True / False

1. Nearly one-third of all pregnancies result in miscarriage, most occurring in the first three months.
   a. True
   b. False

   ANSWER: True
   REFERENCES: 3.1 The Germinal Stage: Wanderings
   LEARNING OBJECTIVES: VOYG.RATH.17.3.1 - Describe the events that occur during the germinal stage of prenatal development.
   KEYWORDS: Bloom's: Understand

2. During the embryonic stage, the zygote travels to the uterus and becomes implanted.
   a. True
   b. False

   ANSWER: False
   REFERENCES: 3.2 The Embryonic Stage
   LEARNING OBJECTIVES: VOYG.RATH.17.3.1 - Describe the events that occur during the germinal stage of prenatal development.
   KEYWORDS: Bloom's: Understand

3. The amniotic fluid provides nourishment until the baby is born.
   a. True
   b. False

   ANSWER: False
   REFERENCES: 3.2 The Embryonic Stage
   LEARNING OBJECTIVES: VOYG.RATH.17.3.1 - Describe the events that occur during the germinal stage of prenatal development.
   KEYWORDS: Bloom's: Understand

4. Mother and fetus share one circulatory system; that is, they share one bloodstream.
   a. True
   b. False

   ANSWER: False
   REFERENCES: 3.2 The Embryonic Stage
   LEARNING OBJECTIVES: VOYG.RATH.17.3.1 - Describe the events that occur during the germinal stage of prenatal development.
   KEYWORDS: Bloom's: Understand

5. In the second trimester, the fetus grows from about three inches long to about 14 inches long.
   a. True
   b. False

   ANSWER: True
   REFERENCES: 3.3 The Fetal Stage
   LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
   KEYWORDS: Bloom's: Understand

6. Only 10% of all infants born from 18 to 22 weeks of gestation will survive.
   a. True
   b. False

   ANSWER: False
   REFERENCES: 3.3 The Fetal Stage
   LEARNING OBJECTIVES: VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus
   KEYWORDS: Bloom's: Understand

7. Mothers do not usually feel the first fetal movements until the end of the sixth month of pregnancy.
   a. True
   b. False

   ANSWER: False
   REFERENCES: 3.3 The Fetal Stage
   LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
   KEYWORDS: Bloom's: Understand

8. Prenatal activity predicts activity level after birth.
   a. True
   b. False

   ANSWER: True
   REFERENCES: 3.3 The Fetal Stage
   LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
   KEYWORDS: Bloom's: Understand

9. Fetal movements are random and do not relate to external events.
   a. True
   b. False

   ANSWER: False
   REFERENCES: 3.4 Environmental Influences on Prenatal Development
   LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
   KEYWORDS: Bloom's: Understand

10. The fetus is more vulnerable than the embryo to teratogens.
    a. True
    b. False

    ANSWER: False
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

11. Rh incompatibility happens when androgens produced by the child are transmitted to the mother.
    a. True
    b. False

    ANSWER: False
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

12. DES is associated with cancer in the reproductive organs of children of women who used it.
    a. True
    b. False

    ANSWER: True
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

13. Very high doses of vitamins A and D are good for the developing fetus.
    a. True
    b. False

    ANSWER: False
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

14. "Environmental hazards" include lead, mercury, and PCBs.
    a. True
    b. False

    ANSWER: True
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

15. Fetal alcohol syndrome (FAS) results in more severe symptoms than fetal alcohol effect (FAE).
    a. True
    b. False

    ANSWER: True
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

Multiple Choice

16. Pregnancies can be dated from the onset of the last menstrual period before conception or by
    a. assuming conception occurredtwo weeks after the beginning of a woman's last menstrual cycle.
    b. counting ahead nine months from the date the woman learned she was pregnant.
    c. counting forward from the date the woman believes she conceived.
    d. pregnancies are not dated as there is too much variability from woman to woman.

    ANSWER: a
    REFERENCES: Introduction
    LEARNING OBJECTIVES: VOYG.RATH.17.3.1 - Describe the events that occur during the germinal stage of prenatal development.
    KEYWORDS: Bloom's: Remember

17. Prenatal development can be thought of in terms of the germinal, embryonic, and fetal periods. Or, it can be thought of as three trimesters. In terms of the way time is divided into periods, these two viewpoints are
    a. identical; they both see prenatal development as occurring in three 3-month periods.
    b. identical; they both see prenatal development as divided into the first two weeks, week 3 through 8, and the third month through birth.
    c. similar in that both assume a pregnancy will last 266 days.
    d. different in how development is viewed.

