

Chapter 2

The Start of Life: Prenatal Development

2-1. The male reproductive cell is called a(n)

- a) sperm.
- b) ovum.
- c) gametes.
- d) zygote.

Answer: a Page: 46 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-2. The female reproductive cell is called the

- a) gamete.
- b) sperm.
- c) zygote.
- d) ovum.

Answer: d Page: 46 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-3. About an hour or so after the sperm enters the ovum, the two gametes suddenly fuse, becoming one cell called a

- a) chromosome.
- b) ovum.
- c) zygote.
- d) genes.

Answer: c Page: 46 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-4. What is the name of the new cell formed by the process of fertilization?

- a) sperm
- b) zygote
- c) ovum
- d) gametes

Answer: b Page: 46 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-5. Male and female reproductive cells are also known as

- a) gametes.
- b) zygotes.

- c) genes.
- d) chromosomes.

Answer: a Page: 46 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-6. What is the basic unit of genetic information?

- a) zygote
- b) sperm
- c) gene
- d) gametes

Answer: c Page: 47 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-7. The blueprints for creating a person are stored and communicated in our

- a) zygote.
- b) genes.
- c) gametes.
- d) ovum.

Answer: b Pages: 47 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-8. Name the substance that genes are composed of that determines the nature of each cell in the body and how it will function.

- a) chromosomes
- b) gametes
- c) zygotes
- d) DNA (deoxyribonucleic acid)

Answer: d Page: 47 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-9. All genes are composed of specific sequences of _____ molecules.

- a) DNA
- b) zygote
- c) ovum
- d) sperm

Answer: a Page: 47 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-10. What is the name of the rod-shaped portions of DNA that are organized in 23 pairs?

- a) genes

- b) gametes
- c) chromosomes
- d) ovum

Answer: c Page: 47 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-11. Genes are arranged in specific locations and in a specific order along ____ chromosomes.

- a) 52
- b) 23
- c) 46
- d) 54

Answer: c Page: 47 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-12. Rod-shaped chromosomes, portions of DNA, are organized in ____ pairs.

- a) 52
- b) 23
- c) 46
- d) 54

Answer: b Page: 47 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-13. The process of _____ accounts for the replication of most types of cells, so nearly all the cells of the body will contain the same 46 chromosomes as the zygote.

- a) meiosis
- b) cell division
- c) mitosis
- d) reproduction

Answer: c Pages: 47 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-14. When gametes are formed in the human body, this is called

- a) division.
- b) meiosis.
- c) mitosis.
- d) genetic instruction.

Answer: b Page: 47 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-15. The potential for vast diversity of human beings primarily resides in the nature of the processes that underlie _____ cell division.

- a) sperm
- b) ovum
- c) chromosome
- d) gamete

Answer: d Page: 47 Level: Difficult LO: 2-1 & 2-2 Type: Conceptual APA Outcome: 3.1

2-16. The ultimate outcome of meiosis, in combination with other processes, is tens of _____ of genetic combinations.

- a) billions
- b) millions
- c) thousands
- d) trillions

Answer: d Page: 47 Level: Difficult LO: 2-1 & 2-2 Type: Conceptual APA Outcome: 3.1

2-17. Twins who are genetically identical are called _____ twins.

- a) gamete
- b) monozygotic
- c) dizygotic
- d) zygote

Answer: b Page: 47 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-18. Jason and Justin are twins and are genetically identical. They are _____ twins.

- a) gamete
- b) dizygotic
- c) monozygotic
- d) zygote

Answer: c Page: 47 Level: Medium LO: 2-1 & 2-2 Type: Applied APA Outcome: 1.2

2-19. Any differences in future development of monozygotic twins can be attributed only to _____ factors.

- a) genetic
- b) chromosome
- c) environmental
- d) DNA

Answer: c Page: 47 Level: Medium LO: 2-1 & 2-2 Type: Conceptual APA Outcome: 3.1

2-20. Twins who are produced when two separate ova are fertilized by two separate sperm at roughly the same time are called _____ twins.

- a) dizygotic
- b) monozygotic
- c) gamete
- d) zygote

Answer: a Page: 47 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-21. Evan and Evelyn are twins but are not genetically identical. They are _____ twins.

- a) gamete
- b) dizygotic
- c) monozygotic
- d) zygote

Answer: b Page: 47 Level: Medium LO: 2-1 & 2-2 Type: Applied APA Outcome: 3.1

2-22. _____ twins are no more genetically similar than two siblings born at different times.

- a) Dizygotic
- b) Monozygotic
- c) Gamete
- d) Zygotic

Answer: a Page: 47 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-23. Multiple births have _____ in the last 25 years due to fertility drugs and the rising average age of mothers giving birth.

- a) decreased
- b) remained the same
- c) increased
- d) varied up and down

Answer: c Page: 48 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-24. The 23rd pair of chromosomes in males contains the ____ chromosome pair.

- a) XX
- b) XY
- c) YX
- d) YY

Answer: b Page: 48 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-25. If a child has an XX pairing of the 23rd chromosomes, they will be

- a) male.
- b) monozygotic.
- c) dizygotic.
- d) female.

Answer: d Page: 48 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-26. The fact that the _____ determines the gender of the child is leading to the development of techniques that will allow parents to increase the chances of choosing the child's gender.

- a) woman's ovum
- b) man's sperm
- c) chromosome type
- d) chromosome similarity

Answer: b Page: 48 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-27. The one trait that is expressed when two competing traits are present is called

- a) recessive.
- b) genotype.
- c) dominant.
- d) phenotype.

Answer: c Page: 49 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-28. A trait within an organism that is present but not expressed is called

- a) dominant.
- b) genotype.
- c) phenotype.
- d) recessive.

Answer: d Page: 49 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-29. An observable trait is labeled

- a) dominant.
- b) recessive.
- c) a genotype.
- d) a phenotype.

Answer: d Page: 49 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-30. The underlying combination of genetic material present (but not outwardly visible) in an organism is called

- a) genotype.
- b) phenotype.
- c) dominant.
- d) recessive.

Answer: a Page: 49 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-31. When a child inherits similar genes for a given trait from his/her parents, the child is said to be _____ for that trait.

