

Chapter 2: Beginnings

TRUE/FALSE

1. A chromosome is a rod-shaped structure found within the nuclei of cells.

ANS: F PTS: 1 DIF: Bloom's: Remember
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO1: Define chromosomes and genes MSC: TYPE: Easy

2. The field of biology that studies heredity is called genetics.

ANS: T PTS: 1 DIF: Bloom's: Remember
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO1: Define chromosomes and genes MSC: TYPE: Easy

3. Each member of a pair of genes is termed a trait.

ANS: F PTS: 1 DIF: Bloom's: Remember
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO4: Define dominant and recessive traits, and provide examples of each
MSC: TYPE: Easy

4. Factorial problems stem from the interaction of heredity and environmental factors.

ANS: F PTS: 1 DIF: Bloom's: Understand
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO5: Discuss chromosomal disorders MSC: TYPE: Easy

5. Cystic fibrosis is caused by a dominant gene.

ANS: F PTS: 1 DIF: Bloom's: Remember
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO6: Discuss genetic disorders MSC: TYPE: Easy

6. Genotypes are the actual sets of traits we exhibit that reflect both genetic and environmental influences.

ANS: F PTS: 1 DIF: Bloom's: Remember
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO8: Differentiate between genotypes and phenotypes MSC: TYPE: Easy

7. The Minnesota Study of Twins Reared Apart studied DZ twins reared in separate households.

ANS: F PTS: 1 DIF: Bloom's: Apply
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO9: Explain how twin studies and adoption studies are used to sort out the effects of nature and nurture MSC: TYPE: Medium

8. The endometrium is the inner lining of the uterus.

ANS: T PTS: 1 DIF: Bloom's: Remember

REF: 2.2 Prenatal Development, Textbook | Animation - The Female Reproductive Organs, Online
OBJ: LO10: Describe the development and release of ova. MSC: TYPE: Easy

9. Endometriosis has become fairly common among women who delay childbearing.

ANS: T PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook OBJ: LO13: Discuss infertility
MSC: TYPE: Easy

10. Endometriosis can obstruct the fallopian tubes, where conception normally takes place.

ANS: T PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook OBJ: LO13: Discuss infertility
MSC: TYPE: Easy

11. Surrogate mothers bring babies to term through other women who are fertile.

ANS: F PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook OBJ: LO13: Discuss infertility
MSC: TYPE: Easy

12. Postimplantation genetic diagnosis was developed to detect genetic disorders, but it also reveals the sex of the embryo.

ANS: F PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook
OBJ: LO14: Discuss preimplantation genetic diagnosis MSC: TYPE: Medium

13. Growth of the organ systems near the spine occurs earlier than growth of the extremities.

ANS: T PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Easy

14. At approximately 21 days after implantation, three ridges appear in the embryo and fold to compose the neural tube, from which the nervous system will develop.

ANS: F PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development. MSC: TYPE: Difficult

15. The mother usually feels the first fetal movements in the middle of the fourth month.

ANS: T PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Medium

16. The fetus will probably not contract syphilis if an infected mother is treated with antibiotics before the fourth month of pregnancy.

ANS: T PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook
OBJ: LO16: Discuss nutrition in prenatal development MSC: TYPE: Easy

17. Rh incompatibility occurs when a woman who does not have this factor - and is thus Rh positive - is carrying an Rh-negative fetus.

ANS: F PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook
OBJ: LO17: Explain what is meant by critical periods of vulnerability during prenatal development
MSC: TYPE: Difficult

18. Vitamins have been shown to be completely safe for pregnant women to take.

ANS: F PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook
OBJ: LO16: Discuss nutrition in prenatal development MSC: TYPE: Medium

19. During transition, the cervix is nearly fully dilated, and the head of the fetus begins to move into the vagina.

ANS: T PTS: 1 DIF: Bloom's: Remember
REF: 2.3 Childbirth, Textbook | Video - A Birth, Online
OBJ: LO20: Describe events that indicate that a baby is ready to be born
MSC: TYPE: Medium

20. Cuban Americans have the lowest child mortality rate.

ANS: T PTS: 1 DIF: Bloom's: Remember
REF: 2.3 Childbirth, Textbook | Reading - Global Birthrates, Online
OBJ: LO25: Discuss global differences in maternal and child mortality.
MSC: TYPE: Medium

MULTIPLE CHOICE

1. According to Figure 2.1 in the text, which of the following is the smallest unit?
- a. cell
 - b. chromosome
 - c. nucleus
 - d. DNA

ANS: D PTS: 1 DIF: Bloom's: Understand
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO1: Define chromosomes and genes MSC: TYPE: Medium

2. Which of the following utilizes partnering to create a DNA strand?
- a. mitosis
 - b. meiosis
 - c. ovulation
 - d. reduction division

ANS: B PTS: 1 DIF: Bloom's: Understand
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO2: Describe mitosis and meiosis MSC: TYPE: Medium

3. How can a genetic code be altered?
- a. Through mitosis
 - b. Through meiosis
 - c. Through mutation
 - d. Through reduction division

ANS: C PTS: 1 DIF: Bloom's: Understand
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO2: Describe mitosis and meiosis MSC: TYPE: Medium