    ANSWER: d
    REFERENCES: Introduction
    LEARNING OBJECTIVES: VOYG.RATH.17.3.1 - Describe the events that occur during the germinal stage of prenatal development.
    KEYWORDS: Bloom's: Remember

18. Once in the uterus, the zygote
    a. stops dividing into more cells.
    b. becomes implanted immediately.
    c. wanders around for 3 or 4 days before becoming implanted.
    d. is now called a fetus.

    ANSWER: c
    REFERENCES: 3.1 The Germinal Stage: Wanderings
    LEARNING OBJECTIVES: VOYG.RATH.17.3.1 - Describe the events that occur during the germinal stage of prenatal development.
    KEYWORDS: Bloom's: Remember

19. Within 36 hours after conception, the zygote consists of ____ cells.
    a. 2
    b. 36
    c. hundreds of
    d. several thousand

    ANSWER: a
    REFERENCES: 3.1 The Germinal Stage: Wanderings
    LEARNING OBJECTIVES: VOYG.RATH.17.3.1 - Describe the events that occur during the germinal stage of prenatal development.
    KEYWORDS: Bloom's: Remember

20. The embryonic disk is part of the ____ that eventually becomes the embryo.
    a. blastocyst
    b. trophoblast
    c. placenta
    d. sperm cell

    ANSWER: a
    REFERENCES: 3.1 The Germinal Stage: Wanderings
    LEARNING OBJECTIVES: VOYG.RATH.17.3.1 - Describe the events that occur during the germinal stage of prenatal development.
    KEYWORDS: Bloom's: Remember

21. Prior to implantation, how are the developing cells that will become the fetus nourished?
    a. Nourishment is not necessary at this stage of development.
    b. From the umbilical cord and through the placenta
    c. From the yolk of the original egg cell
    d. From the endoderm of the blastocyst

    ANSWER: c
    REFERENCES: 3.1 The Germinal Stage: Wanderings
    LEARNING OBJECTIVES: VOYG.RATH.17.3.1 - Describe the events that occur during the germinal stage of prenatal development.
    KEYWORDS: Bloom's: Remember

22. Which of the following does NOT develop from the four membranes of the trophoblast?
    a. Zygote
    b. Amniotic sac
    c. Umbilical cord
    d. Placenta

    ANSWER: a
    REFERENCES: 3.1 The Germinal Stage: Wanderings
    LEARNING OBJECTIVES: VOYG.RATH.17.3.1 - Describe the events that occur during the germinal stage of prenatal development.
    KEYWORDS: Bloom's: Remember

23. Nina says that a newly fertilized egg cell cannot survive without nourishment from the mother. Carole says that the fertilized egg cell is nourished by the yolk of the ovum and gains mass before implantation. Sarah says that the fertilized egg cell only gains mass after implantation. Which person is correct?
    a. Nina only
    b. Carole only
    c. Sarah only
    d. Nina and Sarah are correct, but Carole is not.

    ANSWER: b
    REFERENCES: 3.1 The Germinal Stage: Wanderings
    LEARNING OBJECTIVES: VOYG.RATH.17.3.1 - Describe the events that occur during the germinal stage of prenatal development.
    KEYWORDS: Bloom's: Apply

24. Prema has read many books about pregnancy. Each gives a different estimate for how many pregnancies end in miscarriage. Given what you know from your text, which estimate is MOST accurate?

    a. About 50%
    b. About 33%
    c. Less than 10%
    d. About 75%

    ANSWER: b
    REFERENCES: 3.1 The Germinal Stage: Wanderings
    LEARNING OBJECTIVES: VOYG.RATH.17.3.1 - Describe the events that occur during the germinal stage of prenatal development.
    KEYWORDS: Bloom's: Apply

25. If a fetus's spine develops before its fingernails, this represents proximodistal development, characterized by
    a. growth spreads outward from the spine.
    b. development from the head down.
    c. at birth, the head is oversized in comparison to the body.
    d. upward from the trunk toward the brain.

    ANSWER: a
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Apply

26. If a fetus's upper arms develop before the lower forearms, this is called cephalocaudal development and is characterized by
    a. growth spreads outward from the spine.
    b. development from the head down.
    c. inner organs grow faster than the extremities.
    d. upward from the trunk toward the brain.

