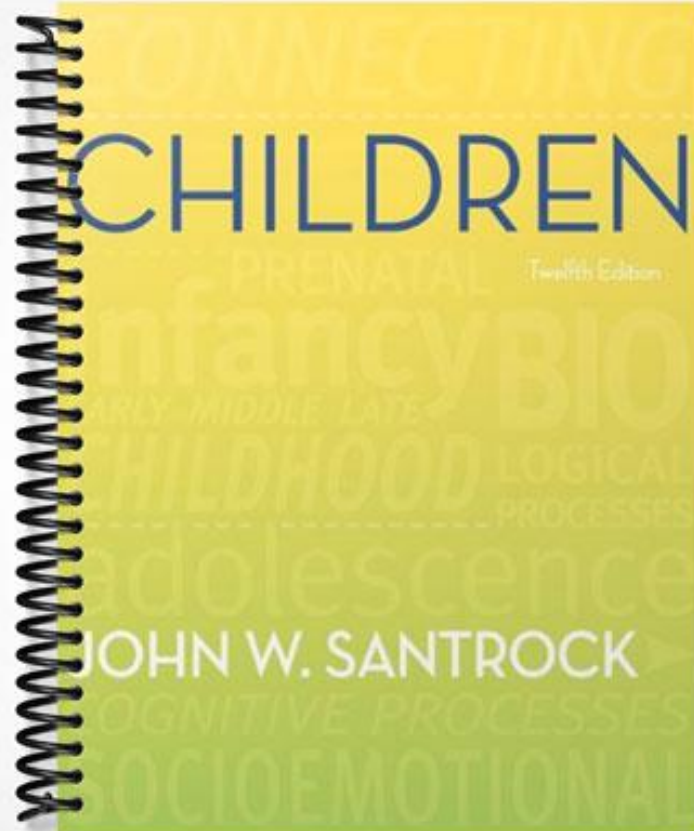


TEST BANK



Student: _____

1. The evolutionary process that favors individuals of a species that are best adapted to survive and reproduce is known as:
 - A. gene-gene interaction.
 - B. gene mutation.
 - C. natural selection.
 - D. genetic imprinting.
2. Which of the following statements is true of Darwin's views on evolution?
 - A. Most organisms reproduce at rates that cause an insignificant increase in their population.
 - B. The constant struggle for food, water, and resources among members of a species encourages supportive behaviors among them.
 - C. Behavior that promotes an organism's survival in the natural habitat differentiates between survivors and nonsurvivors.
 - D. Adaptive behaviors are purely psychological.
3. The theory of evolution by natural selection was first introduced by:
 - A. Charles Darwin.
 - B. Stephen Jay Gould.
 - C. Albert Bandura.
 - D. Sandra Scarr.
4. In the context of natural selection, "fit" refers to behaviors that increase:
 - A. genetic imprinting.
 - B. psychological fitness.
 - C. gene-environment interaction.
 - D. reproductive success.
5. Evolutionary psychology is a relatively new approach to psychology that has been especially influenced by:
 - A. David Buss.
 - B. Sigmund Freud.
 - C. Albert Bandura.
 - D. Martin Seligman.
6. Evolutionary psychology is a relatively new approach to psychology that emphasizes the:
 - A. biological changes that occur in an individual throughout the lifespan.
 - B. role of adaptation, reproduction, and survival of the fittest in shaping behavior.
 - C. unilateral manner in which genes determine our behavior and abilities.
 - D. geographical setting of the person in explaining his/her behavior and abilities.
7. Which of the following is true with regard to the views of David Buss on evolution?
 - A. The influence of evolution is restricted to the development of our unique physical features.
 - B. The influence of evolution is negligible as the environment in which one grows is the sole determinant of his/her personality.
 - C. The influence of evolution on our reproductive success is not sufficient to explain survival.
 - D. The influence of evolution on our decision making abilities, levels of aggression, fears, and our mating patterns are significant.

8. Which of the following is an idea generated and supported by evolutionary psychology?
- A. Gender roles are socially constructed as opposed to being a function of evolution.
 - B. The mind is like a general-purpose device that can be applied equally to a vast array of problems . because evolved psychological mechanisms are not domain-specific.
 - C. All evolved mechanisms are adaptive in contemporary society.
 - D. An extended childhood period evolved in humans because they require time to develop a large brain . and learn the complexity of human societies.
9. Which of the following is true with regard the evolutionary psychology perspective?
- A. The evolutionary psychology perspective is one of the oldest applied branches of psychology.
 - B. The evolutionary psychology perspective represents a bidirectional view, in which environmental and . biological conditions influence each other.
 - C. The evolutionary psychology perspective has been proven through successful empirical study and research.
 - D. The evolutionary psychology perspective is best evaluated through the study of specific genes and their . links to traits and behaviors.
10. Threadlike structures that contain DNA are defined as:
- A. nerves.
 - B. cells.
 - C. dendrites.
 - D. chromosomes.
11. Which of the following is true with regard to the genes?
- A. Each gene contains multiple chromosomes that are located on it.
 - B. Genes are located variably in humans; they cannot be found at a fixed place on a chromosome.
 - C. Genes are contained in complex molecules with a double helix shape called DNA.
 - D. Genes work individually to assemble proteins.
12. _____ are defined as units of hereditary information.
- A. Nerves
 - B. Cells
 - C. Genes
 - D. Engrams
13. Identify the smallest entity amongst the following.
- A. A cell
 - B. A gene
 - C. A gamete
 - D. A chromosome
14. The findings of the Human Genome Project revealed that:
- A. genes possess no fixed locations in humans.
 - B. humans have far fewer genes than estimated earlier.
 - C. each gene programmed just one protein.
 - D. humans appear to have far more genes than they have proteins.
15. Which of the following statements is true with regard to genes and proteins?
- A. Genes act independently to translate the genetic code they carry into an individual's phenotype or . physical features that are observable.
 - B. Each gene is translated, in an automatic fashion, into one and only one protein.
 - C. The translation of genes into proteins represents a collaborative process between genes and other . factors within and outside the body.
 - D. The Human Genome Project established the fact that humans had as many as 100,000 or more genes.

16. _____ is defined as the process by which the cell's nucleus, including the chromosomes, duplicates itself and the cell divides.
- A. Accommodation
 - B. Mitosis
 - C. Assimilation
 - D. Fertilization
17. _____ is defined as a specialized form of cell division that occurs to form gametes.
- A. Fertilization
 - B. Meiosis
 - C. Gene imprinting
 - D. Mitosis
18. A single cell, known as a(n) _____, is formed during the process of fertilization.
- A. ovum
 - B. embryo
 - C. gamete
 - D. zygote
19. The difference between mitosis and meiosis is that:
- A. meiosis takes place within body cells, while mitosis takes place within gametes.
 - B. mitosis results in the formation of two cells, while meiosis produces four cells.
 - C. in mitosis the cells divide twice, while in meiosis only one division occurs.
 - D. mitosis results in 23 unpaired chromosomes, while meiosis results in 23 paired chromosomes.
20. Which of the following is true with regard to sources of variability?
- A. The chromosomes in the zygote are not exact copies of those in the mother's ovaries and the father's testes.
 - B. Fraternal twins develop from a single zygote that splits into two genetically identical replicas.
 - C. For each genotype, only a corresponding phenotype can be expressed.
 - D. Identical twins develop from separate eggs and separate sperm.
21. A _____ is a permanently altered segment of DNA that can give rise to genetic variability.
- A. recessive gene
 - B. dependent gene
 - C. mutated gene
 - D. dominant gene
22. Which of the following is true with regard to one's genotype?
- A. It is apparent in one's physical make-up.
 - B. It refers to one's actual genetic material.
 - C. It can be observed through one's intelligence and personality.
 - D. Each genotype translates into only one phenotypic expression.
23. Which of the following can be deciphered by observing an individual?
- A. His genetic material
 - B. His phenotype
 - C. His genetic code
 - D. His genetic expression
24. Caroline is beautiful baby. She has lovely blond hair and soft blue eyes. Caroline's hair and eyes are examples of her _____.
- A. genetic coding
 - B. genotype
 - C. gene-environment interaction
 - D. phenotype

25. Which of the following is true with regard to the dominant-recessive genes principle?
- A. A single recessive gene has the potential to silence the other gene of the pair.
 - B. A recessive gene exerts its influence only if the two genes of a pair are both recessive.
 - C. Blond hair, nearsightedness, and freckles are dominant traits.
 - D. Brown hair, farsightedness, and dimples are examples of recessive traits.
26. Michael carries two genes for brown hair. Lisa carries two genes for blond hair. Given this, we know that their child will have a _____ percent chance of having brown hair.
- A. 25
 - B. 50
 - C. 75
 - D. 100
27. In order for your children to have freckles, both you and your partner must carry the gene for freckles, since having freckles is a:
- A. polygenic trait.
 - B. phenotypic trait.
 - C. recessive trait.
 - D. dominant trait.
28. Peggy and Bob both have are farsighted. If their child is nearsighted, then it follows that:
- A. both Peggy and Bob lack a gene for farsightedness.
 - B. only Peggy has a gene for farsightedness.
 - C. only Bob lacks a gene for nearsightedness.
 - D. both Peggy and Bob have a gene for nearsightedness.
29. An example of X-linked inherited disease is:
- A. XYY syndrome
 - B. Down syndrome.
 - C. hemophilia.
 - D. phenylketonuria.
30. Pam is a carrier for hemophilia while her husband, Martin is not a hemophiliac. Which of the following would be true under these conditions?
- A. All of their daughters would be hemophiliacs.
 - B. There is a 50 percent chance that a daughter would be a hemophiliac.
 - C. All of their sons would be hemophiliacs.
 - D. There is a 50 percent chance that a son would be a hemophiliac.
31. Which of the following is caused by faulty genetic imprinting?
- A. Beckwith-Wiedemann syndrome
 - B. Klinefelter syndrome
 - C. Turner syndrome
 - D. Down syndrome
32. Height is a simple characteristic that is determined by:
- A. a single gene.
 - B. the interaction of many genes and environmental factors.
 - C. the manifestation of an altered X-linked gene.
 - D. the action of a specific pair of genes.
33. Which of the following genetic disorders is caused by the presence of an extra copy of chromosome 21?
- A. Down syndrome
 - B. Turner syndrome
 - C. Sickle-cell anemia
 - D. Phenylketonuria

