

1. The Beng people of West Africa believe that life begins:
  - A) at conception, as an angel is believed to enter the fertilized egg.
  - B) during the third trimester, as this is the time at which independent thoughts are believed to begin.
  - C) at birth, as the newborn is introduced to the sun at this time.
  - D) when the umbilical stump drops off, as this is when the newborn is believed to emerge from the spirit village and become a person.
  
2. Which activity is consistent with the beliefs of the Beng people of West Africa about when life begins?
  - A) elaborately painting newborns' faces
  - B) protecting the umbilical stump from drying out and falling off
  - C) allowing newborns to cry for several minutes before tending to them
  - D) All of these activities are consistent with those beliefs.
  
3. Aristotle supported the idea of epigenesis, the notion that:
  - A) prenatal development begins with a new miniature individual already preformed.
  - B) new structures and functions emerge throughout prenatal development.
  - C) prenatal development begins in the center of the body of the new individual.
  - D) Eve was created out of Adam's rib.
  
4. Which concept is consistent with Aristotle's beliefs about prenatal development?
  - A) The effects of thalidomide on prenatal development vary depending on when during the pregnancy the mother took the drug.
  - B) Infants born prematurely already have all the correct structures but in miniature.
  - C) Female eggs contain minuscule preformed human beings.
  - D) None of these concepts is consistent with Aristotle's beliefs.
  
5. Sperm and eggs are referred to as:
  - A) gametes.
  - B) embryos.
  - C) zygotes.
  - D) genetic cells.
  
6. Germ cells contain \_\_\_\_\_ chromosome pairs.
  - A) 13
  - B) 23
  - C) 49
  - D) 92

7. Gametes form through the process of:
- A) mitosis.
  - B) conception.
  - C) meiosis.
  - D) germinalization.
8. Conception is:
- A) the union of egg and sperm.
  - B) sexual intercourse.
  - C) meiosis.
  - D) the embedding of the fertilized egg into the uterine wall.
9. Once sperm have entered the vagina, how many typically get close to the egg?
- A) one or two
  - B) approximately 200
  - C) hundreds of thousands
  - D) millions
10. Which statement about the “survival of the fittest” principle and conception is true?
- A) This principle applies only to the process of egg release from the fallopian tube, not to the other processes involved in conception.
  - B) The eggs that manage to reach the sperm are likely to be healthy, as eggs with serious defects tend to be unable to reach the sperm.
  - C) The sperm that manage to reach the egg are likely to be healthy, as sperm with serious defects tend to be unable to reach the egg.
  - D) This principle does not come into play until a child is born.
11. Which statement(s) about the number of males and females is true? Statement A: Sperm containing a Y chromosome swim faster than those containing an X chromosome. Statement B: Male fetuses are more vulnerable to miscarriage than are female fetuses. Statement C: Cultural values and governmental policy contribute to the differences in the number of male and female babies born and raised in some societies.
- A) Statements A and C only
  - B) Statement C only
  - C) Statements A and B only
  - D) Statements A, B, and C

12. If you were to take a sample of 100 newborns in Canada, approximately how many babies would be male?
- A) 49
  - B) 50
  - C) 51
  - D) 53
13. In Canada, what traditional practice may have influenced the ratio of male and female children in a society?
- A) The practice of abandoning female babies in Inuit culture.
  - B) The practice of abandoning male babies in Inuit culture.
  - C) The practice of “testing” the strength of male newborns by leaving them exposed in the outdoors for 24 hours after birth in Inuit culture.
  - D) The practice of sending excess male children out to sea when there were more males than food could be provided for in Inuit culture.
14. Which item would likely be MOST interesting to a scientist interested in embryos?
- A) an X-ray of the internal organs of a 2-year-old child
  - B) the ultrasound images of an unborn fetus at 4 weeks following conception
  - C) a blood test of a pregnant woman
  - D) a picture of all of the members of a family
15. A fertilized egg is termed a(n):
- A) embryo.
  - B) zygote.
  - C) fetus.
  - D) gamete.
16. Which sequence lists the periods of prenatal development in the correct developmental progression?
- A) germinal, zygotic, embryonic
  - B) zygotic, germinal, fetal
  - C) germinal, embryonic, fetal
  - D) embryonic, germinal, fetal
17. The germinal period begins with \_\_\_\_\_ and ends with \_\_\_\_\_.
- A) conception; implantation
  - B) conception; cell differentiation
  - C) implantation; birth
  - D) cell differentiation; birth

18. Which sequence lists the periods of prenatal development in the correct developmental progression from earliest to latest?
- A) embryo, fetus, zygote
  - B) zygote, fetus, embryo
  - C) fetus, zygote, embryo
  - D) zygote, embryo, fetus
19. Which developmental process occurs earliest?
- A) cell migration
  - B) apoptosis
  - C) cell division
  - D) cell differentiation
20. Cell division in the embryonic period is referred to as:
- A) meiosis.
  - B) apoptosis.
  - C) neurosis.
  - D) mitosis.
21. Which occurrence is an example of mitosis?
- A) splitting of the fertilized egg into two equal parts
  - B) death of cells in between the ridges on the hand plate
  - C) movement of new cells into the outer layer of the brain
  - D) specialization of eye cells
22. Cell migration occurs during which period?
- A) apoptosis
  - B) fetal
  - C) germinal
  - D) embryonic
23. Embryonic cells are also known as:
- A) stem cells.
  - B) divided cells.
  - C) fertilized eggs.
  - D) zygotic cells.