- a) genotype
- b) homozygous
- c) phenotype
- d) heterozygous

Answer: b Page: 49 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-32. Eric has blue eyes. Since the gene for blue eyes is recessive, Eric must be _____ for that trait.

- a) genotype
- b) homozygous
- c) phenotype
- d) heterozygous

Answer: b Page: 49 Level: Difficult LO: 2-1 & 2-2 Type: Applied APA Outcome: 3.1

2-33. When a child receives different forms of a certain gene from his/her parents, he or she is said to be

- a) dominant.
- b) phenotype.
- c) homozygous.
- d) heterozygous.

Answer: d Page: 49 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-34. What is the name of the inherited disorder in which a child is unable to make use of an essential amino acid present in proteins found in milk and other foods and that has the potential to cause brain damage and mental retardation?

- a) heterozygous

- b) phenylketonuria (PKU)
- c) homozygous
- d) chromosome deficiency

Answer: b Page: 49 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-35. In _____ inheritance, a combination of multiple gene pairs is responsible for the production of a particular trait.

- a) X-lined
- b) PKU
- c) polygenic
- d) heterozygous

Answer: c Page: 50 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-36. What type of gene is considered recessive and located only on the X chromosome?

- a) heterozygous
- b) X-linked
- c) homozygous
- d) recessive

Answer: b Page: 50 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-37. What is the term for the inherited blood-clotting disorder that has been a problem throughout the royal families of Europe, such as the descendants of Queen Victoria?

- a) X-linked
- b) PKU disease
- c) polygenic inheritance
- d) hemophilia

Answer: d Page: 50 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-38. What is the term applied to studying the effects of heredity on psychological characteristics and behavior?

- a) gene sequence
- b) mapping
- c) behavioral genetics
- d) human genome

Answer: c Page: 51 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-39. Humans have about _____ genes.

- a) 50,000
- b) 25,000
- c) 100,000
- d) 10,000

Answer: b Page: 51 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-40. Sometimes genes, for no known reason(s), change their form in a process called

- a) spontaneous acceleration.
- b) spontaneous combustion.
- c) spontaneous mutation.
- d) spontaneous malformation.

Answer: c Page: 52 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-41. Jose has an extra chromosome on the twenty-first pair of chromosomes. The disorder was once referred to as mongolism. This will cause him to have

- a) hemophilia
- b) fragile X syndrome
- c) sickle-cell anemia
- d) Down syndrome

Answer: d Page: 52 Level: Medium LO: 2-1 & 2-2 Type: Applied APA Outcome: 1.2

2-42. Sue has a disorder that is produced by an injury to a gene on the X chromosome, producing a mild to moderate mental retardation. She has

- a) Down syndrome.
- b) Tay-Sachs disease.
- c) fragile X syndrome.
- d) Klinefelter's syndrome.

Answer: c Page: 52 Level: Medium LO: 2-1 & 2-2 Type: Applied APA Outcome: 1.2

2-43. Toni has a blood disorder that gets its name from the shape of the red blood cells. She would be diagnosed with what disorder?

- a) sickle-cell anemia
- b) hemophilia
- c) Klinefelter's syndrome
- d) fragile X syndrome

Answer: a Page: 52-53 Level: Medium LO: 2-1 & 2-2 Type: Applied APA Outcome: 1.2

2-44. Tera has a disorder that is untreatable and produces blindness and muscle degeneration prior to death. Her diagnosis would be

- a) fragile X syndrome.
- b) Tay-Sachs disease.
- c) Klinefelter's syndrome.
- d) hemophilia.

Answer: b Page: 53 Level: Medium LO: 2-1 & 2-2 Type: Applied APA Outcome: 1.2

2-45. Akili has the disorder that results from the presence of an extra X chromosome that produces underdeveloped genitals, extreme height, and enlarged breasts. She has

- a) Klinefelter's syndrome.
- b) Down syndrome.
- c) Tay-Sachs disease.
- d) fragile X syndrome.

Answer: a Page: 53 Level: Medium LO: 2-1 & 2-2 Type: Applied APA Outcome: 1.2

2-46. Scientists have discovered that carrying the sickle-cell gene raises immunity to _____, which is a common disease in West Africa.

- a) hemophilia
- b) blood pressure
- c) malaria
- d) anemia

Answer: c Pages: 53 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-47. What is the profession that focuses on helping people deal with issues relating to inherited disorders?

- a) psychological counseling
- b) disorders counseling
- c) genetic counseling
- d) family counseling

Answer: c Page: 54 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 4.1

2-48. What is the name of the earliest test that occurs in the 11th to 13th week of pregnancy and can identify chromosomal abnormalities and other disorders, such as heart problems?

- a) amniocentesis
- b) chorionic villus sampling (CVS)
- c) ultrasound sonography
- d) first-trimester screen

Answer: d Page: 54 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-49. Huela is going to have her first child and talks to her physician about assessing the health of her unborn child. The physician recommends a test that combines a blood test and ultrasound sonography. Which procedure was recommended?

- a) amniocentesis
- b) sonogram
- c) first-trimester screen
- d) embryoscopy

Answer: c Page: 54 Level: Difficult LO: 2-1 & 2-2 Type: Applied APA Outcome: 3.1

2-50. What is the process in which high-frequency sound waves scan the mother's womb to produce an image of the unborn baby, whose size and shape can then be assessed?

- a) first-trimester screen
- b) ultrasound sonography
- c) amniocentesis
- d) chorionic villus sampling (CVS)

Answer: b Page: 54 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-51. What is used to find genetic defects and involves taking samples of the hair-like material that surrounds the embryo?

- a) karyotype
- b) amniocentesis
- c) ultrasound sonography
- d) chorionic villus sampling (CVS)

Answer: d Page: 54-55 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-52. What is the more invasive test that can be employed if blood tests and ultrasound have identified a potential problem or if there is a family history of inherited disorders?

- a) amniocentesis
- b) chorionic villus sampling (CVS)
- c) ultrasound sonography
- d) first-trimester screen

Answer: b Page: 54-55 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.3

2-53. What infrequently used test is usually performed between the 8th and 11th week of pregnancy but produces a risk of miscarriage of 1 in 100 to 1 in 200 pregnancies?