34. Jerry was born with a round face, flattened skull, short limbs, and retardation of motor and mental abilities. The doctors told Jerry's parents that this is because he has an extra copy of chromosome 21. Which of the following chromosomal abnormalities does Jerry have?
- A. Phenylketonuria
 - B. Turner syndrome
 - C. Sickle-cell anemia
 - D. Down syndrome
35. Which of the following is true with regard to Down syndrome?
- A. Down syndrome afflicts only males.
 - B. No remedial measures can be used to improve the quality of life and adaptive capacity of children with Down syndrome.
 - C. The risk of having a child with Down syndrome is a function of too low or high a maternal age.
 - D. Down syndrome is a sex-linked chromosomal abnormality.
36. Which of the following is a characteristic feature of Klinefelter's syndrome?
- A. a protruding tongue
 - B. a webbed neck
 - C. undeveloped testes
 - D. an extra fold of skin over the eyelids
37. Which of the following genetic disorders affects only males?
- A. Phenylketonuria
 - B. Sickle-cell anemia
 - C. Klinefelter syndrome
 - D. Down syndrome
38. Which of the following genetic disorders can be classified as a sex-linked chromosomal abnormality?
- A. Phenylketonuria
 - B. Sickle-cell anemia
 - C. Klinefelter syndrome
 - D. Down syndrome
39. Which of the following pairs of genetic disorders is caused by the presence of an extra chromosome?
- A. Down syndrome and Turner syndrome
 - B. Turner syndrome and sickle-cell anemia
 - C. Klinefelter syndrome and Down syndrome
 - D. Phenylketonuria and XYY syndrome
40. Which of the following is true with regard to fragile X syndrome?
- A. The physical appearance of children with fragile X syndrome is markedly altered.
 - B. Mental abilities are relatively normal in individuals with fragile X syndrome.
 - C. This disorder occurs more frequently in males than in females.
 - D. This disorder is caused by the missing X chromosome in humans.
41. Which of the following genetic disorders affects only females?
- A. Turner syndrome
 - B. Sickle-cell anemia
 - C. Klinefelter syndrome
 - D. Down syndrome
42. Which of the following genetic disorders is characterized by the X chromosome being missing or incomplete in females?
- A. Fragile X syndrome
 - B. Turner syndrome
 - C. Klinefelter syndrome
 - D. Down syndrome

43. Nancy has recently undergone a surgery to correct her webbed neck. This is one of the many difficulties she faces as a result of being born with a missing X chromosome. She is also very short and overweight. Doctors have informed her parents that hormone therapy is an option to treat her condition though reproductive sterility is a big possibility. Nancy's school performance is fairly average; she encounters problems with mathematics but has good verbal skills. Which of the following chromosomal disorders does Nancy have?
- A. Fragile X syndrome
 - B. Klinefelter syndrome
 - C. Turner syndrome
 - D. Down syndrome
44. The XYY syndrome is characterized by:
- A. the male having an extra Y chromosome.
 - B. the female having an extra Y chromosome.
 - C. the males having an extra X chromosome.
 - D. the female having a missing X chromosome.
45. Which of the following genetic disorders is characterized by the inability of individuals to properly metabolize a particular amino acid?
- A. Phenylketonuria
 - B. Sickle-cell anemia
 - C. Turner syndrome
 - D. Fragile X syndrome
46. When Wendy was a baby, she was diagnosed with a gene-linked abnormality that left her unable to metabolize an important amino acid. Since her condition was diagnosed early, the doctors recommended that her parents put her on a diet that prevents an excess accumulation of the concerned amino acid in her body. This diet has helped her deal with the disorder successfully without experiencing any of the major disturbances of development this disorder is associated with. Wendy is likely to be suffering from _____.
- A. phenylketonuria
 - B. hemophilia
 - C. turner syndrome
 - D. fragile X syndrome
47. _____ occurs most commonly in African Americans.
- A. Down syndrome
 - B. Turner syndrome
 - C. Sickle-cell anemia
 - D. Phenylketonuria
48. Which of the following is a consequence of sickle-cell anemia?
- A. Inability to metabolize an amino acid called phenylalanine
 - B. Limited oxygen supply to body's cells
 - C. Delayed blood clotting causes internal and external bleeding
 - D. Limited production of insulin
49. At age six, Joe underwent a minor dental procedure that was followed by prolonged bleeding. When the bleeding could not be controlled by any common means, Joe was hospitalized, and later, diagnosed with a condition that can make simple injuries, bruises, or cuts extremely threatening because of prolonged bleeding. His parents were informed that in case the problem continued or worsened, Joe would require frequent blood transfusions and medical care. Joe is suffering from _____.
- A. phenylketonuria
 - B. hemophilia
 - C. spina bifida
 - D. diabetes

50. _____ is a gene-linked abnormality that is caused by a glandular dysfunction that interferes with mucus production.
- A. Sickle-cell anemia
 - B. Tay-Sachs disease
 - C. Diabetes
 - D. Cystic fibrosis
51. Which of the following is a neural tube disorder that can be treated with corrective surgery at birth?
- A. Huntington's disease
 - B. Tay-Sachs disease
 - C. Spina bifida
 - D. Diabetes
52. Ultrasound sonography uses _____ to conduct prenatal diagnosis.
- A. a strong magnetic field
 - B. strong ultraviolet waves
 - C. high frequency infrared waves
 - D. high frequency sound waves
53. The first fetal screening procedure that Holly Brook underwent revealed potential abnormalities in her baby. Subsequently, she underwent another procedure in which a powerful magnetic field and radio images were used to generate detailed images of the baby's organs and structure. This prenatal diagnostic test, which showed more clearly that her baby has certain abnormalities in the central nervous system, is called _____.
- A. amniocentesis
 - B. fetal MRI
 - C. noninvasive prenatal diagnosis
 - D. ultrasound sonography
54. Which of the following prenatal diagnostic tests uses a sample of the placenta to detect genetic and chromosomal abnormalities in the fetus?
- A. Amniocentesis
 - B. Chorionic villus sampling
 - C. Noninvasive prenatal diagnosis
 - D. Ultrasound sonography
55. Which of the following prenatal diagnostic tests is used during amniocentesis to locate the precise point for drawing a sample?
- A. Maternal blood screening
 - B. Noninvasive prenatal diagnosis
 - C. Chorionic villus sampling
 - D. Ultrasound sonography
56. In the 17th week of her pregnancy, Penny Wills was asked to take the triple screen test as she had a family history of birth defects. Her doctor assured her that the test would take very little time and posed no risks to her baby. Which of the following prenatal diagnostic tests has the doctor asked her to undergo?
- A. Maternal blood screening
 - B. Noninvasive prenatal diagnosis
 - C. Chorionic villus sampling
 - D. Ultrasound sonography
57. Which of the following prenatal diagnostic tests is characterized by the isolation and examination of fetal cells circulating in the mother's blood?
- A. Fetal MRI
 - B. Ultrasound sonography
 - C. Noninvasive prenatal diagnosis
 - D. Amniocentesis

58. In the United States, _____ is by far the most commonly used assisted reproduction technique.
- A. surrogate mothering
 - B. gamete intrafallopian transfer
 - C. artificial insemination
 - D. in vitro fertilization
59. Norah and Bob are elated as they have just brought their twins home. After trying to have a baby of their own for eight years, they opted for fertility treatment a year ago. Their gametes were harvested and fertilized artificially; the successfully fertilized eggs were placed back in Norah's uterus. The pregnancy was fairly uneventful after that though Norah had to go for frequent medical checks and take many precautionary measures. Norah and Bob used the _____ technique of assisted reproduction.
- A. artificial insemination
 - B. in vivo fertilization
 - C. in vitro fertilization
 - D. gamete intrafallopian transfer
60. One of the consequences of fertility treatments is a(n):
- A. increase in birth weight of babies.
 - B. decrease in genetic disorders.
 - C. increase in postterm pregnancies.
 - D. increase in multiple births.
61. Which of the following adoptees is least likely to have adjustment difficulties?
- A. A toddler adoptee
 - B. An adolescent adoptee
 - C. An infant adoptee
 - D. A preschooler adoptee
62. _____ is the field that seeks to discover the influence of heredity and environment on individual differences in human traits and development.
- A. Eugenics
 - B. Behavior genetics
 - C. Genomics
 - D. Genetic engineering
63. One of the issues that complicates the interpretation of twin studies is that:
- A. fraternal twins are usually perceived as a "set" and play together more often than identical twins do.
 - B. identical twins represent a more active type of genotype-environment correlation.
 - C. the environments of identical twins are more similar than those of fraternal twins.
 - D. fraternal twins are rarely studied in comparison to identical twins.
64. Which of the following statements concerning adoption studies is correct?
- A. Adoption studies involve studying the behavioral similarity of identical twins raised together.
 - B. Adoption studies compare children's traits with their adoptive and biological parents' traits.
 - C. Adoption studies cannot be conducted on single children or siblings who are neither identical nor fraternal twins.
 - D. Adoption studies clearly show that environment is more important than heredity.
65. Passive genotype-environment correlations occur when:
- A. children grow up in a rearing environment provided by the biological parents.
 - B. children's characteristics elicit certain types of physical and social environments.
 - C. children seek out environments they find compatible and stimulating.
 - D. children follow their own inherited predispositions despite being adopted by different families.
66. Evocative genotype-environment correlations occur when:
- A. biological parents provide a rearing environment for the child.
 - B. children's characteristics elicit certain types of physical and social environments.
 - C. children find a setting that is suited to one's abilities.
 - D. children make active selections of environment in relation to their particular genotype.

67. Niche-picking genotype-environment correlations occur when:
- A. biological parents provide a rearing environment for the child.
 - B. children seek out environments that they find compatible and stimulating.
 - C. children behave in ways that elicit certain types of environment.
 - D. children behave in ways that reflect the inherited disposition of their biological parents.
68. Because Juno's parents are athletic, they tend to take her to all types of athletic events and activities like mountain biking, roller blading, and skiing. As a result, Juno has many opportunities to practice her athletic skills. This is an example of a(n) ____.
- A. suppressive genotype-environment correlation
 - B. active genotype-environment correlation
 - C. passive genotype-environment correlation
 - D. evocative genotype-environment correlation
69. Rick is a toddler with an easy temperament and active nature. People are often seen stopping to talk to him in supermarkets and parks where his mother takes him in the evenings because he smiles willingly at other children and adults. This aspect of Rick's behavior most likely reflects a(n) ____.
- A. active genotype-environment interaction
 - B. suppressive genotype-environment interaction
 - C. passive genotype-environment interaction
 - D. evocative genotype-environment interaction
70. Robert's parents are fairly social and enjoy an evening out with their friends. His older sister, Martha, reflects their social interests; she is often seen conducting church events, planning parties with her friends, and stopping to speak to friends and acquaintances warmly. Unlike them, Robert spends all his free time reading books and surfing the Internet to learn about a host of things that interest him. His need for learning most likely reflects a(n) ____ here.
- A. active genotype-environment interaction
 - B. suppressive genotype-environment interaction
 - C. passive genotype-environment interaction
 - D. evocative genotype-environment interaction
71. According to Sandra Scarr, which of the following plays a more important role during the periods of infancy and early childhood?
- A. Suppressive genotype-environment interaction
 - B. Active genotype-environment interaction
 - C. Passive genotype-environment interaction
 - D. Evocative genotype-environment interaction
72. Which of the following is an example of a shared environmental experience of siblings?
- A. Parents' personalities
 - B. Peer groups
 - C. Classroom experiences
 - D. School teachers
73. Parents' intellectual orientation is an example of a ____ of siblings.
- A. differential familial experiences
 - B. shared environmental experiences
 - C. nonshared extrafamilial experiences
 - D. nonshared environmental experiences
74. Eric and Scott are identical twins, while Ann, their younger sister, is two years younger. When Eric and Scott were twelve years old, their father, who ran a restaurant, was shot dead by a drunk customer. This incident changed their family life completely. Which of the following is true with regard to Eric, Scott, and Ann?
- A. Their father's death is a nonshared experience for Eric, Scott, and Ann.
 - B. Their father's death was a shared experience only for Eric and Scott.
 - C. Their father's death was a shared experience for all three of them.
 - D. Their father's death was a nonshared extrafamilial experience Eric, Scott, and Ann.