24. Stem cells:
- A) have varying genetic makeups.
  - B) contain half the genetic material of the individual.
  - C) are flexible in function.
  - D) have none of these qualities.
25. Cell differentiation refers to the \_\_\_\_\_ of cells.
- A) division
  - B) specialization
  - C) migration
  - D) death
26. Researchers working on regenerative medicine are interested in early embryonic stem cells because of their:
- A) flexibility.
  - B) genetic makeup.
  - C) size.
  - D) specialized function.
27. Which process is an example of cell differentiation?
- A) splitting of the fertilized egg into two equal parts
  - B) death of cells in between the ridges on the hand plate
  - C) movement of new cells into the outer layer of the brain
  - D) specialization of eye cells
28. Regarding the flexibility of a cell's function during the embryonic and fetal periods, cells are:
- A) initially flexible and then become inflexible.
  - B) initially inflexible and then become more flexible.
  - C) flexible throughout the embryonic and fetal periods.
  - D) inflexible throughout the embryonic and fetal periods.
29. The study in which cells located in the eye region of a frog embryo were moved to its belly demonstrated which property of cell functions?
- A) The location of a given cell before migration determines its function.
  - B) The location of a given cell after migration determines its function.
  - C) The genetic makeup of a given cell before migration determines its function.
  - D) The genetic makeup of a given cell after migration determines its function.

30. A mad scientist wishes to create a nonhuman animal with a tongue on its back. Presuming that the scientist believes in phylogenetic continuity, when would the scientist be MOST likely to perform the cell transplant?
- A) early in the fetal period
  - B) late in the germinal period
  - C) early in the embryonic period
  - D) early in the germinal period
31. The idea that humans share some developmental processes with other animals because of their shared evolutionary history is referred to as:
- A) FASD.
  - B) developmental resilience.
  - C) fetal programming.
  - D) phylogenetic continuity.
32. A belief in phylogenetic continuity is necessary for developmentalists to:
- A) understand that prenatal experiences can affect adult development.
  - B) predict rates of infant mortality.
  - C) test hypotheses about human development on chimpanzees.
  - D) comprehend how stem cells function.
33. Phylogenetic continuity refers to the:
- A) expectation that some cells have a programmed suicide and thus selectively disappear.
  - B) notion that stem cells may be the key to curing diseases such as Parkinson's and Alzheimer's.
  - C) idea that humans share some characteristics and developmental processes with other animals.
  - D) relation between a cell's function before and after migration.
34. The fact that researchers interested in human developmental processes often examine rats is an indication that they believe in:
- A) stem cell flexibility.
  - B) the ethical treatment of animals.
  - C) apoptosis.
  - D) phylogenetic continuity.

35. Research demonstrating that it is the scent of amniotic fluid that guides a newborn rat to its mother's nipple is evidence of:
- A) the similarity of rats and humans in their taste preferences.
  - B) fetal learning.
  - C) phylogenetic continuity.
  - D) rats' poor maternal instincts.
36. Apoptosis refers to:
- A) programmed cell death.
  - B) cell reproduction.
  - C) cell migration.
  - D) cell division.
37. Which statement about apoptosis is true?
- A) Apoptosis is a necessary part of development.
  - B) Apoptosis signals there might be a problem with prenatal development.
  - C) Apoptosis explains why stem cells are sought after by researchers.
  - D) Apoptosis is also called cell migration.
38. Which event is thought to be apoptosis?
- A) splitting of the fertilized egg into two equal parts
  - B) loss of cells in between the ridges on the hand plate
  - C) movement of new cells into the outer layer of the brain
  - D) specialization of eye cells
39. The level of \_\_\_\_\_ determines whether a fetus develops female or male sex organs.
- A) testosterone produced by the mother
  - B) progesterone produced by the mother
  - C) testosterone produced by the fetus
  - D) progesterone produced by the fetus

40. Which is a true statement about the development of sex organs?
- A) If the mother produces testosterone, then the fetus will develop male organs; if the mother produces estrogen, then the fetus will develop female sex organs.
  - B) If the fetus produces testosterone, then it will develop male organs; if the fetus produces estrogen, then it will develop female sex organs.
  - C) If the fetus produces high levels of testosterone, then it will develop male organs; if the fetus produces moderate levels of testosterone, then it will develop female sex organs.
  - D) If the fetus produces testosterone, then it will develop male organs; if the fetus produces no testosterone, then it will develop female sex organs.
41. Which item is an example of the active participation of the fetus in its own development?
- A) fetal alcohol syndrome
  - B) hormonal influence on development of sex organs
  - C) placental defense against toxins and infections
  - D) cephalocaudal development
42. Identical twins most often originate when:
- A) two eggs are fertilized by two sperm.
  - B) an egg splits and is fertilized by two sperm.
  - C) an inner cell mass splits in half.
  - D) an embryo splits in half.
43. Which statement about the levels of genetic similarity of identical twins, same-sex fraternal twins, and other same-sex sibling pairs is true?
- A) Same-sex fraternal twins and other same-sex sibling pairs have an equal level of genetic similarity, and they are both less genetically similar than identical twins.
  - B) Same-sex fraternal and identical twins have an equal level of genetic similarity, and they are both more genetically similar than other same-sex sibling pairs.
  - C) Same-sex fraternal twins are less genetically similar than identical twins and more genetically similar than other same-sex sibling pairs.
  - D) Identical twins, same-sex fraternal twins, and other same-sex sibling pairs all have equal levels of genetic similarity.
44. After the implantation of the zygote, as the ball of cells begins to differentiate, the inner cell mass becomes the:
- A) fetus.
  - B) gamete.
  - C) embryo.
  - D) support system.

