

**TEST BANK**

FIFTH EDITION

**DEVELOPMENT  
ACROSS THE  
LIFE SPAN**



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## Chapter 2

### The Start of Life: Genetics and Prenatal Development

2-1. 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: 48 Level: Medium Type: Factual

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

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

Answer: c Page: 48 Level: Medium Type: Factual

\*2-3. Name the substance that genes are composed of that determines the nature of every cell in the body and how it will function.

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

Answer: d Page: 48 Level: Easy Type: Factual

\*2-4. 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: 48 Level: Easy Type: Factual

2-5. The male reproductive cell is called a(n)

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

Answer: a Page: 48 Level: Easy Type: Factual

2-6. The female reproductive cell is called the

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

Answer: d Page: 48 Level: Easy Type: Factual

2-7. Male and female reproductive cells are also known as

- a) gametes.
- b) zygotes.
- c) genes.
- d) chromosomes.

Answer: a Page: 48 Level: Medium Type: Factual

2-8. 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: 48 Level: Medium Type: Factual

2-9. The blueprints for creating a person are stored and communicated in our

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

Answer: b Page: 48 Level: Easy Type: Factual

2-10. All genes are composed of specific sequences of \_\_\_\_\_ molecules.

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

Answer: a Page: 48 Level: Medium Type: Factual

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: 48 Level: Difficult Type: Factual

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

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

Answer: b Page: 48 Level: Difficult Type: Factual

2-13. The \_\_\_\_ chromosomes (in 23 pairs) in the new zygote contain the genetic blueprint that will guide cell activity for the rest of the individual's life.

- a) 52
- b) 46
- c) 54
- d) 32

Answer: b Page: 48 Level: Difficult Type: Factual

2-14. 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 Page: 49 Level: Medium Type: Factual

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: 49 Level: Difficult Type: Factual

2-16. When gametes (the sex cells called the sperm and ova) are formed in the human body, this is called

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

Answer: b Page: 49 Level: Difficult Type: Factual

2-17. The ultimate outcome of meiosis is tens of \_\_\_\_\_ of genetic combinations.

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

Answer: d Page: 49 Level: Difficult Type: Factual

2-18. Twins who are genetically identical are called \_\_\_\_\_ twins.

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

Answer: b Page: 49 Level: Medium Type: Factual

2-19. 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: 49 Level: Medium Type: Factual

2-20. \_\_\_\_\_ twins are genetically identical.

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

Answer: c Page: 49 Level: Medium Type: Factual

2-21. 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: 49 Level: Medium Type: Factual

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: 49 Level: Medium Type: Factual

\*2-23. Which of the following are more likely to have multiple births?

- a) older women
- b) women who take fertility drugs
- c) families where multiple births runs in the family
- d) all of the above

Answer: d Page: 49 Level: Medium Type: Conceptual

2-24. 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 Pages: 49-50 Level: Medium Type: Factual

2-25. The 23<sup>rd</sup> pair of chromosomes in males contains the \_\_\_\_ - shaped chromosome.

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

Answer: b Page: 50 Level: Difficult Type: Factual

2-26. If the child has a XX pairing on the 23<sup>rd</sup> chromosome, it will be

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

Answer: d Page: 50 Level: Medium Type: Factual

2-27. 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: 50 Level: Medium Type: Factual

2-28. 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: 51 Level: Medium Type: Factual

2-29. A trait within an organism that is present, but is not expressed is called

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

Answer: d Page: 51 Level: Medium Type: Factual



2-30. An observable trait that is the trait that is actually seen is called

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

Answer: d Page: 51 Level: Medium Type: Factual

2-31. 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: 51 Level: Difficult Type: Factual

2-32. 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: 51 Level: Difficult Type: Factual

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: 51 Level: Difficult Type: Factual

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 has the potential to cause brain damage and mental retardation?

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

Answer: b Page: 51 Level: Medium Type: Factual

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: 52 Level: Difficult Type: Factual

\*2-36. What type of genes are considered recessive and located only on the X chromosome?

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

Answer: b Page: 52 Level: Medium Type: Conceptual

2-37. 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: 53 Level: Medium Type: Factual

2-38. 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: 53 Level: Medium Type: Factual

2-39. Humans have about \_\_\_\_\_ genes.