4. David and Sharon just had a baby boy. Sharon jokes that David arranged a boy on purpose. The doctor laughs, and then explains that which of the following is ultimately responsible for the baby boy's gender?
- The 22nd pair of autosomes
 - The 46 pairs of chromosomes
 - The 23rd pair of chromosomes
 - The 23 pairs of autosomes

ANS: C PTS: 1 DIF: Bloom's: Apply
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO2: Describe mitosis and meiosis MSC: TYPE: Medium

5. Lisa is writing a research paper on twins and in the research process, finds out that which of the following women would be most likely to have twins?
- A 25-year-old woman with twin cousins
 - A 40 year-old woman with a mother who was a twin
 - A 30-year-old woman with a father who was a twin
 - A 35-year-old woman thinking about taking fertility drugs

ANS: B PTS: 1 DIF: Bloom's: Apply
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO3: Differentiate between identical and fraternal twins MSC: TYPE: Medium

6. Kali and Kelly are identical twins. What caused this?
- A single zygote split into two.
 - A single zygote was fertilized twice.
 - Two separate zygotes were fertilized by the same sperm.
 - Two separate zygotes were fertilized at two separate times within the same month.

ANS: A PTS: 1 DIF: Bloom's: Analyze
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO3: Differentiate between identical and fraternal twins MSC: TYPE: Medium

7. Which of the following would be an example of a dominant trait?
- blonde hair
 - blue eyes
 - red hair
 - brown eyes

ANS: D PTS: 1 DIF: Bloom's: Apply
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO4: Define dominant and recessive traits, and provide examples of each
MSC: TYPE: Medium

8. If one parent has brown eyes, and the child has a recessive allele for blue eyes from both parents, what is likely to happen?
- The child will have brown eyes.
 - The child will have green eyes.
 - The child will have blue eyes.
 - The child will have either brown eyes or blue eyes.

ANS: C PTS: 1 DIF: Bloom's: Analyze
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO4: Define dominant and recessive traits, and provide examples of each
MSC: TYPE: Medium

9. Which of the following is an example of a recessive trait?
- Curly hair
 - Lactose tolerance

16. Which of the following individuals has the greatest chance of contracting a sex-linked genetic abnormality?
- A male with a mother with muscular dystrophy
 - A female with a mother with muscular dystrophy
 - A male with a father with muscular dystrophy
 - A female with a father with muscular dystrophy

ANS: A PTS: 1 DIF: Bloom's: Analyze
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO6: Discuss genetic disorders MSC: TYPE: Medium

17. Which of the following would be a procedure that would be used on a pregnant woman over 40-years-old?
- genetic counseling
 - amniocentesis
 - sonogram
 - ultrasound

ANS: B PTS: 1 DIF: Bloom's: Understand
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO7: Describe prenatal testing methods for chromosomal and genetic abnormalities
MSC: TYPE: Medium

18. Angela and Greg would like to know the gender of their baby, but they want to do so as safely as possible. Which of the following procedures would you recommend?
- amniocentesis
 - CVS
 - ultrasound
 - genetic counseling

ANS: C PTS: 1 DIF: Bloom's: Analyze
REF: 2.1 Genetic Influences on Development, Textbook | Reading - Sex Selection, Online
OBJ: LO7: Describe prenatal testing methods for chromosomal and genetic abnormalities
MSC: TYPE: Medium

19. Which of the following is used sparingly as it carries the greatest risk of miscarriage?
- CVS
 - ultrasound
 - amniocentesis
 - early amniocentesis

ANS: A PTS: 1 DIF: Bloom's: Understand
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO7: Describe prenatal testing methods for chromosomal and genetic abnormalities
MSC: TYPE: Medium

20. Which of the following genetic diseases would not be revealed with a parental blood test before pregnancy?
- Tay-Sachs disease
 - Huntington's disease
 - Cystic fibrosis
 - Sickle-cell anemia

ANS: B PTS: 1 DIF: Bloom's: Understand
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO8: Differentiate between genotypes and phenotypes MSC: TYPE: Medium

21. Pamela's father was a calm, quiet man. Pamela tends to be calm and quiet as well, unless she is playing soccer, her favorite sport. What does her aggressiveness on the field indicate?
- The effects of her chromosomes
 - The effects of her genotypes
 - The effects of her phenotypes
 - The effects of her environment

ANS: C PTS: 1 DIF: Bloom's: Evaluate
REF: 2.1 Genetic Influences on Development, Textbook

OBJ: LO8: Differentiate between genotypes and phenotypes MSC: TYPE: Difficult

22. Which of the following people would Ann be closest to genetically?
- a. her grandmother
 - b. her brother
 - c. her aunt
 - d. her cousin

ANS: B PTS: 1 DIF: Bloom's: Understand

REF: 2.1 Genetic Influences on Development, Textbook

OBJ: LO8: Differentiate between genotypes and phenotypes MSC: TYPE: Medium

23. Paul and Peter seem identical in almost every way. They have the same taste in music. They have the same facial expressions and features. They drive the same car, and they work in the same professional field. Since they did not grow up together, what explanation is there for this?
- a. There is an environmental basis for their behaviors.
 - b. They are dizygotic twins.
 - c. They have a strong instinctive connection.
 - d. There is a strong genetic basis for their behaviors.

