficulty: 2
Page: 61
Skill: C
Learning Objective: 2.10
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: CE 2.2.15

40. Your roommate's sister-in-law is pregnant and is trying to do all that she can to protect her fetus and to make sure that her fetus develops well. She does not like to have any loud music on and even does not talk very loudly for fear that her fetus will be harmed. What would you tell her?

a. That her fetus will not be adversely affected and that studies have discovered that fetus's actually prefer their mothers' voices. So, she should talk as much as she likes.

Correct. A fetus's heart rate has been shown to increase when it hears its mother's voice.

b. That she is correct, loud music is readily transmitted through the amniotic fluid and will cause damage to the fetus's cochlea.

c. That she should play Mozart really loudly. Fetuses who listen to Mozart are more intelligent than those who do not listen to Mozart.

d. Research has shown that fetuses' love country music.

Incorrect. Fetuses have been shown to respond best to the sound of its mother's voice.

Answer: A
Difficulty: 3
Page: 61
Skill: A
Learning Objective: 2.10
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A

41. What is the name of the white slimy substance that covers the fetus's skin?

a. lanugo
b. vernix
c. keratin
d. ossicles

Answer: B
Difficulty: 2
Page: 61
Skill: F
Learning Objective: 2.10
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: QR 2.2.3

42. A fellow worker was present at his son's birth. He was really upset because his son was born with a white substance all over his skin and no one told him what the problem was. You should tell him ____.

a. that it was probably cancer

b. that his baby probably had something wrong with it. You have never heard of such a thing

Incorrect. The white substance is called vernix and is normal.

c. that the white substance was vernix and many babies have that at birth. It protects their skin in utero

Correct.

d. that that was a greasy like substance that is used to help the baby emerge from the birth canal. They will wash it off later

Answer: C
Difficulty: 2
Page: 61
Skill: A
Learning Objective: 2.10
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: CE 2.2.14
% correct 82 a= 0 b= 0 c= 82 d= 12 r = .20

43. The purpose of lanugo is to ____.
    a. work as a lubricant during the birthing process
    b. lubricate the lungs
    c. guide neuro-migration during brain development
    d. help the vernix stick to the fetus's skin, which protects against chapping

Answer: D
Difficulty: 2
Page: 61
Skill: F
Learning Objective: 2.10
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

44. What is the name of the downy hair that covers the fetus?
    a. lanugo
    b. vernix
    c. keratin
    d. ossicles

Answer: A
Difficulty: 1
Page: 61
Skill: F
Learning Objective: 2.10
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

45. What is the term used to describe the fetus's likelihood of surviving outside of the uterus?
    a. survival index
    b. Apgar Score
    c. Braxton Hicks
    d. viability

Answer: D
Difficulty: 1
Page: 61
Skill: F
Learning Objective: 2.10
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A
% correct 53 a= 24 b= 0 c= 18 d= 53 r = .35

46. ____ is the term for an infant's ability to survive outside the womb if born preterm/premature.
    a. Immaturity
    b. Small for size
    c. Viability
    d. Survivability

Answer: C
Difficulty: 1
Page: 61
Skill: F

Learning Objective: 2.10
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

47. What is the likely outcome for a fetus whose mother lives in a developing country that is born before the end of the second trimester? The newborn will _____.
    a. not survive
    Correct. Access to the necessary advanced medial care is scarce in developing countries, so the newborn's chance of survival are not strong.
    b. be healthy
    Incorrect. It is more likely that the newborn will not survive.
    c. have an Apgar score of at least 7
    d. have a breech birth

Answer: A
Difficulty: 1
Page: 61
Skill: C
Learning Objective: 2.10
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

48. The ____ is the last major organ system to develop during fetal life?
    a. heart
    Incorrect. The last major organs to develop are the lungs.
    b. lungs
    Correct. Even a baby born in the seventh or eighth month of pregnancy may need the help of a respirator to breathe.
    c. intestines
    d. skeletal muscles

Answer: B
Difficulty: 1
Page: 61
Skill: C
Learning Objective: 2.10
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Pre 2.2.3
% correct 68 a= 8 b= 68 c= 7 d= 17 r = .27

49. Newborns weighing less than what weight are at risk for a wide range of developmental difficulties?
    a. 5.5 pounds
    Correct. Many of these developmental difficulties will be discussed in Chapter 3.
    b. 7.0 pounds
    Incorrect: Newborns weighing less than 5.5 pounds are at risk.
    c. 8.5 pounds
    d. 10 pounds

Answer: A
Difficulty: 1
Page: 61
Skill: C
Learning Objective: 2.10

Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: QR 2.2.9

50. As a result of evolutionary history, which of the following structures is the most underdeveloped at birth?
    a. the lungs
    b. the spinal cord
    c. the brain
    d. the digestive system

Answer: C
Difficulty: 2
Page: 61
Skill: F
Learning Objective: 2.10
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

51. Humans are born with immature brains that are incompletely developed. One result is that babies _____.
    a. are less vulnerable to environmental difficulties
    Incorrect. The environment has a greater effect and parental care is required for a longer period than with other animals.
    b. learn to care for themselves very quickly
    c. have a genetic resistance to infection
    d. require parental care for a longer time than other animals
    Correct. As we learned in Chapter 1, this is a result of evolutionary history.

Answer: D
Difficulty: 1
Page: 61
Skill: C
Learning Objective: 2.10
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: QR 2.2.10

52. DeCasper and Spence asked mothers to read *The Cat in the Hat* to their fetuses every day for the last six weeks of their pregnancies. After the birth, babies showed a preference for ____.
    a. hearing their mothers read any Dr. Seuss book
    b. their mother's voice
    c. rhymic tapping
    Incorrect. The babies showed a preference for The Cat in the Hat.
    d. hearing their mothers read *The Cat in the Hat*
    Correct. The babies preferred this even over similar rhyming stories they had not heard before.

Answer: D
Difficulty: 1
Page: 62
Skill: C
Learning Objective: 2.10
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

53. What do fetuses do when their mothers are highly stressed?
    a. become very still
    Incorrect. They generally move more and have faster heart rates when their mothers are stressed.
    b. move more and have faster heart rates
    Correct. Fetuses respond in kind to their mothers' stress levels.
    c. suck their thumbs
    d. hold their hands to their ears

Answer: B
Difficulty: 1
Page: 62
Skill: C
Learning Objective: 2.10
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Pre 2.2.4, CE 2.2.6

54. Your roommate is pregnant and she gets very angry and yells quite a bit over the smallest things. What is a good piece of advice that you could give her?
    a. It is OK if she gets upset, but she should not yell. It will harm the fetus's hearing.
    b. Getting angry and yelling is good for the fetus since it will raise the fetus's heart rate.
    c. She should probably get a different boyfriend. He is not going to be a very good father .
    Incorrect. She should try relaxation therapy.
    d. That she should try relaxation therapy. Whenever she gets really upset, her fetus gets very upset too.
    Correct. Fetuses generally move more and have faster heart rates when their mothers are stressed.

Answer: D
Difficulty: 1
Page: 62
Skill: A
Learning Objective: 2.10
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: CE 2.2.7

55. The Beng people of the Ivory Coast have several practices and suggestions for pregnant women. Which of the following is an example of a suggestion that can be very helpful to the pregnant woman?
    a. avoid eating the meat from a bushbuck antelope
    b. rub an oil on her belly
    Correct. This will help her skin from feeling uncomfortably tight.
    c. her husband must stop hunting while she is pregnant
    d. she must not commit any immoral behavior
    Incorrect. They rub an oil on her belly to help her skin from feeling uncomfortable.

Answer: B
Difficulty: 1
Page: 62
Skill: C
Learning Objective: 2.11

Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: CE 2.2.10

56. Which of the following is the *best* practical advice of the Beng people of the West African nation of Ivory Coast?
    a. Do not drink palm wine during the early months of pregnancy.
    Correct. Drinking alcohol when pregnant can cause widespread damage to prenatal development.
    b. Rub oil on the swelling belly to relief discomfort.
    Incorrect. This is actually encouraged as it helps skin elasticity.
    c. Avoid eating meat from a bushbuck antelope.
    d. Do not cast any curse on any enemies because your baby will become a witch.
Answer: A
Difficulty: 2
Page: 62
Skill: C
Learning Objective: 2.11
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

57. Many traditional cultures do not have access to trained physicians but may rely on which of the following individuals during the prenatal period?
    a. nurse
    b. midwife
    Correct. Midwives assist in prenatal care and the birth process.
    c. staff from the World Health Organization
    Incorrect. Midwives are commonly used.
    d. paramedics
Answer: B
Difficulty: 2
Page: 63
Skill: C
Learning Objective: 2.11
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: CE 2.2.8

58. Based upon the reading, a midwife might perform a(n) ____ if the fetus's feet are pointed towards the vaginal opening.
    a. diversion
    b. prenatal massage
    Incorrect. If the fetus is turned in an unfavorable position, so that it would be likely to come out feet first rather than head first, the midwife will attempt an inversion to turn the fetus's head toward the vaginal opening.
    c. inversion
    Correct. If the fetus is turned in an unfavorable position, so that it would be likely to come out feet first rather than head first, the midwife will attempt an inversion to turn the fetus's head toward the vaginal opening.
    d. amniocentesis
Answer: C
Difficulty: 2
Page: 63

Skill: C
Learning Objective: 2.11
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

59. A method of prenatal care that has been used by traditional cultures that is now being used by midwives, nurses, and physicians in developed countries is ____.
    a. dancing
    b. singing
    c. daily naps
    Incorrect. Prenatal massage has a long history in many cultures. In recent years, it has also begun to be used by midwives, nurses, and physicians in developed countries.
    d. massage
    Correct. Prenatal massage has a long history in many cultures. In recent years, it has also begun to be used by midwives, nurses, and physicians in developed countries.
Answer: D
Difficulty: 1
Page: 63
Skill: C
Learning Objective: 2.11
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: CE 2.2.11
% correct 97 a= 1 b= 2 c= 1 d= 97 r = .26

60. In recent years prenatal massage in developed countries has ____.
    a. increased
    b. decreased
    c. remained the same
    d. not been statistically tracked
Answer: A
Difficulty: 1
Page: 63
Skill: F
Learning Objective: 2.11
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

61. Recent scientific studies have shown that women should gain ____ pounds during pregnancy.
    a. 15–20
    b. 25–30
    c. 35–40
    d. 45–50
Answer: B
Difficulty: 1
Page: 64
Skill: F
Learning Objective: 2.12
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Post 2.2.3, CE 2.2.9

62. Women who gain less than 20 pounds are more likely to have babies who are _____.
    a. more likely to be obese during childhood
    b. above average in intelligence
    c. preterm and have low birth weight
    d. more likely to have heart disease later in life

Answer: C
Difficulty: 1
Page: 64
Skill: F
Learning Objective: 2.12
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

63. Your friend is worried that she will gain quite a bit of weight since she is now pregnant. She is planning on dieting. What would be your advice?
    a. Tell her to definitely diet, this will insure that her children will not be obese.
    b. Tell her that dieting increases intelligence in neonates.
    Incorrect. Dieting leads to low birth weight and prematurity.
    c. Tell her that dieting could lead to her baby being born preterm and having a low birth weight.
    Correct. Women should gain 25–35 pounds during pregnancy.
    d. That it would be a good idea to keep her weight gain under 20 pounds.

Answer: C
Difficulty: 1
Page: 64
Skill: A
Learning Objective: 2.12
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: Pre 2.2.9

64. What are possible side effects for the baby of a woman who gains less than 20 pounds during her pregnancy?
    a. Down syndrome and Fragile X
    b. gestational diabetes
    c. high blood pressure and gastrointestinal problems
    Incorrect. Scientific studies have shown that women should typically gain 25–35 pounds during pregnancy, and women who gain less than 20 pounds are at risk for having babies who are preterm and low birth weight.
    d. the baby may be born preterm with a low birth weight
    Correct.