    ANSWER: b
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Understand

27. Given the cephalocaudal pattern of development, which of the following should happen first?
    a. Development of the sensory systems
    b. Growth of the hands and feet
    c. Development of the brain and spinal cord
    d. Development of the kidneys and liver

    ANSWER: c
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

28. If the body were considered to have a central axis, it would be the:
    a. brain
    b. heart
    c. spinal cord.
    d. lungs.

    ANSWER: c
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

29. The nails, hair, teeth, and outer layer of skin develop from the
    a. endoderm.
    b. ectoderm.
    c. mesoderm.
    d. neural tube.

    ANSWER: b
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

30. At about 21 days, two ridges appear in the embryo and fold to make up the neural tube, which develops into the
    a. nails, hair, and teeth.
    b. digestive system, liver, and pancreas.
    c. brain and spinal cord.
    d. circulatory system, muscles, and skeleton.

    ANSWER: c
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

31. When the heart begins to beat in the developing embryo,
    a. it is usually during the fourthweek after conception.
    b. the organism weighs a fraction of an ounce.
    c. the organism is only two to three inches in length.
    d. the endoderm is fusing with the ectoderm.

    ANSWER: b
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

32. Before the end of the first month of embryonic development, the neural tube is producing about 400 million neurons per

a. second.
b. minute.
c. day.
d. week.

ANSWER: c
REFERENCES: 3.2 The Embryonic Stage
LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
KEYWORDS: Bloom's: Remember

33. When the genetic code (XX or XY) begins to assert itself,
a. genetic activity on the Y sex chromosome causes ovaries to begin to differentiate.
b. genetic activity on the X sex chromosome causes ovaries to begin to differentiate.
c. ovaries begin to differentiate if the Y sex chromosome is absent.
d. testes begin to differentiate if the Y sex chromosome is absent.

ANSWER: c
REFERENCES: 3.2 The Embryonic Stage
LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
KEYWORDS: Bloom's: Remember

34. According to the textbook, ____ is required for the development of male genital organs.
a. androgens
b. progestin
c. Wolffianinhibiting substance
d. estradiol

ANSWER: a
REFERENCES: 3.2 The Embryonic Stage
LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
KEYWORDS: Bloom's: Remember

35. Female and male embryos have a pair of sexually undifferentiated gonads and two sets of primitive duct structures. These are known as the ____ and ____ducts.
    a. XX; XY
    b. MIS; DHT
    c. Mullerian; Wolffian
    d. testosterone; estrogen

    ANSWER: c
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

36. Without the influence of ____, all individuals, whether genetically female or male, would develop female external genitalia.
    a. androgens
    b. oxytocin
    c. progesterone
    d. prolactin

    ANSWER: a
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

37. When a developing embryo is exposed to higher levels of testosterone, this will lead to
    a. the development of the fallopian tubes.
    b. the development of the uterus.
    c. the growth of the Mullerian bulbs.
    d. the differentiation of the Wolffian system.

    ANSWER: d
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

38. It is the job of the amniotic sac to
    a. allow the fetus to exchange nutrients and wastes with the mother.
    b. help the developing fetus maintain a stable temperature.
    c. filter germs and drugs away from the developing fetus.
    d. provide oxygenated blood to the developing child.

    ANSWER: b
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

39. What makes the placenta unique in origin?
    a. It is the first fetal structure to develop.
    b. It allows oxygen and nutrients between mother and embryo to mix.
    c. It develops from material from both the mother and embryo.
    d. It provides the fluid that surrounds the embryo and protects it.

    ANSWER: c
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

40. The fetus is connected to the placenta by the ____, whereas the mother is connected to the placenta by the ____.
    a. umbilical cord; system of blood vessels in the uterine wall
    b. system of blood vessels in the uterine wall; umbilical cord
    c. umbilical cord; amniotic sac
    d. amniotic sac; system of blood vessels in the uterine wall

    ANSWER: a
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

41. The placenta contains a membrane that acts as a filter. It allows for which of the following to pass from mother to fetus?
    a. Nutrients only
    b. Oxygen only
    c. Germs only
    d. Nutrients, oxygen, and germs

    ANSWER: d
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

42. What structure secretes hormones that stimulate the uterine contractions that prompt childbirth?
    a. The umbilical cord
    b. The placenta
    c. The amniotic sac
    d. The uterus itself

    ANSWER: b
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

43. If a child is born with alcohol-related abnormalities, which of the following would *not* be a safe assumption?
    a. The mother ingested alcohol sometime during the pregnancy.
    b. Alcohol can be passed from the mother to the developing child.
    c. That the placenta was unable to keep the alcohol from being passed to the child.
    d. The child will suffer from intellectual disability later in life.