ANS: D PTS: 1 DIF: Bloom's: Analyze

REF: 2.1 Genetic Influences on Development, Textbook

OBJ: LO9: Explain how twin studies and adoption studies are used to sort out the effects of nature and nurture. MSC: TYPE: Difficult

24. Who of the following would be more likely to share autism?
- a. male siblings
 - b. female siblings
 - c. DZ twins
 - d. MZ twins

ANS: D PTS: 1 DIF: Bloom's: Apply

REF: 2.1 Genetic Influences on Development, Textbook

OBJ: LO9: Explain how twin studies and adoption studies are used to sort out the effects of nature and nurture MSC: TYPE: Medium

25. Nancy and Sarah were separated at birth and raised in separate households. They did not have contact with each other and were not aware that they were twins. Researchers studied them to see if there were any similarities in their behaviors and traits. What is this type of research called?
- a. twin studies
 - b. trait studies
 - c. kinship studies
 - d. adoption studies

ANS: A PTS: 1 DIF: Bloom's: Analyze

REF: 2.1 Genetic Influences on Development, Textbook

OBJ: LO9: Explain how twin studies and adoption studies are used to sort out the effects of nature and nurture MSC: TYPE: Difficult

26. How do sperm reach the ovum?
- a. They travel randomly through the cervix and uterus to the fallopian tube with the released ovum.
 - b. They follow the scent of released chemicals through the cervix to the fallopian tube containing a released ovum.
 - c. They follow the scent of released chemicals through the fallopian tube to the cervix where the ovum has been released.
 - d. They travel randomly through the fallopian tube to the cervix where the ovum has been released.

ANS: B PTS: 1 DIF: Bloom's: Analyze

REF: 2.2 Prenatal Development, Textbook

OBJ: LO10: Describe the development and release of ova MSC: TYPE: Difficult

27. How many sperm cells are necessary to fertilize an ovum?
- a. 1
 - b. 100
 - c. 1,000
 - d. 1,000,000

ANS: A PTS: 1 DIF: Bloom's: Understand

REF: 2.2 Prenatal Development, Textbook

OBJ: LO10: Describe the development and release of ova MSC: TYPE: Easy

28. What concept describes the time in which the sperm penetrates the ovum and unites with it?
- a. conception
 - b. fertility
 - c. endometrium
 - d. implantation

ANS: A PTS: 1 DIF: Bloom's: Apply

REF: 2.2 Prenatal Development, Textbook | Animation - Stages of Conception, Online

OBJ: LO12: Define conception MSC: TYPE: Medium

29. When are ova present in the female body?
- a. At birth
 - b. In childhood before puberty
 - c. During puberty
 - d. During menstruation

ANS: A PTS: 1 DIF: Bloom's: Understand

REF: 2.2 Prenatal Development, Textbook | Animation - Stages of Conception, Online

OBJ: LO10: Describe the development and release of ova MSC: TYPE: Medium

30. What is released during menstruation?
- a. The unfertilized egg and the lining of the fallopian tube
 - b. The unfertilized egg and the cilia
 - c. The unfertilized egg and the lining of the ovaries
 - d. The unfertilized egg and the lining of the uterus

ANS: D PTS: 1 DIF: Bloom's: Apply

REF: 2.2 Prenatal Development, Textbook | Animation - Stages of Conception, Online

OBJ: LO10: Describe the development and release of ova MSC: TYPE: Medium

31. What is one explanation for why more boys than girls are conceived?
- a. The X sex chromosome swims faster than the Y sex chromosome.
 - b. The Y sex chromosome swims faster than the X sex chromosome.
 - c. There are more X sex chromosomes than Y sex chromosomes.
 - d. There are more Y sex chromosomes than X sex chromosomes.

ANS: B PTS: 1 DIF: Bloom's: Apply

REF: 2.2 Prenatal Development, Textbook

OBJ: LO12: Define conception

MSC: TYPE: Medium

32. How do sperm cells develop?
- a. Through meiosis, with the X sex chromosomes splitting from the Y sex chromosomes to form 23 chromosomes.
 - b. Through meiosis, with the X sex chromosomes splitting from the Y sex chromosomes to form 23 pairs of chromosomes.
 - c. Through mitosis, with the X sex chromosomes splitting from the Y sex chromosomes to form 23 chromosomes.
 - d. Through mitosis, with the X sex chromosomes splitting from the Y sex chromosomes to form 23 pairs of chromosomes.

ANS: A PTS: 1 DIF: Bloom's: Analyze
REF: 2.2 Prenatal Development, Textbook
OBJ: LO11: Describe the development and travels of sperm MSC: TYPE: Medium

33. Which of the following is an obstacle sperm face in attempting to reach the ovum?
- Only a few viable sperm are ejaculated.
 - Vaginal acidity kills many sperm.
 - Most sperm travel randomly and do not go in the right direction.
 - The cilia are designed to keep out foreign objects.