- a) amniocentesis
- b) ultrasound sonography
- c) chorionic villus sampling (CVS)
- d) first-trimester screen

Answer: c Page: 54-55 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-54. Name the process of identifying genetic defects by examining a small sample of fetal cells drawn by a needle inserted into the amniotic fluid surrounding the unborn fetus.

- a) amniocentesis
- b) karyotype
- c) ultrasound sonography
- d) chorionic villus sampling (CVS)

Answer: a Page: 55 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-55. Amniocentesis is carried out _____ weeks into the pregnancy.

- a) 5 – 10
- b) 10 – 15
- c) 15 – 20
- d) 20 – 25

Answer: c Page: 55 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-56. Which test is carried out 15 to 20 weeks into the pregnancy and allows the analysis of fetal cells that can identify a variety of genetic defects with nearly 100% accuracy?

- a) chorionic villus sampling (CVS)
- b) ultrasound sonography
- c) first-trimester screen
- d) amniocentesis

Answer: d Page: 55 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-57. Which test can be used to determine the sex of the child?

- a) ultrasound sonography

- b) amniocentesis
- c) chorionic villus sampling (CVS)
- d) first-trimester screen

Answer: b Page: 55 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-58. Which test examines the embryo or fetus during the first 23 weeks of pregnancy by means of a fiber-optic device inserted through the cervix?

- a) embryoscopy
- b) amniocentesis
- c) sonoembryology
- d) chorionic villus sampling (CVS)

Answer: a Page: 55 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-59. Which test is performed as early as week 5 and allows access to the fetal circulation and direct visualization of the embryo, permitting the diagnosis of malformations?

- a) amniocentesis
- b) embryoscopy
- c) chorionic villus sampling (CVS)
- d) sonoembryology

Answer: b Page: 55 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-60. Which test procedure is recommended if either parent carries Tay-Sachs, spina bifida, sickle-cell, Down syndrome, muscular dystrophy, or Rh disease?

- a) amniocentesis
- b) embryoscopy
- c) chorionic villus sampling (CVS)
- d) sonoembryology

Answer: a Page: 55 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 3.1

2-61. Which test is performed after 18 weeks of pregnancy by collecting a small amount of blood from the umbilical cord for testing?

- a) embryoscopy
- b) amniocentesis
- c) fetal blood sampling (FBS)
- d) chorionic villus sampling (CVS)

Answer: c Page: 55 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-62. Which test is used to detect Down syndrome by collecting blood from the umbilical cord after the 18th week of pregnancy?

- a) fetal blood sampling (FBS)
- b) embryoscopy
- c) chorionic villus sampling (CVS)
- d) amniocentesis

Answer: a Page: 55 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-63. What procedure is used to detect abnormalities in the first trimester of pregnancy, and involves high-frequency transvaginal probes and digital visual processing?

- a) fetal blood sampling (FBS)
- b) sonoembryology
- c) embryoscopy
- d) first-trimester screen

Answer: b Page: 55 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-64. Which procedure, in combination with ultrasound, can detect more than 80% of all malformations during the second trimester?

- a) sonoembryology
- b) fetal blood sampling (FBS)
- c) embryoscopy
- d) amniocentesis

Answer: a Page: 55 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 3.1

2-65. Which procedure produces a visual image of the uterus, fetus, and placenta?

- a) sonoembryology
- b) sonogram
- c) chorionic villus sampling (CVS)
- d) embryoscopy

Answer: b Page: 55 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-66. Which procedure uses very high frequency sound waves to detect structural abnormalities or multiple pregnancies, measure fetal growth, judge gestational age, and evaluate uterine abnormalities?

- a) ultrasound sonography
- b) sonoembryology
- c) embryoscopy

- d) sonogram

Answer: a Page: 55 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-67. Which testing procedure uses high-frequency sound waves and is used as an adjunct to other procedures such as amniocentesis?

- a) sonogram
- b) sonoembryology
- c) ultrasound sonography
- d) embryoscopy

Answer: c Page: 55 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-68. Huntington's disease typically does not appear until people reach what age?

- a) 50s
- b) 20s
- c) 70s
- d) 40s

Answer: d Page: 55 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-69. Cynthia's mother will undergo a procedure to ensure her next child will be free of Fanconi anemia. Which of the following procedure will be used?

- a) preimplantation genetic diagnosis
- b) ultrasound sonography
- c) chorionic villus sampling
- d) genetic ovum selling

Answer: a Page 57 Level: Medium LO: 2-1 & 2-2 Type: Applied APA Outcome: 3.1

2-70. What is the procedure where cells are taken from an embryo and then replaced after the defective genes they contain have been repaired?

- a) germ line therapy
- b) genetic counseling
- c) preimplantation genetic diagnosis
- d) fetal blood sampling

Answer: a Page: 57 Level: Difficult LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-71. Patterns of arousal and emotionality that represent consistent and enduring characteristics in an individual are called

- a) genetics.
- b) genotype.
- c) temperament.
- d) phenotype.

Answer: c Page: 58 Level: Easy LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-72. What is the term for the determination of traits by a combination of both genetic and environmental factors, in which a genotype provides a range within which a phenotype may be expressed?

- a) multifactorial transmission
- b) inheritance
- c) natural selection
- d) role of environment

Answer: a Page: 59 Level: Medium LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-73. Nature has provided the potential to carry out various kinds of “natural experiments” in the form of

- a) genotypes.
- b) twins.
- c) phenotypes.
- d) genetics.

Answer: b Page: 61 Level: Easy LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-74. The closer the genetic link between two individuals, the greater the correspondence between their

- a) weight.
- b) blood pressure.
- c) IQ scores.
- d) respiration rate.

Answer: c Page: 62-63 Level: Medium LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-75. Which researcher argued that as much as 80% of intelligence is a result of heredity?

- a) Freud
- b) Erikson
- c) Scarr
- d) Jensen

Answer: d Page: 63 Level: Medium LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.4

2-76. Which “Big Five” personality trait refers to the degree of emotional stability an individual characteristically displays?