Answer: D
Difficulty: 2
Page: 64
Skill: C
Learning Objective: 2.12
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

65. Based upon the accumulated scientific knowledge on prenatal care, which of the following is the greatest thing a woman who is pregnant can do?
    a. avoid drinking of any alcohol

Incorrect. Most professionals agree that regular prenatal care is the greatest thing a pregnant woman can do.

b. minimize as much stress as possible

c. receive regular evaluations from a health care professional

Correct. The percentage of woman who receive regular prenatal care beginning early in pregnancy varies greatly based on ethnicity and SES.

d. cut all caffeine from her diet

Answer: C
Difficulty: 3
Page: 64
Skill: C
Learning Objective: 2.12
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: CE 2.2.12

66. Compared to developed countries, what percentage of maternal and infant deaths occur in developing countries?

a. 99%

b. 75%

c. 50%

d. 25%

Answer: A
Difficulty: 1
Page: 64
Skill: F
Learning Objective: 2.12
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Post 2.2.4

67. ____ % of maternal and infant deaths occur in developing countries; whereas, ____ % occur in developed countries.

a. 1; 99

b. 25; 75

c. 75; 25

d. 99; 1

Answer: D
Difficulty: 2
Page: 64
Skill: F
Learning Objective: 2.12
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

68. The guidelines for prenatal care focus mostly on three key areas ____.

a. rest, stress reduction, and the avoidance of fatty foods

b. diet, exercise, and avoidance of teratogens

c. exercise, mental state, and relaxation

d. prenatal vitamins, exercise, and avoidance of caffeine

Answer: B
Difficulty: 2
Page: 64

Skill: F
Learning Objective: 2.12
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: QR 2.2.4

69. Although many people say that pregnant women should be "eating for two," how many more calories should a pregnant woman eat each day?
    a. 2,000
    b. 1,000
    c. 800
    d. 300

Answer: D
Difficulty: 1
Page: 64
Skill: F
Learning Objective: 2.12
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Pre 2.2.5, Post 2.2.6

70. Your sister has been pregnant for a few months. She jokes that she is "eating for two" and has been eating quite a bit. You know that this is really not a good idea and are concerned that she will gain too much weight. How many more calories a day would you tell her that she would need to consume while she is pregnant?
    a. 2,000
    b. 1,000
    c. 800
    Incorrect. Pregnant women should only eat 300 additional calories on average, during her pregnancy.
    d. 300
    Correct. A healthy weight gain during pregnancy is typically 25–35 pounds.

Answer: D
Difficulty: 1
Page: 64
Skill: A
Learning Objective: 2.12
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A

71. Rosa is in her first trimester and her mother continually encourages her to eat more reminding her that she is now eating for two. Based upon the text, is Rosa's mother giving her sound advice?
    a. Yes, women who are pregnant should double their caloric intake.
    Incorrect. Pregnant women should eat somewhat more than they did prior to pregnancy, but only by about 300 calories a day.
    b. No, women who are pregnant only need about 300 more calories.
    Correct. A healthy weight gain during pregnancy is typically 25–35 pounds.
    c. Yes, pregnant women should eat more but it should come from grains.
    d. No, pregnant women should not eat more as their bodies do not need any more calories than an average woman.

Answer: B
Difficulty: 3

Page: 64
Skill: A
Learning Objective: 2.12
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A

72. Iron-rich foods such as beef, duck, potatoes, spinach, and dried fruits are important in what way for the pregnant mother and fetus? These foods help to ____.
    a. build the blood supply of the mother and fetus
    Correct. Iron deficiencies place women at risk of delivering preterm or low-birth-weight babies.
    b. increase the muscle mass of the fetus
    c. assist in visual development of the fetus
    Incorrect. Iron-rich foods help to build the blood supply of the mother and fetus.
    d. provide nutrients for proper brain development

Answer: A
Difficulty: 1
Page: 65
Skill: C
Learning Objective: 2.12
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: CE 2.2.13

73. Low iodine intake during pregnancy increases the risks of miscarriage, stillbirth, and abnormalities in fetal brain development. As a result, what has been done since the 1920s in developed countries?
    a. women receive iodine injections
    Incorrect. Salt has been iodized.
    b. salt has been iodized
    Correct. Iodine deficiencies are still a risk in developing countries.
    c. babies are given iodine baths after birth
    d. fetuses are examined with ultrasound

Answer: B
Difficulty: 1
Page: 65
Skill: C
Learning Objective: 2.12
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Pre 2.2.10

74. As compared with developing nations, the rate of miscarriage, stillbirth, and abnormalities in fetal brain development have been lowered because iodine has been added to ____.
    a. salt
    b. school lunches
    c. bread
    d. the water supply

Answer: A
Difficulty: 2
Page: 65
Skill: F

Learning Objective: 2.12
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

75. Shantel is talking to her grandmother about how she is continuing her moderate exercise program while she is pregnant. However, Grandma warns her not to exercise because she holds the outdated belief, once common in developed countries, that Shantel is ____.
    a. in a physical state similar to a disability or illness
    Correct. Until a few decades ago, it was widely believed in developed countries that pregnant women were too fragile to walk or carry groceries.
    b. too physically weak and could fall
    c. going to harm the baby while exercising
    d. going to stimulate a preterm birth
    Incorrect. Until a few decades ago, it was widely believed in developed countries that pregnancy was a kind of disability or illness.
Answer: A
Difficulty: 2
Page: 65
Skill: A
Learning Objective: 2.12
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A

76. According to the text, what enhances the health of the pregnant woman and her fetus?
    a. mild to moderate exercise
    Correct. One benefit is that mild to moderate oxygen increases a woman's ability to process oxygen for herself and her fetus.
    b. drinking several cups of tea each day
    c. eating herbs
    d. conserving energy
    Incorrect. Mild to moderate exercise enhances the health of the pregnant woman and her fetus.
Answer: A
Difficulty: 1
Page: 65
Skill: C
Learning Objective: 2.12
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

77. What is an example of an aerobic exercise?
    a. walking/jogging
    Correct. These stimulate a woman's muscular and circulatory systems.
    b. weight lifting
    c. sprinting
    Incorrect. Walking/jogging are examples of aerobic exercise.
    d. jumping
Answer: A
Difficulty: 1
Page: 65
Skill: C

Learning Objective: 2.12
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

78. Why is aerobic exercise important to a pregnant woman? It helps to ____.
    a. lower muscle mass
    Incorrect. It increases the woman's ability to process oxygen.
    b. increase fetal heart rate
    c. stops dangerous teratogens from reaching the fetus
    d. increase the woman's ability to process oxygen
    Correct. This in turn benefits her fetus.

Answer: D
Difficulty: 1
Page: 65
Skill: C
Learning Objective: 2.12
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Post 2.2.7

79. Your best friend has just learned that she is pregnant. She is a healthy person and is planning on engaging in aerobic exercise during her pregnancy. What would be your advice to her? She should ____.
    a. be very careful in that this type of exercise during pregnancy could lower muscle mass
    Incorrect. Aerobic exercise increases a pregnant woman's ability to process oxygen, a benefit for both her and the fetus.
    b. not run too quickly in that it could dangerously increase fetal heart rate
    c. exercise regularly since it will stop dangerous teratogens from reaching the fetus
    d. exercise regularly in that she will increase her ability to process oxygen
    Correct. Moderate aerobic exercise increases a pregnant woman's ability to process oxygen, a benefit for both her and the fetus.

Answer: D
Difficulty: 1
Page: 65
Skill: A
Learning Objective: 2.12
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: Post 2.2.8

80. According to the text, what type of exercise stimulates the circulatory and muscular systems of the woman's body and increases her ability to process oxygen?
    a. meditation
    b. active Stretching
    c. weight training
    Incorrect. Aerobic exercise stimulates the circulatory and muscular systems.
    d. aerobic exercise
    Correct. Moderate aerobic provides benefit for both a pregnant woman and her fetus.

Answer: D
Difficulty: 1
Page: 65
Skill: C

Learning Objective: 2.12
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Post 2.2.10

81. What exercise strengthens the vaginal muscles and helps prepare the mother for the delivery of the fetus?
    a. bench presses
    b. squats
    c. Kegels
    d. abdominal crunches

Answer: C
Difficulty: 1
Page: 65
Skill: F
Learning Objective: 2.12
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

82. How are Kegel exercises performed? By tensing the ____.
    a. muscles of the vagina and anus repeatedly for 10-second intervals
    Correct. This strengthens the vaginal muscles in preparation for delivery of the fetus.
    b. abdominal muscles repeatedly for 15-second intervals
    Incorrect. Kegel exercises are performed by tensing the muscles of the vagina and anus.
    c. quadriceps and hamstrings repeatedly for 10-second intervals
    d. muscles of the lower back repeatedly for 10-second intervals

Answer: A
Difficulty: 1
Page: 65
Skill: C
Learning Objective: 2.12
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Post 2.2.9, QR 2.2.8

83. Your aunt is pregnant for the first time. She has heard that Kegel exercises are a good idea, but does not know how to perform them. You would tell her to tense the ____.
    a. muscles of the vagina and anus repeatedly for 10-second intervals
    Correct. This strengthens the vaginal muscles in preparation for delivery of the fetus.
    b. abdominal muscles repeatedly for 15-second intervals
    Incorrect. Kegel exercises involve tensing the muscles of the vagina and anus repeated for 10-second intervals.
    c. quadriceps and hamstrings repeatedly for 10-second intervals
    d. muscles of the lower back repeatedly for 10-second intervals

Answer: A
Difficulty: 1
Page: 65
Skill: A
Learning Objective: 2.12
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A

84. Which of the following exercise should be avoided during pregnancy?

a. any contact sports
Correct. Contact sports are too traumatic for pregnant women.
b. walking
c. light jogging
Incorrect. Light jogging is recommended for pregnant women.
d. swimming
Answer: A
Difficulty: 1
Page: 65
Skill: C
Learning Objective: 2.12
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: QR 2.2.6

85. Your sister works at the post office. She is pregnant and stands at the service desk for her entire shift. You are worried that this will affect her fetus's health. What do you tell her? That she should _____.
a. take a break and sit for a couple of minutes every half an hour. Continuous standing has been linked to miscarriages and premature births
Correct.
b. try to relax, being pregnant is great
c. continue working, staying active is great for pregnant women and their fetuses
Incorrect. She should take frequent breaks.
d. get a new job; working with the public exposes her to teratogens on a daily basis
Answer: A
Difficulty: 1
Page: 66
Skill: A
Learning Objective: 2.12
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: CE 2.2.1

86. Heavy lifting, continuous standing, and strenuous physical exertion raise the risks of _____.
a. postmaturity in the fetus
Incorrect. These activities raise the risks of miscarriage and premature birth.
b. difficulties associated with neuronal development
c. miscarriages and premature births
Correct. Pregnant women are advised to reduce strenuous physical activity.
d. chromosomal errors in the fetus
Answer: C
Difficulty: 1
Page: 66
Skill: C
Learning Objective: 2.12
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Pre 2.2.6

87. ____ is described as behaviors, environments, and bodily conditions that could be harmful to a fetus.
a. Lanugo

b. Teratogens
c. Vernix
d. Trophoblast

Answer: B
Difficulty: 1
Page: 66
Skill: F
Learning Objective: 2.12
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: QR 2.2.1

88. What term refers to malnutrition, disease, alcohol, tobacco, and other drugs that are harmful to the fetus?
a. teratogens
b. pathogens
c. carcinogens
d. fetogens

Answer: A
Difficulty: 1
Page: 66
Skill: F
Learning Objective: 2.12
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A
% correct 89 a= 89 b= 8 c= 2 d= 1 r = .38

89. Which of the following are examples of teratogens?
a. calcium, iron, and iodine
b. prenatal vitamins and micronutrients
c. meats, grains, and legumes
d. alcohol, tobacco, and other drugs

Answer: D
Difficulty: 2
Page: 66
Skill: F
Learning Objective: 2.12
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

Short Answer Questions

90. In what prenatal period are the lanugo and vernix formed? Explain what they are.
Answer: Both are formed during the fetal period. The vernix is the waxy coating that protects the skin while floating in the amnionic fluid; the lanugo is the fine hair that helps the vernix to stick to the skin.
Page: 61
Learning Objective: 2.10
Bloom's Taxonomy Level: Remember

91. Give an example of pregnancy advice that reflects cultural wisdom in traditional cultures. What is a plausible explanation that this advice is passed down from generation to generation?
Answer: Among the Beng people of West Africa, women are warned against drinking palm wine during pregnancy and also to avoid eating the meat of the bushback antelope (or the baby may be born with stripes). These warnings reflect the fact that people in these cultures know that many things can go wrong during pregnancy and these tips may offer a sense of control.
Page: 62-63
Learning Objective: 2.11
Bloom's Taxonomy Level: Apply