ANS: B PTS: 1 DIF: Bloom's: Analyze
REF: 2.2 Prenatal Development, Textbook
OBJ: LO11: Describe the development and travels of sperm MSC: TYPE: Difficult

34. Why does only one sperm enter the ova?
- A chemical is released to prevent others from entering.
 - More than one sperm enter the ova but do not fertilize the egg.
 - The ova only has room for one sperm.
 - The chemical used to attract sperm ceases once one sperm enters the ova.

ANS: A PTS: 1 DIF: Bloom's: Analyze
REF: 2.2 Prenatal Development, Textbook
OBJ: LO11: Describe the development and travels of sperm MSC: TYPE: Difficult

35. Adam and Maria have been trying to get pregnant for eight months. They are in your office and wonder when they will be able to go through infertility procedures. What do you advise?
- Infertility is normally diagnosed after trying for six months.
 - Infertility is normally diagnosed after trying for eight months.
 - Infertility is normally diagnosed after trying for ten months.
 - Infertility is normally diagnosed after trying for twelve months.

ANS: D PTS: 1 DIF: Bloom's: Analyze
REF: 2.2 Prenatal Development, Textbook OBJ: LO12: Define conception
MSC: TYPE: Difficult

36. Which of the following would be one of the likeliest reasons for infertility in men?
- diabetes
 - sexually transmitted infection
 - medication
 - low sperm count

ANS: D PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook OBJ: LO13: Discuss infertility
MSC: TYPE: Medium

37. Daniel and Sasha are very active and healthy. They eat right and exercise daily. Daniel often engages in long distance runs and then takes a hot bath before he and Sasha have sexual intercourse. When they visit a specialist about their inability to conceive, what is one issue that the physician will likely point out?
- The warm water from the bath would help Sarah conceive.
 - Sarah is probably exercising too much.
 - David's runs could be causing issues with conception.
 - David needs to take a shower instead.

ANS: C PTS: 1 DIF: Bloom's: Analyze
REF: 2.2 Prenatal Development, Textbook OBJ: LO13: Discuss infertility
MSC: TYPE: Difficult

38. What is one reason that fertility drugs can cause multiple births?
- The ovum splits during conception.
 - Ovulation permits ovum to remain viable for longer periods of time.
 - The ovum splits after conception.
 - Ovulation occurs more than once, ripening more than one ovum.

ANS: D PTS: 1 DIF: Bloom's: Apply
REF: 2.2 Prenatal Development, Textbook OBJ: LO13: Discuss infertility
MSC: TYPE: Medium

39. Which of the following is a means of fertilizing the ovum by injecting larger amounts of sperm into the uterus?
- motility
 - artificial insemination
 - in vitro fertilization
 - donor in vitro fertilization

ANS: B PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook OBJ: LO13: Discuss infertility
MSC: TYPE: Medium

40. What procedure is actually the mode that gave rise to the phrase "test tube babies"?
- in vitro fertilization
 - surrogate mothers
 - artificial insemination
 - adoption

ANS: A PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook
OBJ: LO14: Discuss preimplantation genetic diagnosis MSC: TYPE: Medium

41. What occurs when ova are produced by someone other than the intended mother?
- in vitro fertilization
 - donor IVF
 - surrogacy
 - artificial insemination

ANS: B PTS: 1 DIF: Bloom's: Apply
REF: 2.2 Prenatal Development, Textbook
OBJ: LO14: Discuss preimplantation genetic diagnosis MSC: TYPE: Medium

42. Which of the following helps couples select the gender of the child?
- in vitro fertilization
 - donor IVF
 - motility
 - preimplantation genetic diagnosis

ANS: D PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook | Reading - Sex Selection, Online
OBJ: LO14: Discuss preimplantation genetic diagnosis MSC: TYPE: Easy

43. How long is a normal gestation period?
- 260 days
 - 270 days
 - 280 days
 - 290 days

ANS: C PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Easy

44. Which stage occurs around the third through eighth weeks of pregnancy?
- gestation stage
 - germinal stage
 - embryonic stage
 - fetal stage

ANS: C PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Easy

45. Where do cells begin to separate into groups that will eventually become different structures?
a. The embryonic disk c. The trophoblast
b. The blastocyst d. The zygote

ANS: B PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Easy

46. Why does the blastocyst implant on the uterine wall?
a. To maintain warmth c. To create the neural tube
b. To form the zygote d. To provide nourishment

ANS: D PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Medium

47. Which of the following forms the digestive and respiratory systems in the embryonic stage?
a. ectoderm c. endoderm
b. neural tube d. mesoderm

ANS: C PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Difficult

48. Which of the following develops into the reproductive system?
a. ectoderm c. neural tube
b. endoderm d. mesoderm

ANS: D PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Medium

49. At what point in development will an embryo begin to “look” like an infant?
a. one month c. three months
b. two months d. four months

ANS: B PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Difficult

50. At what point in embryonic development would a sonographer be able to tell the sex of an infant?
a. one month c. three months
b. two months d. four months

ANS: C PTS: 1 DIF: Bloom's: Apply
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Medium

51. Which of the following acts as a filter for food and oxygen for the fetus?
a. amniotic sac c. placenta
b. amniotic fluid d. uterus

ANS: C PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Medium

52. How is alcohol able to affect the fetus?
- The mother and fetus share circulatory systems.
 - The mother transmits what she ingests through the uterine wall.
 - The mother and fetus share digestive systems.
 - The mother transmits what she ingests through the placenta.