    ANSWER: d
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

44. Women who are infected with HIV can pass it to their offspring
    a. through skin-to-skin contact.
    b. during delivery through contact with maternal blood and fluids.
    c. in all cases.
    d. when there is intravenous drug use taking place during the pregnancy..

    ANSWER: b
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

45. Which of the following is TRUE regarding the placenta?
    a. It secrets hormones that prepare the breasts for nursing.
    b. It inhibitscontractions that prompt childbirth.
    c. It is also called the amnion.
    d. It cannot be seen on an ultrasound.

    ANSWER: a
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

46. Which of the following secretes hormones that preserve the pregnancy?
    a. The placenta
    b. The umbilical cord
    c. The amniotic sac
    d. The trophoblast

    ANSWER: a
    REFERENCES: 3.2 The Embryonic Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
    KEYWORDS: Bloom's: Remember

47. All of the following occur by the end of the second trimester EXCEPT for
    a. advancing from one ounce to two pounds in weight.
    b. growing four to five times in length.
    c. opening and closing of the eyes.
    d. fetal activity level decreases.

    ANSWER: d
    REFERENCES: 3.3 The Fetal Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
    KEYWORDS: Bloom's: Remember

48. During the pregnancy, when have all of the fetal organs formed?
    a. By the end of the first trimester
    b. Not until the end of the second trimester
    c. Halfway through the third trimester
    d. It depends upon the particular developing fetus.

    ANSWER: a
    REFERENCES: 3.3 The Fetal Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
    KEYWORDS: Bloom's: Remember

49. During the pregnancy, when will the developing fetus alternate between periods of wakefulness and sleep?
    a. In the first trimester
    b. By the end of the second trimester
    c. Not until the end of the third trimester
    d. It depends upon the particular developing fetus.

    ANSWER: b
    REFERENCES: 3.3 The Fetal Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
    KEYWORDS: Bloom's: Remember

50. Kenisha had an ultrasound and sees that her developing fetus is sucking its thumb. What can we infer from this?
    a. That Kenisha is at least at the end of the first trimester
    b. That the developing fetus must be at least 24 weeks of gestation
    c. That the fetus will also have periods of wakefulness and sleep
    d. That Kenisha has successfully avoided being exposed to teratogens during the pregnancy

    ANSWER: c
    REFERENCES: 3.3 The Fetal Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
    KEYWORDS: Bloom's: Apply

51. Danielle is at the end of her second trimester. Her fetus kicks and moves whenever she plays jazz music. What can we infer from this?
    a. The fetus can perceive sounds.
    b. The movement is random because the fetus cannot yet hear.
    c. The fetus has developed enough that it can now survive independently if born.
    d. What we could infer would depend upon the rhythm of the music.

    ANSWER: a
    REFERENCES: 3.3 The Fetal Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
    KEYWORDS: Bloom's: Apply

52. In the DeCasper and Fifer study (1980), infants showed a preference for the reading of
    a. The King, the Mice, and the Cheese.
    b. The Cat in the Hat.
    c. Where the Wild Things Are.
    d. Goodnight Moon.

    ANSWER: b
    REFERENCES: 3.3 The Fetal Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
    KEYWORDS: Bloom's: Remember

53. DeCasper and colleagues (1984, 1986, 1991) found that newborns preferred the voices of their own mothers to that of their fathers or unfamiliar women. Their explanation was that
    a. newborns simply had less exposure to the voices of their fathers and unfamiliar women.
    b. this might be a basis for attachment to the mother.
    c. while female infants preferred their mother's voices, male infants preferred their father's voices.
    d. this preference disappeared by the time the infants were two months old.