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

Answer: b Page: 54 Level: Difficult Type: Factual

\*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: 55 Level: Medium Type: Factual

\*2-41. What is the disorder, once referred to as mongolism, that is produced by the presence of an extra chromosome on the 21<sup>st</sup> pair?

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

Answer: d Page: 55 Level: Medium Type: Factual

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

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

Answer: c Page: 55 Level: Medium Type: Factual

2-43. What is the blood disorder that gets its name from the shape of the red blood cells in those who have it?

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

Answer: a Page: 55 Level: Medium Type: Factual

2-44. What is the disorder that is untreatable and produces blindness and muscle degeneration prior to death?

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

Answer: b Page: 55 Level: Medium Type: Factual

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

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

Answer: a Page: 55 Level: Medium Type: Factual

2-46. What is the disorder that is produced by a missing second sex (X or Y) chromosome?

- a) Klinefelter's syndrome
- b) Tay-Sachs disease
- c) Turner syndrome
- d) Fragile X syndrome

Answer: c Page: 55 Level: Difficult Type: Factual

2-47. The gene for sickle-cell anemia is carried in how many African-Americans?

- a) 1 out of 50
- b) 1 out of 100
- c) 1 out of 20
- d) 1 out of 10

Answer: d Page: 55 Level: Difficult Type: Factual

2-48. 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 Page: 55 Level: Easy Type: Factual

2-49. Overall, 95% of children born in the United States are healthy and normal. However, approximately \_\_\_\_\_ are born each year with some sort of physical or mental disorder.

- a) 500,000
- b) 250,000
- c) 100,000
- d) 1,000,000

Answer: b Page: 56 Level: Difficult Type: Factual

\*2-50. 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: 56 Level: Medium Type: Conceptual

2-51. 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: 56 Level: Medium Type: Factual

2-52. What is used to find genetic defects that involves taking samples of hair-like material that surrounds the embryo?

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

Answer: d Page: 56 Level: Medium Type: Factual

2-53. 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: 56 Level: Medium Type: Factual

2-54. Amniocentesis is carried out \_\_\_\_\_ weeks into the pregnancy.

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

Answer: c Page: 56 Level: Difficult Type: Factual

2-55. What is the name of the earliest test that occurs in the 11<sup>th</sup> to 13<sup>th</sup> 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: 56 Level: Medium Type: Conceptual

2-56. What is the more invasive test that can be employed in the 10<sup>th</sup> to 13<sup>th</sup> week of the first trimester 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: 56 Level: Difficult Type: Conceptual

2-57. What infrequently used test can be performed between the 8<sup>th</sup> and 11<sup>th</sup> 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: 56 Level: Difficult Type: Conceptual

2-58. 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: 56 Level: Difficult Type: Conceptual

\*2-59. 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: 56 Level: Medium Type: Conceptual

2-60. 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: 57 Level: Difficult Type: Conceptual

2-61. Which test performed as early as week 5, allows access to the fetal circulation, and direct visualization of the embryo permits the diagnosis of malformations?

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

Answer: b Page: 57 Level: Difficult Type: Conceptual



2-62. 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: 57 Level: Difficult Type: Conceptual

2-63. Which procedures are performed at 8 to 11 weeks, and involve inserting a needle (either transabdominally or transcervically) or catheter (cervically) into the substance of the placenta (but staying outside of the amniotic sac) and removing 10 to 15 milligrams of tissue, which is cleaned of maternal uterine tissue, and then grown in a culture and a karyotype is made?

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

Answer: b Page: 57 Level: Difficult Type: Conceptual

2-64. Which test is performed after 18 weeks of pregnancy by collecting a small amount of blood from the umbilical chord for testing?

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

Answer: c Page: 57 Level: Difficult Type: Conceptual

2-65. Which test is used to detect Down Syndrome by collecting blood from the umbilical cord after the 18<sup>th</sup> week of pregnancy?