45. The three layers of the inner cell mass develop into:
- A) different parts of the body of the embryo.
  - B) the fetus, the zygote, and the embryo.
  - C) the embryo, the placenta, and the umbilical cord.
  - D) different parts of the neural tube.
46. The neural tube develops into the:
- A) internal organs.
  - B) brain and spinal cord.
  - C) digestive system.
  - D) inner layers of skin.
47. Which organ contains the blood vessels running between the embryo and the placenta?
- A) umbilical cord
  - B) amniotic sac
  - C) neural tube
  - D) amniotic fluid
48. Which organ acts as a defensive barrier against toxins and infections?
- A) umbilical cord
  - B) amniotic sac
  - C) placenta
  - D) amniotic fluid
49. Which activity is NOT a function of the placenta?
- A) allowing for the transport of nutrients to the fetus
  - B) allowing for the removal of waste products from the fetus
  - C) cushioning the fetus
  - D) providing a barrier to infection
50. Which adjective describes a characteristic of the placenta?
- A) transparent
  - B) watery
  - C) watertight
  - D) semipermeable

51. The placental membrane allows \_\_\_\_\_ to pass through it.
- A) oxygen, carbon dioxide, blood, and some antibodies
  - B) blood, urea, minerals, and nutrients
  - C) all antibodies, nutrients, urea, and oxygen
  - D) carbon dioxide, nutrients, minerals, and some antibodies
52. The \_\_\_\_\_ protects the fetus from bumps and jolts.
- A) umbilical cord
  - B) amniotic fluid
  - C) neural tube
  - D) placenta
53. Which statement about the rate of prenatal development is true?
- A) Earlier development takes place at a more rapid pace than later development.
  - B) Later development takes place at a more rapid pace than earlier development.
  - C) The pace of development remains relatively continuous.
  - D) Development begins slowly, speeds up, and then slows down again.
54. Cephalocaudal development refers to the tendency for development to take place from \_\_\_\_\_ to \_\_\_\_\_.
- A) head; body
  - B) body; head
  - C) inside; outside
  - D) outside; inside
55. In general, prenatal development occurs in such a manner that areas close to the \_\_\_\_\_ develop earlier than areas farther away from it.
- A) spinal cord
  - B) heart
  - C) head
  - D) large intestine
56. Which statement about prenatal development of the heart is true?
- A) By 6 weeks, the heart has developed into its basic adult structure.
  - B) At 12 weeks, the heart begins to beat and circulate blood.
  - C) By 4 weeks, the heart is beating and circulating blood.
  - D) At 16 weeks, the heart develops into its basic adult structure.

57. The brain and lungs are well enough developed by the \_\_\_\_\_ week that the fetus has a chance of surviving on its own without medical intervention.
- A) 14th
  - B) 28th
  - C) 34th
  - D) 37th
58. Approximately how long after conception does the fetus begin to make movements?
- A) 3 hours
  - B) 5 weeks
  - C) 12 weeks
  - D) 5 months
59. For which fetal behaviour is there no clear explanation?
- A) breathing movements
  - B) hiccups
  - C) swallowing
  - D) moving arms and legs
60. Gina and Margaret are pregnant at the same time. Gina's fetus is quite active throughout the day, whereas Margaret's fetus is rather inactive. Which explanation would be the BEST guess as to how active their infants will be?
- A) Gina's infant is likely to be more active than Margaret's infant.
  - B) Margaret's infant is likely to be more active than Gina's infant.
  - C) Gina's infant and Margaret's infant will probably be similar in activity level, as all infants have similar levels of activity.
  - D) There is no way to predict postnatal activity level from prenatal activity level, so no guess can be made about the infants' activity levels.
61. Which activity is NOT generally performed by fetuses?
- A) sucking
  - B) moving chest wall in and out
  - C) scratching itches
  - D) swallowing
62. The fetal behaviour of swallowing is thought to:
- A) continually clean the internal organs as they develop.
  - B) promote the normal development of the palate.
  - C) be somewhat harmful to the development of the intestines.
  - D) be one of the earliest prenatal movements.

63. Of the following, which fetus is likely to be the most active?
- A) 9-week-old
  - B) 12-week-old
  - C) 25-week-old
  - D) 32-week-old
64. In regard to fetal activity and inactivity, fetuses:
- A) do not have true sleep states, but they do have periods of inactivity while awake.
  - B) have periods of high activity and rest while awake, and have both active and quiet sleep states.
  - C) are essentially asleep most of the day and night, but their sleep can be active or quiet.
  - D) are in constant motion throughout the day and night.
65. Which sense is LEAST stimulated in the uterus?
- A) taste
  - B) sight
  - C) hearing
  - D) smell
66. In terms of the fetus's taste experiences and preferences, the fetus:
- A) does not drink or eat through its mouth, and thus it has no taste experiences or preferences.
  - B) drinks amniotic fluid, but the fluid has a constant flavor, and thus the fetus has no taste preferences.
  - C) drinks amniotic fluid, but it cannot distinguish among different flavors in the fluid and thus has no taste preferences.
  - D) drinks amniotic fluid, can distinguish among different flavors in the fluid, and prefers sweet flavors.
67. Scientific evidence has demonstrated that:
- A) when saccharin was injected into amniotic fluid, the mothers' urine showed that the fetuses ingested more amniotic fluid when it had been sweetened.
  - B) when offered chocolate milk versus orange juice, preterm infants drank more chocolate milk.
  - C) fetuses smiled more when fed a sugar solution than when fed a saline solution.
  - D) the idea that fetuses prefer sweet flavors is merely an assumption that was made based on research conducted with newborns.