- a) aggression
- b) neuroticism
- c) shyness
- d) fear

Answer: b Page: 64 Level: Medium LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-77. Which “Big Five” personality trait refers to the degree to which a person seeks to be with others, to behave in an outgoing manner, and generally to be sociable?

- a) neuroticism
- b) gregariousness
- c) social potency
- d) extroversion

Answer: d Page: 64 Level: Medium LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-78. Parents in the United States are more likely to encourage higher _____ levels, while Asian parents are more likely to encourage greater _____ levels.

- a) passivity; activity
- b) neuroticism; social potency
- c) activity; passivity
- d) social potency; neuroticism

Answer: c Page: 65 Level: Medium LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-79. What trait reflects the tendency to be a masterful, forceful leader who enjoys being the center of attention, and has been found to be strongly associated with genetic factors?

- a) neuroticism
- b) social potency
- c) extroversion
- d) traditionalism

Answer: b Page: 64-65 Level: Medium LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-80. What trait reflects the tendency to strictly endorse rules and authority, and has been found to be strongly associated with genetic factors?

- a) traditionalism
- b) neuroticism

- c) social potency
- d) extroversion

Answer: a Page: 64-65 Level: Medium LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-81. The developmental psychologist _____ speculated that the underlying temperament of a given society, determined genetically, may predispose people in that society toward a particular philosophy.

- a) Erikson
- b) Watson
- c) Freud
- d) Kagan

Answer: d Page: 66 Level: Medium LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.4

2-82. Research indicates that a monozygotic twin has almost a ____ risk of developing schizophrenia when the other twin develops the disorder.

- a) 25%
- b) 100%
- c) 50%
- d) 10%

Answer: c Page: 67 Level: Difficult LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-83. Along with schizophrenia, all of the psychological disorders below have been shown to be related, at least in part, to genetic factors. Which of the following disorders is least likely to have a genetic factor, according to the text?

- a) depression
- b) autism
- c) attention deficit/hyperactivity disorder
- d) anxiety

Answer: d Page: 67 Level: Medium LO: 2-3 & 2-4 Type: Factual APA Outcome: 3.1

2-84. Which developmental psychologist endorses the idea that genetic endowment provided to children by their parents not only determines their genetic characteristics, but also actively influences their environment?

- a) Erikson
- b) Scarr
- c) Kagan
- d) Skinner

Answer: b Page: 67 Level: Difficult LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.4

2-85. What is the process by which a sperm and an ovum join to form a single new cell?

- a) fertilization
- b) sex
- c) germinal stage
- d) prenatal period

Answer: a Page: 69 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-86. Females are born with around _____ ova located in the two ovaries.

- a) 500,000
- b) 100,000
- c) 1,000,000
- d) 400,000

Answer: d Page: 69 Level: Difficult LO: 2-5 Type: Factual APA Outcome: 1.2

2-87. From puberty until menopause, a female will ovulate about every ____ days.

- a) 30
- b) 28
- c) 15
- d) 60

Answer: b Page: 69 Level: Easy LO: 2-5 Type: Factual APA Outcome: 1.2

2-88. An adult male typically produces several _____ sperm a day.

- a) hundred thousand
- b) thousand
- c) hundred million
- d) million

Answer: c Page: 69 Level: Difficult LO: 2-5 Type: Factual APA Outcome: 1.2

2-89. Three days after fertilization, the organism consists of some ____ cells, and by the next day the number doubles.

- a) 150
- b) 32
- c) 100
- d) 64

Answer: b Page: 69 Level: Difficult LO: 2-5 Type: Factual APA Outcome: 1.2

2-90. The first, and the shortest, stage of the prenatal period is called the _____ stage.

- a) fertilization
- b) germinal
- c) conception
- d) embryonic

Answer: b Page: 69 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-91. During the germinal stage, the fertilized egg is now called a(n) _____ and travels toward the uterus, where it becomes implanted in the uterus's wall.

- a) ovum
- b) sperm
- c) fetus
- d) blastocyst

Answer: d Page: 69 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-92. A conduit between the mother and fetus, this organ provides nourishment and oxygen via the umbilical cord.

- a) amniotic sac
- b) ectoderm
- c) placenta
- d) endoderm

Answer: c Page: 70 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-93. What is the name of the period from 2 to 8 weeks following fertilization during which significant growth occurs in the major organs and body systems?

- a) embryonic stage
- b) fetal stage
- c) fetus stage
- d) fertilization stage

Answer: a Page: 70 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-94. In the embryonic stage, what is the term for the outer layer that will form skin, hair, teeth, sense organs, the brain, and the spinal cord?

- a) ectoderm
- b) placenta

- c) endoderm
- d) mesoderm

Answer: a Page: 70 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-95. In the embryonic stage, what is the term for the inner layer that produces the digestive system, liver, pancreas, and respiratory system?

- a) ectoderm
- b) placenta
- c) endoderm
- d) mesoderm

Answer: c Page: 70 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-96. In the embryonic stage, what is the term for the layer that forms the muscles, bones, blood, and circulatory system?

- a) mesoderm
- b) ectoderm
- c) endoderm
- d) placenta

Answer: a Page: 70 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-97. In the embryonic stage, every part of the body is formed from ____ layers.

- a) 5
- b) 3
- c) 8
- d) 10

Answer: b Page: 70 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-98. An 8-week-old embryo is only ____ inch(es) long with what appears to be gills and a tail-like structure, as well as rudimentary eyes, nose, lips, teeth, and stubby bulges that will form into arms and legs.

- a) 5
- b) 2
- c) 10
- d) 1

Answer: d Page: 70 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-99. In the embryonic stage, the brain begins to undergo rapid development, which causes the head to represent about ____ of the total length of the embryo.

- a) 25%
- b) 10%
- c) 50%
- d) 75%

Answer: c Page: 70 Level: Difficult LO: 2-5 Type: Factual APA Outcome: 1.2

2-100. In the embryonic stage, the nervous system begins to function around the ____ week, and weak brain waves begin to be produced.

- a) 2nd
- b) 5th
- c) 4th
- d) 8th

Answer: b Page: 70 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-101. It is not until the final period of prenatal development, the _____ stage, that the developing child becomes easily recognizable.

- a) embryonic
- b) germinal
- c) fetal
- d) birth

Answer: c Page: 70 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-102. The _____ stage formally starts when the differentiation of the major organs has occurred.