92. Who usually performs prenatal massages in traditional cultures? Are there benefits to prenatal massage besides making the mother feel good and more relaxed? Explain.
Answer: It is usually performed by a midwife. Benefits to mother include less back pain, less swelling of joints, better sleep, and a better chance that the fetus will come out head first. Neonates score better on physical and social measures.
Page: 63
Learning Objective: 2.11
Bloom's Taxonomy Level: Understand

93. Recall the World Health Organization's guidelines for prenatal care. Name one nutrient that is of critical importance during pregnancy, where women would get it, and what the consequences would be of not having it.
Answer: Iodine. In developed countries, iodine is added to salt. Without it, there is increased risk of miscarriage, stillbirth, or abnormal brain development. Iodine is more readily available in developed countries.
Page: 64-65
Learning Objective: 2.12
Bloom's Taxonomy Level: Understand

94. How much weight should a woman gain during pregnancy (provide an approximate range)? Provide one diet or exercise recommendation.
Answer: Women should gain between 25-35 pounds. They should drink more fluids and they should eat plenty of fruits and vegetables, especially iron-rich foods, such as leafy greens.
Page: 64-65
Learning Objective: 2.12
Bloom's Taxonomy Level: Understand

Essay Questions

95. Choose one prenatal period and provide a detailed overview of what happens. Include when it occurs.
Answer: The germinal period (0- 2 wks. After conception) includes the formation of the zygote, rapid cell division forming a 100-celled blastocyst, and implantation. The outer layer of the blastocyst, the trophoblast, develops into the structures that will house and nourish the embryo (amnion, placental, umbilical cord). The inner layer becomes the embryonic disk which eventually forms the embryo.
Pages: 59-62
Learning Objective: 2.8
Bloom's Taxonomy Level: Understanding

96. What does viability mean, and how likely is a fetus to be viable at 22 weeks? At 26 weeks? Why would this vary depending upon whether a person lives in a developed or a developing country? What is the main obstacle to viability even by the beginning of the third trimester?
Answer: This is when a fetus would be able to survive outside the womb. Survival is unlikely before 22 weeks, even with medical intervention. Even if babies do survive when they are premature, they are at greater risk for birth defects and disabilities compared to full-term babies. In developing countries, there is less access to medical supplies and facilities, so the age of viability is later than in developed countries (some time in the third trimester, depending on the country and its technology). The reason babies are so vulnerable even in the third trimester is their immature lungs.
Page: 61
Learning Objective: 2.10
Bloom's Taxonomy Level: Apply

MyDevelopmentLab Question Bank

Pre-Test

Pre 2.2.1. After fertilization, the first 2 weeks of pregnancy is called _____.
a. the germinal period
b. the embryonic period
c. the fetal period
d. Sequence-one pregnancy period
Answer: a
Page: 59

Pre 2.2.2. The _____ form from the outer layer of the embryonic disk.
a. skin, hair, nails, sensory organs, and nervous system
b. brain and spinal cord
c. lungs and heart
d. digestive and respiratory systems
Answer: a
Page: 60

Pre 2.2.3. What is the last major organ system to develop during the fetal period?
a. lungs
b. heart
c. intestines
d. kidneys
Answer: a
Page: 61

Pre 2.2.4. According to the text, when a pregnant mother becomes highly stressed a fetus may _____.
a. develop a faster heart rate and move more frequently
b. become very ill and sick
c. hold their hands over their eyes, covering them
d. suck their fingers and bite their nails
Answer: a
Page: 62

Pre 2.2.5. There is a rumor that pregnant women should dramatically increase their caloric intake and "eat for two"; however, it is known that pregnant women need about ____ more calories than those who are not pregnant.
a. 300
b. 600
c. 900
d. 1200
Answer: a
Page: 64

Pre 2.2.6. For women who are pregnant, heavy lifting, strenuous physical exertion, and continuous standing can raise the risk of _____.
a. miscarriages, preterm birth, and stillbirth
b. Fetal Alcohol Syndrome
c. difficulties associated with neuronal migration
d. chromosomal errors in fetal development
Answer: a
Page: 66

Pre 2.2.7. The embryonic disk forms from the _____ of the blastocyst and develops to become the embryo.
a. inner layer
b. outer layer
c. right-lateral side
d. dorsal-lateral side
Answer: a
Page: 59

Pre 2.2.8. During the embryonic period, the ectoderm develops to become _____.
a. skin, hair, nails, sensory organs, and nervous system
b. muscles, bones, reproductive system, and circulatory system.
c. the digestive and respiratory systems
d. the limbic system
Answer: a
Page: 60

Pre 2.2.9. Your friend is pregnant and worried that she will gain weight. Having been extremely thin, she is planning to diet to maintain her figure. After reading the text what is your advice to her?
a. Avoid dieting. It could lead to her baby being born preterm and having low birth weight.
b. Definitely diet as this will insure that her children will not be obese.
c. Definitely diet; it increases intelligence and test scores later in life.
d. Dieting is a good idea because it increases muscle tone in the baby.
Answer: a
Page: 64

Pre 2.2.10. Low iodine intake during pregnancy increases the risks of miscarriage, stillbirth, and abnormalities in fetal brain development. Since the 1920s the United States has required table salt to have iodine, which is a similar practice to many countries that have economic wealth and resources. In what county is the lack of iodine most likely still an issue for pregnant women?
a. Cambodia, which is a developing country.
b. Canada, which is a developed country.
c. Great Britain, which is a Western country.
d. Japan, which is a Non-western country.
Answer: a
Page: 65

Post-Test

Post 2.2.1. By the 8th day after conception, the fertilized egg has approximately 100 cells and is known as the _____.
a. blastocyst
b. fetus
c. embryo
d. neonate
Answer: a
Page: 59

Post 2.2.2. ____ is the embryonic structure that develops into the brain and spinal cord.
a. Neural tube
b. Cerebral cortex
c. Neuroblast
d. Brainstem
Answer: a
Page: 60

Post 2.2.3. Recent scientific studies have concluded that most women should gain ____ pounds during pregnancy.
a. 15 to 20
b. 25 to 35
c. 35 to 40
d. 45 to 50
Answer: b
Page: 64

Post 2.2.4. As compared to developed countries, ____ percent of maternal and infant deaths occur in developing countries.
a. 99
b. 75
c. 50
d. 15
Answer: a
Page: 64

Post 2.2.5. ____ provides a protective environment in which the fetus' temperature is regulated and protects the fetus from friction caused by the mother's movements.
a. The amnion
b. The placenta
c. The umbilical cord
d. The germinal structure
Answer: a
Page: 60

Post 2.2.6. Which of the following enhances the health of a pregnant woman and the fetus?
a. Mild to moderate exercise
b. Drinking several cups of tea each day
c. Consuming coffee and eating herbs

d. Conserving energy and eating fatty foods
Answer: a
Page: 64

Post 2.2.7. Aerobic exercise is important to pregnant women because it helps to _____.
a. lower muscle mass and increase fat mass
b. increase fetal heart rate and blood pressure
c. stop dangerous teratogens from reaching the fetus
d. increase the woman's ability to produce oxygen
Answer: d
Page: 65

Post 2.2.8. Your sister is pregnant. She has always been health-conscious and exercises regularly. She is planning on engaging in aerobic exercise by continuing to go to her exercise classes. What would be your advice to her? She should _____.
a. exercise regularly as she will increase her ability to process oxygen
b. be very careful as this type of exercise during pregnancy could lower muscle mass
c. not run too quickly as it could dangerously increase fetal heart rate
d. exercise regularly since it will stop dangerous teratogens from reaching the fetus
Answer: a
Page: 65

Post 2.2.9. Your niece is pregnant. She has heard that Kegel exercises are a good idea, but does not know how to perform them. Having a very close relationship, you would tell her to tense the _____.
a. muscles of the vagina and anus repeatedly for 10-second intervals
b. abdominal muscles repeatedly for 15-second intervals
c. quadriceps and hamstrings repeatedly for 10-second intervals
d. muscles of the lower back repeatedly for 10-second intervals
Answer: a
Page: 65

Post 2.2.10. Samantha has always been a very active person and exercises regularly. During pregnancy she was concerned that maybe she was doing too much and it could be harmful for the fetus. Her physician told her that her exercise routine, which consisted of meditation, active stretching, Yoga, and aerobic exercise, was fine. He even suggested that one of the activities positively stimulated her circulatory and muscular systems. According to the text, which of the following is Samantha's physician referring to?
a. Meditation
b. Active stretching
c. Yoga
d. Aerobic exercise
Answer: d
Page: 65

Chapter Exam

CE 2.2.1. Your sister is pregnant and has a job where she is constantly on her feet and works with the public. You are worried about her. What advice do you give your sister?

a. Take a break and sit for a couple of minutes every half hour. Continuous standing has been linked to miscarriages and premature births.
b. Continue working, staying on your feet all day is good for pregnant women and their fetuses.
c. Get a new job, working with the public exposes her to teratogens on a daily basis.
d. Try to relax, being pregnant is awesome!

Answer: a
Page: 66

CE 2.2.2. Which of the following represents the correct sequence of development during the germinal period?

a. blastocyst, implantation, placenta
b. placenta, implantation, blastocyst
c. placenta, blastocyst, implantation
d. implantation, placenta, blastocyst

Answer: a
Page: 59

CE 2.2.3. The blastocyst generally implants itself to the uterine wall during _____.

a. the 2nd week after conception
b. at conception
c. the 5th week after conception
d. the 7th week after conception

Answer: a
Page: 60

CE 2.2.4. It is during the ____ period of prenatal development that nearly all the major organs are formed?

a. embryonic
b. zygotic
c. fetal
d. chromosomal

Answer: a
Page: 60

CE 2.2.5. After what month do women generally feel the fetus move?

a. 2nd
b. 4th
c. 6th
d. 8th

Answer: b
Page: 61

CE 2.2.6. Researchers DeCasper and Spence asked pregnant mothers to read The Cat in the Hat every day for the last six weeks of their pregnancies. After birth, babies showed a preference for _____.
a. hearing their mothers read The Cat in the Hat.
b. seeing their mothers read The Cat in the Hat.
c. hearing their mothers read any book.
d. seeing their mothers read any book.
Answer: a
Page: 62

CE 2.2.7. Your cousin is hot-tempered and gets very angry and yells quite a bit; even over little things. Which of the following is good advice for your cousin?
a. She should try to relax. Whenever she gets really upset, her fetus' heart beats faster.
b. It is okay if she gets upset, but she should not yell. It will harm the fetus' hearing.
c. Getting angry and yelling is good for the fetus since it will raise the fetus' heart rate.
d. She should probably get a different job. Her current job doesn't pay very well and makes her upset.
Answer: a
Page: 62

CE 2.2.8. Many traditional cultures do not have access to trained physicians but rely on ____ during the prenatal period?
a. midwives
b. paramedics
c. nurses
d. staff from the World Health Organization
Answer: a
Page: 63

CE 2.2.9. Based upon scientific studies, the average female should gain ____ pounds during pregnancy.
a. 15-20
b. 25-35
c. 35-40
d. 40-45
Answer: b
Page: 64

CE 2.2.10. The Beng people have several suggestions for pregnant women. Which of the following is an example of a Beng suggestion that can be helpful for any pregnant woman?
a. Rub oil on your belly.
b. Avoid eating any meat.
c. Have your husband refrain from hunting.
d. Use mud to protect your skin from biting insects.
Answer: a
Page: 62

CE 2.2.11. ____ has been used by many traditional cultures as a method of prenatal care and is now in vogue with many midwives, nurses, and physicians in developed countries.
a. Massage
b. Dancing
c. Daily napping
d. Singing
Answer: a
Page: 63

CE 2.2.12. Which of the following is the single greatest thing a woman who is pregnant can do to take care of herself and her unborn child?
a. Receive regular evaluations from a healthcare professional.
b. Avoid drinking alcohol.
c. Minimize exercise.
d. Cut out all caffeine from her diet.
Answer: a
Page: 64

CE 2.2.13. During pregnancy, iron-rich foods help to _____.
a. build the blood supply of the mother and fetus
b. increase the muscle mass of the fetus
c. assist in visual development of the fetus
d. provide nutrients for proper brain development
Answer: a
Page: 65

CE 2.2.14. Your nephew was present at the birth of his new brother. Immediately after the baby traveled through the birth canal, your nephew looks horrified when he sees his new sibling. Looking at you, he asks, "What is that white, fuzzy stuff all over the baby?" You tell him _____.
a. that it is amniotic fluid
b. it is lanugo, and that many babies have it at birth as it protects their skin in utero
c. that it is lactate because the baby was suckling while in vitro
d. that it is probably an excess of white blood cells that became stuck to the baby
Answer: b
Page: 61