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

Answer: a Page: 57 Level: Difficult Type: Conceptual

2-66. 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: 57 Level: Difficult Type: Conceptual

2-67. 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: 57 Level: Difficult Type: Conceptual

2-68. 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: 57 Level: Difficult Type: Conceptual

2-69. 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: 57 Level: Difficult Type: Conceptual

2-70. 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: 57 Level: Difficult Type: Conceptual

\*2-71. Huntington's disease typically does not appear until people reach what age?

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

Answer: d Page: 57 Level: Medium Type: Factual

\*2-72. Some studies show that \_\_\_ of people who find they have the flawed gene that leads to Huntington's disease never fully recover on an emotional level.

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

Answer: c Page: 57-58 Level: Medium Type: Factual

2-73. There are currently available DNA-based gene tests for more than \_\_\_\_\_ disorders.

- a) 500
- b) 100
- c) 1000
- d) 750

Answer: c Page: 57 Level: Medium Type: Factual

2-74. The DNA-based gene test that is used for late-onset variety of senile dementia detects what disease?

- a) Alzheimer's
- b) cystic fibrosis
- c) Tay-Sachs
- d) Charcot-Marie-Tooth

Answer: a Page: 58 Level: Medium Type: Factual

2-75. The DNA-based gene test that is used for progressive neurological degeneration that usually begins in midlife detects what disease?

- a) Tay-Sachs
- b) Huntington's
- c) Charcot-Marie-Tooth
- d) Alzheimer's

Answer: b Page: 58 Level: Medium Type: Factual

2-76. The DNA-based gene test that is used for a blood cell disorder with chronic pain and infections detects what disease?

- a) Charcot-Marie-Tooth
- b) Huntington's
- c) sickle-cell
- d) Tay-Sachs

Answer: c Page: 58 Level: Medium Type: Factual

2-77. The DNA-based gene test that is used for seizures, paralysis, and fatal neurological problems of early childhood detects what disease?

- a) Tay-Sachs
- b) Huntington's
- c) sickle-cell
- d) Charcot-Marie-Tooth

Answer: a Page: 58 Level: Medium Type: Factual

2-78. The DNA-based gene test that is used for mental retardation detects what disease?

- a) Tay-Sachs
- b) fragile X syndrome
- c) sickle-cell
- d) Charcot-Marie-Tooth

Answer: b Page: 58 Level: Medium Type: Factual

2-79. A DNA-based gene test used to detect a blood-clotting disorder called \_\_\_\_\_.

- a) sickle-cell
- b) hemophilia A and B
- c) phenylketonuria
- d) Factor V-Leiden

Answer: d Page: 58 Level: Difficult Type: Factual

2-80. The DNA-based gene test that is used for bleeding disorders detects what disease?

- a) sickle-cell
- b) hemophilia A and B
- c) phenylketonuria
- d) Factor V-Leiden

Answer: b Page: 58 Level: Medium Type: Factual

2-81. The DNA-based gene test that is used for progressive mental retardation due to a missing enzyme and that is correctible by diet detects for what disease?

- a) fragile X syndrome
- b) Down syndrome
- c) Tay-Sachs
- d) phenylketonuria

Answer: d Page: 58 Level: Medium Type: Factual

2-82. The DNA-based gene test that is used for thick mucus accumulations in the lungs and chronic infections in lungs and pancreas detects for what disease?

- a) Duchenne muscular dystrophy
- b) cystic fibrosis
- c) Tay-Sachs
- d) Huntington's

Answer: b Page: 58 Level: Medium Type: Factual

2-83. The DNA-based gene test that is used to test for anemias detects diseases called \_\_\_\_\_.

- a) sickle-cell
- b) hemophilia A and B
- c) Factor V-Leiden
- d) Thalassemias

Answer: d Page: 58 Level: Difficult Type: Factual

2-84. The DNA-based gene test for progressive motor function loss leading to paralysis and death detects what disease?

- a) amyotrophic lateral sclerosis (Lou Gehrig's)
- b) sickle-cell
- c) Huntington's
- d) Tay-Sachs

Answer: a Page: 58 Level: Difficult Type: Factual

2-85. What is the technique where a newly fertilized embryo can be screened for a variety of genetic diseases before it is implanted in the mother's uterus to develop?