- a) fetal
- b) embryonic
- c) germinal
- d) birth

Answer: a Page: 70 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-103. What is the stage that begins at about 8 weeks after conception and continues until birth?

- a) fertilization stage

- b) zygotic stage
- c) embryonic stage
- d) fetal stage

Answer: d Page: 70 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-104. What is the term for a developing child from 8 weeks after conception until birth?

- a) embryo
- b) baby
- c) fetus
- d) zygote

Answer: c Page: 70 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-105. In which stage of development does the child undergo astoundingly rapid change, and increase some 20 times in size, including dramatic changes in proportion and weight?

- a) embryonic
- b) fetal
- c) germinal
- d) birth

Answer: b Page: 70-71 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-106. One of the highlights of the _____ stage is the development of the major organs and basic anatomy.

- a) placenta
- b) germinal
- c) embryonic
- d) fetal

Answer: c Page: 71 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-107. By ____ months of age, the fetus swallows and urinates, arms and hands develop, and fingers develop nails.

- a) 5
- b) 6
- c) 7
- d) 3

Answer: d Page: 71 Level: Difficult LO: 2-5 Type: Factual APA Outcome: 1.2

2-108. The hormone _____ is produced in _____, which some scientists speculate may lead to differences in male and female brain structure, and later variations in gender-related behavior(s).

- a) serotonin; males
- b) serotonin; females
- c) androgen; males
- d) androgen; females

Answer: c Page: 71 Level: Difficult LO: 2-5 Type: Factual APA Outcome: 3.1

2-109. Infertility is the inability to conceive after _____ months of trying to become pregnant.

- a) 15 to 20
- b) 12 to 20
- c) 6 to 12
- d) 12 to 18

Answer: d Page: 72 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-110. Research indicates that some _____% of couples suffer from infertility.

- a) 25
- b) 10
- c) 75
- d) 15

Answer: d Page: 72 Level: Difficult LO: 2-5 Type: Factual APA Outcome: 1.2

2-111. What is the term for the procedure of fertilization in which a man's sperm is placed directly into a woman's vagina by a physician?

- a) in vitro fertilization
- b) intrafallopian transfer
- c) artificial insemination
- d) germinal insemination

Answer: c Page: 72 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-112. What is the term for the procedure in which a woman's ova are removed from her ovaries, and a man's sperm are used to fertilize the ova in a laboratory?

- a) in vitro fertilization
- b) intrafallopian transfer
- c) artificial insemination

- d) germinal insemination

Answer: a Page: 72 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-113. Bebe has been married for five years and wants to have a child. Her husband has a medical condition which prohibits him from producing enough sperm cells. She will attempt a procedure in which a fertilized egg will be implanted in her fallopian tubes. The procedure is referred to as

- a) artificial insemination.
- b) embryonic implant.
- c) fertilization.
- d) zygote intrafallopian transfer.

Answer: d Page: 72 Level: Medium LO: 2-5 Type: Applied APA Outcome: 3.1

2-114. In younger women, the success rate for in vitro fertilization is as high as

- a) 48%.
- b) 67%.
- c) 33%.
- d) 21%.

Answer: a Page: 73 Level: Difficult LO: 2-5 Type: Factual APA Outcome: 1.2

2-115. A spontaneous abortion is also known as

- a) infertility.
- b) insemination.
- c) fertility.
- d) miscarriage.

Answer: d Page: 74 Level: Easy LO: 2-5 Type: Factual APA Outcome: 1.2

2-116. When a pregnancy ends before the developing child is able to survive outside of the mother's womb, this is called

- a) artificial insemination.
- b) spontaneous abortion.
- c) in vitro fertilization.
- d) surrogate birth.

Answer: b Page: 74 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-117. Researchers believe that some _____ of all pregnancies end in miscarriage, usually in the first several months of pregnancy.

- a) 10 to 25%
- b) 25 to 50%
- c) 50 to 65%
- d) 15 to 20%

Answer: d Page: 74 Level: Medium LO: 2-5 Type: Factual APA Outcome: 1.2

2-118. What is the term for a mother voluntarily terminating a pregnancy?

- a) spontaneous abortion
- b) artificial insemination
- c) miscarriage
- d) abortion

Answer: d Page: 74 Level: Easy LO: 2-5 Type: Factual APA Outcome: 1.2

2-119. What is the term for an environmental factor that produces birth defects?

- a) virus
- b) drug
- c) teratogen
- d) chemical

Answer: c Page: 74 Level: Easy LO: 2-6 Type: Factual APA Outcome: 1.2

2-120. It is the job of the _____ to keep teratogens from reaching the fetus.

- a) umbilical cord
- b) placenta
- c) amniotic fluid
- d) prenatal development

Answer: b Page: 74 Level: Medium LO: 2-6 Type: Factual APA Outcome: 1.2

2-121. Women who give birth over the age of ____ are at a greater risk for a variety of pregnancy and birth complications.

- a) 50
- b) 40
- c) 30
- d) 25

Answer: c Page: 76 Level: Medium LO: 2-6 Type: Factual APA Outcome: 1.2

2-122. Older mothers are considerably more likely to give birth to children with

- a) Tay-Sachs.
- b) Down syndrome.
- c) Huntington's.
- d) Charcot-Marie-Tooth.

Answer: b Page: 76 Level: Medium LO: 2-6 Type: Factual APA Outcome: 1.2

2-123. About _____ babies born to mothers over 40 have _____.

- a) 5 out of 10; Fragile X syndrome.
- b) 1 out of 4; Turner syndrome.
- c) 6 out of 100; Tay-Sachs.
- d) 1 out of 100; Down syndrome.

Answer: d Page: 76 Level: Difficult LO: 2-6 Type: Factual APA Outcome: 1.2

2-124. About _____ babies born to mothers over 50 have _____.

- a) 1 out of 4; Down syndrome
- b) 1 out of 10; Down syndrome
- c) 1 out of 4; Tay-Sachs
- d) 1 out of 10; Tay-Sachs

Answer: a Page: 76 Level: Difficult LO: 2-6 Type: Factual APA Outcome: 1.2

2-125. Women who become pregnant during _____ are more likely to have premature deliveries.