CE 2.2.15. Researchers have concluded that by the end of the sixth month, fetuses respond to environmental noises. At birth, which of the following do most infants prefer?
a. the sound of their mother's voice
b. the sound of classical music
c. the sound of rock and roll music
d. the sound of naturescapes and animals
Answer: a
Page: 61

Quick Review

QR 2.2.1. _____ is described as behaviors, environments, and bodily conditions that could be harmful to a fetus.
a. Teratogens
b. Lanugo
c. Hypertension
d. Tachycardia
Answer: a
Page: 66

QR 2.2.2. ____ is the structure that forms into the organ that protects and allows nourishment to pass from the mother to the newly formed organism during the prenatal period.
a. The trophoblast
b. The umbilical cord
c. The umbryonic disk
d. The amnion fluid
Answer: a
Page: 59

QR 2.2.3. The white slimy substance that covers the fetus' skin is known as:
a. lanugo
b. vernix
c. keratin
d. tendons
Answer: b
Page: 61

QR 2.2.4. Which of the following are 3 key areas that are the guidelines for prenatal care focus?
a. Avoidance of teratogens, diet, and exercise
b. Prenatal vitamins, exercise, and avoidance of caffeine
c. rest, stress reduction, and the avoidance of fatty foods
d. exercise, psychological wellbeing, and relaxation
Answer: a
Page: 64

QR 2.2.5. ____ is the term that refers to malnutrition, disease, alcohol, tobacco and other drugs that are harmful to the fetus.
a. Teratogens
b. Pathogens
c. Carcinogens
d. Phellogens
Answer: a
Page: 61

QR 2.2.6. For those who are pregnant, which of the following exercises should be avoided?
a. Any contact sport
b. Walking

c. Light jogging
d. Yoga
Answer: a
Page: 65

QR 2.2.7. When does the fetal period of prenatal development begin?
a. Eight weeks after conception
b. Four weeks after conception
c. Twelve weeks after conception
d. Sixteen weeks after conception
Answer: a
Page: 61

QR 2.2.8. During pregnancy Kegel exercises are recommended, and they are performed by tensing the _____.
a. muscles of the vagina and anus repeatedly for 10-second intervals
b. abdominal muscles repeatedly for 15-second intervals
c. quadriceps and hamstrings repeatedly for 10-second intervals
d. muscles of the lower back repeatedly for 10-second intervals
Answer: a
Page: 65

QR 2.2.9. Newborns weighing less than ____ pounds are at risk for a wide range of developmental difficulties.
a. 5.5
b. 7.5
c. 9.5
d. 11.5
Answer: a
Page: 61

QR 2.2.10. At birth, which of the following is a result of newborn's immature and underdeveloped brain?
a. Newborns are less vulnerable to environmental difficulties.
b. Newborns learn to care for themselves very quickly.
c. Newborns have a genetic resistance to infection.
d. Newborns require parental care for a longer time than other animals.
Answer: d
Page: 61

Video Guide Questions

Short Answer Questions

1. Do you think the American expectant mother's experience is typical of most expectant mothers in the U.S.? Why or why not?
Answer: Answers will vary.
Learning Objective: 2.12

2. Compare and contrast the American expectant mother's experience with the Mayan expectant mother's experience.
Answer: The expectant American mother and the Mayan mother both seem very up-beat and excited about being pregnant. Both of the expectant mothers discuss eating healthy fruits and vegetables. Both expectant mothers discuss the fact that they see a doctor for routine visits. The Mayan expectant mother tells the viewers that she is also seeing a midwife for massage. The American expectant mother tells the viewers that she has a number of routine tests performed at her doctor visits as well as two ultrasounds that have been conducted to view the baby. The American expectant mother discusses exercise and yoga.
Learning Objective: 2.11, 2.12

3. Describe the role of the midwife interviewed here. What are some advantages of seeing a doctor vs. a midwife as listed by the mothers in this clip?
Answer: The role of the midwife from this video is to provide, quite literally, a hands-on experience to the expectant mothers. She discusses that she checks the baby with her hands and massages to help maintain a good position. She can reposition the baby if it is not in the appropriate position. She also discusses the use of an herb that can very effectively change the gender of the fetus. One of the expectant mothers in the clip states that she is seeing a physician because it is her first child and therefore more risk is involved. She adds that if there is trouble while she is in labor the doctor can perform a Caesarian section while a midwife would not have that capability. The American expectant mother discusses the testing that her physician is able to perform, and does not make mention of the use of a midwife.
Learning Objective: 2.11, 2.12

Multiple Choice Questions

1. According to the video, which of the following is an important part of prenatal care in rural Mayan Mexico?
   a. drinking 10 glasses of water a day
   b. prenatal massage
   c. prayer
   d. eating two additional meals
   Answer: B
   Learning Objective: 2.11

2. Which of the following was not mentioned by the American expectant mother as part of the routine visits to her doctor?
   a. cardiovascular check
   b. blood pressure check
   c. weight check
   d. measure fundal height
   Answer: A

3. The American expectant mother mentioned all of the following ways that she maintains her healthy pregnancy except for which of the following?
   a. goes to the gym twice per week
   b. yoga
   c. jogging
   d. eating a healthier diet
   Answer: C

TOTAL ASSESSMENT GUIDE

Chapter 2-Section 3

Genetics and Prenatal Development

Learning Objective		Remember	Understand	Apply
Learning Objective 2.13	Multiple Choice	1, 2, 3, 5, 8, 10, 11, 14, 15, 16	6, 7, 9, 12, 13, 17	4
	Short Answer	83		
	Essay			
Learning Objective 2.14	Multiple Choice	20, 22, 23, 25, 26, 28, 30, 32, 33, 36, 37, 42, 43,45	18, 19, 21, 24, 27, 29, 31, 34, 35, 38, 39, 40, 41	44
	Short Answer	84, 85, 86		
	Essay		88	89
Learning Objective 2.15	Multiple Choice	48, 50, 51, 52	46, 47, 49, 53	54, 55
	Short Answer		87	
	Essay			
Learning Objective 2.16	Multiple Choice	57, 58, 59, 60, 61, 64	56, 62, 63	
	Short Answer			
	Essay			
Learning Objective 2.17	Multiple Choice	65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 77, 78	79	76
	Short Answer			
	Essay			
Learning Objective 2.18	Multiple Choice	80, 81, 82		
	Short Answer			
	Essay			

Section 3 Pregnancy Problems

Test Item File

Multiple Choice Questions

1. 1. During meiosis, at times chromosomes sometimes fail to divide properly and as a result the person may have 45 or 47 chromosomes. Which of the following best describes this phenomenon?
   a. chromosomal disorder
   b. genetic misprinting
   c. mitosis error
   d. gene displacement

Answer: A
Difficulty: 1
Page: 67
Skill: F
Learning Objective: 2.13
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Post 2.3.1

2. It is estimated that half of all conceptions have too many or too few chromosomes. According to the text, what happens to most of the zygotes that are formed in these situations?
   a. They are spontaneously aborted.
   b. They result in neonates with birth defects.
   c. They result in twins.
   d. They have no problems.

Answer: A
Difficulty: 1
Page: 67
Skill: F
Learning Objective: 2.13
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.3.2
% correct 41 a= 41 b= 53 c= 0 d= 6 r = .43

3. Approximately how many neonates have a chromosomal disorder?
   a. 1 in 10
   b. 1 in 200
   c. 1 in 500
   d. 1 in 1,000

Answer: B
Difficulty: 1
Page: 67
Skill: F
Learning Objective: 2.13
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.3.15, Pre 2.3.1

4. Your friend just found out that she is pregnant after trying for six months. But she is paranoid that she is going to have a baby with a chromosomal disorder. You try to reassure her by telling her that the rate of babies born with chromosomal disorders is _____.
   a. 1 in 10
   b. 1 in 200
   Correct. There are two main types of chromosomal disorders: ones that involve sex chromosomes and ones that take place on the twenty-first pair of chromosomes.
   c. 1 in 500
   Incorrect. Approximately 1 in 200 neonates have a chromosomal disorder.
   d. 1 in 1,000

Answer: B
Difficulty: 1
Page: 67
Skill: A
Learning Objective: 2.13
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: Pre 2.3.2

5. Approximately how many neonates have some type of sex chromosome disorder?
   a. 1 in 10
   b. 1 in 200
   c. 1 in 500
   d. 1 in 1,000

Answer: C
Difficulty: 1
Page: 67
Skill: F
Learning Objective: 2.13
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

6. What are two common consequences of sex chromosome disorders?
   a. Shortened stature and the likelihood to develop nonorganic failure to thrive.
   b. An increased likelihood to have a pregnancy that is preterm and an infant with low birth weight
   c. The infant is more likely to have a difficult temperament and an insecure attachment
   Incorrect. Cognitive deficits tend to be a side effect of various sex-linked disorders.
   d. Cognitive deficits and abnormal development of the reproductive system at puberty
   Correct. Mental retardation, learning disabilities, and speech impairments are all common.

Answer: D
Difficulty: 2
Page: 67
Skill: C
Learning Objective: 2.13
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: QR 2.3.6
% correct 94 a= 0 b= 6 c= 0 d= 94 r = .70

7. One of the consequences of having a sex chromosomal disorder is that it might disrupt development of the reproductive system at puberty. What can be done about the difficulty at puberty?
   a. Role playing therapy
   Incorrect. The type of treatment would be hormone replacement therapy.
   b. Hormone replacement treatment
   Correct. This can often effectively correct the problems caused by a sex chromosomal disorder.
   c. Group therapy
   d. Strenuous exercise

Answer: B
Difficulty: 2
Page: 67
Skill: C
Learning Objective: 2.13
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: QR 2.3.2

8. An individual with Down syndrome has how many chromosomes?
   a. 45
   b. 46
   c. 47
   d. 48

Answer: C
Difficulty: 1
Page: 67
Skill: F
Learning Objective: 2.13
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Post 2.3.2, QR 2.3.3

9. Down syndrome is also known as trisomy-21 because individuals with Down syndrome ____.
   a. have three distinct facial features by the 21st week of pregnancy
   b. show three distinct temperament patterns by the 21st week of infancy
   c. have a third chromosome on the 21st pair
   Correct. Individuals with Down syndrome have an extra chromosome on the 21st pair.
   d. have 21 genes on the 3rd pair of chromosomes
   Incorrect. Individuals with Down syndrome have an extra chromosome on the 21st pair.

Answer: C
Difficulty: 3
Page: 67
Skill: C
Learning Objective: 2.13
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

10. What is another name for trisomy-21?
   a. Non Sex-linked-21
   b. intellectual disability

c. Edward's syndrome
d. Down syndrome

Answer: D
Difficulty: 1
Page: 67
Skill: F
Learning Objective: 2.13
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: QR 2.3.7

11. What disorder includes the following characteristics: short, stocky build; flat face; a large tongue; extra fold of skin on the eyelids; and possible cognitive deficits, hearing impairments, and heart defects?
a. Non Sex-linked-21
b. Down syndrome
c. Edward's syndrome
d. intellectual disability

Answer: B
Difficulty: 2
Page: 67–68
Skill: F
Learning Objective: 2.13
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

12. What helps children with trisomy-21 develop more favorably?
a. hormone replacement therapy
b. weekly motor treatments
Incorrect. Children with trisomy-21 need supportive and encouraging parents.
c. a heart transplant
d. supportive and encouraging parents
Correct. Intervention programs in infancy and childhood have also been shown to have positive effects.