ANS: D PTS: 1 DIF: Bloom's: Analyze
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Difficult

53. Which of the following normally occurs by the end of the first trimester?
- thumb sucking
 - gender identity
 - opening and shutting eyes
 - waking and sleeping periods

ANS: B PTS: 1 DIF: Bloom's: Remember
REF: 2.2: Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Easy

54. Kesha is in the 32nd week of her pregnancy and there are indications that she might deliver early. Kesha is worried that the baby will have potentially fatal distress if she is born prematurely. What would you tell her?
- Chances of survival are nearly 60%.
 - Chances of survival are nearly 70%.
 - Chances of survival are nearly 80%.
 - Chances of survival are nearly 90%.

ANS: D PTS: 1 DIF: Bloom's: Apply
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Difficult

55. Kali swears her baby can hear her voice and responds with kicks. She backs this up with information from a study by Sontag and Richards. What is the evidence she is citing?
- Infants kicking while the mother is listening to music
 - Infants moving at the sound of a bell
 - Infants calming down to the music mom likes
 - Infants coming out of the womb with an affinity for certain music

ANS: B PTS: 1 DIF: Bloom's: Apply
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Difficult

56. According to researchers, what is one reason that fetuses can discriminate pitch?
- The fetus looks toward the sound.
 - The fetus wakes up.
 - The fetus has a change in heart rate.
 - The fetus assumes a listening stance.

ANS: C PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Easy

57. Yolanda is in her ninth month of pregnancy and is worried because she is not feeling the baby move around quite as much as before. What advice would you give her?
- The space is more cramped, so activity is reduced.
 - The fetus is sleeping more.

- c. The fetus is getting ready to enter the birth canal.
- d. The fetus is potentially in trouble and emergency measures should be taken.

ANS: A PTS: 1 DIF: Bloom's: Apply
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Medium

58. Which of the following is defined as any environmental agent that can harm the embryo or fetus?
- a. syphilis
 - b. teratogen
 - c. rubella
 - d. deficiency

ANS: B PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook
OBJ: LO18: Discuss environmental risks to the embryo and fetus
MSC: TYPE: Difficult

59. At which point is the heart past the vulnerable point of developing an abnormality from a teratogen?
- a. six weeks
 - b. seven weeks
 - c. eight weeks
 - d. nine weeks

ANS: D PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook
OBJ: LO17: Explain what it meant by critical periods of vulnerability during prenatal development
MSC: TYPE: Medium

60. When do eyes develop beyond the critical period for major abnormal development from teratogens?
- a. seven weeks
 - b. eight weeks
 - c. nine weeks
 - d. ten weeks

ANS: B PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook
OBJ: LO17: Explain what is meant by critical periods of vulnerability during prenatal development
MSC: TYPE: Medium

61. Which of the following refers to a condition that is present at birth and results from genetic or chromosomal abnormalities?
- a. congenital
 - b. phenotypical
 - c. teratogenic
 - d. dysfunctional

ANS: A PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook
OBJ: LO15: Describe the stages of prenatal development MSC: TYPE: Easy

62. Which of the following is most known to cripple the body's immune system?
- a. syphilis
 - b. HIV/AIDS
 - c. rubella
 - d. toxemia

ANS: B PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook | Reading - Preventing HIV in the Unborn, Online
OBJ: LO18: Discuss environmental risks to the embryo and fetus
MSC: TYPE: Medium

63. Which of the following is a life-threatening disease, characterized by high blood pressure?
- a. rubella
 - b. toxemia
 - c. syphilis
 - d. HIV/AIDS

ANS: B PTS: 1 DIF: Bloom's: Remember
REF: 2.2 Prenatal Development, Textbook
OBJ: LO18: Discuss environmental risks to the embryo and fetus
MSC: TYPE: Easy

64. When does Rh incompatibility happen?
- a. When the mother is Rh negative and carries an Rh negative fetus.
 - b. When the mother is Rh positive and carries an Rh negative fetus.
 - c. When the mother is Rh negative and carries an Rh positive fetus.
 - d. When the mother is Rh positive and carries an Rh positive fetus.

ANS: C PTS: 1 DIF: Bloom's: Apply
REF: 2.2 Prenatal Development, Textbook
OBJ: LO18: Discuss environmental risks to the embryo and fetus
MSC: TYPE: Difficult

65. What unsafe substance was prescribed in the mid-1900s to help prevent miscarriage?
- a. progestin
 - b. diethylstilbestrol
 - c. thalidomide
 - d. aspirin

ANS: B PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook
OBJ: LO18: Discuss environmental risks to the embryo and fetus
MSC: TYPE: Medium

66. What substance has been linked to toxemia?
- a. cocaine
 - b. marijuana
 - c. heroin
 - d. alcohol

ANS: C PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook
OBJ: LO18: Discuss environmental risks to the embryo and fetus
MSC: TYPE: Medium

67. Which of the following causes FAS?
- a. alcohol
 - b. caffeine
 - c. cocaine
 - d. heroin

ANS: A PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook
OBJ: LO18: Discuss environmental risks to the embryo and fetus
MSC: TYPE: Medium

68. Which of the following most decreases the flow of oxygen to the fetus?
- a. cocaine
 - b. marijuana
 - c. alcohol
 - d. cigarettes

ANS: D PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook
OBJ: LO18: Discuss environmental risks to the embryo and fetus
MSC: TYPE: Medium

69. What describes the most accurate relationship between parental age and conception?
- a. The younger the female is, the better
 - b. The older the female is, the better

- c. It does not matter what age the male is.
- d. Both older males and females present problems.