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

Answer: c Page: 59 Level: Medium Type: Conceptual

2-86. 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: 59 Level: Difficult Type: Conceptual

\*2-87. Patterns of arousal and emotionality that represent consistent and enduring characteristics in an individual is called

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

Answer: c Page: 60 Level: Easy Type: Factual

2-88. What term determines 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: 61 Level: Medium Type: Conceptual

\*2-89. 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: 62 Level: Easy Type: Factual

2-90. The closer the genetic link between two individuals, the greater the correspondence between their

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

Answer: c Page: 64 Level: Medium Type: Factual

2-91. 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: 65 Level: Medium Type: Factual

2-92. What “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: 65 Level: Medium Type: Factual

2-93. What “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) gregarious
- c) social potency
- d) extroversion

Answer: d Page: 65 Level: Medium Type: Factual



2-94. 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: 66 Level: Medium Type: Conceptual

2-95. 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: 66 Level: Medium Type: Conceptual

2-96. 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: 65-66 Level: Medium Type: Factual

2-97. 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: 66-67 Level: Medium Type: Factual

2-98. Increasing research evidence suggests that \_\_\_\_\_ is/are brought about by genetic factors.

- a) temperament
- b) schizophrenia
- c) twins
- d) abnormalities

Answer: b Page: 68 Level: Medium Type: Factual

2-99. 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: 68 Level: Difficult Type: Factual

2-100. Along with schizophrenia, all of the psychological disorders below have been shown to be related, at least in part, to genetic factors except

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

Answer: d Page: 68 Level: Medium Type: Factual

2-101. Which developmental psychologist endorses 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: 69 Level: Difficult Type: Factual

2-102. 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: 70 Level: Medium Type: Factual

2-103. 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: 70 Level: Difficult Type: Factual

2-104. From puberty until menopause, a female will ovulate about every \_\_\_\_ days.

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

Answer: b Page: 70 Level: Easy Type: Factual

2-105. An adult male typically produces several \_\_\_\_\_ sperm a day.

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

Answer: c Page: 71 Level: Difficult Type: Factual

2-106. 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: 71 Level: Medium Type: Factual

2-107. During the germinal stage, the fertilized egg is now called a \_\_\_\_\_, and travels toward the uterus where it becomes implanted in the uterus's wall.

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

Answer: d Page: 71 Level: Medium Type: Factual

2-108. 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: 71 Level: Difficult Type: Factual

2-109. A conduit between the mother and fetus, this organ provides nourishment and oxygen via the umbilical chord.

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

Answer: c Page: 71-72 Level: Medium Type: Factual

2-110. 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: 72 Level: Medium Type: Conceptual

\*2-111. What is the stage that begins at about 8 weeks after conception and continues until birth?

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

Answer: d Page: 72 Level: Medium Type: Conceptual

2-112. 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: 72 Level: Medium Type: Factual

2-113. 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: 72 Level: Medium Type: Factual

2-114. In the embryonic stage, what is the term for the outer layer that will form skin, hair, teeth, sense organs, the brain, and spinal chord?

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

Answer: a Page: 72 Level: Medium Type: Factual

2-115. 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: 72 Level: Medium Type: Factual

2-116. In the embryonic stage, what is the term for the layer sandwiched in which the muscles, bones, blood, and circulatory system are formed?

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

Answer: a Page: 72 Level: Medium Type: Factual

2-117. In the embryonic stage, every part of the body is formed from \_\_\_\_ layers.

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

Answer: b Page: 72 Level: Medium Type: Factual

2-118. 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: 72 Level: Medium Type: Factual

2-119. 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: 72 Level: Difficult Type: Factual

2-120. In the embryonic stage, the nervous system begins to function around the \_\_\_ week, and weak brain waves begin to be produced.

- a) 2<sup>nd</sup>
- b) 5<sup>th</sup>
- c) 4<sup>th</sup>
- d) 8<sup>th</sup>

Answer: b Page: 72 Level: Medium Type: Factual

2-121. 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: 72 Level: Medium Type: Factual

2-122. The \_\_\_\_\_ stage formally starts when the differentiation of the major organs has occurred.

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

Answer: a Page: 72 Level: Medium Type: Factual

2-123. In which stage of development does the child undergo astoundingly rapid change, and increases some 20 times in size including dramatic changes in proportion and weight?