68. Regarding taste and smell, amniotic fluid:
- A) has a constant taste and smell.
  - B) can take on a variety of flavors but has a constant smell.
  - C) has a constant taste but can take on a variety of odors.
  - D) can take on a variety of flavors and odors.
69. Which sound(s) does the fetus hear?
- A) intonation and pattern of the mother's speech
  - B) voices of people talking to the mother
  - C) blood pumping through the mother's vascular system
  - D) all of these
70. A fetus's decreased response to a repeated stimulus is termed:
- A) sensitization.
  - B) desensitization.
  - C) habituation.
  - D) dishabituation.
71. An 8-month-old fetus who hears a phone ring repeatedly over the course of several minutes probably experiences:
- A) initial changes in heart rate, with decreased changes as the ringing continues.
  - B) initial changes in heart rate, with increased changes as the ringing continues.
  - C) no changes in heart rate initially, but increased changes as the ringing continues.
  - D) no changes in heart rate throughout the ringing.
72. Habituation indicates that a fetus \_\_\_\_\_ a stimulus.
- A) likes
  - B) dislikes
  - C) has learned to recognize
  - D) has failed to perceive
73. Habituation involves a(n) \_\_\_\_\_ heart rate response.
- A) increased
  - B) decreased
  - C) unpredictable
  - D) variable

74. The earliest time at which fetal habituation has been observed is \_\_\_\_\_ weeks.
- A) 16
  - B) 25
  - C) 30
  - D) 37
75. At the end of her pregnancy, Joshua's mother's diet included a lot of ginger. Based on the research cited in the text, it is MOST likely that newborn Joshua will:
- A) have no memory for the smell or taste of ginger because maternal diet does not affect prenatal experience.
  - B) have no memory for the smell or taste of ginger because fetal memory is very short-lived.
  - C) remember the smell and taste of ginger, but this memory will last only a week or two.
  - D) remember the smell and taste of ginger well into his first year.
76. Infant preferences based on prenatal experience have been demonstrated for:
- A) sounds.
  - B) flavors.
  - C) smells.
  - D) all of these.
77. The study by DeCasper and Spence in which pregnant women read to their fetuses from *The Cat in the Hat* demonstrated that newborn infants were \_\_\_\_\_ to recognize the story they had heard while in the uterus, and/but \_\_\_\_\_ prefer it over other stories.
- A) able; did
  - B) able; did not
  - C) unable; did
  - D) unable; did not
78. Newborns prefer to listen to:
- A) another woman's voice over their mothers' voices.
  - B) their mothers' language over another language.
  - C) novel stories rather than familiar stories.
  - D) Newborns show no auditory preferences.

79. Which sound is a newborn MOST likely to prefer?
- A) mother's voice
  - B) mother's voice, muffled
  - C) mother's voice, at a faster rate of speech
  - D) father's voice
80. What advice should be given to expectant parents who are interested in educating their child in a foreign language and classical literature before birth?
- A) Fetuses have no ability to learn anything while in the womb, and thus any talking, singing, or reading you do will not be remembered by the fetus after it is born.
  - B) Although your child may come to recognize and even prefer the patterns of the language and literature he or she is exposed to while in the womb, babies are unable to hear specific words or learn any kind of factual knowledge while in the womb.
  - C) You will give your child a sufficient head start if you pipe foreign language and classical literature recordings into the womb.
  - D) If you want your child to become fluent in a foreign language and appreciate literature, you must start before the child is born.
81. A study of Chinese women found that approximately one-\_\_\_\_\_ of fetuses did not survive to birth.
- A) twentieth
  - B) tenth
  - C) quarter
  - D) third
82. What percentage of clinically recognized pregnancies end in miscarriage?
- A) 5%
  - B) 15%
  - C) 25%
  - D) 35%
83. The MOST likely threat to prenatal development is:
- A) illegal drugs.
  - B) miscarriage.
  - C) alcohol.
  - D) herpes.

84. The discovery of Minamata disease demonstrated the:
- A) greater vulnerability of males than of females.
  - B) effects of cultural differences in birthing practices.
  - C) protective value of the placenta.
  - D) detrimental impact environmental factors can have on prenatal development.
85. Environmental agents that have the potential to cause harm during prenatal development are referred to as:
- A) illegal drugs.
  - B) dermatogens.
  - C) teratogens.
  - D) pollutants.
86. Which influence is NOT considered a teratogen?
- A) poor nutrition
  - B) illegal drugs
  - C) environmental pollutants
  - D) cigarette smoke
87. Which statement about sensitive periods in prenatal development is true?
- A) All major organ systems share the same sensitive period.
  - B) Teratogens have the most serious effect on prenatal development immediately before a system's sensitive period.
  - C) A sensitive period is the time when a system's basic structures are being formed.
  - D) The sensitive period of limb development occurs several weeks before the limbs begin to form.
88. Which statement about the timing of effects of teratogens is true?
- A) The sensitive period for the development of the external genitalia occurs prior to the sensitive period for the heart.
  - B) The sensitive periods for the central nervous system and the heart are the same.
  - C) Exposure to teratogens during the fetal period is likely to lead to major structural defects.
  - D) None of these statements is true.

89. Which description correctly identifies the effect of thalidomide on developing fetuses?
- A) safe for fetuses of all ages
  - B) unsafe for fetuses of all ages
  - C) harmful to fetuses between the 4th and 6th weeks after conception but safe at other times
  - D) safe for fetuses between the 4th and 6th weeks after conception but harmful at other times
90. Which item do the effects of thalidomide BEST demonstrate?
- A) sensitive periods of development
  - B) cumulative effect
  - C) dose–response relation
  - D) sleeper effect
91. For teratogens that show a dose–response relation:
- A) any level of exposure to the teratogen causes an equivalent likelihood of a defect.
  - B) the greater the exposure to the teratogen, the greater the likelihood of a defect.
  - C) the greater the exposure to the teratogen, the lesser the likelihood of a defect.
  - D) detrimental effects are seen only at very high exposure levels.
92. The likelihood of a prenatal defect and the severity of the defect from exposure to teratogens are generally dependent on:
- A) amount of exposure.
  - B) genetic susceptibility.
  - C) levels of exposure to other teratogenic agents.
  - D) all of these factors.
93. The term *fetal programming* means:
- A) individual differences in teratogenic effects that occur as a result of genetic differences.
  - B) prenatal learning of sounds, tastes, and smells.
  - C) genetic differences in ability to learn prenatally.
  - D) the later emergence of effects of the prenatal period.
94. The teratogenic effect of which substance can BEST be characterized as a sleeper effect?
- A) DES
  - B) thalidomide
  - C) cigarette smoke
  - D) alcohol