Answer: D
Difficulty: 2
Page: 68
Skill: C
Learning Objective: 2.13
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

13. Adult individuals with trisomy-21 are _____.
a. often able to hold a job that is highly structured with simple tasks
Correct. With adequate social support an adult with Down syndrome can often successfully hold a job,
b. most likely institutionalized
Incorrect. Adults with trisomy-21 can hold jobs that are highly structured with simple tasks.
c. not likely to make it to age 30
d. as likely as individuals who do not have trisomy-21 to enter college

Answer: A

Difficulty: 2
Page: 68
Skill: C
Learning Objective: 2.13
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

14. Individuals who have what disorder are more likely to develop leukemia, cancer, Alzheimer's disease, or heart disease at earlier ages than usual (in their thirties and forties)?
    a. Non Sex-linked-21
    b. Down syndrome
    c. Edward's syndrome
    d. intellectual disability

Answer: B
Difficulty: 2
Page: 68
Skill: F
Learning Objective: 2.13
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

15. Children born with chromosomal problems are almost always born to parents with ____.
    a. the very same chromosomal problem
    b. similar genetic disorders
    c. above average intelligence
    d. no genetic or chromosomal problems

Answer: D
Difficulty: 2
Page: 68
Skill: F
Learning Objective: 2.13
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

16. Which of the following increases the risk of having a child with Down syndrome?
    a. smoking while pregnant
    b. alcohol consumption
    c. maternal age
    d. paternal stress

Answer: C
Difficulty: 2
Page: 68
Skill: F
Learning Objective: 2.13
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A
% correct 76 a= 0 b= 24 c= 76 d= 0 r = .49

17. How old are the ova of a 42 year-old woman trying to conceive?
    a. 2 weeks

b. 2 months
Incorrect. A 42-year-old woman's ova are 42 years old.
c. 2 years
d. 42 years
Correct. As we learned earlier in the chapter, a female produces all the ova she will ever have while she is still in the womb.
Answer: D
Difficulty: 2
Page: 68
Skill: C
Learning Objective: 2.13
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

18. Which period of prenatal development is considered the *critical period* and also a time in which teratogens can have a profound effect that endure into adulthood?
a. conception
b. germinal period
Incorrect. The placenta is not fully formed during the embryonic period.
c. embryonic period
Correct. The embryonic period lasts from the third to the eighth week after conception.
d. fetal period
Answer: C
Difficulty: 1
Page: 68
Skill: C
Learning Objective: 2.14
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: QR 2.3.8
% correct 53 a= 0 b= 6 c= 53 d= 41 r = .52

19. What describes the profound and enduring effect on later development that teratogens can have during the embryonic period?
a. critical period
Correct. The embryonic period lasts from the third to the eighth week after conception.
b. sensitive period
Incorrect. The profound and enduring effect on later development that teratogens can have during the embryonic period describes a critical period.
c. embryonic period
d. fetal period
Answer: A
Difficulty: 2
Page: 68
Skill: C
Learning Objective: 2.14
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

20. During which period are the major organs being formed at a rapid rate?
a. zygotic
b. embryonic

c. fetal
d. infancy

Answer: B
Difficulty: 2
Page: 68
Skill: F
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

21. What are the major teratogens during the fetal period?
a. lack of maternal sleep and lack of exercise
b. excessive maternal weight gain and maternal age
c. malnutrition and tobacco
Correct. Malnutrition and tobacco use are the major teratogens during the fetal period.
d. sugar and starch
Incorrect. The major teratogens during the fetal period are malnutrition and tobacco.

Answer: C
Difficulty: 2
Page: 68
Skill: C
Learning Objective: 2.14
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

22. According to the text, what is the most common teratogen worldwide?
a. malnutrition
b. tobacco
c. alcohol
d. infectious disease

Answer: A
Difficulty: 1
Page: 68
Skill: F
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.3.1

23. From a global perspective, which of the following is the most common teratogen to affect pregnancies?
a. lead
b. malnutrition
c. alcohol
d. rubella

Answer: B
Difficulty: 2
Page: 68
Skill: F
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

24. Prenatal health depends on proper prenatal nutrition. Since approximately 50% of the world's population is rural, pregnant women _____.
    a. have access to fruits and vegetables year round
    b. are malnourished regardless year round
    Incorrect. Pregnant women who live in rural areas may only eat well during the summer and fall when the crops have been harvested.
    c. cannot afford required vitamins recommended by their physicians
    d. may only eat well only during the summer and fall
    Correct. The diet of people in rural areas can vary dramatically depending on the season.

Answer: D
Difficulty: 2
Page: 68
Skill: C
Learning Objective: 2.14
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

25. What is the condition when infants are born with parts of their brain missing?
    a. spina bifida
    b. anencephaly
    c. microcephaly
    d. exoancephaly

Answer: B
Difficulty: 2
Page: 69
Skill: F
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

26. What is the condition in which the neonate is born with an extreme distortion in the shape of the spinal column?
    a. spina bifida
    b. anencephaly
    c. microencephaly
    d. exoancephaly

Answer: A
Difficulty: 2
Page: 69
Skill: F
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Pre 2.3.7, Post 2.3.7, CE 2.3.14

27. During pregnancy, deficiencies in folic acid may result in ____.
    a. low birth weight and premature delivery
    Incorrect. Pregnancies result in a higher rate of spina bifida due to a lack of folic acid.
    b. anencephaly and spina bifida
    Correct. Folic acid is the key to preventing these conditions.

c. Down syndrome and Turner syndrome
d. HIV and malaria

Answer: B
Difficulty: 3
Page: 69
Skill: C
Learning Objective: 2.14
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: QR 2.3.9

28. What dietary substance has been found to reduce spina bifida and anencephaly?
a. pectin
b. vitamin D
c. iodine
d. folic acid

Answer: D
Difficulty: 1
Page: 69
Skill: F
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Pre 2.3.5

29. Many countries have a lower rate of pregnancies resulting in spina bifida because ____.
a. iodine is added to table salt
Incorrect. Many countries passed laws requiring folic acid to be added to grain products such as cereals, bread, pasta, flour, and rice.
b. fluoride is added to drinking water
c. folic acid is added to grain products
Correct. Many countries passed laws requiring folic acid to be added to grain products such as cereals, bread, pasta, flour, and rice.
d. school immunizations are required

Answer: C
Difficulty: 3
Page: 69
Skill: C
Learning Objective: 2.14
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

30. Research conducted in Finland has shown that prenatal malnutrition is a risk factor in what disorder in emerging adulthood?
a. dissociative disorder
b. depression
c. schizophrenia
d. bipolar disorder

Answer: C
Difficulty: 2
Page: 70
Skill: F
Learning Objective: 2.14

Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

31. What is another name for the German measles?
    a. cephalopelvic disproportion
    b. rubella
    Correct. The embryonic period is a critical period for exposure to rubella.
    c. anencephaly
    d. neurofibromatosis
    Incorrect. German measles is also known as rubella.

Answer: B
Difficulty: 2
Page: 70
Skill: C
Learning Objective: 2.14
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Post 2.3.6

32. Infants born with the effects of rubella (German measles) within the United States have greatly decreased since the 1960s because ____.
    a. vaccinations for infectious diseases have increased
    b. funding for Medicaid and Medicare have increased
    c. fluoride has been added to the water
    d. folic acid has been added to grain products

Answer: A
Difficulty: 3
Page: 70
Skill: F
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

33. What sexually transmitted infection is caused by the human immunodeficiency virus?
    a. syphilis
    b. herpes
    c. gonorrhea
    d. AIDS

Answer: D
Difficulty: 1
Page: 70
Skill: F
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

34. What sexually transmitted infection can be transmitted to the fetus during prenatal development and to the neonate during birth and later through breast milk?
    a. syphilis
    b. herpes
    Incorrect. AIDS can be transmitted from mother to child during prenatal development through the blood, during birth, or through breast milk.

c. gonorrhea
d. AIDS
Correct. HIV/AIDS damages brain development prenatally and increases the risk that an infant will not live to adulthood.
Answer: D
Difficulty: 2
Page: 70
Skill: C
Learning Objective: 2.14
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: CE 2.3.5

35. HIV/AIDS can be transmitted from the mother to the child ____.
a. during prenatal development, birth, or through breast milk
Correct. HIV/AIDS damages brain development prenatally and increases the risk that an infant will not live to adulthood.
b. through casual skin-to-skin contact such as hugs and kisses
Incorrect. HIV/AIDS can be transmitted from mother to child during prenatal development through the blood, during birth, or through breast milk.
c. via bacterial infections during times of illness while pregnant
d. through HIV bacteria being transmitted via contaminated environmental objects
Answer: A
Difficulty: 3
Page: 70
Skill: C
Learning Objective: 2.14
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: QR 2.3.10
% correct 94 a= 94 b= 0 c= 6 d= 0 r = .18

36. Where do 95% of all HIV infections take place?
a. North America
b. Asia
c. Africa
d. Europe
Answer: C
Difficulty: 1
Page: 70
Skill: F
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.3.6

37. What percentage of pregnant women in Africa is estimated to be HIV positive?
a. 25%
b. 50%
c. 75%
d. 95%
Answer: A
Difficulty: 1
Page: 70

Skill: F
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

38. What teratogen causes the most widespread damage to prenatal development in developed countries?
    a. tobacco
    Incorrect. Alcohol causes more damage to prenatal development in developed countries.
    b. infectious diseases
    c. cocaine
    d. alcohol
    Correct.

Answer: D
Difficulty: 1
Page: 70
Skill: C
Learning Objective: 2.14
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

39. According to the text, which of the following is a safe amount of alcohol an individual can consume during pregnancy?
    a. 1 glass of wine per week
    b. 1 glass of wine per week only after the second trimester
    c. 1 glass of wine per week only after the third trimester
    Incorrect. A pregnant woman should not drink at all during her pregnancy.
    d. none at all
    Correct. Research has shown that the only safe level of alcohol during pregnancy is none at all.

Answer: D
Difficulty: 1
Page: 70
Skill: C
Learning Objective: 2.14
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Pre 2.3.3

40. What condition might occur in the fetus and later in the child if the pregnant mother consumes alcohol during her pregnancy?
    a. fibromyalgia
    b. alcoholism
    Incorrect. Fetal alcohol spectrum disorder can result if a pregnant woman drinks alcohol during her pregnancy.
    c. neuromuscular disorder
    d. fetal alcohol spectrum disorder
    Correct. This disorder can result in facial deformities, heart problems, and cognitive problems.

Answer: D
Difficulty: 1
Page: 70

Skill: C
Learning Objective: 2.14
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

41. An infant born with facial deformities, heart problems, misshapen limbs, and a variety of cognitive problems, such as mental retardation, has characteristics of which of the following?
    a. fetal alcohol spectrum disorder
    Correct.
    b. autism
    c. Prader-Willi syndrome
    d. rubella
    Incorrect. These conditions are characteristics of fetal alcohol spectrum disorder.

Answer: A
Difficulty: 2
Page: 70
Skill: C
Learning Objective: 2.14
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Post 2.3.9

42. What is the leading cause of low birth weight in developed countries?
    a. smoking
    b. cocaine use
    c. drinking alcohol
    d. mega-dosing of vitamins

Answer: A
Difficulty: 1
Page: 71
Skill: F
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: QR 2.3.1

43. What maternal behavior during pregnancy was related to conduct disorders and substance abuse in adolescence?
    a. mega-dosing of vitamins
    b. drinking alcohol
    c. cocaine use
    d. smoking

Answer: D
Difficulty: 1
Page: 71
Skill: F
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: QR 2.3.4

44. You notice that your pregnant friend just lit a cigarette and you ask her, "What the heck are you doing?" Your friend replies that her doctor said that it was okay to smoke during pregnancy. Which of the following statements should be your reply?
    a. "There are known side effects to smoking and no responsible physician would tell you that you can smoke if you are pregnant."
    Correct. Maternal smoking is the leading cause of low birth weight in developed countries.
    b. "Okay, research has shown that smoking is harmless."
    c. "Most physicians would recommend that you wait until the third trimester to begin smoking again."
    Incorrect. Pregnant women should not smoke at any time during their pregnancy.
    d. "That makes sense; smoking is harmful if it is secondhand smoke."

Answer: A
Difficulty: 2
Page: 71
Skill: A
Learning Objective: 2.14
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A

45. What paternal behavior during pregnancy leads to higher risks of low birth weight and childhood cancer?
    a. mega-dosing of vitamins
    b. drinking alcohol
    c. smoking
    d. cocaine use

Answer: C
Difficulty: 1
Page: 71
Skill: F
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.3.7

46. Which of the following are three techniques used to monitor pregnancy?
    a. fetal heart rate, blood pressure, and CT scans
    b. ultrasounds, amniocentesis, and chorionic villus sampling
    Correct. All three of these methods are commonly available in developed countries.
    c. genetic counseling, amniocentesis, and epidural
    Incorrect. Genetic counseling is not used to monitor pregnancy.
    d. fMRI, CT, and PET scans

Answer: B
Difficulty: 2
Page: 72
Skill: C
Learning Objective: 2.15
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

47. What prenatal technique uses high-frequency waves to examine the characteristics of the fetus in-utero?

a. amniocentesis
Incorrect. Ultrasound uses high-frequency sound waves to examine the fetus in-utero.
b. chorionic villus sampling
c. alphafetal protein
d. ultrasound
Correct. Today ultrasound is used for most pregnancies in developed countries.