- a) menopause
- b) mid-life
- c) adolescence
- d) illness

Answer: c Page: 76 Level: Medium LO: 2-6 Type: Factual APA Outcome: 1.2

2-126. The onset of _____ (German measles) in the mother prior to the 11th week of pregnancy is likely to cause serious consequences including blindness, deafness, heart defects, or brain damage in the baby.

- a) pox
- b) mumps
- c) gonorrhea
- d) rubella

Answer: d Page 76 Level: Medium LO: 2-6 Type: Factual APA Outcome: 1.4

2-127. What disease, when contracted by a pregnant woman, increases the possibility that the fetus may develop a birth defect?

- a) AIDS
- b) chicken pox
- c) psoriasis
- d) mumps

Answer: b Page: 76 Level: Difficult LO: 2-6 Type: Factual APA Outcome: 1.2

2-128. What illness, when contracted by a pregnant woman, increases the risk of miscarriage?

- a) chicken pox
- b) mumps
- c) syphilis
- d) AIDS

Answer: b Page: 76 Level: Medium LO: 2-6 Type: Factual APA Outcome: 1.2

2-129. What sexually transmitted disease can be transmitted directly to the fetus, and will cause the fetus to be born suffering from the disease?

- a) chicken pox
- b) rubella
- c) sickle-cell
- d) syphilis

Answer: d Page: 77 Level: Medium LO: 2-6 Type: Factual APA Outcome: 1.2

2-130. What sexually transmitted disease can be communicated to the child as it passes through the birth canal to be born?

- a) gonorrhea
- b) syphilis
- c) AIDS
- d) mumps

Answer: a Page: 77 Level: Medium LO: 2-6 Type: Factual APA Outcome: 1.2

2-131. What disease may be passed on to the fetus from mothers who are merely carriers of the virus through the blood that reaches the placenta?

- a) mumps
- b) syphilis
- c) AIDS
- d) gonorrhea

Answer: c Page: 77 Level: Medium LO: 2-6 Type: Factual APA Outcome: 1.2

2-132. If mothers who carry the AIDS virus are treated with antiviral drugs such as AZT during pregnancy, less than _____ of infants are born with AIDS.

- a) 25%
- b) 10%
- c) 5%
- d) 50%

Answer: c Page: 77 Level: Difficult LO: 2-6 Type: Factual APA Outcome: 1.2

2-133. What was frequently prescribed by physicians to pregnant women in the 1970s to prevent miscarriages, but was later found to cause the daughters of the women who took the medication to develop a rare form of vaginal or cervical cancer and to have more difficult pregnancies?

- a) thalidomide
- b) AZT
- c) DES (diethylstilbestrol)
- d) birth control

Answer: c Page: 77 Level: Difficult LO: 2-6 Type: Factual APA Outcome: 3.1

2-134. Diane has had difficult pregnancies and also developed a rare form of cervical cancer. Diane's mother may have been prescribed _____ before Diane was born to prevent miscarriage.

- a) thalidomide
- b) AZT
- c) amphetamines
- d) DES (diethylstilbestrol)

Answer: d Page: 77 Level: Difficult LO: 2-6 Type: Applied APA Outcome: 3.1

2-135. What prescriptions, when taken by women before they were aware they were pregnant, could also cause fetal damage?

- a) birth control
- b) AZT
- c) DES (diethylstilbestrol)

- d) thalidomide

Answer: a Page: 77 Level: Difficult LO: 2-6 Type: Factual APA Outcome: 1.2

2-136. What illegal drug, when used during pregnancy, can restrict the oxygen that reaches the fetus and lead to infants who are irritable, nervous, and easily disturbed?

- a) cocaine
- c) “crack”
- d) amphetamines

Answer: b Page: 77 Level: Difficult LO: 2-6 Type: Factual APA Outcome: 1.2

2-137. What illegal substance, when used by pregnant women, led to an epidemic of thousands of “crack babies”?

- a) marijuana
- b) amphetamines
- c) cocaine
- d) AZT

Answer: c Page: 77 Level: Easy LO: 2-6 Type: Factual APA Outcome: 1.2

2-138. What illegal substance, when used by pregnant women, produces an intense restriction of the arteries causing a significant reduction in the flow of blood and oxygen to the fetus, and increases the risks of fetal death and a number of birth defects and disabilities?

- a) cocaine
- b) marijuana
- c) AZT
- d) amphetamines

Answer: a Page: 77 Level: Medium LO: 2-6 Type: Factual APA Outcome: 1.2

2-139. Children of mothers who are addicted to _____ may be born addicted to the drug and may suffer through the pain of withdrawal.

- a) AZT
- b) amphetamines
- c) marijuana
- d) cocaine

Answer: d Page: 77 Level: Medium LO: 2-6 Type: Factual APA Outcome: 1.2

2-140. What is the disorder caused by the pregnant mother consuming substantial quantities of alcohol during pregnancy, potentially resulting in mental retardation and delayed growth in the child?

- a) “crack” babies
- b) autoimmune deficiency
- c) fetal alcohol syndrome (FAS)
- d) AIDS (acquired immune deficiency syndrome)

Answer: c Page: 78 Level: Easy LO: 2-6 Type: Factual APA Outcome: 1.2

2-141. Marta is pregnant and consumes substantial quantities of alcohol. She runs the risk of having a baby born with

- a) fetal alcohol syndrome (FAS).
- b) autoimmune deficiency.
- c) Down syndrome.
- d) AIDS (acquired immune deficiency syndrome).

Answer: a Page: 78 Level: Easy LO: 2-6 Type: Applied APA Outcome: 3.1

2-142. Research indicates that approximately _____ infants is born with fetal alcohol syndrome (FAS).

- a) 1 out of 750
- b) 1 out of 500
- c) 1 out of 1000
- d) 1 out of 250

Answer: a Page: 78 Level: Difficult LO: 2-6 Type: Factual APA Outcome: 1.2

2-143. Mothers who use smaller amounts of alcohol during pregnancy place their children at risk of

- a) fetal alcohol syndrome (FAS).
- b) autoimmune deficiency.
- c) fetal alcohol effects (FAE).
- d) AIDS.