ANS: D PTS: 1 DIF: Bloom's: Apply
REF: 2.2 Prenatal Development, Textbook
OBJ: LO19: Discuss the risks associated with the age of the parents to the embryo and fetus
MSC: TYPE: Difficult

70. Which of the following is an increased risk for children born to men over 40?
- a. premature baby
 - b. autism
 - c. FAS
 - d. physical deformities

ANS: B PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook
OBJ: LO19: Discuss the risks associated with the age of the parents to the embryo and fetus
MSC: TYPE: Easy

71. What is the likelihood that a child born in China will die during the first year as compared to a child born in Italy?
- a. Four times more likely
 - b. Four times less likely
 - c. Six times more likely
 - d. Six times less likely

ANS: C PTS: 1 DIF: Bloom's: Remember
REF: 2.3 Childbirth, Textbook | Reading - Global Birthdates, Online
OBJ: LO25: Discuss global differences in maternal and child mortality
MSC: TYPE: Medium

72. What is most likely indicated by a mucus discharge in the last month of pregnancy?
- a. The plug protecting the cervix has dislodged.
 - b. The amniotic sac has burst.
 - c. The end of the first stage of childbirth.
 - d. Prostaglandins are being released.

ANS: A PTS: 1 DIF: Bloom's: Apply
REF: 2.3 Childbirth, Textbook
OBJ: LO20: Describe the events that indicate that a baby is ready to be born
MSC: TYPE: Difficult

73. Which of the following is used to widen the vaginal opening?
- a. transition
 - b. episiotomy
 - c. C-section
 - d. local anesthetic

ANS: B PTS: 1 DIF: Bloom's: Understand
REF: 2.3 Childbirth, Textbook
OBJ: LO20: Describe events that indicate that a baby is ready to be born.
MSC: TYPE: Easy

74. What is the primary event during transition?
- a. Contractions begin.
 - b. The cervix begins to dilate.
 - c. The baby's head crowns.
 - d. The baby's head begins to move into the vagina.

ANS: D PTS: 1 DIF: Bloom's: Apply
REF: 2.3 Childbirth, Textbook | Video - A Birth, Online
OBJ: LO20: Describe events that indicate that a baby is ready to be born

MSC: TYPE: Difficult

75. Which of the following has the most bearing on whether or not an episiotomy is performed?
- a. The size of the infant's shoulders
 - b. The weight of the infant
 - c. The condition of the mother
 - d. The physician's normal practice

ANS: D PTS: 1 DIF: Bloom's: Apply
REF: 2.3 Childbirth, Textbook | Reading - Birthing Options, Online
OBJ: LO21: Describe the three stages of childbirth MSC: TYPE: Medium

76. Which of the following would be used to numb a mother's external genitals?
- a. A general anesthetic pudendal block
 - b. A local anesthetic pudendal block
 - c. A general anesthetic epidural block
 - d. A local anesthetic epidural block

ANS: B PTS: 1 DIF: Bloom's: Understand
REF: 2.3 Childbirth, Textbook | Reading - Birthing Options, Online
OBJ: LO22: Discuss methods of childbirth MSC: TYPE: Difficult

77. Which form of childbirth most utilizes a coach?
- a. anesthesia
 - b. natural
 - c. Lamaze
 - d. cesarean

ANS: C PTS: 1 DIF: Bloom's: Remember
REF: 2.3 Childbirth, Textbook | Reading - Birthing Options, Online
OBJ: LO22: Discuss methods of childbirth MSC: TYPE: Easy

78. What is the rate of C-section births in the United States?
- a. Three in every 10
 - b. Four in every 10
 - c. Five in every 10
 - d. Six in every 10

ANS: A PTS: 1 DIF: Bloom's: Remember
REF: 2.3 Childbirth, Textbook | Reading - Birthing Options, Online
OBJ: LO22: Discuss methods of childbirth MSC: TYPE: Medium

79. At what point is a baby no longer considered preterm?
- a. 36 weeks
 - b. 37 weeks
 - c. 38 weeks
 - d. 39 weeks

ANS: C PTS: 1 DIF: Bloom's: Understand
REF: 2.3 Childbirth, Textbook
OBJ: LO24: Discuss the problems of preterm and low-birth-weight infants
MSC: TYPE: Medium

80. When a baby does not receive enough oxygen in utero to develop properly, the resulting condition is called _____.

- a. lanugo
- b. hypoxia
- c. breech
- d. aphasia

ANS: B PTS: 1 DIF: Bloom's: Remember
REF: 2.3 Childbirth, Textbook
OBJ: LO23: Discuss oxygen deprivation during childbirth MSC: TYPE: Easy