Answer: D
Difficulty: 1
Page: 72
Skill: C
Learning Objective: 2.15
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Pre 2.3.9

48. ____ uses high-frequency sound waves that are directed toward the uterus and as they bounce off the fetus they are converted by a computer to an image that can be viewed on a screen.
a. Genetic counseling
b. Ultrasound
c. Chorionic villus sampling
d. Amniocentesis

Answer: B
Difficulty: 1
Page: 72
Skill: F
Learning Objective: 2.15
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

49. Which of the following is the cheapest, easiest, and safest way for physicians to monitor fetal development?
a. genetic counseling
Incorrect. Ultrasounds can be used during routine appointments are relatively inexpensive.
b. amniocentesis
c. ultrasound
Correct. Today ultrasound is used for most pregnancies in developed countries.
d. chorionic villus sampling

Answer: C
Difficulty: 1
Page: 72
Skill: C
Learning Objective: 2.15
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Pre 2.3.10

50. What prenatal technique uses a long hollow needle to extract amniotic fluid to examine the fetus's genotype?
a. amniocentesis
b. chorionic villus sampling
c. alphafetal protein

d. ultrasound

Answer: A
Difficulty: 1
Page: 72
Skill: F
Learning Objective: 2.15
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

51. What prenatal technique can be used to examine the status of the fetus by taking samples of the cells that are beginning to form the umbilical cord?
    a. amniocentesis
    b. chorionic villus sampling
    c. alphafetal protein
    d. ultrasound

Answer: B
Difficulty: 1
Page: 72
Skill: F
Learning Objective: 2.15
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

52. Which of the following techniques is used sparingly because there is a slight but genuine risk of miscarriage or damage to the fetus; however, it has a 99% accuracy in diagnosing genetic problems?
    a. CT scan
    b. ultrasound
    c. amniocentesis
    d. chorionic villus sampling

Answer: D
Difficulty: 2
Page: 72
Skill: F
Learning Objective: 2.15
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

53. Why would some couples seek genetic counseling before attempting a pregnancy?
    a. They believe that they might be carriers for a genetic disorder.
    Correct. Genetic counseling involves analyzing the family history and genotype of prospective parents.
    b. They live in a high-risk area.
    c. They want to have a high-IQ baby.
    d. They want a particular characteristic in their offspring.
    Incorrect. Couples who believe that they might be carriers for genetic disorders might consider genetic counseling.

Answer: A
Difficulty: 1
Page: 72
Skill: C

Learning Objective: 2.15
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: CE 2.3.8

54. Latasha and Brett are having their first child and are concerned that their child may have Down syndrome because Latasha is over 40 years old. Which of the following would most likely be used to help Latasha and Brett through this process?
    a. an amniocentesis and PET scan
    b. an ultrasound and genetic counseling
    Correct. Those who are at risk for Down syndrome would use an ultrasound because it the safest approach.
    c. an amniocentesis and ultrasound
    d. a chorinic villus sampling and fMRI
    Incorrect. Those who are at risk for Down syndrome would use an ultrasound because it the safest approach.

Answer: B
Difficulty: 3
Page: 72
Skill: A
Learning Objective: 2.15
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: Post 2.3.8

55. Genetic counseling would be appropriate for which of the following couples?
    a. JJ and Jennifer, who are in their early 30s and have just completed an unsuccessful round of artificial insemination.
    Incorrect. People with risks that merit genetic counseling include those who have an inherited genetic condition or a close relative who has one, couples with a history of miscarriages or infertility, and older couples.
    b. Stephen and Kerry, who are in their early 20s and have been trying to become pregnant but have been unsuccessful for the last two months.
    c. Merriam and Samir, who are in their early 40s and have a history of miscarriages and infertility.
    Correct. People with risks that merit genetic counseling include those who have an inherited genetic condition or a close relative who has one, couples with a history of miscarriages or infertility, and older couples.
    d. Ngyuen and Pham, who are in their early 30s and both have a history of diabetes.

Answer: C
Difficulty: 2
Page: 72
Skill: A
Learning Objective: 2.15
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: Post 2.3.10

56. How is infertility defined?
    a. the presence of endometriosis
    b. when the male has a low sperm count
    Incorrect. Infertility is defined as the inability to conceive after trying of a year.
    c. inability to conceive after trying for a year

Correct. Most women of reproductive age will become pregnant with a year or two of trying to conceive.

d. no desire to have children

Answer: C
Difficulty: 1
Page: 73
Skill: C
Learning Objective: 2.16
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: N/A

57. According to the text, infertility rates have remained constant over the past century at the rate of ____.
    a. 1–5%
    b. 10–15%
    c. 20–25%
    d. 30–35%

Answer: B
Difficulty: 1
Page: 73
Skill: F
Learning Objective: 2.16
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

58. Over the past century, the rate of infertility in the United States has ____.
    a. remained the same at 35%
    b. declined to 5%
    c. remained the same at 10–15%
    d. declined to 10–25%

Answer: C
Difficulty: 3
Page: 73
Skill: F
Learning Objective: 2.16
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

59. What percent of infertility problems are related to the male?
    a. 10%
    b. 30%
    c. 50%
    d. 70%

Answer: C
Difficulty: 1
Page: 73
Skill: F
Learning Objective: 2.16
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.3.9

60. It is a misconception that females are primarily responsible for infertility, because ____% of the time it is the male who is the source of a couple's infertility.
    a. 40
    b. 50
    c. 60
    d. 70

Answer: B
Difficulty: 2
Page: 73
Skill: F
Learning Objective: 2.16
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

61. Which of the following are three main sources for male infertility?
    a. erectile difficulties, decreased libido, and low sperm count
    b. sperm death, poor sperm mobility, and low seminal fluid
    c. low sperm production, poor sperm quality, and poor sperm movement
    d. low sperm production, increased libido, and poor sperm movement

Answer: B
Difficulty: 2
Page: 73
Skill: F
Learning Objective: 2.16
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: QR 2.3.5

62. It takes approximately three times longer for men over the age of 40 to impregnate a partner than it does for men under age 25. Why?
    a. lack of libido
    Incorrect: It takes longer because of the decrease in the quantity and quality of their sperm.
    b. endometriosis
    c. decrease in the quantity and quality of their sperm
    Correct. Men's sperm count decreases with age.
    d. their partner's fertility

Answer: C
Difficulty: 1
Page: 73
Skill: C
Learning Objective: 2.16
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Post 2.3.5

63. Rashid and Varsha are seeking fertility treatment and were informed by their physician that Rashid's sperm-count is low and the quality is poor. Which of the following suggestions were made to help increase his sperm production and quality?
    a. Quit smoking, decrease alcohol consumption, and do not abuse drugs.
    Correct. These behavioral factors are among the most common sources of infertility.
    b. Start a calcium regimen, consume more iron, and take a multivitamin.
    Incorrect. Drug abuse, alcohol abuse, and cigarette smoking are sources of infertility.

c. Exercise daily, increase caffeine consumption, and reduce stress,
d. Avoid wearing boxers shorts and switch to tighter underwear,

Answer: A
Difficulty: 2
Page: 73
Skill: C
Learning Objective: 2.16
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: CE 2.3.10

64. ____ is the most common cause of infertility in women.
a. Alcohol
b. Stress
c. Age
d. Smoking

Answer: C
Difficulty: 2
Page: 73
Skill: F
Learning Objective: 2.16
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Post 2.3.3

65. In most cultures and throughout history, infertility has been regarded mostly as a problem that originates from ____.
a. a lack of spiritual commitment
b. the male
c. the female
d. both the male and female

Answer: C
Difficulty: 1
Page: 74
Skill: F
Learning Objective: 2.17
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.3.11

66. Based on historical misconception of infertility, which of the following was one of the most dangerous treatments as described by the text?
a. encouraging men to refrain from climaxing too quickly
b. the practice of bloodletting to increase fertility
c. encouraging women to reach orgasm
d. encouraging men to bring more attention to sexual pleasure for their wife

Answer: B
Difficulty: 1
Page: 74
Skill: F
Learning Objective: 2.17
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Pre 2.3.4

67. Of the following, which is a modern technique used for fertility treatment?
    a. artificial insemination
    b. an infertility belt
    c. a chastity belt
    d. colonoscopy

Answer: A
Difficulty: 2
Page: 74
Skill: F
Learning Objective: 2.17
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

68. What is the oldest effective treatment for infertility?
    a. in vitro fertilization
    b. nutritional supplements
    c. surrogate motherhood
    d. artificial insemination

Answer: D
Difficulty: 1
Page: 74
Skill: F
Learning Objective: 2.17
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

69. ____ is the process in which sperm is injected directly into the uterus, and is the simplest and most effective reproductive treatment.
    a. In vitro fertilization
    b. Artificial insemination
    c. Amniocentesis
    d. Infertility injections

Answer: B
Difficulty: 2
Page: 74
Skill: F
Learning Objective: 2.17
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

70. What is the success rate of artificial insemination?
    a. 10%
    b. 40%
    c. 70%
    d. 100%

Answer: C
Difficulty: 1
Page: 74
Skill: F
Learning Objective: 2.17
Bloom's Taxonomy Level: Remember

MDL Parallel Question ID: N/A

71. What is the most common approach to female infertility if the woman cannot ovulate properly?
    a. eliminating nutritional deficiencies
    b. fertility drugs
    c. increasing the frequency of intercourse
    d. herbal therapy

Answer: B
Difficulty: 1
Page: 74
Skill: F
Learning Objective: 2.17
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Post 2.3.4, CE 2.3.12

72. More than half of the women who take fertility drugs become pregnant in how many cycles (months)?
    a. 2
    b. 6
    c. 10
    d. 20

Answer: B
Difficulty: 1
Page: 74
Skill: F
Learning Objective: 2.17
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

73. The use of fertility drugs increases the likelihood of all of the following except ____.
    a. blood clots
    b. decreased bone density
    c. kidney damage
    d. damage to the ovaries

Answer: B
Difficulty: 1
Page: 74
Skill: F
Learning Objective: 2.17
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

74. Which of the following are known risks associated with fertility drugs?
    a. hypertension, cardiac arrhythmias, and gastrointestinal problems
    b. depression, anxiety, and suicidal thoughts
    c. blood clots, kidney damage, and damage to the ovaries
    d. diabetes, endometriosis, and eczema

Answer: C
Difficulty: 3
Page: 74

Skill: F
Learning Objective: 2.17
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.3.3

75. Depending on the drug, what percentage of multiple births results from using fertility drugs?
    a. 1–2%
    b. 10–25%
    c. 40–55%
    d. 60–75%

Answer: B
Difficulty: 1
Page: 74
Skill: F
Learning Objective: 2.17
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

76. A friend tells you that she is on a fertility drug to increase the number of follicles during ovulation and is so excited about the possibility of having twins. Based upon the reading, would you agree that she has an increased possibility of conceiving twins?
    a. Yes, fertility drugs increase the rate of multiple births by increasing the probability of releasing more than one ovum; which might lead to fraternal twins.
    Correct. Depending on the drug, 10–25% of multiple births result from using fertility drugs.
    b. No, the use of fertility drugs is in no way related in giving birth to twins.
    c. No, having twins is unpredictable and modern medicine has not been able to alter the process in any way.
    d. Yes, infertility drugs have shown to increase the rate of identical twins; however these pregnancies have a much higher rate of miscarriage than non-multiple pregnancies.
    Incorrect. Fertility drugs increase the possibility of more than one ovum being released.