Answer: c Page: 78 Level: Medium LO: 2-6 Type: Factual APA Outcome: 1.2

2-144. A child displays some, although not all, of the problems of fetal alcohol syndrome due to the mother’s consumption of alcohol during pregnancy. The child was born with

- a) AIDS.
- b) fetal alcohol effects (FAE).

- c) fetal alcohol syndrome (FAS).
- d) autoimmune deficiency.

Answer: b Page: 78 Level: Medium LO: 2-6 Type: Applied APA Outcome: 3.1

2-145. Studies have found that maternal consumption of an average of ____ alcoholic drink(s) a day during pregnancy is associated with adverse effects on intelligence, psychological functioning, and behavior in their children.

- a) 1
- b) 5
- c) 2
- d) 10

Answer: c Page: 78 Level: Medium LO: 2-6 Type: Factual APA Outcome: 1.2

2-146. _____ reduces the oxygen content and increases the carbon monoxide of the mother's blood. This quickly reduces the oxygen available for the fetus. Further, the respiration rate slows and speeds up its heart. Nicotine and toxins appear in the blood.

- a) Fetal alcohol syndrome
- b) Smoking cigarettes
- c) AIDS
- d) Using cocaine

Answer: b Page: 78 Level: Medium LO: 2-6 Type: Factual APA Outcome: 3.1

2-147. Pregnant women who _____ are _____ times more likely to have babies that are shorter with an abnormally low birth weight.

- a) drink; 5
- b) smoke; 5
- c) smoke; 2
- d) drink; 2

Answer: c Page: 78 Level: Difficult LO: 2-6 Type: Factual APA Outcome: 1.2

ESSAY QUESTIONS

2-148. Briefly explain the contribution of the woman's ovum and the man's sperm in determining the sex of the offspring.

Answer: When the ovum and sperm meet at fertilization, the ovum provides that X chromosome, while the sperm provides either the X or the Y chromosome. If the sperm contributes its X

chromosome, the child will have an XX pairing and the offspring will be a girl. If the sperm contributes its Y chromosome, the child will have an XY pairing and the offspring will be a boy.

Page: 48 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 3.1

2-149. Briefly explain the inherited disorder called phenylketonuria (PKU).

Answer: PKU is an inherited disorder in which a child is unable to make use of phenylalanine, an essential amino acid present in proteins found in milk and other foods. If left untreated, PKU allows phenylalanine to build to toxic levels causing brain damage and mental retardation.

Pages: 49 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 3.1

2-150. Explain what is meant when researchers say that the role of genetics is to produce a tendency toward a future course of development.

Answer: When or whether a behavioral characteristic will actually be displayed depends on the nature of the environment in which the person is raised or lives.

Pages: 67 Level: Medium LO: 2-3 & 2-4 Type: Factual APA Outcome: 3.1

2-151. Briefly explain how reproductive technologies are becoming increasingly sophisticated, permitting parents to choose the sex of the baby.

Answer: One technique is to separate sperm carrying the X and Y chromosome and later implanting the desired type into the woman's uterus. In another technique, eggs are removed from a woman and fertilized with sperm using in vitro fertilization. Three days after fertilization, the embryos are tested to determine their sex. If they are the desired gender, they are implanted into the mother.

Page: 73 Level: Difficult LO: 2-5 Type: Factual APA Outcome: 3.1

2-152. Briefly explain how the father's behavior may influence prenatal development.

Answer: Fathers should avoid smoking because second-hand smoke may affect the mother's health, and in turn, this affects the unborn child. Fathers' smoking has been linked to lower birth weight in babies. A father's use of alcohol and drugs may impair sperm and may lead to chromosomal damage that may affect the fetus at conception. Use of alcohol and drugs, as well as physical and/or emotional abuse, may increase stress in the mother's, and therefore the unborn child's, environment. The father's exposure to environmental toxins such as lead or mercury may cause toxins to bind to sperm and cause birth defects.

Pages: 79 Level: Difficult LO: 2-6 Type: Applied APA Outcome: 3.1

TRUE/FALSE

2-153. It is clear that the father's sperm does not determine the sex of the child.

Answer: False Page: 48 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-154. In the mid-1800s, the Austrian monk Gregor Mendel produced a series of simple experiments of cross-pollination of pea plants.

Answer: True Page: 48-49 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-155. Mendel's pea plant experiments established the existence of dominant and recessive traits.

Answer: True Page: 49 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-156. Even though a child's parents both have the recessive gene for phenylketonuria, the child only has a 25% chance of inheriting the disorder.

Answer: True Pages: 50 Level: Difficult LO: 2-1 & 2-2 Type: Applied APA Outcome: 1.2

2-157. Relatively few traits are governed by a single pair of genes. Most traits are the result of polygenic inheritance.

Answer: True Page: 50 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-158. Genes vary in terms of their reaction range, which is the potential degree of variation in the actual expression of a trait due to environmental conditions. APA Outcome: 1.2

Answer: True Page: 50 Level: Medium LO: 2-1 & 2-2 Type: Factual

2-159. The blood disorder hemophilia is an example of a disease that is produced by X-linked genes.

Answer: True Page: 50 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-160. The field of behavioral genetics specializes in the consequences of heredity on behavior.

Answer: True Page: 51 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 4.1

2-161. The human gene sequence number is thought to be 25,000; thus, humans have many more genes than other far less complex organisms.

Answer: False Page: 51 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 3.1

2-162. Scientists have discovered that 99.9% of the gene sequence is shared by all humans.

Answer: True Page: 51 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-163. The field of behavioral genetics studies psychological disorders such as depression, attention deficit hyperactivity disorder, and schizophrenia.

Answer: True Page: 51 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-164. Sometimes genes, for no known reason, spontaneously change their form, which is a process called spontaneous mutation.

Answer: True Page: 52 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 1.2

2-165. If a disorder has genetic roots, it means that there were no environmental factors that played a role in the manifestation of the disease.

Answer: False Page: 53 Level: Medium LO: 2-1 & 2-2 Type: Conceptual APA Outcome: 3.1

2-166. Genetic counselors are trained to use a variety of data to help people deal with issues related to inherited disorders due to such reasons as the age of the mother and father.