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

Answer: b Page: 72 Level: Medium Type: Factual

2-124. 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: 73 Level: Difficult Type: Factual

2-125. 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: 73 Level: Difficult Type: Factual



2-126. 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: 74 Level: Medium Type: Factual

2-127. 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: 74 Level: Medium Type: Conceptual

2-128. 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: 74 Level: Medium Type: Conceptual

2-129. Research indicates that some \_\_\_\_% of couples suffer from infertility.

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

Answer: d Page: 74 Level: Difficult Type: Factual

2-130. Infertility is \_\_\_\_\_ correlated with age.

- a) not
- b) negatively
- c) positively
- d) inversely

Answer: b Page: 74 Level: Medium Type: Factual

2-131. Which is one common cause of increased infertility among men and women noted by the author?

- a) hormone imbalance
- b) abuse of alcohol
- c) abuse of illicit drugs
- d) damaged fallopian tube

Answer: c Page: 74 Level: Medium Type: Factual

2-132. Gamete intrafallopian transfer (GIFT) and zygote intrafallopian transfer (ZIFT) are forms of what type of procedure?

- a) artificial insemination
- b) in vitro fertilization
- c) miscarriage
- d) infertility

Answer: b Page: 74 Level: Medium Type: Factual

2-133. In younger women, the success rate for in vitro fertilization is as high as

- a) 50%.
- b) 75%.
- c) 33%.
- d) 25%.

Answer: c Page: 75 Level: Difficult Type: Factual

2-134. A spontaneous abortion is also known as

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

Answer: d Page: 75 Level: Easy Type: Factual

2-135. 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: 75 Level: Medium Type: Factual

2-136. 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: 75 Level: Medium Type: Factual

2-137. What is the term when the mother voluntarily terminates a pregnancy?

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

Answer: d Page: 75 Level: Easy Type: Conceptual

\*2-138. Researchers believe that there is some evidence that a mother's anxiety during pregnancy may affect the \_\_\_\_\_ patterns of the fetus prior to birth.

- a) eating
- b) positioning
- c) sleeping
- d) activity

Answer: c Page: 76 Level: Medium Type: Factual

2-139. What is the term for an environmental factor that produces birth defects?

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

Answer: c Page: 76 Level: Easy Type: Factual

2-140. It is the job of the \_\_\_\_\_ \_\_\_\_\_ to keep teratogens from reaching the fetus.

- a) umbilical chord
- b) mother's placenta
- c) amniotic fluid
- d) prenatal development

Answer: b Page: 76 Level: Medium Type: Factual

\*2-141. 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: 77 Level: Medium Type: Factual

\*2-142. 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: 78 Level: Medium Type: Factual

2-143. About \_\_\_\_\_ babies born to mothers over 40 has

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

Answer: d Page: 78 Level: Difficult Type: Factual

2-144. About \_\_\_\_\_ babies born to mothers over 50 has

- 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: 78 Level: Difficult Type: Factual

2-145. Women who become pregnant during \_\_\_\_\_ are more likely to have premature deliveries.

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

Answer: c Page: 78 Level: Medium Type: Factual

2-146. The onset of \_\_\_\_\_ (German measles) in the mother prior to the 11<sup>th</sup> 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) gonorrhoea
- d) rubella

Answer: d Page 78 Level: Medium Type: Factual

2-147. What disease, when contracted by a pregnant woman, increases the possibility that the fetus may develop a birth defect?

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

Answer: b Page: 78 Level: Difficult Type: Factual

2-148. What sexually transmitted disease can be transmitted directly to the fetus, who will be born suffering from the disease?

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

Answer: d Page: 78 Level: Medium Type: Factual

\*2-149. 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: 78 Level: Medium Type: Factual

\*2-150. 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: 78 Level: Medium Type: Factual

2-151. What new 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: 78 Level: Medium Type: Factual

2-152. 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: 78 Level: Difficult Type: Factual

2-153. What drug was prescribed by physicians to pregnant mothers in the 1950's which resulted in children being born with stumps instead of arms and legs?