Answer: A
Difficulty: 3
Page: 74
Skill: A
Learning Objective: 2.17
Bloom's Taxonomy Level: Apply
MDL Parallel Question ID: N/A
% correct 41 a= 41 b= 6 c= 24 d= 29 r = .48

77. What fertility technique extracts ova, combines them with sperm, and, after a few days, implants two or three blastocysts into the woman's uterus?
    a. in vitro fertilization
    b. nutritional supplements
    c. surrogate motherhood
    d. artificial insemination

Answer: A
Difficulty: 1
Page: 75

Skill: F
Learning Objective: 2.17
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

78. In vitro fertilization, or IVF, has improved in recent years. What is the current rate of success of IVF?
    a. 15%
    b. 35%
    Correct: Success rates for IVF are about 35% for women under 35.
    c. 55%
    Incorrect: The current rate of success of IVF is 35% for women under 35.
    d. 75%
Answer: B
Difficulty: 1
Page: 75
Skill: F
Learning Objective: 2.17
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: N/A

79. What theory argued that for conception to occur, both the man and the woman had to emit a "seed" and that the "seed" was only released through orgasm?
    a. mutual orgasm theory
    b. animal theory
    c. ovist theory
    Incorrect: The semence theory argued for conception to occur that both the man and the woman had to emit a "seed" and that the seed was only released during orgasm.
    d. semence theory
    Correct. This was the dominant theory of conception in the West for more than two millennia.
Answer: D
Difficulty: 1
Page: 75
Skill: C
Learning Objective: 2.17
Bloom's Taxonomy Level: Understand
MDL Parallel Question ID: Pre 2.3.8

80. Which of the following countries are included within the *infertility belt* across central Africa?
    a. Ethiopia, South Africa, and Liberia
    b. Cameroon, Sudan, and the Republic of the Congo
    c. Cambodia, Thailand, and Vietnam
    d. Nigeria, Chad, and Libya
Answer: B
Difficulty: 2
Page: 76
Skill: F
Learning Objective: 2.18
Bloom's Taxonomy Level: Remember

MDL Parallel Question ID: N/A

81. ____ are two possible causes for the higher rates of infertility in countries found in Africa.
    a. Malnutrition and sexually transmitted infections
    b. Warmer climate and higher levels of libido
    c. Religious attitude on sexuality and encouragement of larger families
    d. Poor sanitation and dietary habits

Answer: A
Difficulty: 2
Page: 76
Skill: F
Learning Objective: 2.18
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: Pre 2.3.6, CE 2.3.4

82. In most collectivist cultures, motherhood is an essential part of a female's identity and if infertility occurs she may ____.
    a. travel to the city and seek fertility treatment
    b. use herbal remedies and consult a shaman
    c. become anxious and overly depressed
    d. divorce her husband and seek another who is more fertile

Answer: B
Difficulty: 2
Page: 77
Skill: F
Learning Objective: 2.18
Bloom's Taxonomy Level: Remember
MDL Parallel Question ID: CE 2.3.13

Short Answer Questions

83. In addition to characteristic facial features, what other types of medical/physical complications might a person caring for an individual with Down Syndrome expect?
Answer: They are more at risk of heart problems, leukemia, cancer and their life expectancy is lower than average.
Page: 67-68
Learning Objective: 2.13
Bloom's Taxonomy Level: Remember

84. Which prenatal period is considered a critical period when teratogens are most likely to have severe and enduring effects? Why?
Answer: The embryonic period because this is when all the major organs and systems are forming.
Page: 68
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember

85. What are two consequences of a folic acid deficiency?
Answer: Anencephaly- part of the brain is missing or deformed.
-Spina bifida- the spine is deformed and does not close.
Page: 68-69
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember

86. What are the long-term effects FASD (in addition to characteristic physiological features)?
Answer: In childhood, there are cognitive deficits that put them behind academically and socially. In addition, in adolescence, they are at risk for delinquency, substance abuse, and depression.
Page: 70-71
Learning Objective: 2.14
Bloom's Taxonomy Level: Remember

87. Which test can be done earlier: amniocentesis or chorionic villus sampling (CVS)? Explain each.
Answer: CVS can be done earlier, at about 5-10 weeks gestation versus 15-20 weeks. CVS entails inserting a tube through the vagina and into the uterus to remove cells from what will eventually the umbilical cord. Amniocentesis involves inserting a needle into abdomen to remove amniotic fluid which contains cells that have been sloughed off from the developing organism. Both are used to detect genetic problems.
Page: 72
Learning Objective: 2.15
Bloom's Taxonomy Level: Understand

Essay Questions

88. Explain how prenatal health can depend on when the child was conceived in places where diet varies greatly depending upon which foods are available at different times of the year.
Answer: If there are little or no fruits or vegetables available, as in China in the '80's, babies can be born with folic acid deficiencies. This caused anencephaly and spina bifida.
Page: 69
Learning Objective: 2.14
Bloom's Taxonomy Level: Understand

89. You are out to dinner with your friend who is in her second trimester of pregnancy. You order a beer and she proceeds to order a glass of wine. When you raise a concern about alcohol being dangerous for the developing fetus, she replies, "My doctor told me it was okay to have a glass of wine once in a while." What is your evaluation of this advice?
Answer: No safe amount of alcohol has been determined during pregnancy. Even a few drinks can put a developing fetus at risk for lower height, weight, and head size and heavy drinking causes FASD. There is a dose-response relation between alcohol and negative effects.
Page: 70-71
Learning Objective: 2.14
Bloom's Taxonomy Level: Apply

MyDevelopmentLab Question Bank

Pre-Test

Pre 2.3.1. One in ____ children has a chromosomal disorder.
a. 20
b. 200
c. 2,000
d. 20,000
Answer: b
Page: 67

Pre 2.3.2. Which of the following is a correlating factor with Down syndrome?
a. Maternal exposure to radiation
b. A family's socioeconomic status
c. The mother's age
d. The father's sperm count
Answer: c
Page: 67

Pre 2.3.3. Drugs that are used for infertility have been shown to increase the likelihood of _____.
a. blood clots
b. diabetes
c. near sightedness
d. ear infections
Answer: a
Page: 70

Pre 2.3.4. Infertility is defined as _____.
a. low sperm count
b. the presence of endometriosis
c. the inability to conceive after trying for a year
d. low desire to conceive
Answer: c
Page: 74

Pre 2.3.5. The ____ theory proposed that conception occurs when both the male and female emit their "seeds" during intercourse.
a. Mutual orgasm
b. Animal
c. Ovist
d. Semence
Answer: d
Page: 69

Pre 2.3.6. Which of the following is the cheapest, easiest, and safest way for physicians to monitor fetal development?

a. Ultrasound
b. Amniocentesis
c. Spinal tap
d. Genetic counseling
Answer: a
Page: 76

Pre 2.3.7. Down syndrome is sometimes referred to as trisomy-21 because individuals who have Down syndrome _____.
a. have 3 distinct facial features by the 21st week of pregnancy
b. show 3 distinct temperament patterns by the 21st week of infancy
c. have a third chromosome on the 21st pair
d. have 21 genes on the 3rd pair of chromosomes
Answer: c
Page: 69

Pre 2.3.8. Your sister, who is pregnant, is smoking a cigarette. Which of the following is the most appropriate advice for your sister?
a. There are known side effects to smoking while pregnant. She needs to stop.
b. Research has shown that smoking is harmless.
c. She needs to put the cigarette out and wait until the 3rd trimester to begin smoking again.
d. Only second hand smoke is harmful, she can continue.
Answer: a
Page: 75

Pre 2.3.9. Which of the following couples is most suited for genetic counseling? Merriam and Samir who are in their early 40s and have a history of miscarriages and infertility. JJ and Jennifer who are in their early 30s and have just completed an unsuccessful round of artificial insemination. Stephen and Kerry who are in their early 20s and have been trying to become pregnant but have been unsuccessful for the last two months. Ngyuen and Pham who are in their early 30s but both have a history of diabetes.
a. Merriam and Samir
b. JJ and Jennifer
c. Stephen and Kerry
d. Ngyuen and Pham
Answer: a
Page: 72

Pre 2.3.10. In speaking with a friend, she tells you that she is on an infertility drug and is excited to have twins. Which of the following is the most appropriate based upon the text?
a. Fertility drugs increase the rate of multiple births by increasing the probability of releasing more than one ovum, which might lead to fraternal twins.
b. The use of fertility drugs is in no way related to giving birth to twins.
c. Having twins is unpredictable and modern medicine has not been able to alter the process in any way.

d. Infertility drugs have been shown to increase the rate of identical twins; however these pregnancies have a much higher rate of miscarriage than non-multiple pregnancies.

Answer: a
Page: 74

Post-Test

Post 2.3.1. During meiosis, which of the following best describes a chromosome's failure to divide properly resulting in a person having 45 or 47 chromosomes?

a. Chromosomal disorder
b. Genetic misprinting
c. Mitosis air
d. Gene displacement

Answer: a
Page: 67

Post 2.3.2. Individuals with Down syndrome have ____ chromosomes.

a. 45
b. 46
c. 47
d. 48

Answer: c
Page: 67

Post 2.3.3. According to the text, ____ is the most common cause of infertility in women.

a. alcohol
b. stress
c. inability to ovulate
d. smoking

Answer: c
Page: 73

Post 2.3.4. If a woman cannot ovulate properly, which of the following is the most common approach to her infertility?

a. Fertility drugs
b. Herbal therapy
c. Stress management and reduction
d. Eliminating nutritional deficiencies

Answer: a
Page: 74

Post 2.3.5. In regards to pregnancy and infertility, why does it take a male who is 40 longer than a male who is 25 to impregnate his partner?

a. Decrease in the quantity and quality of sperm
b. Lack of libido
c. Endometriosis
d. Partner's fertility

Answer: a

Page: 73

Post 2.3.6. A known teratogen, ____ is another name for German measles.
a. Cephalopelvic disproportion
b. Rubella
c. Mumps
d. Hydroencephalitis
Answer: b
Page: 70

Post 2.3.7. Adding ____ to grain products has greatly reduced the number of infants born with spina bifida.
a. iodine
b. fluoride
c. folic acid
d. high fructose corn syrup
Answer: c
Page: 69

Post 2.3.8. You have a couple with whom you are friends and they are trying to conceive their first child. The wife is over 40 years old and they are concerned that they may have a child with Down syndrome. Which of the following would be most beneficial for your friends?
a. An ultrasound and genetic counseling
b. An amniocentesis and PET scan
c. An amniocentesis and ultrasound
d. A Chorinic villus sampling and fMRI
Answer: a
Page: 72

Post 2.3.9. While volunteering at a local hospital you notice an infant who has facial deformities, misshapen limbs, and are told that he has heart problems and is diagnosed with mental retardation. Based upon the reading, which of the following might this infant have?
a. Fetal alcohol spectrum disorder
b. Autism
c. Prader-Willi syndrome
d. Measles
Answer: a
Page: 70

Post 2.3.10. The following are couples who are attempting to conceive a child. Based upon your understanding of the text, which of the following couples would be the most appropriate candidate for genetic counseling?
Jennifer and Jess who are in their early 30s but both have a history of diabetes. Vicky and Steven who are in their early 40s and have a history of miscarriages and infertility. Lashandra and Lamar who are in early 20s and have been trying to become pregnant but have been unsuccessful for the last two months. Billy Ray and Miley who are in their early 30s and have just completed an unsuccessful round of artificial insemination.
a. Vicky and Steven

b. Lashandra and Lamar
c. Billy Ray and Miley
d. Jennifer and Jess
Answer: a
Page: 72

Chapter Exam

CE 2.3.1. From a global perspective, ____ is the most common teratogen to affect pregnancies?
a. lead
b. malnutrition
c. alcohol
d. rubella
Answer: b
Page: 68

CE 2.3.2. According to the text, during conception what happens to most zygotes that have too many or too few chromosomes?
a. They are spontaneously aborted.
b. They result in neonates with birth defects.
c. They result in twins.
d. They have no problems.
Answer: a
Page: 67

CE 2.3.3. _____ are known risk factors associated with fertility drugs.
a. Blood clots, kidney damage, and damage to the ovaries
b. Hypertension, cardiac arrhythmias, and gastrointestinal problems
c. Diabetes, endometriosis, and eczema
d. Depression, anxiety, and suicidal thoughts
Answer: a
Page: 74

CE 2.3.4. Which of the following are 2 possible causes for high infertility rates in some African countries?
a. Malnutrition and sexually transmitted infections
b. Warmer climates and higher levels of libido
c. Religious attitude on sexuality and encouragement of large families
d. Poor sanitation in dietary habits
Answer: a
Page: 76

CE 2.3.5. Which of the following best describes possible routes for HIV/AIDS transmission from a mother to her child?
a. during prenatal development through blood, during birth, or through breast milk
b. through casual skin-to-skin contact such as hugs and kisses
c. via bacterial infections during times of illness while pregnant

d. through HIV bacteria being transmitted via contaminated environmental objects
Answer: a
Page: 70

CE 2.3.6. In which the following areas do 95% of all HIV infections take place?
a. Australia
b. Asia
c. Europe
d. Africa
Answer: d
Page: 70