Answer: True Page: 54 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 4.2

2-167. The newest role of genetic counselors involves testing people to identify whether they are susceptible to future disorders because of inherited genetic abnormalities.

Answer: True Page: 55 Level: Easy LO: 2-1 & 2-2 Type: Factual APA Outcome: 4.2

2-168. Genetic testing does not raise difficult practical and ethical questions.

Answer: False Page: 55 Level: Easy LO: 2-1 & 2-2 Type: Conceptual APA Outcome: 3.1

2-169. Genetic testing can always provide a simple yes or no answer as to whether an individual will be susceptible to a disorder.

Answer: False Page: 57 Level: Medium LO: 2-1 & 2-2 Type: Factual APA Outcome: 4.2

2-170. As developmental research accumulates, it is becoming apparent that to view behavior as due to either genetic or environmental factors is inappropriate.

Answer: True Page: 58 Level: Easy LO: 2-3 & 2-4 Type: Conceptual APA Outcome: 3.1

2-171. Research on pregnant women who were severely malnourished during famines during World War II found that their children were, on average, unaffected physically or intellectually as adults.

Answer: True Page: 59 Level: Easy LO: 2-3 & 2-4 Type: Factual APA Outcome: 2.3

2-172. If people eat a diet rich in health foods, it is possible for them to grow beyond their genetically imposed limitations in height.

Answer: False Page: 59 Level: Easy LO: 2-3 & 2-4 Type: Factual APA Outcome: 3.1

2-173. It is the unique interaction of inherited and environmental factors that determines people's patterns of development.

Answer: True Page: 59 Level: Easy LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-174. One drawback to using nonhumans as research subjects is that we cannot be sure how well the obtained findings can be generalized to people.

Answer: True Page: 60 Level: Easy LO: 2-3 & 2-4 Type: Conceptual APA Outcome: 3.1

2-175. The data from studies of identical twins raised in different environments are always without bias.

Answer: False Page: 61 Level: Medium LO: 2-3 & 2-4 Type: Factual APA Outcome: 3.1

2-176. By comparing behavior within pairs of dizygotic twins (fraternal twins) with that of pairs of monozygotic twins (identical twins), researchers can determine if monozygotic twins are more similar on a particular trait, on average, than dizygotic twins.

Answer: True Pages: 61 Level: Medium LO: 2-3 & 2-4 Type: Conceptual APA Outcome: 3.1

2-177. The general conclusion among researchers is that virtually all traits, characteristics, and behaviors are the joint result of the combination and interaction of nature and nurture.

Answer: True Page: 62 Level: Easy LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-178. Obesity does not have a strong genetic component.

Answer: False Page: 62 Level: Easy LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-179. Physical characteristics such as blood pressure, respiration rates, and longevity are not strongly influenced by genetics.

Answer: False Page: 62 Level: Medium LO: 2-3 & 2-4 Type: Applied APA Outcome: 1.2

2-180. A person's intelligence is the result of some combination of natural mental ability and environmental opportunity.

Answer: True Pages: 62-64 Level: Easy LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-181. Intelligence is a central human characteristic that differentiates humans from other species, and genetics plays a significant role in intelligence.

Answer: True Pages: 62-64 Level: Easy LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-182. The IQ scores of dizygotic twins become increasingly similar over the course of time.

Answer: False Pages: 63 Level: Medium LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-183. Developmental psychologist Sandra Scarr suggests that society should be asking what can be done to maximize the intellectual potential of every individual.

Answer: True Page: 64 Level: Easy LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-184. Humans possess a novelty-seeking gene that affects the production of the brain chemical dopamine, which makes some people more prone to seek out novel situations and to take risks.

Answer: True Page: 64 Level: Easy LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-185. Researchers believe that political attitudes, religious interests, values, and attitudes toward human sexuality do not have genetic components.

Answer: False Page: 64 Level: Medium LO: 2-3 & 2-4 Type: Applied APA Outcome: 2.3

2-186. Schizophrenia is a mental disorder that runs in families, with some families showing a significantly higher incidence than other families.

Answer: True Page: 65 Level: Easy LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-187. Inherited genetic factors, environmental influences, structural abnormalities, and chemical imbalances are all factors that contribute to a person developing schizophrenia.

Answer: True Pages: 65-67 Level: Medium LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-188. The researcher Jerome Kagan suggests that Chinese children enter the world temperamentally calmer, and therefore Buddhist philosophical notions of serenity are more in tune with their natural inclinations.

Answer: True Page: 66 Level: Easy LO: 2-3 & 2-4 Type: Conceptual APA Outcome: 3.1

2-189. A genetically-driven temperament of a child may also evoke environmental influences. For example, a child who learns songs easily and sings frequently around the house may prompt a parent to give the child music lessons.

Answer: True Page: 67 Level: Easy LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.3

2-190. Human characteristics and behavior are a joint outcome of genetic and environmental factors.

Answer: True Page: 68 Level: Easy LO: 2-3 & 2-4 Type: Factual APA Outcome: 1.2

2-191. The brain becomes sophisticated during the fetal state, and the neurons become coated with an insulating material called myelin that helps speed the transmission of messages from the brain to the rest of the body.

Answer: True Pages: 71 Level: Easy LO: 2-5 Type: Factual APA Outcome: 1.2

2-192. A mother's use of illegal drugs, but not legal drugs, poses serious risks to the unborn child.

Answer: False Page: 77 Level: Easy LO: 2-6 Type: Factual APA Outcome: 3.1

2-193. Increasing evidence suggests that ingestion of even small amounts of alcohol and nicotine by a pregnant mother can disrupt the development of the fetus.

Answer: True Pages: 78 Level: Easy LO: 2-6 Type: Factual APA Outcome: 1.2

2-194. Research indicates that fetal alcohol syndrome (FAS) is now the primary preventable cause of mental retardation.

Answer: True Page: 78 Level: Easy LO: 2-6 Type: Factual APA Outcome: 2.3

2-195. A father's use of alcohol and illegal drugs has no significant effect upon the development of the fetus.

Answer: False Pages: 79 Level: Easy LO: 2-6 Type: Factual APA Outcome: 1.2