75. Horace was an extremely authoritarian parent. He believed in raising his children with discipline, order, and respect for authority. His wife, on the other hand, felt that their children should be given the freedom to make their choices within the limits they imposed as parents. She encouraged their twins, Lauren and Ben, to do new things and seek novel experiences. Horace and his wife treated both their children equally without favoring Ben as he was a boy.
From the information provided, which of the following conclusions can be drawn?
- A. Birth order was a major contributing factor to the individual differences seen in Ben and Lauren.
 - B. Differential parental treatment owing to their genders is a shared experience for Ben and Lauren.
 - C. Horace's authoritarian parenting style is a nonshared experience for Ben and Lauren.
 - D. The two different parenting styles they both experienced represent a shared experience for Ben and Lauren.
76. Which of the following is an example of a nonshared environmental experience of siblings?
- A. Family composition
 - B. Family's socioeconomic status
 - C. Neighborhood
 - D. Peer influences
77. Though Katie and Wendy were identical twins, Katie always felt that her sister was given the best opportunities when they were growing up. Katie went to a public school, while Wendy was allowed to attend a prestigious private school. Katie was not given the freedom that Wendy enjoyed and took for granted. Which of the following is a nonshared experience for Katie and Wendy?
- A. Birth order
 - B. Gender
 - C. Genetic material
 - D. Parental treatment
78. Behavioral geneticist Robert Plomin has found that:
- A. parents tend to treat all their children the same, thus minimizing the effect of nonshared environments on siblings.
 - B. all factors operating within the family environment impact children equally.
 - C. the effect of shared and the nonshared environmental influences can be discerned only in identical twins.
 - D. the existence of a shared environment accounts for little of the variation in children's personalities or interests.
79. Dora has recently started working on a research study that hypothesizes that people who have a defect in a specific gene may have a predisposition to depression. As a second hypothesis, the research is studying the impact of significant lack of social support in triggering the onset of depression in such people. Dora's research is an example of _____ research.
- A. gene-gene interaction
 - B. gene x environment
 - C. eugenics
 - D. genetic engineering
80. Dora has recently started working on a research study that hypothesizes that people who have a defect in a specific gene may have a predisposition to depression. As a second hypothesis in the study, the research is studying the impact of a significant lack of social support in triggering the onset of depression in such people. If Dora's research successfully validates both hypotheses, which of the following conclusion may be drawn?
- A. A defect in the gene Dora is studying is directly linked to depression.
 - B. A lack of social support always leads to clinically significant levels of depression.
 - C. The defective gene and lack of social support produce a heightened risk of depression.
 - D. The defective is recessive and depression is a result of polygenic inheritance.

81. What kind of success does natural selection particularly emphasize? Give a few examples of adaptive behavior.
82. Describe any three ways in which evolutionary developmental psychologists believe that human development may have been affected by evolution over time.
83. Mention a few salient features of the Human Genome Project.
84. Describe any two sources of variability that the human genetic process creates.
85. Describe the relationship between genotypes and phenotypes.
86. Describe any two genetic principles.

87. What is genetic imprinting? How is it achieved? Discuss its implications for development.
88. Choose any two chromosome or gene-linked abnormalities and discuss the ways in which they can be treated or managed.
89. Describe two chromosomal abnormalities that affect only males.
90. Describe any one chromosomal abnormality and gene-linked abnormality.
91. Describe a chromosomal abnormality that affects only females.
92. Discuss some circumstances that might lead a couple wanting to become parents to seek genetic counseling.

93. Describe any two prenatal diagnostic procedures that can be used to diagnose structural abnormalities in the fetus.
94. Briefly describe any two prenatal diagnostic procedures that are "more invasive" than ultrasound sonography and fetal MRI.
95. What is NIPD? What are the advantages and concerns associated with it?
96. Describe some factors in childhood that could influence identical twins separated at birth to become quite different from each other.
97. Describe the three ways in which heredity and environment may be correlated.

98. Ramona, an eight-year-old with autistic characteristics, exhibits many difficulties in the area of social communication. She is high-functioning academically and enjoys activities involving repetitive movements and math calculations. Her teachers were concerned that Ramona would have difficulty participating and completing activities in a regular classroom. Ramona would sob, cover her ears, and rock in her chair when there was too much visual and auditory stimuli or when she did not know an answer to a question. When the teacher asked her to complete a math facts worksheet, the entire class was amazed to see that Ramona completed the math problems within a minute. From that point forward, Ramona became the "math" leader of the class, which not only increased her self-confidence but increased her social interaction with peers as well. What is Ramona's niche in the following scenario?
99. Give examples of nonshared environmental experiences that siblings can have even when they are raised within the same family.
100. Describe the epigenetic view of development.

02 Key

1. The evolutionary process that favors individuals of a species that are best adapted to survive and reproduce is known as:
(p. 56)
- A. gene-gene interaction.
 - B. gene mutation.
 - C. natural selection.**
 - D. genetic imprinting.

Natural selection is the evolutionary process by which those individuals of a species that are best adapted are the ones that survive and reproduce.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-01 Discuss the evolutionary perspective on development.
Santrock - Chapter 02 #1

Topic: Natural Selection and Adaptive Behavior

2. Which of the following statements is true of Darwin's views on evolution?
(p. 57)
- A. Most organisms reproduce at rates that cause an insignificant increase in their population.
 - B. The constant struggle for food, water, and resources among members of a species encourages supportive behaviors among them.
 - C. Behavior that promotes an organism's survival in the natural habitat differentiates between survivors and nonsurvivors.**
 - D. Adaptive behaviors are purely psychological.

Darwin observed that survivors are better adapted to their world than are the nonsurvivors. The best-adapted individuals survive to leave the most offspring. Such people are likely to display adaptive behavior which is behavior that promotes an organism's survival in the natural habitat.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-01 Discuss the evolutionary perspective on development.
Santrock - Chapter 02 #2

Topic: Natural Selection and Adaptive Behavior

3. The theory of evolution by natural selection was first introduced by:
(p. 57)
- A. Charles Darwin.**
 - B. Stephen Jay Gould.
 - C. Albert Bandura.
 - D. Sandra Scarr.

The theory of evolution by natural selection was introduced by Charles Darwin.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-01 Discuss the evolutionary perspective on development.
Santrock - Chapter 02 #3

Topic: Evolutionary Psychology

4. In the context of natural selection, "fit" refers to behaviors that increase:
(p. 57) A. genetic imprinting.
B. psychological fitness.
C. gene-environment interaction.
D. reproductive success.

"Fit" in this sense refers to the ability to bear offspring that survive long enough to bear offspring of their own. In this view, natural selection favors behaviors that increase reproductive success.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-01 Discuss the evolutionary perspective on development.
Santrock - Chapter 02 #4

Topic: Evolutionary Psychology

5. Evolutionary psychology is a relatively new approach to psychology that has been especially
(p. 57) influenced by:
A. David Buss.
B. Sigmund Freud.
C. Albert Bandura.
D. Martin Seligman.

Psychology's newest approach, evolutionary psychology, emphasizes the importance of adaptation, reproduction, and "survival of the fittest" in shaping behavior. David Buss has been especially influential in this field.

AACSB: Analytic
Blooms: Remember
Difficulty: Medium

Learning Goal: 02-01 Discuss the evolutionary perspective on development.
Santrock - Chapter 02 #5

Topic: Evolutionary Psychology

6. Evolutionary psychology is a relatively new approach to psychology that emphasizes the:
(p. 57) A. biological changes that occur in an individual throughout the lifespan.
B. role of adaptation, reproduction, and survival of the fittest in shaping behavior.
C. unilateral manner in which genes determine our behavior and abilities.
D. geographical setting of the person in explaining his/her behavior and abilities.

Evolutionary psychology emphasizes the importance of adaptation, reproduction, and "survival of the fittest" in shaping behavior.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-01 Discuss the evolutionary perspective on development.
Santrock - Chapter 02 #6

Topic: Evolutionary Psychology

7. Which of the following is true with regard to the views of David Buss on evolution?
(p. 57)
- A. The influence of evolution is restricted to the development of our unique physical features.
 - B. The influence of evolution is negligible as the environment in which one grows is the sole determinant of his/her personality.
 - C. The influence of evolution on our reproductive success is not sufficient to explain survival.
 - D.** The influence of evolution on our decision making abilities, levels of aggression, fears, and our mating patterns are significant.

David Buss argues that just as evolution shapes our physical features, such as body shape and height, it also pervasively influences our decision making, our degree of aggression, our fears, and our mating patterns.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-01 Discuss the evolutionary perspective on development.
Santrock - Chapter 02 #7
Topic: Evolutionary Psychology

8. Which of the following is an idea generated and supported by evolutionary psychology?
(p. 58)
- A. Gender roles are socially constructed as opposed to being a function of evolution.
 - B. The mind is like a general-purpose device that can be applied equally to a vast array of problems . because evolved psychological mechanisms are not domain-specific.
 - C. All evolved mechanisms are adaptive in contemporary society.
 - D.** An extended childhood period evolved in humans because they require time to develop a large brain . and learn the complexity of human societies.

One of the ideas generated by evolutionary psychology about development is that an extended childhood (juvenile) period evolved in humans because humans require time to develop a large brain and learn the complexity of human societies.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-01 Discuss the evolutionary perspective on development.
Santrock - Chapter 02 #8
Topic: Evolutionary Psychology

9. Which of the following is true with regard the evolutionary psychology perspective?
(p. 58)
- A. The evolutionary psychology perspective is one of the oldest applied branches of psychology.
 - B. The evolutionary psychology perspective represents a bidirectional view, in which environmental . and biological conditions influence each other.
 - C. The evolutionary psychology perspective has been proven through successful empirical study and research.
 - D.** The evolutionary psychology perspective is best evaluated through the study of specific genes and their links to traits and behaviors.

Since the evolutionary psychology perspective cannot be empirically studied, studying specific genes in humans and their links to traits and behaviors may be the best approach for testing ideas that emerge from the evolutionary psychology perspective.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-01 Discuss the evolutionary perspective on development.
Santrock - Chapter 02 #9
Topic: Evolutionary Psychology

10. Threadlike structures that contain DNA are defined as:
(p. 59) A. nerves.
B. cells.
C. dendrites.
D. chromosomes.

The nucleus of each human cell contains chromosomes, which are threadlike structures made up of deoxyribonucleic acid, or DNA.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Santrock - Chapter 02 #10

Topic: The Collaborative Gene

11. Which of the following is true with regard to the genes?
(p. 59) A. Each gene contains multiple chromosomes that are located on it.
B. Genes are located variably in humans; they cannot be found at a fixed place on a chromosome.
C. Genes are contained in complex molecules with a double helix shape called DNA.
D. Genes work individually to assemble proteins.