    ANSWER: b
    REFERENCES: 3.3 The Fetal Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
    KEYWORDS: Bloom's: Understand

54. What methods can we use to determine if a fetus can differentiate between different sounds?
    a. Differences in their movements in response to different sounds
    b. Changes in fetal brain activity.
    c. Demonstration of the in-utero Moro reflex
    d. An absence of the Babinski sign

    ANSWER: a
    REFERENCES: 3.3 The Fetal Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
    KEYWORDS: Bloom's: Remember

55. What can be said regarding detectable fetal movements across pregnancy?
    a. Slow squirming movements begin at about 5 or 6 months.
    b. Sharp jabbing or kicking movements begin at 5 or 6 months and progressively declin.e
    c. Movements begin at 5 to 6 months and increase steadily until the fetus is born.
    d. The fetus is only active when the mother is active.

    ANSWER: a
    REFERENCES: 3.3 The Fetal Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
    KEYWORDS: Bloom's: Remember

56. Why might the fetus move less often during the ninth month of gestation than before?
    a. Growth has slowed, so movements will too.
    b. The fetus is conserving energy for the difficult birth process.
    c. The fetus is spending more time sleeping.
    d. The fetus is larger and there is simply less room for movement.

    ANSWER: d
    REFERENCES: 3.3 The Fetal Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
    KEYWORDS: Bloom's: Understand

57. Which of the following is TRUE regarding fetal activity in utero?
    a. It varies by individual child.
    b. It varies by sex of fetus.
    c. Highly active fetuses show less advanced motor development after birth.
    d. It predicts infant intelligence at 6 months of age.

    ANSWER: a
    REFERENCES: 3.3 The Fetal Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
    KEYWORDS: Bloom's: Remember

58. Prenatally, Michael was a non-active and lethargic fetus. Given the research on fetal activity levels, what might you expect to find postnatally?
    a. High activity levels because he rested in utero
    b. Less advanced motor development after birth than more active fetuses.
    c. Low activity levels and slower physical development across the first year
    d. Prenatal activity is unrelated to postnatal activity

    ANSWER: b
    REFERENCES: 3.3 The Fetal Stage
    LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
    KEYWORDS: Bloom's: Apply

59. Which of the following statements is TRUE?
    a. Maternal malnutrition has no effect on fetal health.
    b. Fetuses "take what they need" from their mothers in terms of nutrition.
    c. Supportive caregiving environments cannot offset the negative effects of fetal malnutrition.
    d. Maternal malnutrition is related to fetal prematurity and cognitive deficiencies.

    ANSWER: d
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus
    KEYWORDS: Bloom's: Remember

60. What can be done to offset the negative cognitive effects of fetal malnutrition?
    a. Enriched day-care programs for the children
    b. A vitamin regimen for the children
    c. Regular exercise for the children
    d. Nothing can be done to undo the negative cognitive effects.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus
    KEYWORDS: Bloom's: Remember

61. Maternal obesity is associated with
    a. increased risk of miscarriage.
    b. higher risk of stillbirth.
    c. cognitive deficits in the newborn.
    d. slower physical development.

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus
    KEYWORDS: Bloom's: Remember

62. In a study by Shaw and colleagues, the higher the level of maternal obesity, the higher the rate of neural tube defects. Folic acid supplements
    a. were effective in reducing neural tube defects for all women.
    b. were not effective in women weighing more than 154 pounds.
    c. were effective only in the most obese women.
    d. increased the rate of neural tube defects.

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus
    KEYWORDS: Bloom's: Remember

63. If Emmeline wants to increase the amount of vitamin E in her diet while she is pregnant, she should eat more

a. citrus.
b. meat, egg yolk, and raisins.
c. wheat germ and whole grain bread.
d. dairy.

ANSWER: b
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus
KEYWORDS: Bloom's: Apply

64. If you know that someone is attempting to increase their intake of zinc and cobalt, what might they be more of?
a. liver
b. seafood
c. leafy vegetables
d. wheat germ

ANSWER: b
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus
KEYWORDS: Bloom's: Remember

65. To help ensure the health of her fetus, Rita eats green leafy vegetables every day. This helps increase her intake of
a. vitamin B.
b. zinc.
c. iron.
d. folic acid.