95. Which statement about the effects of cigarette smoke on a fetus is true?
- A) Exposure to secondhand smoke is unlikely to affect the fetus.
  - B) The fetus gets less oxygen when its mother smokes.
  - C) The amniotic sac prevents the fetus from being exposed to cancer-causing agents in tobacco.
  - D) None of these statements is true.
96. Smoking by pregnant women contributes to all of these effects in the unborn child EXCEPT:
- A) decreased IQ
  - B) increased risk of SIDS
  - C) increased risk of FASD
  - D) slowed fetal growth
97. In Canada, which substance is the MOST common cause of injury to the fetal brain?
- A) alcohol
  - B) illegal drugs
  - C) toxoplasma
  - D) cigarette smoke
98. What percentage of Canadian mothers admit to smoking while pregnant?
- A) 2%
  - B) 8%
  - C) 16%
  - D) 20%
99. Which group of Canadian mothers is MOST likely to use alcohol when they are pregnant?
- A) mothers under the age of 21 and of lower-than-average income
  - B) mothers who are between the ages of 21 and 29 and have lower-than-average income
  - C) mothers who are between the ages of 30 and 39 and have above-average income
  - D) mothers who are between the ages of 30 and 39 and have below-average income
100. Which maternal factor can lead to premature birth or low birth weight?
- A) cocaine use
  - B) malnutrition
  - C) cigarette smoking
  - D) all of these factors

101. Which activity is thought to be a contributor to sudden infant death syndrome (SIDS)?
- A) smoking near an infant
  - B) putting baby to sleep on its tummy
  - C) dressing baby too warmly during sleep
  - D) all of these activities
102. Which of the following groups in Canada are at greatest risk for SIDS?
- A) infants who are part of the Aboriginal population
  - B) infants whose mothers smoke
  - C) infants who sleep with their mothers
  - D) infants who are not breastfed
103. Which statement is good advice for a new parent concerned about SIDS?
- A) Allow smokers to smoke in the house but not in the baby's room.
  - B) Put the baby to sleep on her back.
  - C) Make sure the baby sleeps with a pillow.
  - D) Put the baby to sleep with warm clothes and a warm blanket.
104. Which statement about fetal exposure to alcohol is NOT true?
- A) Alcohol in the mother's blood crosses the placenta into the fetus's bloodstream.
  - B) The fetus smells alcohol through the amniotic sac.
  - C) The fetus drinks alcohol-laden amniotic fluid.
  - D) The fetus's poor ability to metabolize alcohol causes it to remain in the fetus's system for an extended period.
105. Which term identifies a form of fetal alcohol spectrum disorder?
- A) fetal alcohol syndrome
  - B) fetal alcohol effects
  - C) both fetal alcohol disease and fetal alcohol syndrome
  - D) both fetal alcohol syndrome and fetal alcohol effects
106. Which condition is NOT a feature of fetal alcohol syndrome?
- A) increased risk of SIDS
  - B) mental retardation
  - C) facial deformities
  - D) hyperactivity

107. Severe emotional stress and alcoholic consumption during pregnancy have which effect in common?
- A) SIDS
  - B) hyperactivity
  - C) mental retardation
  - D) small head size
108. Which pattern of maternal alcohol consumption does the text suggest is considered acceptable in terms of avoiding harmful effects?
- A) drinking several drinks over a quick period of time, only a few times during pregnancy
  - B) drinking one and only one drink per day
  - C) drinking large amounts of alcohol on a frequent basis
  - D) none of these
109. Marijuana use by a pregnant woman likely affects the fetus's:
- A) learning and memory after birth.
  - B) facial development.
  - C) head size.
  - D) neural tube development.
110. Babies born to mothers who used cocaine during pregnancy are more likely to have all of these conditions EXCEPT:
- A) retarded growth.
  - B) facial deformities.
  - C) impaired ability to regulate arousal.
  - D) long-term social deficits.
111. Inuit mothers whose diet was high in Arctic fish had babies with an increased likelihood of:
- A) Minamata disease.
  - B) hearing loss.
  - C) neuromotor difficulties.
  - D) limb deformity.

112. Which statement about environmental pollutants is true?
- A) There is no evidence that environmental pollutants can impair prenatal development.
  - B) Only pollutants that are ingested can impair prenatal development.
  - C) Only pollutants that pass through the respiratory system can impair prenatal development.
  - D) Pollutants that are ingested and those that pass through the respiratory system can both impair prenatal development.
113. Which factor has been demonstrated by research to affect prenatal development?
- A) noise
  - B) stress
  - C) mercury
  - D) all of these factors
114. Which maternal factor does NOT tend to have a negative impact on the health of the fetus?
- A) low socioeconomic status
  - B) malnutrition
  - C) genital herpes
  - D) immature eggs
115. It is difficult to isolate the effects of malnutrition on prenatal development because malnutrition often coincides with:
- A) poverty.
  - B) older mothers.
  - C) rubella.
  - D) mercury consumption.
116. The study of children born in Holland during World War II demonstrated which finding about prenatal malnutrition?
- A) It is difficult to separate the effects of malnutrition from the other effects of poverty.
  - B) The effects of malnutrition were most severe when the malnutrition began late in the pregnancy.
  - C) The effects of malnutrition can be eliminated if the baby has adequate nutrition starting at birth.
  - D) None of these findings were demonstrated by that study.