DNA is a complex molecule that has a double helix shape, like a spiral staircase, and contains genetic information. Genes, the units of hereditary information, are short segments of DNA.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Santrock - Chapter 02 #11

Topic: The Collaborative Gene

12. _____ are defined as units of hereditary information.
(p. 59) A. Nerves
B. Cells
C. Genes
D. Engrams

A gene is a unit of hereditary information.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Santrock - Chapter 02 #12

Topic: The Collaborative Gene

13. Identify the smallest entity amongst the following.
(p. 59) A. A cell
B. A gene
C. A gamete
D. A chromosome

A gamete is a type of cell. The nucleus of each human cell contains chromosomes, which are threadlike structures made up of deoxyribonucleic acid, or DNA. A gene is a short segment of DNA. As such, amongst a gamete, a cell, a chromosome, and a gene, a gene is the smallest entity.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Santrock - Chapter 02 #13

Topic: The Collaborative Gene

14. The findings of the Human Genome Project revealed that:
(p. 60) A. genes possess no fixed locations in humans.
B. humans have far fewer genes than estimated earlier.
C. each gene programmed just one protein.
D. humans appear to have far more genes than they have proteins.

One of the big surprises of the Human Genome Project was a report indicating that humans have only about 30,000 genes when earlier estimates by scientists placed the count at 100, 000.

AACSB: Analytic

Blooms: Remember

Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Sanrock - Chapter 02 #14

Topic: The Collaborative Gene

15. Which of the following statements is true with regard to genes and proteins?
(p. 60) A Genes act independently to translate the genetic code they carry into an individual's phenotype or . physical features that are observable.
B. Each gene is translated, in an automatic fashion, into one and only one protein.
C The translation of genes into proteins represents a collaborative process between genes and other factors within and outside the body.
D. The Human Genome Project established the fact that humans had as many as 100,000 or more genes.

Rather than being a group of independent genes, the human genome consists of many genes that collaborate with each other and with nongenetic factors inside and outside the body. This collaboration operates at many points.

AACSB: Analytic

Blooms: Remember

Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Sanrock - Chapter 02 #15

Topic: The Collaborative Gene

16. _____ is defined as the process by which the cell's nucleus, including the chromosomes, duplicates itself and the cell divides.
(p. 60) A. Accommodation
B. Mitosis
C. Assimilation
D. Fertilization

During mitosis, the cell's nucleus—including the chromosomes—duplicates itself and the cell divides.

AACSB: Analytic

Blooms: Remember

Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Sanrock - Chapter 02 #16

Topic: Genes and Chromosomes

17. _____ is defined as a specialized form of cell division that occurs to form gametes.

(p. 61)

- A. Fertilization
- B. Meiosis**
- C. Gene imprinting
- D. Mitosis

Meiosis is a specialized form of cell division that occurs to form gametes.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #17

Topic: Genes and Chromosomes

18. A single cell, known as a(n) _____, is formed during the process of fertilization.

(p. 61)

- A. ovum
- B. embryo
- C. gamete
- D. zygote**

During fertilization, an egg and a sperm fuse to create a single cell, called a zygote.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #18

Topic: Genes and Chromosomes

19. The difference between mitosis and meiosis is that:

(p. 60, 61)

- A. meiosis takes place within body cells, while mitosis takes place within gametes.
- B. mitosis results in the formation of two cells, while meiosis produces four cells.**
- C. in mitosis the cells divide twice, while in meiosis only one division occurs.
- D. mitosis results in 23 unpaired chromosomes, while meiosis results in 23 paired chromosomes.

During mitosis, the cell's nucleus duplicates itself and the cell divides. Two new cells are formed, each containing the same DNA as the original cell, arranged in the same 23 pairs of chromosomes. In meiosis, a cell of the testes (in men) or ovaries (in women) duplicates its chromosomes but then divides twice, thus forming four cells, each of which has only half of the genetic material of the parent cell.

AACSB: Analytic
Blooms: Understand
Difficulty: Hard

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #19

Topic: Genes and Chromosomes

20. Which of the following is true with regard to sources of variability?
(p. 62) **A.** The chromosomes in the zygote are not exact copies of those in the mother's ovaries and the father's testes.
B. Fraternal twins develop from a single zygote that splits into two genetically identical replicas.
C. For each genotype, only a corresponding phenotype can be expressed.
D. Identical twins develop from separate eggs and separate sperm.

The chromosomes in the zygote are not exact copies of those in the mother's ovaries and the father's testes. During the formation of the sperm and egg in meiosis, the members of each pair of chromosomes are separated, but which chromosome in the pair goes to the gamete is a matter of chance. In addition, before the pairs separate, pieces of the two chromosomes in each pair are exchanged, creating a new combination of genes on each chromosome.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #20
Topic: Genes and Chromosomes

21. A _____ is a permanently altered segment of DNA that can give rise to genetic variability.
(p. 62) A. recessive gene
B. dependent gene
C. mutated gene
D. dominant gene

Chance, a mistake by cellular machinery, or damage from an environmental agent such as radiation may produce a mutated gene, which is a permanently altered segment of DNA. This is a source of genetic variability arising from the DNA.

AACSB: Analytic
Blooms: Understand
Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #21
Topic: Genes and Chromosomes

22. Which of the following is true with regard to one's genotype?
(p. 62) A. It is apparent in one's physical make-up.
B. It refers to one's actual genetic material.
C. It can be observed through one's intelligence and personality.
D. Each genotype translates into only one phenotypic expression.

All of a person's genetic material makes up his or her genotype.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #22
Topic: Genes and Chromosomes

23. Which of the following can be deciphered by observing an individual?

(p. 62)

- A. His genetic material
- B. His phenotype**
- C. His genetic code
- D. His genetic expression

A phenotype consists of observable characteristics. As such, an individual's phenotype can be deciphered by observing him.

AACSB: Analytic
Blooms: Understand
Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #23

Topic: Genes and Chromosomes

24. Caroline is beautiful baby. She has lovely blond hair and soft blue eyes. Caroline's hair and eyes are examples of her _____.

(p. 62)

- A. genetic coding
- B. genotype
- C. gene-environment interaction
- D. phenotype**

The color Caroline's hair and eyes are features that can be observed; such features make up the phenotype.

AACSB: Reflective Thinking
Blooms: Apply
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #24

Topic: Genes and Chromosomes

25. Which of the following is true with regard to the dominant-recessive genes principle?

(p. 62)

- A. A single recessive gene has the potential to silence the other gene of the pair.
- B. A recessive gene exerts its influence only if the two genes of a pair are both recessive.**
- C. Blond hair, nearsightedness, and freckles are dominant traits.
- D. Brown hair, farsightedness, and dimples are examples of recessive traits.

A recessive gene exerts its influence only if the two genes of a pair are both recessive. If you inherit a recessive gene for a trait from each of your parents, you will show the trait. If you inherit a recessive gene from only one parent, you may never know you carry the gene.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #25

Topic: Genetic Principles

26. Michael carries two genes for brown hair. Lisa carries two genes for blond hair. Given this, we know that their child will have a _____ percent chance of having brown hair.
- (p. 62)
- A. 25
 - B. 50
 - C. 75
 - D. 100**

The gene for brown hair is dominant over the one for blond hair. Since Michael carries two genes for brown hair, the child of Michael and Lisa is sure to inherit at least one gene for brown hair. As such, the child will have a 100 percent chance of having brown hair.

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: Hard

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Santrock - Chapter 02 #26

Topic: Genetic Principles

27. In order for your children to have freckles, both you and your partner must carry the gene for freckles, since having freckles is a:
- (p. 62)
- A. polygenic trait.
 - B. phenotypic trait.
 - C. recessive trait.**
 - D. dominant trait.

A recessive gene exerts its influence only if the two genes of a pair are both recessive. Since having freckles is a recessive genetic trait, it follows that both you and your partner will need to carry the gene for freckles for your children to have freckles.

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: Hard

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Santrock - Chapter 02 #27

Topic: Genetic Principles

28. Peggy and Bob both have are farsighted. If their child is nearsighted, then it follows that:
- (p. 62)
- A. both Peggy and Bob lack a gene for farsightedness.
 - B. only Peggy has a gene for farsightedness.
 - C. only Bob lacks a gene for nearsightedness.
 - D. both Peggy and Bob have a gene for nearsightedness.**

Since the trait of farsightedness is dominant over the trait of nearsightedness, the child of Peggy and Bob can be nearsighted only if both of them carry one copy of the recessive gene (gene for nearsightedness) and the child inherits that copy from both Peggy and Bob.

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: Hard

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Santrock - Chapter 02 #28

Topic: Genetic Principles

29. An example of X-linked inherited disease is:
(p. 63)
A. XYY syndrome
B. Down syndrome.
C. hemophilia.
D. phenylketonuria.

An example of X-linked inherited disease is hemophilia.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #29
Topic: Genetic Principles

30. Pam is a carrier for hemophilia while her husband, Martin is not a hemophiliac. Which of the
(p. 63) following would be true under these conditions?
A. All of their daughters would be hemophiliacs.
B. There is a 50 percent chance that a daughter would be a hemophiliac.
C. All of their sons would be hemophiliacs.
D. There is a 50 percent chance that a son would be a hemophiliac.

Hemophilia is an X-linked genetic disorder. Since Pam is a "carrier," it follows that one of her two X chromosomes has the faulty gene for hemophilia while the other X chromosome is normal. Martin is not a hemophiliac, so it follows that his one X chromosome is normal. Under these conditions, 50 percent of their daughters would be carriers, 50 percent of their sons would be hemophiliacs and the other 50 percent of daughters and sons would be normal.

AACSB: Reflective Thinking
Blooms: Apply
Difficulty: Hard

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #30
Topic: Genetic Principles

31. Which of the following is caused by faulty genetic imprinting?
(p. 63)
A. Beckwith-Wiedemann syndrome
B. Klinefelter syndrome
C. Turner syndrome
D. Down syndrome

When genetic imprinting goes awry, development is disturbed, as in the case of Beckwith-Wiedemann syndrome, a growth disorder, and Wilms tumor, a type of cancer.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #31
Topic: Genetic Principles

32. Height is a simple characteristic that is determined by:
(p. 63) A. a single gene.
B. the interaction of many genes and environmental factors.
C. the manifestation of an altered X-linked gene.
D. the action of a specific pair of genes.

Most characteristics are determined by the interaction of many different genes; they are said to be polygenically determined. Even simple characteristics such as height, reflect the interaction of many genes, as well as the influence of the environment.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #32
Topic: Genetic Principles

33. Which of the following genetic disorders is caused by the presence of an extra copy of chromosome 21?
(p. 64) **A.** Down syndrome
B. Turner syndrome
C. Sickle-cell anemia
D. Phenylketonuria

Down syndrome is caused by the presence of an extra copy of chromosome 21.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #33
Topic: Chromosomal and Gene-linked Abnormalities

34. Jerry was born with a round face, flattened skull, short limbs, and retardation of motor and mental abilities. The doctors told Jerry's parents that this is because he has an extra copy of chromosome 21. Which of the following chromosomal abnormalities does Jerry have?
(p. 64) A. Phenylketonuria
B. Turner syndrome
C. Sickle-cell anemia
D. Down syndrome

An individual with Down syndrome has a round face, a flattened skull, an extra fold of skin over the eyelids, a protruding tongue, short limbs, and retardation of motor and mental abilities. Since Jerry shows most of these characteristics, it is most likely that he has Down syndrome.