- a) AZT
- b) thalidomide
- c) DES (diethylstilbestrol)
- d) artificial hormones

Answer: b Page: 78 Level: Medium Type: Factual

2-154. What was frequently prescribed by physicians to pregnant women in the 1970's 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: 79 Level: Difficult Type: Factual

2-155. 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: 79 Level: Medium Type: Factual

2-156. 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
- b) marijuana
- c) "crack"
- d) amphetamines

Answer: b Page: 79 Level: Difficult Type: Factual

2-157. 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: 79 Level: Easy Type: Factual



2-158. 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: 79 Level: Medium Type: Factual

2-159. 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: 79 Level: Medium Type: Factual

2-160. 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: 79 Level: Easy Type: Conceptual

2-161. Research indicates that approximately \_\_\_\_\_ infants is/are 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: 79 Level: Difficult Type: Factual

2-162. 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: 80 Level: Medium Type: Factual

2-163. What is the condition in which children display some, although not all, of the problems of fetal alcohol syndrome due to the mother's consumption of alcohol during pregnancy?

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

Answer: b Page: 80 Level: Medium Type: Conceptual

2-164. Studies have found that maternal consumption of an average of \_\_\_\_ alcoholic drink(s) a day during pregnancy is associated with lower intelligence, psychological affects, and behavior in their children.

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

Answer: c Page: 80 Level: Medium Type: Factual

2-165. What reduces the oxygen content and increases the carbon monoxide of the mother's blood, which quickly reduces the oxygen available for the fetus, and places nicotine and other toxins in the blood which slows the respiration rate of the fetus and speeds up its heart?

- a) fetal alcohol syndrome
- b) smoking cigarettes
- c) AIDS
- d) using cocaine

Answer: b Page: 80 Level: Medium Type: Conceptual

2-166. What do some pregnant mothers do that leads to more than 100,000 miscarriages and the deaths of 5,600 babies in the United States along each year?

- a) drink alcohol
- b) contract AIDS
- c) contract a sexually transmitted disease
- d) smoke cigarettes

Answer: d Page: 80 Level: Medium Type: Conceptual

\*2-167. 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: 80 Level: Difficult Type: Factual

\*2-168. Research suggests that pregnant mothers who \_\_\_\_\_ are more likely to have mentally retarded children.

- a) drink alcohol
- b) smoke cigarettes
- c) use cocaine
- d) smoke marijuana

Answer: b Page: 80 Level: Difficult Type: Factual

2-169. Research suggests that pregnant mothers who \_\_\_\_\_ are more likely to have children who exhibit disruptive behavior during childhood.

- a) use cocaine
- b) smoke cigarettes
- c) drink alcohol
- d) smoke marijuana

Answer: b Page: 80 Level: Difficult Type: Factual

## ESSAY QUESTIONS

2-170. 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: 51 Level: Medium Type: Applied

2-171. 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.

Page: 51 Level: Medium Type: Applied

2-172. Give an example of the reaction range of genes in humans.

Answer: In humans, blood type is produced by genes in which neither member of a pair of genes can be classified as purely dominant or recessive. Instead, the trait is expressed in terms of a combination of the two genes such as type AB blood.

Page: 52 Level: Medium Type: Applied

2-173. Briefly explain how mutations can damage the fetus.

Answer: Inhalation of unhealthy, polluted air, (ex. smoking and exposure to other toxins), as well as, exposure to x-rays may lead to mutations in genetic material. These mutations may be passed on to damage the fetus, as well as, affect future generations.

Page: 55 Level: Medium Type: Applied

2-174. Briefly describe some of the ethical concerns raised by the scientific development of “designer babies”.

Answer: Questions have risen as to whether procedures such as preimplantation genetic diagnosis (PGD) should be used not only to correct undesirable genetic defects, but also to breed infants to “improve” future generations on a genetic level. Questions include the following: 1) Does genetic control pose dangers to the human gene pool?; and 2) Would unfair advantages be derived by the offspring of wealthy or privileged people who can afford to have access to these procedures while poor people would not have such access to these procedures?

Page: 59 Level: Difficult Type: Applied

2-175. 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.