117. Which maternal disease during pregnancy is LEAST likely to have a direct negative effect on the health of the baby?
- A) HIV
  - B) genital herpes
  - C) rubella
  - D) cytomegalovirus
118. Recent research has demonstrated a link between the development of schizophrenia and maternal contraction of which disease in the first trimester?
- A) cytomegalovirus
  - B) rubella
  - C) genital herpes
  - D) influenza
119. The text describes research demonstrating that the mother's emotional state during pregnancy is associated with:
- A) fetal and newborn depression.
  - B) decreased fetal physical activity during gestation and later obesity.
  - C) decreased amniotic fluid and later depression.
  - D) increased physical activity during gestation and later behavioural problems.
120. Medications given during labour to reduce the pain of labour can cause:
- A) decreased time of labour.
  - B) increased pain experienced by the fetus.
  - C) increased chance of fetal oxygen deprivation.
  - D) decreased size of the "soft spot" on the baby's head.
121. Which statement about the fetal birth experience is true?
- A) The pain experienced by the fetus during birth is comparable to the pain experienced by its mother.
  - B) The compression of the skull in the birth canal can cause a premature disappearance of the fontanel.
  - C) The forcing of amniotic fluid from the fetus's body as it is compressed in the birth canal promotes the newborn's first breath.
  - D) All of these statements are true.

122. The small sacs of the newborn's lungs are forced open by the:
- A) squeezing of the fetus's body as it moves through the birth canal.
  - B) birth cry after the fetus exits the birth canal.
  - C) squeezing of the fetus's head as it passes through the mother's pelvic bones.
  - D) vigorous rubbing of the newborn's body by the medical staff immediately following birth.
123. How do childbirth practices in Bali differ from those in North America?
- A) North Americans place less emphasis on the immediate social integration of the newborn than do the Balinese.
  - B) The Balinese tend to have a greater level of medical intervention than North Americans.
  - C) Balinese women know little about childbirth prior to their own experience of it, in comparison to North American women who tend to be well informed.
  - D) North Americans tend to have more friends and relatives at the birth than do the Balinese.
124. Quiet sleep, active awake, alert awake, and drowsing are examples of:
- A) types of sleep.
  - B) autostimulation.
  - C) newborn states.
  - D) none of these.
125. On average, Western newborns spend \_\_\_\_\_ hours sleeping and \_\_\_\_\_ hour(s) crying.
- A) 16; 1
  - B) 12; 1
  - C) 12; 2
  - D) 16; 2
126. Which condition is a characteristic of REM sleep?
- A) deep sleep state
  - B) regular breathing
  - C) absence of eye movements
  - D) irregular heart rate
127. In terms of REM versus non-REM sleep, newborns spend:
- A) a greater amount of time in REM sleep than in non-REM sleep.
  - B) a greater amount of time in non-REM sleep than in REM sleep.
  - C) equal amounts of time in REM sleep and in non-REM sleep.
  - D) proportionately more time in non-REM sleep than do adults.

128. Regarding amounts of REM and non-REM sleep, newborns spend:
- A) proportionately more time in REM sleep than do adults.
  - B) proportionately more time in non-REM sleep than do adults.
  - C) proportionately the same time in REM and non-REM sleep as adults, though they differ from adults on the total amount of sleep.
  - D) approximately the same time in REM sleep as do adolescents.
129. As described in the text, some researchers believe the amount of time newborns spend in \_\_\_\_\_ sleep is beneficial for the development of the \_\_\_\_\_ system.
- A) REM; visual
  - B) non-REM; visual
  - C) REM; auditory
  - D) non-REM; auditory
130. If the theory presented in the text about newborn sleep states is accurate, in which newborn would a decrease in REM sleep be MOST likely to be seen?
- A) Baby Emma, who is deprived of visual stimulation during the day
  - B) Baby Elijah, who is provided with a high level of extra visual stimulation during the day
  - C) Baby Sofia, who is deprived of auditory stimulation during the day
  - D) Baby Manny, who is provided with a high level of extra auditory stimulation during the day
131. Which statement about newborn sleep is true?
- A) Newborns continue to get visual stimulation through their closed eyelids.
  - B) Newborns spend more time than adults do in non-REM sleep.
  - C) Newborns may be able to learn while asleep.
  - D) All of these statements are true.
132. In the study by Boismier, compared to other newborns, those who were provided with extra visual stimulation while awake:
- A) spent less of their subsequent sleep time in REM sleep.
  - B) were more likely to develop colic.
  - C) spent more time in an alert awake state.
  - D) were more likely to develop 20/20 vision.

133. In terms of newborns' ability to learn from auditory stimulation while asleep, research has shown that newborns:
- A) cannot learn from auditory stimulation while asleep.
  - B) can learn from auditory stimulation while asleep because they spend proportionately more time in REM sleep than do adults.
  - C) can learn from auditory stimulation while asleep because they spend proportionately more time in non-REM sleep than do adults.
  - D) seem to be able to learn from auditory stimulation while asleep because their brains do not become disconnected from external stimulation to the extent that adult brains do.
134. Infants in North America typically sleep through the night at approximately:
- A) 4 months, an age consistent across other cultures.
  - B) 8 weeks, an age consistent across other cultures.
  - C) 4 months, but the age varies across other cultures.
  - D) 8 weeks, but the age varies across other cultures.
135. The information in which statement would be considered evidence that infant crying and adult aversion to it have adaptive significance?
- A) Babies who cry more are more likely to be abandoned than those who cry less.
  - B) The peak time for crying is in the evening.
  - C) Babies who are with their mothers throughout the day and night cry more frequently than do other babies.
  - D) Babies who cry more are more likely to survive times of severe hardship, such as famine.
136. Which statement about infant crying is true?
- A) Infant crying peaks at about 6 weeks of age.
  - B) Infant crying tends to be worse in the morning.
  - C) All newborn crying is a result of discomfort.
  - D) None of these statements is true.