AACSB: Reflective Thinking
Blooms: Apply
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #34
Topic: Chromosomal and Gene-linked Abnormalities

35. Which of the following is true with regard to Down syndrome?
(p. 64)
- A. Down syndrome afflicts only males.
 - B. No remedial measures can be used to improve the quality of life and adaptive capacity of children with Down syndrome.
 - C. The risk of having a child with Down syndrome is a function of too low or high a maternal age.**
 - D. Down syndrome is a sex-linked chromosomal abnormality.

The risk of having a child with Down syndrome increases with maternal age. Women between the ages of 16 and 34 are less likely to give birth to a child with Down syndrome than are younger or older women.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #35

Topic: Chromosomal and Gene-linked Abnormalities

36. Which of the following is a characteristic feature of Klinefelter's syndrome?
(p. 64)
- A. a protruding tongue
 - B. a webbed neck
 - C. undeveloped testes**
 - D. an extra fold of skin over the eyelids

Klinefelter syndrome is a sex-linked chromosomal abnormality. It is a genetic disorder in which males have an extra X chromosome, making them XXY instead of XY. Males with this disorder have undeveloped testes, enlarged breasts and become tall.

AACSB: Analytic
Blooms: Remember
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #36

Topic: Chromosomal and Gene-linked Abnormalities

37. Which of the following genetic disorders affects only males?
(p. 64)
- A. Phenylketonuria
 - B. Sickle-cell anemia
 - C. Klinefelter syndrome**
 - D. Down syndrome

Klinefelter syndrome is a sex-linked chromosome abnormality. It is a genetic disorder in which males have an extra X chromosome, making them XXY instead of XY.

AACSB: Analytic
Blooms: Remember
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #37

Topic: Chromosomal and Gene-linked Abnormalities

38. Which of the following genetic disorders can be classified as a sex-linked chromosomal abnormality?
(p. 64)

- A. Phenylketonuria
- B. Sickle-cell anemia
- C. Klinefelter syndrome
- D. Down syndrome

Klinefelter syndrome is a sex-linked chromosome abnormality. It is a genetic disorder in which males have an extra X chromosome, making them XXY instead of XY.

AACSB: Analytic
Blooms: Remember
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Santrock - Chapter 02 #38

Topic: Chromosomal and Gene-linked Abnormalities

39. Which of the following pairs of genetic disorders is caused by the presence of an extra chromosome?
(p. 64)

- A. Down syndrome and Turner syndrome
- B. Turner syndrome and sickle-cell anemia
- C. Klinefelter syndrome and Down syndrome
- D. Phenylketonuria and XYY syndrome

Both Klinefelter syndrome and Down syndrome are caused by the presence of an extra chromosome. Klinefelter syndrome is a genetic disorder in which males have an extra X chromosome, making them XXY instead of XY, while Down syndrome is caused by the presence of an extra copy of chromosome 21 in males and females.

AACSB: Analytic
Blooms: Understand
Difficulty: Hard

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Santrock - Chapter 02 #39

Topic: Chromosomal and Gene-linked Abnormalities

40. Which of the following is true with regard to fragile X syndrome?
(p. 65)

- A. The physical appearance of children with fragile X syndrome is markedly altered.
- B. Mental abilities are relatively normal in individuals with fragile X syndrome.
- C. This disorder occurs more frequently in males than in females.
- D. This disorder is caused by the missing X chromosome in humans.

Fragile X syndrome is a genetic disorder that results from an abnormality in the X chromosome, which becomes constricted and often breaks. This disorder occurs more frequently in males than in females, possibly because the second X chromosome in females negates the effects of the abnormal X chromosome.

AACSB: Analytic
Blooms: Remember
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Santrock - Chapter 02 #40

Topic: Chromosomal and Gene-linked Abnormalities

41. Which of the following genetic disorders affects only females?

(p. 65)

- A.** Turner syndrome
- B. Sickle-cell anemia
- C. Klinefelter syndrome
- D. Down syndrome

Turner syndrome is a chromosomal disorder in females in which either an X chromosome is missing, making the person XO instead of XX, or part of one X chromosome is deleted.

AACSB: Analytic
Blooms: Remember
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #41

Topic: Chromosomal and Gene-linked Abnormalities

42. Which of the following genetic disorders is characterized by the X chromosome being missing or incomplete in females?

(p. 65)

- A. Fragile X syndrome
- B.** Turner syndrome
- C. Klinefelter syndrome
- D. Down syndrome

Turner syndrome is a chromosomal disorder in females in which either an X chromosome is missing, making the person XO instead of XX, or part of one X chromosome is deleted.

AACSB: Analytic
Blooms: Remember
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #42

Topic: Chromosomal and Gene-linked Abnormalities

43. Nancy has recently undergone a surgery to correct her webbed neck. This is one of the many difficulties she faces as a result of being born with a missing X chromosome. She is also very short and overweight. Doctors have informed her parents that hormone therapy is an option to treat her condition though reproductive sterility is a big possibility. Nancy's school performance is fairly average; she encounters problems with mathematics but has good verbal skills. Which of the following chromosomal disorders does Nancy have?

(p. 65)

- A. Fragile X syndrome
- B. Klinefelter syndrome
- C.** Turner syndrome
- D. Down syndrome

Turner syndrome is a chromosomal disorder in females in which either an X chromosome is missing, making the person XO instead of XX, or part of one X chromosome is deleted. Females with Turner syndrome are short in stature and have a webbed neck. They might be infertile and have difficulty in mathematics, but their verbal ability often is quite good.

AACSB: Reflective Thinking
Blooms: Remember
Difficulty: Hard

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #43

Topic: Chromosomal and Gene-linked Abnormalities

44. The XYY syndrome is characterized by:
(p. 65) **A.** the male having an extra Y chromosome.
B. the female having an extra Y chromosome.
C. the males having an extra X chromosome.
D. the female having a missing X chromosome.

The XYY syndrome is a chromosomal disorder in which the male has an extra Y chromosome.

AACSB: Analytic
Blooms: Remember
Difficulty: Medium
Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #44
Topic: Chromosomal and Gene-linked Abnormalities

45. Which of the following genetic disorders is characterized by the inability of individuals to properly
(p. 65) metabolize a particular amino acid?
A. Phenylketonuria
B. Sickle-cell anemia
C. Turner syndrome
D. Fragile X syndrome

Phenylketonuria (PKU) is a genetic disorder in which the individual cannot properly metabolize phenylalanine, an amino acid.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy
Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #45
Topic: Chromosomal and Gene-linked Abnormalities

46. When Wendy was a baby, she was diagnosed with a gene-linked abnormality that left her unable
(p. 65) to metabolize an important amino acid. Since her condition was diagnosed early, the doctors recommended that her parents put her on a diet that prevents an excess accumulation of the concerned amino acid in her body. This diet has helped her deal with the disorder successfully without experiencing any of the major disturbances of development this disorder is associated with. Wendy is likely to be suffering from _____.
A. phenylketonuria
B. hemophilia
C. turner syndrome
D. fragile X syndrome

If Wendy's parents were told by their doctor that Wendy has a genetic disorder that can be controlled by diet, it is most likely that Wendy has phenylketonuria. Phenylketonuria is a genetic disorder that can be treated by a diet that prevents an excess accumulation of phenylalanine in the body.

AACSB: Reflective Thinking
Blooms: Apply
Difficulty: Medium
Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #46
Topic: Chromosomal and Gene-linked Abnormalities

47. _____ occurs most commonly in African Americans.

(p. 65)

- A. Down syndrome
- B. Turner syndrome
- C. Sickle-cell anemia**
- D. Phenylketonuria

Sickle-cell anemia, which occurs most often in African Americans, is a genetic disorder that impairs the body's red blood cells.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Sanrock - Chapter 02 #47

Topic: Chromosomal and Gene-linked Abnormalities

48. Which of the following is a consequence of sickle-cell anemia?

(p. 65)

- A. Inability to metabolize an amino acid called phenylalanine
- B. Limited oxygen supply to body's cells**
- C. Delayed blood clotting causes internal and external bleeding
- D. Limited production of insulin

In sickle-cell anemia, a recessive gene causes the red blood cell to become a hook-shaped "sickle" that cannot carry oxygen properly and dies quickly. As a result, the body's cells do not receive adequate oxygen, causing anemia and early death.

AACSB: Analytic
Blooms: Remember
Difficulty: Easy

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Sanrock - Chapter 02 #48

Topic: Chromosomal and Gene-linked Abnormalities

49. At age six, Joe underwent a minor dental procedure that was followed by prolonged bleeding.

(p. 66)

When the bleeding could not be controlled by any common means, Joe was hospitalized, and later, diagnosed with a condition that can make simple injuries, bruises, or cuts extremely threatening because of prolonged bleeding. His parents were informed that in case the problem continued or worsened, Joe would require frequent blood transfusions and medical care. Joe is suffering from _____.

- A. phenylketonuria
- B. hemophilia**
- C. spina bifida
- D. diabetes

In hemophilia, delayed blood clotting causes internal and external bleeding. Blood transfusions/injections can reduce or prevent damage due to internal bleeding.
Refer to Fig. 2.7

AACSB: Reflective Thinking
Blooms: Apply
Difficulty: Hard

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Sanrock - Chapter 02 #49

Topic: Chromosomal and Gene-linked Abnormalities

50. _____ is a gene-linked abnormality that is caused by a glandular dysfunction that interferes with mucus production.
(p. 66)
- A. Sickle-cell anemia
 - B. Tay-Sachs disease
 - C. Diabetes
 - D. Cystic fibrosis**

Cystic fibrosis is caused by a glandular dysfunction that interferes with mucus production. Breathing and digestion are hampered, resulting in a shortened life span.

Refer to Fig. 2.7

AACSB: Analytic

Blooms: Remember

Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Santrock - Chapter 02 #50

Topic: Chromosomal and Gene-linked Abnormalities

51. Which of the following is a neural tube disorder that can be treated with corrective surgery at birth?
(p. 66)
- A. Huntington's disease
 - B. Tay-Sachs disease
 - C. Spina bifida**
 - D. Diabetes

Spina bifida is a neural tube disorder that causes brain and spine abnormalities. Corrective surgery at birth, orthopedic devices, and physical/medical therapy are used for treatment.

Refer to Fig. 2.7

AACSB: Analytic

Blooms: Remember

Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Santrock - Chapter 02 #51

Topic: Chromosomal and Gene-linked Abnormalities

52. Ultrasound sonography uses _____ to conduct prenatal diagnosis.
(p. 68)
- A. a strong magnetic field
 - B. strong ultraviolet waves
 - C. high frequency infrared waves
 - D. high frequency sound waves**

Ultrasound sonography is a prenatal medical procedure in which high-frequency sound waves are directed into the pregnant woman's abdomen. The echo from the sounds is transformed into a visual representation of the fetus's inner structures.

AACSB: Analytic

Blooms: Remember

Difficulty: Easy

Learning Goal: 02-03 Identify some important reproductive challenges and choices.