Page: 69 Level: Medium Type: Applied

2-176. 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: 75 Level: Difficult Type: Applied

2-177. 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. Father’s smoking has been linked to lower birth weight in babies. A father’s use of alcohol and drug 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 fetus’, environment. Father’s exposure to environmental toxins such as lead or mercury may cause toxins to bind to sperm and cause birth defects.

Page: 80 Level: Medium Type: Applied

TRUE/FALSE

2-178. Developmental researchers and other scientists study about how heredity and the environment work in tandem to create and shape human beings and how that knowledge is used to improve people's lives.

Answer: True Page: 48 Level: Easy Type: Conceptual

2-179. The basics of heredity involve the genetic transmission of characteristics from biological parents to their children.

Answer: True Page: 48 Level: Easy Type: Conceptual

2-180. The field of behavioral genetics specializes in the consequences of heredity on behavior.

Answer: True Page: 48 Level: Easy Type: Applied

2-181. It is clear that the father's sperm does not determine the gender of the child.

Answer: False Page: 50 Level: Easy Type: Conceptual

2-182. In the mid 1800's the Austrian monk, Gregor Mendel produced a series of simple experiments of cross-pollination of pea plants.

Answer: True Page: 50 Level: Easy Type: Factual

2-183. Mendel's pea plant experiments established the existence of the dominant and recessive trait.

Answer: True Page: 51 Level: Medium Type: Factual

2-184. Even though a child's parents both have the recessive gene for PKU, the child only has a 25% chance of inheriting the disorder.

Answer: True Page: 52 Level: Difficult Type: Applied

2-185. Relatively few traits are governed by a single pair of genes. Most traits are the result of polygenic inheritance.

Answer: True Page: 52 Level: Medium Type: Conceptual

2-186. 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.

Answer: True Page: 52 Level: Medium Type: Conceptual

2-187. The blood disorder hemophilia is an example of a disease that is produced by X-linked genes.

Answer: True Page: 52 Level: Medium Type: Factual

2-188. 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: 53 Level: Medium Type: Conceptual

2-189. Scientists have discovered that 99.9% of the gene sequence is shared by all humans.

Answer: True Page: 53 Level: Easy Type: Factual

2-190. The field of behavioral genetics studies psychological disorders such as depression, attention deficit hyperactivity disorder, and schizophrenia.

Answer: True Page: 53 Level: Easy Type: Conceptual

2-191. The author states that sometimes genes, for no known reason, spontaneously change their form, which is a process called spontaneous mutation.

Answer: True Page: 54 Level: Easy Type: Factual

2-192. PKU occurs once in 10,000 to 20,000 births.

Answer: True Page: 55 Level: Medium Type: Factual

2-193. If a disorder has genetic roots, that means that there were no environmental factors that played a role in the manifestation of the disease.

Answer: False Page: 55 Level: Medium Type: Conceptual

2-194. 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: 56 Level: Easy Type: Applied

2-195. A karyotype is a chart containing enlarged photos of each of the chromosomes.

Answer: True Page: 56 Level: Medium Type: Factual

2-196. The accuracy of blood tests and ultrasound in identifying abnormalities is higher in early pregnancy than later on in the pregnancy.

Answer: False Page: 56 Level: Medium Type: Applied

2-197. 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: 57 Level: Easy Type: Applied

2-198. Genetic testing does not raise difficult practical and ethical questions.

Answer: False Page: 57 Level: Easy Type: Conceptual

2-199. 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: 58 Level: Medium Type: Applied

2-200. Scientists have already reached the stage where they can produce “designer babies”.

Answer: False Page: 59 Level: Easy Type: Applied

2-201. The field of behavioral genetics is a combination of psychology and genetics that studies the effects of genetics on behavior.

Answer: True Page: 59 Level: Easy Type: Factual

2-202. 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: 60 Level: Easy Type: Conceptual

2-203. 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: 61 Level: Easy Type: Applied

2-204. 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: 61 Level: Easy Type: Applied



2-205. It is the unique interaction of inherited and environmental factors that determines people's patterns of development.

Answer: True Page: 61 Level: Easy Type: Conceptual

2-206. A person's intelligence is the result of some combination of natural mental ability and environmental opportunity.