137. Cousins Chloe and Emma have not seen each other since they were children. Each woman now has a 4-week-old infant, and the two women and their babies are reunited at a family gathering. The two babies are napping in the same room when Chloe's baby bangs her leg on the crib and begins to cry. In this situation, it is MOST likely that Chloe and Emma will both:
- A) think the crying baby is their own and be unable to identify whether the baby is hungry or in pain.
  - B) know the crying baby is Chloe's and be unable to identify whether the baby is hungry or in pain.
  - C) think the crying baby is their own, but Chloe will know that the baby is in pain.
  - D) know the crying baby is Chloe's, and Chloe will know that the baby is in pain.
138. The cries of newborns from different places around the world are:
- A) typically indistinguishable from each other, but newborns' cries are distinctive from older infants' cries.
  - B) different in sound from each other, and cries for different reasons typically sound different.
  - C) typically indistinguishable from each other, but cries for different reasons typically sound different.
  - D) different in sound from each other, but it is nearly impossible to distinguish between cries for different reasons.
139. In an international airport, a Canadian hears two young infants crying. One of the infants is from Italy, and the other is from Austria. The Canadian insists that she can tell, from their cries alone, which baby is Italian and which baby is Austrian. Is the Canadian listener correct?
- A) Yes, the listener is correct because the crying of newborns has acoustic patterns similar to the pitch patterns of their home languages.
  - B) Yes, the listener is correct because the crying of newborns has vowel and consonant sounds similar to the vowel and consonant sounds of their home languages.
  - C) No, the listener is incorrect because the cries of newborns sound the same.
  - D) Yes, the listener is correct because the pattern of pauses in newborn cries matches the pause patterns of their home languages.
140. Swaddling is considered a(n):
- A) form of child abuse.
  - B) effective method of soothing a crying baby.
  - C) productive way to encourage a newborn's first breath.
  - D) type of colic.

141. Common soothing techniques, including rocking, swaddling, and singing, are all effective because they all involve:
- A) moderately intense stimulation.
  - B) lengthy time investments on the part of caregivers.
  - C) trying to figure out why the baby is crying.
  - D) tactile stimulation.
142. Which action is LEAST likely to soothe a crying newborn?
- A) giving the infant a taste of sugar
  - B) showing the infant a colourful picture
  - C) patting the infant repetitively on the back
  - D) swaddling the infant in a blanket
143. The text suggests that the BEST advice for parents regarding how quickly they should respond to their infants' cries is to respond:
- A) quickly to all the infant's cries, as immediate response will instill confidence in the infant.
  - B) slowly to all the infant's cries so that the infant will learn to regulate her or his crying.
  - C) quickly to severe distress, but less quickly to minor upset.
  - D) quickly to minor upset, but less quickly to severe distress.
144. Laura and Mark are new parents whose baby cries for three to four hours a day for no apparent reason. Laura and Mark have had their baby examined by a pediatrician who was unable to find any medical reason for the excessive crying. Laura and Mark's baby appears to be suffering from:
- A) cocaine withdrawal.
  - B) neglect.
  - C) colic.
  - D) fetal alcohol syndrome.
145. The text suggests that colic may be associated with issues with the newborn's \_\_\_\_\_ system.
- A) limbic
  - B) nervous
  - C) respiratory
  - D) digestive

146. Which statement about infant mortality in Canada over the past several decades is true?
- A) The Canadian infant mortality rate has increased.
  - B) The Canadian infant mortality rate has remained stable.
  - C) The Canadian infant mortality ranking has gotten worse in comparison to other countries.
  - D) The Canadian infant mortality ranking has gotten better in comparison to other industrialized countries.
147. The infant mortality rate in Canada is HIGHER than the infant mortality rate in which of the following countries?
- A) The United States
  - B) Greece
  - C) Mexico
  - D) New Zealand
148. The mortality rate for a child born in Nunavut or the Northwest Territories is \_\_\_\_\_ the rate for European American infants.
- A) the same as
  - B) half
  - C) two to three times
  - D) five times
149. A baby born at 38 weeks after conception weighing 2500 grams is labeled:
- A) premature.
  - B) small for gestational age.
  - C) small for prenatal age.
  - D) none of these.
150. Premature babies are those who are born at \_\_\_\_\_ weeks after conception or earlier.
- A) 25
  - B) 30
  - C) 35
  - D) 38
151. All low-birth-weight babies are:
- A) premature.
  - B) small for gestational age.
  - C) both premature and small for gestational age.
  - D) less than 2500 grams in weight at birth.