CE 2.3.7. Which of the following is a paternal behavior that, if committed during pregnancy, can lead to a higher risk of low birth weight and childhood cancer for the unborn child?
a. Mega dosing of vitamins
b. Drinking of alcohol
c. Smoking cigarettes
d. Cocaine use
Answer: c
Page: 71

CE 2.3.8. Which of the following is a reason for a couple to seek genetic counseling before attempting to conceive?
a. They might be carriers for a genetic disorder.
b. They live in a high-risk area.
c. They want to have a high IQ baby.
d. They want a particular characteristic in their offspring.
Answer: a
Page: 72

CE 2.3.9. What percent of infertility problems can be traced back to the male?
a. 20%
b. 30%
c. 40%
d. 50%
Answer: d
Page: 73

CE 2.3.10. Mehrak and Emma are seeking fertility treatment and were informed by their physician that Mehrak's sperm-count is low and the quality is poor. Which of the following suggestions might help increase his sperm production and quality?
a. Quit smoking, decrease alcohol consumption, and do not abuse drugs
b. Start a vitamin C regimen, consume more folic acid, and take a multivitamin
c. Exercise daily, increase nicotine consumption, and reduce stress
d. Avoid wearing boxer shorts and switch to tighter underwear
Answer: a
Page: 73

CE 2.3.11. Throughout history and in most cultures, infertility has been regarded mostly as a problem originating from _____.
a. a lack of spiritual commitment
b. the male
c. the female
d. both the male and the female
Answer: c
Page: 74

CE 2.3.12. Sara was informed by her physician that she is not ovulating properly. Which of the following is her physician's most likely course of treatment?
a. Fertility drugs
b. Eliminating nutritional deficiencies
c. Increasing herbal consumption
d. Decreasing stress and increasing caffeine intake
Answer: a
Page: 74

CE 2.3.13. For many cultures, if a female is childless and desires to conceive, she may:
a. Use herbal remedies and consult a Shaman.
b. travel to the city and seek fertility treatment.
c. become depressed or even suicidal.
d. divorce her husband and seek a younger partner.
Answer: a
Page: 77

CE 2.3.14. Your sister just gave birth to a new baby. In speaking with her, she tells you that the baby was born with an extremely deformed spinal column and continues by calling it _____.
a. spina bifida
b. endometriosis
c. microencephaly
d. cleft palate
Answer: a
Page: 69

CE 2.3.15. Your sister just found out that she is pregnant after trying for nine months. Now she fears that she is going to have a baby with a chromosomal disorder. You try to assure her by telling her that the rate of babies born with chromosomal disorders is _____.
a. 1 in 200
b. 1 in 2,000
c. 1 in 20,000
d. 1 in 20
Answer: a
Page: 67

Quick Review

QR 2.3.1. In developed countries, ____ is the leading cause for low birth weight
a. smoking
b. cocaine use
c. drinking alcohol
d. mega-dosing of vitamins
Answer: a
Page: 71

QR 2.3.2. Which of the following is a treatment for a sex chromosomal disorder during adolescence?
a. role playing therapy
b. hormone replacement therapy
c. group therapy
d. behavioral cognitive therapy
Answer: b
Page: 67

QR 2.3.3. A person with Down Syndrome has ____ chromosomes.
a. 45
b. 46
c. 47
d. 48
Answer: c
Page: 67

QR 2.3.4. ____ maternal behavior during pregnancy is related to a higher prevalence of conduct disorder and substance abuse during adolescence.
a. Smoking cigarettes
b. Cocaine use
c. Excessive alcohol consumption
d. Mega-dosing of vitamins
Answer: a
Page: 71

QR 2.3.5. ____ are 3 primary sources of male infertility.
a. Sperm death, poor sperm mobility, and low seminal fluid
b. Erectile difficulties, decreased libido, and low sperm count
c. Low sperm production, poor sperm quality or poor sperm movement
d. Low sperm production, increase libido, and poor sperm movement
Answer: a
Page: 73

QR 2.3.6. What are two common consequences of sex chromosome disorders?
a. Cognitive deficits and abnormal development of the reproductive system at puberty.
b. The infant may have a shortened stature and the likelihood to develop nonorganic failure to thrive.

c. An increased likelihood to have a pregnancy that is preterm and an infant with low birth weight.
d. The infant is more likely to have a difficult temperament and an insecure attachment.

Answer: a
Page: 67

QR 2.3.7. What is another name for Down syndrome?
a. Trisomy-21
b. Quint-36
c. Quad-29
d. Hex-12

Answer: a
Page: 67

QR 2.3.8. ____ is the period of prenatal development that is considered the critical period where teratogens can have a profound effect.
a. Embryonic period
b. Conception
c. Germinal period
d. Fetal period

Answer: a
Page: 68

QR 2.3.9. During pregnancy, deficiencies in ____ may result in anencephaly and spina bifida.
a. folic acid
b. fluoride
c. calcium
d. vitamin E

Answer: a
Page: 69

QR 2.3.10. During prenatal development, which of the following sexually transmitted infections can be transmitted from the mother to the fetus?
a. HIV/AIDS
b. Syphilis
c. Herpes
d. Gonorrhea

Answer: a
Page: 70

Practice Test Questions from the Textbook

1. Keisha has inherited one recessive gene for the sickle-cell trait along with one normal dominant gene. As a result of this _____ , she is resistant to malaria and does not have sickle-cell anemia.
a. dominant-recessive inheritance
b. incomplete dominance
c. polygenic inheritance
d. reaction range
ANS: B (L.O. 2.1) *p. 46*
% correct 50 a= 28 b= 50 c= 11 d= 0 r = .35

2. Who has the greatest risk of developing hemophilia, which is an X-linked recessive disorder?
a. a female who has one X chromosome that contains the gene for this disorder
b. a male who has one X chromosome that contains the gene for this disorder
c. males and females with one X chromosome that contains the gene for the disorder will have equal risk
d. only Native Americans, due to their unique genetic makeup
ANS: B (L.O. 2.2) *p. 49*

3. Which of the following questions would a behavioral geneticist be most likely to ask?
a. "Why are children in the same family so different from one another?"
b. "Are preterm babies more likely to have learning difficulties during the school years?"
c. "How can prenatal tests be used to detect Down syndrome?"
d. "What effects does alcohol have on the developing organism?"
ANS: A (L.O. 2.3) *p. 50*

4. Why has there has been little change in the average height in Western countries over the last few decades?
a. The population has become overweight or obese, which negatively affects height.
b. People in Western countries have been exposed to more diseases.
c. People have reached the upper boundary of their reaction range for height.
d. Evolutionary influences are causing all populations to decrease in height.
ANS: C (L.O. 2.4) *p. 52*
% correct 61 a= 17 b= 0 c= 61 d= 11 r = .40

5. John is short for his age and is very coordinated. Although exposed to a variety of activities, none has particularly interested him. His father, who used to wrestle when he was younger, signs John up for wrestling thinking this could be the perfect sport. He convinces John to give it a try and John goes on to become a champion wrestler. This is an example of
a. passive genotype → environment effects.
b. evocative genotype → environment effects.
c. active genotype → environment effects.
d. heritability.
ANS: A (L.O. 2.5) *pp. 52–53*

6. As a result of the process of crossing over
a. the risk of Down syndrome is increased.
b. boys are more likely to be born with a learning disability.
c. women are at increased risk for infertility.
d. each child born to a set of parents is genetically unique (with the exception of identical twins).
ANS: D (L.O. 2.6) *p. 56*

7. S. J. is most likely to have DZ twins if
a. she has Asian biological parents.
b. she is in her late teens.
c. she is concerned about gaining too much weight and severely restricts her calorie intake.
d. her mother had DZ twins.
ANS: D (L.O. 2.7) *p. 57*

8. If a woman learns that her infertility problem is due to a problem with the _____ successfully implanting, something went wrong during the germinal period.
a. zygote
b. blastocyst
c. fetus
d. trophoblast
ANS: B (L.O. 2.8) *p. 60*

9. During the embryonic period
a. the blastocyst forms.
b. the zygote is created.
c. the zygote attaches to the uterine wall.
d. the nervous system develops.
ANS: D (L.O. 2.9) *p. 60*

10. Saad, a baby born 6 weeks prematurely is more at risk of not surviving than Nona, a baby who is full term because Saad's __ _____ is/are still immature.
a. small intestines
b. heart
c. lungs
d. spleen
ANS: C (L.O. 2.10) *p. 61*

11. In traditional cultures, prenatal massage
a. is usually done only when there is reason to believe that the fetus is not developing properly.
b. is usually considered dangerous.
c. has beneficial effects for both mother and fetus.
d. is almost exclusively performed by the pregnant mother herself in complete isolation.
ANS: C (L.O. 2.11) *p. 63*

12. K. M. is an American woman of healthy weight who went to the doctor for her second prenatal checkup. What would be LEAST LIKELY recommended by her physician?
a. to increase her fluid intake
b. to avoid exercise as much as possible, especially aerobic activities
c. to increase her caloric intake
d. to be sure she is getting enough iron and folic acid in her diet
ANS: B (L.O. 2.12) *p. 65*

13. A child who has an X0 chromosomal makeup (where 0 denotes a missing chromosome where there is supposed to be a 23rd pair) will most likely:
a. be a male with Down syndrome.
b. be a female who will later experience problems in the development of the reproductive system.
c. be a typical female who will not experience cognitive or physical problems.

d. not survive past the age of 3.
ANS: B (L.O. 2.13) *p. 67*

14. K. L.'s baby was born blind, deaf, and with mental retardation. It is most likely that during her pregnancy she.
a. contracted AIDS.
b. had rubella.
c. had a severe nutritional deficiency.
d. ate foods that were too high in folic acid.
ANS: B (L.O. 2.14) *p. 70*

15. Carissa has a family history of Down syndrome and is in her 5th week of pregnancy. She decides that she would like to find out as early as possible whether her unborn child has Down syndrome or any other genetic abnormality. What test is she most likely to get?
a. fetal monitoring
b. ultrasound
c. amniocentesis
d. chorionic villus sampling
ANS: D (L.O. 2.15) *p. 72*

16. Sam would be LEAST LIKELY to be infertile if
a. his sperm have been found to be low in motility.
b. he is under the age of 25.
c. he smokes marijuana and binge drinks.
d. his sperm count has been found to be low.
ANS: B (L.O. 2.16) *p. 73*

17. Fertility drugs
a. lead to pregnancy in virtually all women if they take them long enough.
b. decrease a woman's chances of having DZ twins.
c. are also known in the medical community as in vitro fertilization.
d. carry risks such as blood clots and kidney damage.
ANS: D (L.O. 2.17) *p. 74*

18. A married woman from a non-Western, collectivist culture has been unable to have a child for over 3 years. Which of the following is LEAST LIKELY?
a. She will have a lower status relative to her husband.
b. She will get a lot of social support from her mother- and father-in-law.
c. She will try an herbal remedy.
d. She will be blamed for this "problem."
ANS: D (L.O. 2.18) *p. 77*
% correct 78 a= 0 b= 0 c= 11 d= 78 r = .51

Video Guide Questions

Short Answer Questions

1. What are your thoughts on genetic counseling after viewing this clip? Did you have any thoughts or opinions on genetic counseling prior to viewing the clip? If so, did viewing this clip change your opinion?
Answer: Answers will vary.

2. Would you/Did you seek genetic counseling during your pregnancy? Why or why not? Would you recommend it to others?
Answer: Answers will vary.

3. The professional interviewed in this clip lists several reasons why individuals might consider genetic counseling. List and describe at least three of these reasons.
Answer: Answers will vary, but should include at least 3 of the following: Genetic counselors can provide information about a diagnosis to help individuals better understand it. They can provide testing to help in the diagnosis of a child. Genetic counseling can help diagnose an adult onset disorder, or conduct prenatal testing. Individuals carry approximately 5-8 lethal recessive genes, and genetic counseling can help individuals better understand through testing and physical exams as well as information gathering.
Learning Objective: 2.15

Multiple Choice Questions

1. How many lethal recessive genes would a typical person carry?
   a. 0-1
   b. 5-8
   c. 25-50
   d. 100-200
   Answer: B

2. According to the genetic counselor interviewed in this video segment, about how many human genes are there?
   a. 20,000
   b. 30,000
   c. 45,000
   d. 90,000
   Answer: B

3. Who generally has the right to decide the course of treatment, should a genetic condition be diagnosed prenatally?
   a. the doctor
   b. the genetic counselor
   c. the family

d. It depends on the severity of the condition and the cause of the condition.
Answer: C
Learning Objective: 2.15