Answer: True Page: 62 Level: Easy Type: Factual

2-207. One drawback to using nonhumans as research subjects is that we can't be sure how well the obtained findings can be generalized to people.

Answer: True Page: 62 Level: Easy Type: Applied

2-208. Because identical, monozygotic twins are identical genetically, any variations in their background must be entirely due to environmental factors.

Answer: True Page: 63 Level: Easy Type: Applied

2-209. The data from studies of identical twins raised in different environments are always without bias.

Answer: False Page: 63 Level: Medium Type: Applied

2-210. Researchers can always be sure that differences in behaviors of identical, monozygotic twins are due to differences in their environments.

Answer: False Page: 63 Level: Medium Type: Applied

2-211. 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 Page: 63 Level: Medium Type: Applied

2-212. 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: 63 Level: Easy Type: Factual

2-213. Dizygotic twins are the most extreme example of the more genetically similar two people are, the more likely they are to share physical characteristics.

Answer: False Page: 64 Level: Medium Type: Applied

2-214. Obesity does not have a strong genetic component.

Answer: False Page: 64 Level: Easy Type: Applied

2-215. Physical characteristics such as blood pressure, respiration rates, and longevity are not strongly influenced by genetics.

Answer: False Page: 64 Level: Medium Type: Applied

2-216. Intelligence is a central human characteristic that differentiates humans from other species, and genetics plays a significant role in intelligence.

Answer: True Page: 64 Level: Easy Type: Factual

2-217. The IQ scores of dizygotic twins becomes increasingly similar over the course of time.

Answer: False Page: 64 Level: Medium Type: Applied

2-218. 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: 65 Level: Easy Type: Factual

2-219. 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: 65 Level: Easy Type: Factual

2-220. Researchers believe that political attitudes, religious interests, values, and attitudes toward human sexuality do not have genetic components.

Answer: False Page: 65 Level: Medium Type: Applied

2-221. The researcher, Jerome Kagan, suggests that Asian children enter the world temperamentally calmer, and therefore, Buddhist philosophical notions of serenity are more in tune with their natural inclinations.

Answer: True Page: 67 Level: Easy Type: Factual

2-222. Schizophrenia is a mental disorder that runs in families with some families showing an unusually higher incidence than other families.

Answer: True Page: 68 Level: Easy Type: Applied

2-223. Data illustrates that genetics alone influence the development of schizophrenia.

Answer: False Page: 68 Level: Medium Type: Conceptual

2-224. Inherited genetic factors, environmental influences, structural abnormalities, and chemical imbalances are all factors that contribute to a person developing schizophrenia.

Answer: True Page: 68 Level: Medium Type: Factual

2-225. 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: 69 Level: Easy Type: Applied

2-226. Human characteristics and behavior are a joint outcome of genetic and environmental factors.

Answer: True Page: 70 Level: Easy Type: Factual

2-227. Genetic influences have been identified in physical characteristics, intelligence, personality traits and behaviors, and psychological disorders.

Answer: True Page: 70 Level: Easy Type: Factual

2-228. 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 Page: 73 Level: Easy Type: Factual

2-229. Research shows that children conceived using emerging reproductive technologies such as in vitro fertilization do very well.

Answer: True Page: 76 Level: Easy Type: Applied

2-230. Research suggests that living in poverty increases the chances of exposure of fetus to teratogens because the mother may not be able to afford adequate diet and medical care, which makes them susceptible to illnesses that can damage the fetus.

Answer: True Page: 76 Level: Easy Type: Conceptual

2-231. A mother's use of illegal drugs, but not legal drugs, poses serious risks to the unborn child.

Answer: False Page: 78 Level: Easy Type: Applied

2-232. Increasing evidence suggests that even small amounts of alcohol and nicotine by a pregnant mother can disrupt the development of the fetus.

Answer: True Page: 79 Level: Easy Type: Applied

2-233. Research indicates that fetal alcohol syndrome (FAS) is now the primary preventable cause of mental retardation.

Answer: True Page: 79 Level: Easy Type: Factual

2-234. A father's use of alcohol and illegal drugs has no significant effect upon the development of the fetus.

Answer: False Page: 80 Level: Easy Type: Applied