81. Which of the following is considered a normal birth weight?
- a. three pounds
 - b. four pounds
 - c. five pounds
 - d. six pounds

ANS: D PTS: 1 DIF: Bloom's: Remember
REF: 2.3 Childbirth, Textbook
OBJ: LO24: Discuss the problems of preterm and low-birth-weight infants
MSC: TYPE: Easy

82. What is the term for the fine hair associated with preterm birth?
- a. vernix
 - b. lanugo
 - c. neonate
 - d. anoxia

ANS: B PTS: 1 DIF: Bloom's: Remember
REF: 2.3 Childbirth, Textbook
OBJ: LO24: Discuss the problems of preterm and low-birth-weight infants
MSC: TYPE: Easy

83. Which country is the safest place to give birth?
- a. United States
 - b. England
 - c. Ireland
 - d. Spain

ANS: C PTS: 1 DIF: Bloom's: Remember
REF: 2.3 Childbirth, Textbook | Reading - Global Birthrates, Online
OBJ: LO25: Discuss global differences in maternal and child mortality
MSC: TYPE: Medium

84. Which of the following increases the maternal mortality rate in the United States?
- a. large urban populations
 - b. large rural populations
 - c. large immigrant populations
 - d. large older populations

ANS: B PTS: 1 DIF: Bloom's: Understand
REF: 2.3 Childbirth, Textbook | Reading - Maternal and Infant Mortality, Online
OBJ: LO25: Discuss global differences in maternal and child mortality
MSC: TYPE: Difficult

85. Why is an ultrasound used in high risk pregnancies?
- a. To check for gender
 - b. To check for abnormalities
 - c. To check for height and weight
 - d. To check for age

ANS: B PTS: 1 DIF: Bloom's: Understand
REF: 2.1 Genetic Influences on Development, Textbook | Video - Prenatal Doctor's Visit, Online
OBJ: LO7: Describe prenatal testing methods for chromosomal and genetic abnormalities
MSC: TYPE: Medium

86. What information does the ultrasound provide in a high-risk pregnancy?
- a. Diagnosis of chromosomal abnormalities
 - b. Diagnosis of Down Syndrome
 - c. Estimated need for additional screening
 - d. The extent of abnormalities

ANS: C PTS: 1 DIF: Bloom's: Understand
REF: 2.1 Genetic Influences on Development, Textbook | Video - Prenatal Doctor's Visit, Online
OBJ: LO7: Describe prenatal testing methods for chromosomal and genetic abnormalities
MSC: TYPE: Difficult

87. Which of the following can be determined from the ultrasound?
- a. FAS
 - b. height
 - c. Huntington's disease
 - d. paternity

ANS: B PTS: 1 DIF: Bloom's: Understand
REF: 2.1 Genetic Influences on Development, Textbook | Video - Prenatal Doctor's Visit, Online
OBJ: LO7: Describe prenatal testing methods for chromosomal and genetic abnormalities
MSC: TYPE: Medium

88. According to Hur, 2005; Johnson et al., 2004; McCrae et al., 2000, which of the following is true?
- MZ twins resemble one another more strongly than DZ twins in intelligence and personality traits.
 - MZ twins resemble one another less strongly than DZ twins in intelligence and personality traits.
 - DZ twins are more likely to share psychological disorders than MZ twins.
 - DZ twins are more likely to be similar in height.

ANS: A PTS: 1 DIF: Bloom's: Understand
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO9 Explain how twin studies and adoption studies are used to sort out the effects of nature and nurture MSC: TYPE: Medium

89. Which of the following is NOT one of the components of DNA?
- phosphates
 - androgens
 - bases
 - androgens

ANS: B PTS: 1 DIF: Bloom's: Remember
REF: 2.1 Genetic Influences on Development, Textbook | Animation - The Double Helix of DNA, Online
OBJ: LO1: Define chromosomes and genes MSC: TYPE: Medium

90. What did Bouchard find in his study?
- Identical twins varied greatly in behaviors.
 - Identical twins varied greatly in personality traits.
 - The twins were identical in behaviors.
 - The twins were very similar in personality traits.

ANS: D PTS: 1 DIF: Bloom's: Understand
REF: 2.1 Genetic Influences on Development, Textbook
OBJ: LO9: Explain how twin studies and adoption studies are used to sort out the effects of nature and nurture MSC: TYPE: Medium

91. According to your online video resources, which of the following is a common reason for infertility?
- genetic abnormalities
 - stress
 - low sperm count
 - irregular ovulation

ANS: B PTS: 1 DIF: Bloom's: Understand
REF: 2.2 Prenatal Development, Textbook | Video - Stress and Pregnancy, Online
OBJ: LO13: Discuss infertility MSC: TYPE: Medium

92. Which part of the brain was implicated in infertility by Dr. Berga due to stress?
- amygdala
 - basal ganglia
 - hypothalamus
 - frontal cortex

ANS: C PTS: 1 DIF: Bloom's: Apply
REF: 2.2 Prenatal Development, Textbook | Video - Stress and Pregnancy, Online
OBJ: LO13: Discuss infertility MSC: TYPE: Difficult