152. A baby born weighing 2300 grams at birth is considered to be:
- A) premature and of low birth weight.
  - B) of low birth weight and small for gestational age.
  - C) premature and small for gestational age.
  - D) of low birth weight.
153. Maya was born at 34 weeks and weighed 2000 grams. Remmy was born at 39 weeks and weighed 2000 grams. Of these two newborns, which is considered to be small for gestational age?
- A) Maya
  - B) Remmy
  - C) both Maya and Remmy
  - D) neither Maya nor Remmy
154. Which statement about the long-term outcomes for low-birth-weight babies in comparison to babies of normal weight is true?
- A) Low-birth-weight babies are more likely to be hyperactive.
  - B) Low-birth-weight babies are more likely to have trouble with peer relations.
  - C) The majority of low-birth-weight babies end up similar to normal-weight babies in the long term.
  - D) All of these statements are true.
155. Zora and Jenny are twins. Zora is born weighing 2200 grams, and Jenny is born weighing 2500 grams. Which statement BEST characterizes Zora and Jenny's chances of completing high school, based on the research on low-birth-weight children?
- A) Zora and Jenny are equally likely to complete high school.
  - B) Zora is more likely to complete high school than Jenny.
  - C) Jenny is more likely to complete high school than Zora.
  - D) The likelihood of Zora and Jenny completing high school cannot be predicted based on research on low-birth-weight children.
156. \_\_\_\_\_ stimulation is widely used to intervene with low-birth-weight infants.
- A) Tactile
  - B) Auditory
  - C) Visual
  - D) Olfactory

157. Tiffany Field and her colleagues demonstrated that low-birth-weight newborns can benefit from:
- A) massage.
  - B) nutritional supplements.
  - C) increased time in the isolette.
  - D) good health care.
158. Preterm infants whose mothers participated in an intervention that \_\_\_\_\_ showed fewer behaviour problems at age 5 in comparison to mothers who did not receive the intervention.
- A) focused on increasing parental self-confidence
  - B) included support sessions
  - C) taught parents responsiveness
  - D) did all of these
159. Janelle is the parent of a low-birth-weight infant. It is MOST likely that her baby will:
- A) meet developmental milestones at predictable times.
  - B) smile at her at approximately 6 weeks of age.
  - C) have more trouble falling asleep and waking up than a typical baby.
  - D) need excessive stimulation, which Janelle will have to work hard to provide.
160. Which statement about intervention programs aimed at helping low-birth-weight babies is true?
- A) The success of the intervention is unrelated to the initial health status of the infant.
  - B) The more risks the infant endures, the more successful the intervention will likely be.
  - C) The positive results are especially clear for children who were relatively heavier at birth.
  - D) Most intervention programs produce large gains.
161. Negative developmental outcomes are particularly likely when there are:
- A) genetic defects.
  - B) multiple risk factors.
  - C) psychiatric disorders.
  - D) educational disadvantages.

162. The study by Michael Rutter demonstrated that the incidence of psychiatric problems among English children was particularly heightened when the family experienced \_\_\_\_\_ or more risk factors.
- A) two
  - B) three
  - C) four
  - D) five
163. Babies born into poverty are more likely than other babies to:
- A) be of low birth weight.
  - B) be SIDS victims.
  - C) die in the first year of life.
  - D) suffer from all of these conditions.
164. A multiple-risk model of prenatal and later development applies MOST directly to the effects of:
- A) low IQ.
  - B) poverty.
  - C) disease.
  - D) gender.
165. Which condition is associated with poverty?
- A) poor nutrition
  - B) drug abuse
  - C) environmental hazards
  - D) all of these conditions
166. Individuals who do well even when faced with multiple risks illustrate the concept of:
- A) practical success.
  - B) developmental resilience.
  - C) pliability.
  - D) persistent opposition.
167. Which factor is cited as a reason why some children are resilient in the face of multiple developmental hazards?
- A) prenatal nutrition
  - B) education
  - C) responsive care
  - D) welfare

168. The pair of factors that is common among resilient children is \_\_\_\_\_ and \_\_\_\_\_.
- A) responsive care; intelligence
  - B) education; social welfare
  - C) prenatal nutrition; education
  - D) genetic advantages; responsiveness to others

## Answer Key

1. D
2. A
3. B
4. A
5. A
6. B
7. C
8. A
9. B
10. C
11. D
12. D
13. A
14. B
15. B
16. C
17. A
18. D
19. C
20. D
21. A
22. D
23. A
24. C
25. B
26. A
27. D
28. A
29. B
30. C
31. D
32. C
33. C
34. D
35. B
36. A
37. A
38. B
39. C
40. D
41. B
42. C
43. A
44. C

- 45. A
- 46. B
- 47. A
- 48. C
- 49. C
- 50. D
- 51. D
- 52. B
- 53. A
- 54. A
- 55. C
- 56. C
- 57. B
- 58. B
- 59. B
- 60. A
- 61. C
- 62. B
- 63. A
- 64. B
- 65. B
- 66. D
- 67. A
- 68. D
- 69. D
- 70. C
- 71. A
- 72. C
- 73. B
- 74. C
- 75. D
- 76. D
- 77. A
- 78. B
- 79. B
- 80. B
- 81. D
- 82. B
- 83. B
- 84. D
- 85. C
- 86. A
- 87. C
- 88. D
- 89. C
- 90. A

- 91. B
- 92. D
- 93. D
- 94. A
- 95. B
- 96. C
- 97. A
- 98. B
- 99. C
- 100. D
- 101. D
- 102. A
- 103. B
- 104. B
- 105. D
- 106. A
- 107. B
- 108. D
- 109. A
- 110. B
- 111. C
- 112. D
- 113. D
- 114. D
- 115. A
- 116. D
- 117. A
- 118. D
- 119. D
- 120. C
- 121. C
- 122. B
- 123. A
- 124. C
- 125. D
- 126. D
- 127. C
- 128. A
- 129. A
- 130. B
- 131. C
- 132. A
- 133. D
- 134. C
- 135. D
- 136. A

- 137. D
- 138. B
- 139. A
- 140. B
- 141. A
- 142. B
- 143. C
- 144. C
- 145. D
- 146. C
- 147. B
- 148. C
- 149. B
- 150. C
- 151. D
- 152. D
- 153. B
- 154. D
- 155. C
- 156. A
- 157. A
- 158. D
- 159. C
- 160. C
- 161. B
- 162. C
- 163. D
- 164. B
- 165. D
- 166. B
- 167. C
- 168. A