ANSWER: d
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus
KEYWORDS: Bloom's: Apply

66. What can be done to improve the motor development of fetuses of malnourished mothers?
a. Exercise by the mother during the pregnancy
b. The motor development cannot be improved once the mother is malnourished
c. It depends upon the sex of the child.
d. Provide protein and calorie supplements to the mother during the pregnancy

ANSWER: d
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus
KEYWORDS: Bloom's: Remember

67. Aside from eating a well-balanced diet, many pregnant women take folic acid supplements to reduce their chances of giving birth to children with
    a. neural tube defects.
    b. low birth weights.
    c. food allergies.
    d. PKU.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus
    KEYWORDS: Bloom's: Remember

68. Women who are too slender
    a. have the healthiest infants.
    b. are more likely to have infants who are obese.
    c. risk having preterm deliveries and low-birth-weight babies.
    d. should consume diets high in fat and sugar in order to gain weight during pregnancy.

    ANSWER: c
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus
    KEYWORDS: Bloom's: Remember

69. What is the relationship between a woman's BMI and her recommended weight gain during pregnancy?
    a. Slimmer mothers should gain less weight.
    b. Heavier mothers are encouraged to diet while pregnant.
    c. The heavier the mother, the less weight she should gain during pregnancy.
    d. BMI and weight gain are unrelated; each mother decides what is a healthy weight gain for her.

    ANSWER: c
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus
    KEYWORDS: Bloom's: Understand

70. The word teratogen is derived from a word meaning
    a. healthy.
    b. giving birth to monsters.
    c. from head to tail.
    d. critical period.

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus
    KEYWORDS: Bloom's: Remember

71. Which of the following is TRUE about teratogens?
    a. We can usually predict with certainty what their effects will be.
    b. The effects of teratogens may depend upon when after conception they are encountered.
    c. Exposure to teratogens is more likely to affect the fetusthan the embryo.
    d. Teratogens can all be avoided with careful planning.

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

72. Alcohol would be an example of a
    a. fetal stimulant.
    b. hallucinogen.
    c. teratogen.
    d. chemical that cannot cross through the placenta.

    ANSWER: c
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

73. Environmental agents that can harm the embryo or fetus are called
    a. toxins.
    b. critical agents.
    c. teratogens.
    d. cencephalons.

    ANSWER: c
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

74. If a child is born with stunted arms and legs, what may have happened?

a. The fetus was exposed to a significant teratogen between the 4^{th} and 8^{th} weeks after conception.

b. The mother must have ingested alcohol at least once during the pregnancy.

c. The fetus was exposed to a teratogen during the third trimester.

d. The amniotic fluid was infected with some kind of virus.

ANSWER:	a
REFERENCES:	3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES:	VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
KEYWORDS:	Bloom's: Apply

75. According to the textbook, the acronym STI refers to

a. serious terminal indicator.

b. sometimes infectious.

c. sexually transmitted infection.

d. syphilitic infected individual.

ANSWER:	c
REFERENCES:	3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES:	VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
KEYWORDS:	Bloom's: Remember

76. An antibiotic would be MOST successful in fighting which of the following illnesses?

a. Rubella

b. HIV

c. Syphilis

d. Fetal alcohol syndrome

ANSWER:	c
REFERENCES:	3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES:	VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
KEYWORDS:	Bloom's: Remember

77. An infant born with skin sores, a runny nose, slimy patches in the mouth, and anemia may have been exposed to ____ in utero.
    a. the flu
    b. syphilis
    c. rubella
    d. thalidomide

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

78. A pregnant woman is diagnosed as having syphilis. Which of the following is TRUE regarding her fetus?n infant born with skin sores, a runny nose, slimy patches in the mouth, and anemia may have been exposed to ____ in utero.
    a. She will not be given antibiotics, as the syphilis bacterium is immune to antibiotics
    b. She must be in her last trimester, as syphilis cannot be detected earlier in a pregnancy
    c. An infected, untreated woman has about a 40% chance of having a child who is stillborn or who dies shortly after birth
    d. The child will be unaffected, as syphilis cannot cross the placenta

    ANSWER: c
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

79. A baby born to a mother with untreated syphilis
    a. has a 10 to 20% chance of being infected in utero.
    b. is guaranteed to show symptoms at birth.
    c. has a 12% chance of dying from the disease.
    d. will likely be born both blind and deaf.