93. According to Signorello & McLaughlin, 2004, research findings on caffeine's effects on the developing fetus ____.

- a. show that caffeine consumption is harmful in the first trimester
- b. have been inconsistent
- c. show that caffeine consumption has no adverse effects on the fetus
- d. illustrate the benefits of caffeine for both mother and fetus

ANS: B PTS: 1 DIF: Bloom's: Understand
 REF: 2.2 Prenatal Development, Textbook | Reading - Should Pregnant Women Avoid Caffeine?,
 Online OBJ: LO18: Discuss environmental risks to the embryo and fetus
 MSC: TYPE: Medium

94. According to Krueger et al., 2004; Lecanuet et al., 2005, what is one basis for the development of attachment to the mother in the womb?
- a. fetal learning
 - b. good nutrition
 - c. socioeconomic status
 - d. stable family environment

ANS: A PTS: 1 DIF: Bloom's: Understand
 REF: 2.2 Prenatal Development, Textbook | Reading - Fetal Perception, Online
 OBJ: LO10: Discuss the stages of prenatal development MSC: TYPE: Difficult

SHORT ANSWER

1. What is the cause of Turner syndrome and what are two characteristics of the syndrome?

ANS:
 Turner syndrome occurs when a female has only one X sex chromosome. The ovaries are poorly developed and they produce little estrogen.

PTS: 1 DIF: Bloom's: Evaluate
 REF: 2.1 Genetic Influences on Development, Textbook
 OBJ: LO5: Discuss chromosomal disorders MSC: TYPE: Medium

2. Describe Huntington's Disease and identify three symptoms.

ANS:
 Huntington's disease is a fatal, progressive degenerative disorder and a dominant trait, affecting approximately 1 in 18,000 Americans. Symptoms include uncontrollable muscle movements, loss of intellectual function, and personality change.

PTS: 1 DIF: Bloom's: Evaluate
 REF: 2.1 Genetic Influences on Development, Textbook
 OBJ: LO6: Discuss genetic disorders MSC: TYPE: Medium

3. Describe an ultrasound and its functionality.

ANS:
 An ultrasound is a testing procedure that uses sound waves that are too high in frequency to be heard by the human ear to obtain information about the fetus. The ultrasound creates a picture of the fetus and track the fetus' growth.

PTS: 1 DIF: Bloom's: Evaluate
 REF: 2.1 Genetic Influences on Development, Textbook
 OBJ: LO6: Discuss genetic disorders MSC: TYPE: Medium

4. Differentiate between twin studies and adoption studies.

ANS:

Twin studies looked at MZ twins separated at birth and raised in different homes. Adoption studies looked at children separated at an early age and reared by adoptive parents.

PTS: 1 DIF: Bloom's: Evaluate

REF: 2.1 Genetic Influences on Development, Textbook

OBJ: LO9: Explain how twin studies and adoption studies are used to sort out the effects of nature and nurture MSC: TYPE: Difficult

5. How do fertility drugs act to create multiple births?

ANS:

Fertility drugs consist of hormones that cause women to ovulate. This could stimulate more than one ovum to ripen during a month.

PTS: 1 DIF: Bloom's: Evaluate

REF: 2.2 Prenatal Development, Textbook

OBJ: LO13: Discuss infertility

MSC: TYPE: Medium

6. List the three periods of prenatal development and provide the ages related to each.

ANS:

Germinal stage - approximately the first two weeks

Embryonic stage - third through eighth weeks

Fetal stage - third month through birth

PTS: 1 DIF: Bloom's: Evaluate

REF: 2.2 Prenatal Development, Textbook

OBJ: LO15: Describe the stages of prenatal development

MSC: TYPE: Medium

7. What is the ectoderm and why is it important?

ANS:

During the embryonic stage, the outer layer of cells of the embryonic disk, or ectoderm, develops into the nervous system, sensory organs, nails, hair, teeth, and outer layer of skin.

PTS: 1 DIF: Bloom's: Evaluate

REF: 2.2 Prenatal Development, Textbook

OBJ: LO15: Describe the stages of prenatal development

MSC: TYPE: Difficult

8. Define teratogens and give two examples.

ANS:

Teratogens are environmental agents that can harm the embryo or fetus. Two examples are marijuana and alcohol.

PTS: 1 DIF: Bloom's: Analyze

REF: 2.2 Prenatal Development, Textbook

OBJ: LO15: Describe the stages of prenatal development.

MSC: TYPE: Difficult

9. Why do some physicians do an episiotomy?

ANS:

The purpose of an episiotomy is to prevent random tearing when the area between the birth canal and the anus becomes severely stretched.

PTS: 1 DIF: Bloom's: Apply
OBJ: LO21: Describe the three stages of childbirth

REF: 2.3 Childbirth, Textbook
MSC: TYPE: Medium

10. Name three reasons the maternal mortality rate in the United States is higher than it should be.

ANS:

States with above-average poverty rates, large rural populations, and below-average levels of education result in higher maternal mortality rates.

PTS: 1 DIF: Bloom's: Apply
OBJ: LO25: Discuss global differences in maternal and child mortality
MSC: TYPE: Medium

REF: 2.3 Childbirth, Textbook