Santrock - Chapter 02 #52

Topic: Prenatal Diagnostic Tests

53. (p. 68) The first fetal screening procedure that Holly Brook underwent revealed potential abnormalities in her baby. Subsequently, she underwent another procedure in which a powerful magnetic field and radio images were used to generate detailed images of the baby's organs and structure. This prenatal diagnostic test, which showed more clearly that her baby has certain abnormalities in the central nervous system, is called _____.
A. amniocentesis
B. fetal MRI
C. noninvasive prenatal diagnosis
D. ultrasound sonography

MRI stands for magnetic resonance imaging, which uses a powerful magnet and radio images to generate detailed images of the body's organs and structure. Currently, ultrasound is still the first choice in fetal screening, but fetal MRI can provide more detailed images than ultrasound. In many instances, ultrasound will indicate a possible abnormality, and then fetal MRI will be used to obtain a clearer, more detailed image

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: Medium

Learning Goal: 02-03 Identify some important reproductive challenges and choices.

Santrock - Chapter 02 #53

Topic: Prenatal Diagnostic Tests

54. (p. 68, 69) Which of the following prenatal diagnostic tests uses a sample of the placenta to detect genetic and chromosomal abnormalities in the fetus?
A. Amniocentesis
B. Chorionic villus sampling
C. Noninvasive prenatal diagnosis
D. Ultrasound sonography

Chorionic villus sampling is a prenatal medical procedure in which a small sample of the placenta is used to detect genetic defects and chromosomal abnormalities.

AACSB: Analytic

Blooms: Remember

Difficulty: Easy

Learning Goal: 02-03 Identify some important reproductive challenges and choices.

Santrock - Chapter 02 #54

Topic: Prenatal Diagnostic Tests

55. (p. 69) Which of the following prenatal diagnostic tests is used during amniocentesis to locate the precise point for drawing a sample?
A. Maternal blood screening
B. Noninvasive prenatal diagnosis
C. Chorionic villus sampling
D. Ultrasound sonography

Amniocentesis is a prenatal medical procedure in which a sample of amniotic fluid is withdrawn by syringe and tested for chromosomal or metabolic disorders. Ultrasound sonography is often used during amniocentesis so that the syringe can be placed precisely.

AACSB: Analytic

Blooms: Remember

Difficulty: Medium

Learning Goal: 02-03 Identify some important reproductive challenges and choices.

Santrock - Chapter 02 #55

Topic: Prenatal Diagnostic Tests

56. In the 17th week of her pregnancy, Penny Wills was asked to take the triple screen test as she had a family history of birth defects. Her doctor assured her that the test would take very little time and posed no risks to her baby. Which of the following prenatal diagnostic tests has the doctor asked her to undergo?
- (p. 69)
- A. Maternal blood screening
 - B. Noninvasive prenatal diagnosis
 - C. Chorionic villus sampling
 - D. Ultrasound sonography

Between the 16th to 18th weeks of pregnancy, maternal blood screening may be performed. The current blood test is called the triple screen because it measures three substances in the mother's blood.

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: Medium

Learning Goal: 02-03 Identify some important reproductive challenges and choices.

Santrock - Chapter 02 #56

Topic: Prenatal Diagnostic Tests

57. Which of the following prenatal diagnostic tests is characterized by the isolation and examination of fetal cells circulating in the mother's blood?
- (p. 69)
- A. Fetal MRI
 - B. Ultrasound sonography
 - C. Noninvasive prenatal diagnosis
 - D. Amniocentesis

Noninvasive prenatal diagnosis focuses on the isolation and examination of fetal cells circulating in the mother's blood and analysis of cell-free fetal DNA in maternal plasma.

AACSB: Analytic

Blooms: Remember

Difficulty: Medium

Learning Goal: 02-03 Identify some important reproductive challenges and choices.

Santrock - Chapter 02 #57

Topic: Prenatal Diagnostic Tests

58. In the United States, _____ is by far the most commonly used assisted reproduction technique.
- (p. 70)
- A. surrogate mothering
 - B. gamete intrafallopian transfer
 - C. artificial insemination
 - D. in vitro fertilization

Of the 2 million couples who seek help for infertility every year in the United States, about 40,000 try high-tech assisted reproduction. By far the most common assisted reproduction technique used is in vitro fertilization (IVF).

AACSB: Analytic

Blooms: Remember

Difficulty: Medium

Learning Goal: 02-03 Identify some important reproductive challenges and choices.

Santrock - Chapter 02 #58

Topic: Infertility and Reproductive Technology

59. (p. 70) Norah and Bob are elated as they have just brought their twins home. After trying to have a baby of their own for eight years, they opted for fertility treatment a year ago. Their gametes were harvested and fertilized artificially; the successfully fertilized eggs were placed back in Norah's uterus. The pregnancy was fairly uneventful after that though Norah had to go for frequent medical checks and take many precautionary measures. Norah and Bob used the _____ technique of assisted reproduction.
- A. artificial insemination
 - B. in vivo fertilization
 - C. in vitro fertilization**
 - D. gamete intrafallopian transfer

By far the most common assisted reproduction technique used in the U.S. is in vitro fertilization (IVF), in which eggs and a sperm are combined in a laboratory dish. If any eggs are successfully fertilized, one or more of the resulting eggs are transferred into the woman's uterus.

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: Medium

Learning Goal: 02-03 Identify some important reproductive challenges and choices.

Santrock - Chapter 02 #59

Topic: Infertility and Reproductive Technology

60. (p. 70) One of the consequences of fertility treatments is a(n):
- A. increase in birth weight of babies.
 - B. decrease in genetic disorders.
 - C. increase in postterm pregnancies.
 - D. increase in multiple births.**

The two main risk factors associated with assisted reproductive techniques are multiple pregnancies and low birth weight.

AACSB: Analytic

Blooms: Remember

Difficulty: Medium

Learning Goal: 02-03 Identify some important reproductive challenges and choices.

Santrock - Chapter 02 #60

Topic: Infertility and Reproductive Technology

61. (p. 71) Which of the following adoptees is least likely to have adjustment difficulties?
- A. A toddler adoptee
 - B. An adolescent adoptee
 - C. An infant adoptee**
 - D. A preschooler adoptee

In a study to evaluate how adoptees fared after adoption, it was found that the later adoption occurred, the more problems the adoptees had. Infant adoptees had the fewest adjustment difficulties; those adopted after they were 10 years of age had the most problems

AACSB: Analytic

Blooms: Remember

Difficulty: Medium

Learning Goal: 02-03 Identify some important reproductive challenges and choices.

Santrock - Chapter 02 #61

Topic: Adoption

62. _____ is the field that seeks to discover the influence of heredity and environment on individual differences in human traits and development.
(p. 74)
- A. Eugenics
 - B. Behavior genetics**
 - C. Genomics
 - D. Genetic engineering

Behavior genetics is the field that seeks to discover the influence of heredity and environment on individual differences in human traits and development.

AACSB: Analytic
Blooms: Remember
Difficulty: Medium

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #62
Topic: Behavior Genetics

63. One of the issues that complicates the interpretation of twin studies is that:
(p. 74)
- A. fraternal twins are usually perceived as a "set" and play together more often than identical twins do.
 - B. identical twins represent a more active type of genotype-environment correlation.
 - C. the environments of identical twins are more similar than those of fraternal twins.**
 - D. fraternal twins are rarely studied in comparison to identical twins.

One of the issues that complicates interpretation of twin studies is that the environments of identical twins are more similar than those of fraternal twins.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #63
Topic: Behavior Genetics

64. Which of the following statements concerning adoption studies is correct?
(p. 75)
- A. Adoption studies involve studying the behavioral similarity of identical twins raised together.
 - B. Adoption studies compare children's traits with their adoptive and biological parents' traits.**
 - C. Adoption studies cannot be conducted on single children or siblings who are neither identical nor fraternal twins.
 - D. Adoption studies clearly show that environment is more important than heredity.

In an adoption study, investigators seek to discover whether the behavior and psychological characteristics of adopted children are more like those of their adoptive parents, who have provided a home environment, or more like those of their biological parents, who have contributed their heredity

AACSB: Analytic
Blooms: Understand
Difficulty: Hard

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #64
Topic: Behavior Genetics

65. Passive genotype-environment correlations occur when:
(p. 75) **A.** children grow up in a rearing environment provided by the biological parents.
B. children's characteristics elicit certain types of physical and social environments.
C. children seek out environments they find compatible and stimulating.
D. children follow their own inherited predispositions despite being adopted by different families.

Passive genotype-environment correlations occur because biological parents, who are genetically related to the child, provide a rearing environment for the child.

AACSB: Analytic
Blooms: Understand
Difficulty: Easy

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #65

Topic: Heredity-Environment Correlations

66. Evocative genotype-environment correlations occur when:
(p. 75) **A.** biological parents provide a rearing environment for the child.
B. children's characteristics elicit certain types of physical and social environments.
C. children find a setting that is suited to one's abilities.
D. children make active selections of environment in relation to their particular genotype.

Evocative genotype-environment correlations occur because a child's characteristics elicit certain types of environments.

AACSB: Analytic
Blooms: Understand
Difficulty: Easy

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #66

Topic: Heredity-Environment Correlations

67. Niche-picking genotype-environment correlations occur when:
(p. 75) **A.** biological parents provide a rearing environment for the child.
B. children seek out environments that they find compatible and stimulating.
C. children behave in ways that elicit certain types of environment.
D. children behave in ways that reflect the inherited disposition of their biological parents.

Active (niche-picking) genotype-environment correlations occur when children seek out environments that they find compatible and stimulating.

AACSB: Analytic
Blooms: Understand
Difficulty: Easy

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #67

Topic: Heredity-Environment Correlations

68. (p. 75) Because Juno's parents are athletic, they tend to take her to all types of athletic events and activities like mountain biking, roller blading, and skiing. As a result, Juno has many opportunities to practice her athletic skills. This is an example of a(n) _____.
A. suppressive genotype-environment correlation
B. active genotype-environment correlation
C. passive genotype-environment correlation
D. evocative genotype-environment correlation

The fact that Juno's parents expose her to so many athletic activities is an example of the passive genotype-environment interaction because Juno is as such predisposed to being athletic like her parents (passive genotype). Additionally, her athletic parents also provide her with such opportunities (environment).

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: Medium

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.

Santrock - Chapter 02 #68

Topic: Heredity-Environment Correlations

69. (p. 75) Rick is a toddler with an easy temperament and active nature. People are often seen stopping to talk to him in supermarkets and parks where his mother takes him in the evenings because he smiles willingly at other children and adults. This aspect of Rick's behavior most likely reflects a(n) _____.
A. active genotype-environment interaction
B. suppressive genotype-environment interaction
C. passive genotype-environment interaction
D. evocative genotype-environment interaction

Evocative genotype-environment correlations occur because a child's characteristics elicit certain types of environments. For example, active, smiling children receive more social stimulation than passive, quiet children do.

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: Medium

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.

Santrock - Chapter 02 #69

Topic: Heredity-Environment Correlations

70. (p. 75) Robert's parents are fairly social and enjoy an evening out with their friends. His older sister, Martha, reflects their social interests; she is often seen conducting church events, planning parties with her friends, and stopping to speak to friends and acquaintances warmly. Unlike them, Robert spends all his free time reading books and surfing the Internet to learn about a host of things that interest him. His need for learning most likely reflects a(n) _____ here.
A. active genotype-environment interaction
B. suppressive genotype-environment interaction
C. passive genotype-environment interaction
D. evocative genotype-environment interaction

Active (niche-picking) genotype-environment correlations occur when children seek out environments that they find compatible and stimulating.