    ANSWER: c
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

80. In which of the following ways can HIV be passed from parent to child?
    a. Through amniotic fluid
    b. Through rupturing of maternal and fetal blood vessels during childbirth, which allows an exchange of blood and HIV
    c. Via HIV infected sperm
    d. Not possible under any circumstances

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

81. Current recommendations to help prevent the transmission of HIV from mother to child include bottle feeding, C-section, and
    a. HAART.
    b. blood transfusion.
    c. breast-feeding.
    d. high doses of folic acid.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

82. Why do African-American and Puerto Rican children have higher death rates from AIDS than European-American children?
    a. Poor nutrition
    b. Less access to high-quality healthcare
    c. Due to genetic markers within a group
    d. Due to genetic differences among ethnic groups

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

83. Aside from the possibility of being infected with HIV during the birth process, how else might a child become infected by the mother?
    a. By no other means
    b. Through breast milk
    c. By physical contact with the mother after birth
    d. Only with HIV in utero or during the birth process, but not after the fetus is born

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

84. An African study by Nduati et al. (2000) found that the probability of transmission of HIV through breast milk was about 1 in
    a. 6.
    b. 10.
    c. 16.
    d. 25.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

85. It is suspected that the flu (influenza) may lead to such problems as ____ in the developing fetus.
    a. impaired vision and hearing
    b. seizures
    c. autism and schizophrenia
    d. swollen liver, jaundice, and anemia

    ANSWER: c
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

86. Linda is doing research on the possible effects of influenza on the developing fetus. She learns from the research that it may not be the flu virus per se but ____ that may lead to fetal brain abnormalities.
    a. the mother's inflammatory response
    b. the mother's use of over-the-counter remedies to treat the flu
    c. the effects of the mother having a flu shot
    d. the mother's use of prescription drugs to treat the flu

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Apply

87. Which of the following mothers has the greatest chance of giving birth to a baby with birth defects due to contracting rubella during pregnancy?
    a. A woman who has the illness within the first 20 weeks of pregnancy
    b. A woman who contracts the illness during the third trimester
    c. Rubella is equally dangerous at any point from conception to birth
    d. Rubella is only dangerous within one month after the fetus is born

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Apply

88. What would be the BEST way for a woman to ensure that she does not contract rubella during pregnancy?
    a. Check and see if she had it as a child, as this would cause immunity.
    b. Get vaccinated during pregnancy just to be as safe as possible.
    c. Rubella cannot harm the child, so there is nothing to worry about.
    d. Get vaccinated after pregnancy as rubella can only be passed to the child through breast milk.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Apply

89. The number of children in the United States born with birth defects caused by rubella has
    a. risen over time.
    b. dramatically declined since the 1960s.
    c. declined, but is now on the rise again.
    d. remained constant over time.

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

90. Which of the following is NOT a sexually transmitted infection that can affect the fetus?
    a. Genital herpes
    b. Chlamydia
    c. HIV/AIDS
    d. Pre-eclampsia

    ANSWER: d
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

91. What appears to be the only problem linked to pre-eclampsia?
    a. Excess mineral consumption during pregnancy
    b. Prenatal drug use by the mother
    c. Alcohol consumption by the mother
    d. Malnutrition on the part of the mother

    ANSWER: d
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

92. What appears to be the main defense against developing pre-eclampsia?
    a. Controlling intake of fat
    b. Receiving prenatal care
    c. Minimizing intake of protein
    d. Gaining extra weight during pregnancy

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

93. Dona is early in the third trimester of her pregnancy. She has developed a life-threatening disease that is characterized by high blood pressure. Her healthcare provider informed her that this condition is known as
a. rubella.
b. Rh incompatibility.
c. pre-eclampsia.
d. maternal congenital hypertension.

ANSWER: c
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
KEYWORDS: Bloom's: Apply

94. Rh incompatibility results when
a. enzymes produced by the fetus infect the mother.
b. bacteria from the mother cross the placenta and infect the child.
c. antibodies produced by the mother are transmitted to the fetus.
d. high blood pressure in the mother damages the fetal nervous system.

ANSWER: c
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
KEYWORDS: Bloom's: Remember

95. Which of the following is TRUE about Rh incompatibility?
a. It is found in white blood cells.
b. It can only occur when both the mother and fetus are Rh-positive.
c. It occurs in about 20% of all pregnancies.
d. It cannot occur in a first pregnancy.

ANSWER: d
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
KEYWORDS: Bloom's: Remember

96. Regarding Rh incompatibility, if a father is Rh-positive,
a. the fetus will definitely develop the condition.
b. the fetus may develop the illness, but only if the mother is Rh-negative.
c. this will protect the fetus from developing this illness.
d. the fetus will develop this illness if it is female.