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: Medium

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.

Santrock - Chapter 02 #70

Topic: Heredity-Environment Correlations

71. (p. 76) According to Sandra Scarr, which of the following plays a more important role during the periods of infancy and early childhood?
- A. Suppressive genotype-environment interaction
 - B. Active genotype-environment interaction
 - C. Passive genotype-environment interaction**
 - D. Evocative genotype-environment interaction

According to Sandra Scarr, much of the environment that children experience in infancy is provided by adults. Thus, passive genotype-environment correlations are more common in the lives of infants and young children than they are for older children and adolescents.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #71
Topic: Heredity-Environment Correlations

72. (p. 76) Which of the following is an example of a shared environmental experience of siblings?
- A. Parents' personalities**
 - B. Peer groups
 - C. Classroom experiences
 - D. School teachers

Shared environmental experiences are siblings' common experiences, such as their parents' personalities or intellectual orientation, the family's socioeconomic status, and the neighborhood in which they live.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #72
Topic: Shared and Nonshared Environmental Experiences

73. (p. 76) Parents' intellectual orientation is an example of a _____ of siblings.
- A. differential familial experiences
 - B. shared environmental experiences**
 - C. nonshared extrafamilial experiences
 - D. nonshared environmental experiences

Shared environmental experiences are siblings' common experiences, such as their parents' personalities or intellectual orientation, the family's socioeconomic status, and the neighborhood in which they live.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #73
Topic: Shared and Nonshared Environmental Experiences

74. (p. 76) Eric and Scott are identical twins, while Ann, their younger sister, is two years younger. When Eric and Scott were twelve years old, their father, who ran a restaurant, was shot dead by a drunk customer. This incident changed their family life completely. Which of the following is true with regard to Eric, Scott, and Ann?
- A. Their father's death is a nonshared experience for Eric, Scott, and Ann.
 - B. Their father's death was a shared experience only for Eric and Scott.
 - C. Their father's death was a shared experience for all three of them.**
 - D. Their father's death was a nonshared extrafamilial experience Eric, Scott, and Ann.

Shared environmental experiences are siblings' common experiences, such as their parents' personalities or intellectual orientation, the family's socioeconomic status, and the neighborhood in which they live.

AACSB: Reflective Thinking
Blooms: Apply
Difficulty: Medium
Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #74
Topic: Shared and Nonshared Environmental Experiences

75. (p. 76) Horace was an extremely authoritarian parent. He believed in raising his children with discipline, order, and respect for authority. His wife, on the other hand, felt that their children should be given the freedom to make their choices within the limits they imposed as parents. She encouraged their twins, Lauren and Ben, to do new things and seek novel experiences. Horace and his wife treated both their children equally without favoring Ben as he was a boy.
- From the information provided, which of the following conclusions can be drawn?
- A. Birth order was a major contributing factor to the individual differences seen in Ben and Lauren.
 - B. Differential parental treatment owing to their genders is a shared experience for Ben and Lauren.
 - C. Horace's authoritarian parenting style is a nonshared experience for Ben and Lauren.
 - D. The two different parenting styles they both experienced represent a shared experience for Ben and Lauren.**

Shared environmental experiences are siblings' common experiences, such as their parents' personalities or intellectual orientation, the family's socioeconomic status, and the neighborhood in which they live.

AACSB: Reflective Thinking
Blooms: Apply
Difficulty: Hard
Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #75
Topic: Shared and Nonshared Environmental Experiences

76. (p. 76) Which of the following is an example of a nonshared environmental experience of siblings?
- A. Family composition
 - B. Family's socioeconomic status
 - C. Neighborhood
 - D. Peer influences**

Nonshared environmental experiences are a child's unique experiences, both within the family and outside the family, that are not shared with a sibling. Examples of nonshared environmental experiences include different peer groups, different friends, and different teachers at school.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium
Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #76
Topic: Shared and Nonshared Environmental Experiences

77. (p. 76) Though Katie and Wendy were identical twins, Katie always felt that her sister was given the best opportunities when they were growing up. Katie went to a public school, while Wendy was allowed to attend a prestigious private school. Katie was not given the freedom that Wendy enjoyed and took for granted. Which of the following is a nonshared experience for Katie and Wendy?
- A. Birth order
 - B. Gender
 - C. Genetic material
 - D. Parental treatment**

Nonshared environmental experiences are a child's unique experiences, both within the family and outside the family, that are not shared with a sibling. Examples of nonshared environmental experiences include different peer groups, different friends, and different teachers at school. Even experiences occurring within the family can be part of the "nonshared environment." For example, parents often treat each sibling differently.

AACSB: Reflective Thinking
Blooms: Apply
Difficulty: Easy
Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #77

Topic: Shared and Nonshared Environmental Experiences

78. (p. 76) Behavioral geneticist Robert Plomin has found that:
- A. parents tend to treat all their children the same, thus minimizing the effect of nonshared environments on siblings.
 - B. all factors operating within the family environment impact children equally.
 - C. the effect of shared and the nonshared environmental influences can be discerned only in identical twins.
 - D. the existence of a shared environment accounts for little of the variation in children's personalities or interests.**

Behavior geneticist Robert Plomin has found that shared environment accounts for little of the variation in children's personality or interests. In other words, even though two children live under the same roof with the same parents, their personalities are often very different.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium
Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #78

Topic: Shared and Nonshared Environmental Experiences

79. (p. 76) Dora has recently started working on a research study that hypothesizes that people who have a defect in a specific gene may have a predisposition to depression. As a second hypothesis, the research is studying the impact of significant lack of social support in triggering the onset of depression in such people. Dora's research is an example of _____ research.
- A. gene-gene interaction
 - B. gene x environment**
 - C. eugenics
 - D. genetic engineering

The type of research Dora is conducting is referred to as gene x environment (G x E) interaction—the interaction of a specific measured variation in DNA and a specific measured aspect of the environment.

AACSB: Reflective Thinking
Blooms: Understand
Difficulty: Hard
Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #79

Topic: The Epigenetic View and Gene x Environment Interaction

80. Dora has recently started working on a research study that hypothesizes that people who have a defect in a specific gene may have a predisposition to depression. As a second hypothesis in the study, the research is studying the impact of a significant lack of social support in triggering the onset of depression in such people. If Dora's research successfully validates both hypotheses, which of the following conclusion may be drawn?

(p. 76, 77)

- A. A defect in the gene Dora is studying is directly linked to depression.
- B. A lack of social support always leads to clinically significant levels of depression.
- C. The defective gene and lack of social support produce a heightened risk of depression.**
- D. The defective is recessive and depression is a result of polygenic inheritance.

The defective gene and lack of social support produce a heightened risk of depression. The specific gene did not link directly to the development of depression, but rather interacted with environmental exposure to stress to predict whether individuals would develop depression.

AACSB: Reflective Thinking
Blooms: Understand
Difficulty: Hard

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.

Santrock - Chapter 02 #80

Topic: The Epigenetic View and Gene x Environment Interaction

81. What kind of success does natural selection particularly emphasize? Give a few examples of adaptive behavior.

(p. 56, 57)

Students' answers may vary.

Natural selection emphasizes reproductive success. Natural selection is the evolutionary process by which those individuals of a species that are best adapted are the ones that survive and reproduce.

Examples of adaptive behavior include:

- an infant's attachment to its caregiver so that it can be close to the caregiver for food and protection from danger.
- pregnancy sickness that helps pregnant women avoid food which contain high levels of toxins that might harm the fetus.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-01 Discuss the evolutionary perspective on development.

Santrock - Chapter 02 #81

Topic: Natural Selection and Adaptive Behavior

82. Describe any three ways in which evolutionary developmental psychologists believe that human development may have been affected by evolution over time.

(p. 58)

Students' answers may vary.

Few ways in which evolutionary developmental psychologists believe that human development may have been affected by evolution over time are given below.

- An extended juvenile period evolved because humans need time to develop a large brain and learn the complexity of human social communities.
- Many evolved psychological mechanisms are domain specific. This means that the mechanisms apply only to a specific aspect of a person's makeup.
- Evolved mechanisms are not always adaptive in contemporary society. Some behaviors that were adaptive for our prehistoric ancestors may not serve us well today.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-01 Discuss the evolutionary perspective on development.

Santrock - Chapter 02 #82

Topic: Evolutionary Psychology

83. Mention a few salient features of the Human Genome Project.
(p. 60)

Students' answers may vary.

- The Human Genome Project has completed a preliminary map of the human genome—the complete set of developmental instructions for creating proteins that initiate the making of a human organism.
- Scientists had thought that humans have 100,000 or more genes, but the Human Genome Project reported that humans have only about 30,000 genes.
- Scientists also believed that each gene corresponded to only one protein but the Human Genome Project's estimate of genes shows that humans have a lot more proteins than they have genes. This implies that each gene is not translated to just one protein. Rather, genes collaborate with each other and with nongenetic factors inside and outside the body to manifest their effect.

AACSB: Analytic
Blooms: Remember
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #83
Topic: The Collaborative Gene

84. Describe any two sources of variability that the human genetic process creates.
(p. 61, 62)

Students' answers may vary.

- The chromosomes in the zygote are not exact copies of those in the mother's ovaries and the father's testes. During the formation of the sperm and egg in meiosis, the members of each pair of chromosomes are separated, but which chromosome in the pair goes to the gamete is a matter of chance. In addition, before the pairs separate, pieces of the two chromosomes in each pair are exchanged, creating a new combination of genes on each chromosome.
- There is another source of variability that is unrelated to the formation of gametes. Chance, mistakes by the cellular machinery that duplicates DNA or assault by environmental agents, like radiations can damage DNA. This results in a permanently altered segment of DNA giving rise to a mutated gene.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #84
Topic: Genes and Chromosomes

85. Describe the relationship between genotypes and phenotypes.
(p. 62)

All of a person's genetic material makes up his or her genotype. However, not all of the genetic material is apparent in our observed and measurable characteristics. A phenotype consists of observable characteristics. Phenotypes include physical characteristics (such as height, weight, and hair color) and psychological characteristics (such as personality and intelligence). For each genotype, a range of phenotypes can be expressed, providing another source of variability. An individual can inherit the genetic potential to grow very large, for example, but good nutrition, among other things, will be essential to achieving that potential.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #85
Topic: Genes and Chromosomes

86. Describe any two genetic principles.

(p. 62, 63)

Students' answers may vary.

Following are two genetic principles:

- **Dominant-recessive genes principle:** There are certain gene pairs (dominant-recessive pairs) where the observable effects are always due to one gene of the pair (the dominant gene) when both genes are present in an individual. For the recessive gene's effects to be visible, both genes of the pair in a person should be of the recessive kind.
- **Sex-linked genes:** Genes that are located on the X or Y chromosomes (sex chromosomes) are known as sex-linked genes and their inheritance is sex-linked (sex-linked inheritance). For instance, if a gene on the X chromosome gets mutated into a disease-causing form then a male carrying that chromosome will always have the X-linked disease since males carry only one copy of the X chromosome. A female might have the disease (if she has the altered gene on both X chromosomes) or she might be a carrier (if she has the altered gene on only one X chromosome). Similarly, a mutated, disease-causing gene on the Y chromosome will affect only males.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #86
Topic: Genetic Principles

87. What is genetic imprinting? How is it achieved? Discuss its implications for development.

(p. 63)

Students' answers may vary.

Genetic imprinting occurs when genes have differing effects depending on whether they are inherited from the mother or the father. A chemical process "silences" one member of the gene pair. For example, as a result of imprinting, only the maternally derived copy of a gene might be active, while the paternally derived copy of the same gene is silenced—or vice versa. Genetic imprinting has important implications for development and faulty imprinting may lead to abnormal development and disorders such as Beckwith-Wiedemann syndrome, a growth disorder, and Wilms tumor, a type of cancer.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #87
Topic: Genetic Principles

88. Choose any two chromosome or gene-linked abnormalities and discuss the ways in which they can be treated or managed.

(p. 64, 65)

Students' answers may vary.

- **Down syndrome:** Down syndrome, caused by an extra copy of chromosome 21, often exhibits both mental and motor retardation. Special programs and support groups do exist to help parents cope. Parents may need to care for their children for life as they cannot be cured. With appropriate guidance and instruction, children with this condition can be taught to care for themselves as well do simple tasks.
- **Phenylketonuria:** This is a disorder wherein the body cannot properly metabolize an amino acid. It is easily detected and can be treated by a controlled diet. If it goes untreated, it can result in mental retardation and hyperactivity.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.
Santrock - Chapter 02 #88
Topic: Chromosomal and Gene-linked Abnormalities

89. Describe two chromosomal abnormalities that affect only males.

(p. 64, 65)

Students' answers may vary.

- Klinefelter syndrome is a genetic disorder in which males have an extra X chromosome, making them XXY instead of XY. Males with this disorder have undeveloped testes, and they usually have enlarged breasts and become tall.
- The XYY syndrome is a chromosomal disorder in which the male has an extra Y chromosome. The extra Y chromosome can cause above-average height.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Santrock - Chapter 02 #89

Topic: Chromosomal and Gene-linked Abnormalities

90. Describe any one chromosomal abnormality and gene-linked abnormality.

(p. 64, 65)

Students' answers may vary.

Down syndrome: An individual with Down syndrome has a round face, a flattened skull, an extra fold of skin over the eyelids, a protruding tongue, short limbs, and retardation of motor and mental abilities. The syndrome is caused by the presence of an extra copy of chromosome 21. African American children are rarely born with Down syndrome.

Sickle-cell anemia: It occurs most often in African Americans. It is a genetic disorder that impairs the body's red blood cells. In sickle-cell anemia, a recessive gene causes the red blood cell to become a hook-shaped "sickle" that cannot carry oxygen properly and dies quickly. As a result, the body's cells do not receive adequate oxygen, causing anemia and early death.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Santrock - Chapter 02 #90

Topic: Chromosomal and Gene-linked Abnormalities

91. Describe a chromosomal abnormality that affects only females.

(p. 65)

Turner syndrome is a chromosomal disorder in females in which either an X chromosome is missing, making the person XO instead of XX, or part of one X chromosome is deleted. Females with Turner syndrome are short in stature and have a webbed neck. They might be infertile and have difficulty in mathematics, but their verbal ability often is quite good.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Santrock - Chapter 02 #91

Topic: Chromosomal and Gene-linked Abnormalities

92. Discuss some circumstances that might lead a couple wanting to become parents to seek genetic counseling.
(p. 67)

Students' answers may vary.

Following are a few circumstances that might lead a couple wanting to become parents to seek genetic counseling:

- Genetic disorders and conditions in other children in the family.
- Doctor might suggest genetic counseling due to an abnormality in the pregnancy.
- Knowledge about problems in the extended family line that might be inherited.

AACSB: Reflective Thinking

Blooms: Apply

Difficulty: Hard

Learning Goal: 02-02 Describe what genes are and how they influence human development.

Sanrock - Chapter 02 #92

Topic: Chromosomal and Gene-linked Abnormalities

93. Describe any two prenatal diagnostic procedures that can be used to diagnose structural abnormalities in the fetus.
(p. 68)

Students' answers may vary.

Following are two of the less invasive types of prenatal tests:

- Ultrasound sonography: Ultrasound sonography is a prenatal medical procedure in which high frequency sound waves are directed into the pregnant woman's abdomen. The echo from the sounds is transformed into a visual representation of the fetus's inner structures. This technique can detect many structural abnormalities in the fetus like microcephaly.
- Fetal MRI: This procedure uses a powerful magnet and radio images to generate detailed images of the body's organs and structure. It provides more detailed images than ultrasound sonography. Among the fetal malformations that fetal MRI may be able to detect better than ultrasound sonography are certain abnormalities of the central nervous system, chest, gastrointestinal tract, genital/urinary system, and placenta.

AACSB: Analytic

Blooms: Understand

Difficulty: Medium

Learning Goal: 02-03 Identify some important reproductive challenges and choices.

Sanrock - Chapter 02 #93

Topic: Prenatal Diagnostic Tests

94. Briefly describe any two prenatal diagnostic procedures that are "more invasive" than ultrasound sonography and fetal MRI.
(p. 68, 69)

Following are two of the more invasive types of prenatal tests:

- Amniocentesis: It is performed between 14th to 20th weeks. It involves removal of a sample of amniotic fluid with a needle to determine any chromosomal or metabolic disorders. The earlier it is performed, the more useful it is in deciding how to handle a pregnancy.
- Chorionic villus sampling: It is performed between the 9.5 and 12.5 weeks of pregnancy. It involves the removal of a small sample of the placenta that provides information about the presence of birth defects.

AACSB: Analytic

Blooms: Understand

Difficulty: Medium

Learning Goal: 02-03 Identify some important reproductive challenges and choices.

Sanrock - Chapter 02 #94

Topic: Prenatal Diagnostic Tests

95. What is NIPD? What are the advantages and concerns associated with it?
(p. 69)

Noninvasive prenatal diagnosis (NIPD) mainly focuses on the isolation and examination of fetal cells circulating in the mother's blood and analysis of cell-free fetal DNA in maternal plasma.

Advantages of NIPD: Since it is noninvasive in nature, it is increasingly being explored as an alternative to procedures invasive procedures such as chorionic villus sampling and amniocentesis to reduce the risk to the growing fetus. Another advantage of NIPD is very early detection of disorders such as Down syndrome and a fetus's sex (as early as five weeks after conception).

Concerns about NIPD: One concern about NIPD is the technical challenge of efficiently separating out the fetal cells, which comprise only about one of every million cells in a mother's blood. Another concern about NIPD is associated with its ability to detect an offspring's sex and to identify various diseases and defects so early. This raises ethical concerns about couples' motivation to terminate a pregnancy.

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-03 Identify some important reproductive challenges and choices.
Santrock - Chapter 02 #95

Topic: Prenatal Diagnostic Tests

96. Describe some factors in childhood that could influence identical twins separated at birth to become quite different from each other.
(p. 74, 75)

Students' answers may vary.

Following are some of the factors in childhood that could influence identical twins separated at birth to become quite different from each other:

- Level of intellectual stimulation provided at home might vary
- Different opportunities to be a leader and interact with people
- Abusive parents
- Different parenting styles
- Siblings versus no siblings
- Different types of schools
- Different types of friends
- Different family systems
- Different socioeconomic status of families
- Different geographic locations, which might lead to exposure to different cultures

AACSB: Reflective Thinking
Blooms: Apply
Difficulty: Hard

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #96

Topic: Behavior Genetics

97. Describe the three ways in which heredity and environment may be correlated.
(p. 75)

Behavior geneticist Sandra Scarr described three ways in which heredity and environment are correlated.

- Passive genotype-environment correlations occur because biological parents, who are genetically related to the child, provide a rearing environment for the child.
- Evocative genotype-environment correlations occur because a child's characteristics elicit certain types of environments.
- Active (niche-picking) genotype-environment correlations occur when children seek out environments that they find compatible and stimulating.

AACSB: Analytic
Blooms: Remember
Difficulty: Medium

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #97
Topic: Behavior Genetics

98. Ramona, an eight-year-old with autistic characteristics, exhibits many difficulties in the area of social communication. She is high-functioning academically and enjoys activities involving repetitive movements and math calculations. Her teachers were concerned that Ramona would have difficulty participating and completing activities in a regular classroom. Ramona would sob, cover her ears, and rock in her chair when there was too much visual and auditory stimuli or when she did not know an answer to a question. When the teacher asked her to complete a math facts worksheet, the entire class was amazed to see that Ramona completed the math problems within a minute. From that point forward, Ramona became the "math" leader of the class, which not only increased her self-confidence but increased her social interaction with peers as well. What is Ramona's niche in the following scenario?
(p. 75)

Ramona's high math ability was her niche. Ramona's success demonstrates an active (niche-picking) genotype-environment correlation which occurs when children seek out environments that they find compatible and stimulating.

AACSB: Reflective Thinking
Blooms: Apply
Difficulty: Easy

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #98
Topic: Heredity-Environment Correlations

99. Give examples of nonshared environmental experiences that siblings can have even when they are raised within the same family.
(p. 76)

Students' answers may vary.

Following are a few nonshared environmental experiences that siblings can have even when they are raised within the same family:

- Parents may interact differently with each child.
- Parents may engage in different activities with each child.
- Parents hold different conversations with each child.
- The type of disciplinary methods used with each child.
- Each child may receive different opportunities (ballet classes for girls, soccer classes for boys).

AACSB: Analytic
Blooms: Understand
Difficulty: Medium

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #99
Topic: Shared and Nonshared Environmental Experiences

100. Describe the epigenetic view of development.
(p. 77)

The epigenetic view states that development is the result of an ongoing, bidirectional interchange between heredity and the environment. Heredity and environment operate together—or collaborate—to produce various observable traits of a person.

AACSB: Analytic
Blooms: Remember
Difficulty: Medium

Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.
Santrock - Chapter 02 #100
Topic: Shared and Nonshared Environmental Experiences

02 Summary

<u>Category</u>	<u># of Questions</u>
AACSB: Analytic	77
AACSB: Reflective Thinking	23
Blooms: Apply	20
Blooms: Remember	43
Blooms: Understand	37
Difficulty: Easy	28
Difficulty: Hard	14
Difficulty: Medium	58
Learning Goal: 02-01 Discuss the evolutionary perspective on development.	11
Learning Goal: 02-02 Describe what genes are and how they influence human development.	52
Learning Goal: 02-03 Identify some important reproductive challenges and choices.	13
Learning Goal: 02-04 Characterize some of the ways that heredity and environment interact to produce individual differences in development.	24
Santrock - Chapter 02	100
Topic: Adoption	1
Topic: Behavior Genetics	5
Topic: Chromosomal and Gene-linked Abnormalities	24
Topic: Evolutionary Psychology	8
Topic: Genes and Chromosomes	11
Topic: Genetic Principles	10
Topic: Heredity-Environment Correlations	8
Topic: Infertility and Reproductive Technology	3
Topic: Natural Selection and Adaptive Behavior	3
Topic: Prenatal Diagnostic Tests	9
Topic: Shared and Nonshared Environmental Experiences	9
Topic: The Collaborative Gene	7
Topic: The Epigenetic View and Gene x Environment Interaction	2