ANSWER: b
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
KEYWORDS: Bloom's: Remember

97. Why is Rh incompatibility usually not a problem during a first pregnancy?
    a. Fewer first-born children are Rh-positive.
    b. The mother's body has already formed Rh antibodies.
    c. The mother's body has not yet formed Rh antibodies.
    d. During first pregnancies, all mothers are Rh-positive.

    ANSWER: c
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

98. What could be done to keep an Rh-negative mother from developing the antibodies that may harm future children?
    a. Inject the mother with Rh immunoglobulin within 72 hours of birth.
    b. There is no treatment to avoid Rh incompatibility with future pregnancies.
    c. Strong injections of antibiotics can suppress the development of the antibodies.
    d. A blood transfusion for the mother is essential to stop the development of the antibodies.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

99. Why is Rh incompatibility referred to as "incompatible?"
    a. Because the Rh factors of mother and child are the same, which can be fatal
    b. Because both mother and child develop antibodies that cannot interact
    c. Because the Rh factors of the mother and child are different, which may cause problems in subsequent pregnancies
    d. Because the fetus is Rh-negative and it should be Rh-positive

    ANSWER: c
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

100. Women who wish to use the drug Accutane are required to show proof, via pregnancy test, that they are not pregnant when they begin or continue the drug and should also
    a. use two types of birth control.
    b. take extra vitamins.
    c. avoid all over-the-counter drugs.
    d. eat a diet high in protein.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

101. Thalidomide was a popular drug in the 1960s given to
    a. treat insomnia and nausea.
    b. delay childbirth with premature labor.
    c. enhance the delivery of nutrients to the fetus.
    d. promote protein retention by the mother during pregnancy.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

102. If a child is born with missing or stunted limbs, which of the following is the mother MOST likely to have ingested during the second month of pregnancy?
    a. Alcohol
    b. Valium
    c. Thalidomide
    d. Tetracycline

    ANSWER: c
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Apply

103. Which of the following is TRUE about thalidomide?
a. It is harmless to the fetus at appropriate doses.
b. It can cause serious brain damage in the developing fetus.
c. It is still being used to treat illnesses such as Kaposi's sarcoma.
d. It provides the recipient with a natural immunity to malaria.

ANSWER: c
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
KEYWORDS: Bloom's: Remember

104. Prenatal use of antibiotics appears to INCREASE the risk of
a. childhood asthma.
b. masculinization of the external sex organs of female fetuses.
c. child hyperactivity.
d. miscarriage.

ANSWER: a
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
KEYWORDS: Bloom's: Remember

105. Denise took the antibiotic tetracycline during her pregnancy. As a result, her fetus may have
a. missing or stunted limbs.
b. yellowed teeth and bone abnormalities.
c. central nervous system damage.
d. addiction to Tetracycline..

ANSWER: b
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
KEYWORDS: Bloom's: Apply

106. A fetus born with masculinized external sex organs with a female genotype probably has a mother who ingested ____ during pregnancy.
a. thalidomide
b. tetracycline
c. diethylstilbestrol (DES)
d. progestin

ANSWER: d
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
KEYWORDS: Bloom's: Understand

107. Diethylstilbestrol (DES) is a form of
    a. testosterone.
    b. androgen.
    c. estrogen.
    d. antibiotic.

    ANSWER: c
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

108. Daughters and sons whose mothers took Diethylstilbestrol (DES) during pregnancy
    a. show serious mental deficits by age 5.
    b. have higher infertility rates when they become adults.
    c. are more likely to develop lung cancer later in life.
    d. are more likely to engage in aggressive behavior in childhood.

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

109. Vitamins
    a. cannot offset the effects of poor prenatal nutrition.
    b. are unimportant to the healthy development of the fetus.
    c. can be dangerous to the fetus if taken in high doses.
    d. can be injected directly into a developing embryo

    ANSWER: c
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

110. Which of the following is MOST accurate about methadone and heroin?
    a. They cannot cross through the placenta to the unborn child.
    b. They can cause excessive birth weight.
    c. They can cross through the placenta but cannot cause addiction in the fetus.
    d. They can readilycross through the placental membrane to the fetus.

    ANSWER: d
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

111. Maternal addiction to heroin or methadone is associated with
a. a high degree of difficulty during the birth process.
b. more aggressive behavior 12 months after birth.
c. more advanced motor and language development 12 months after birth.
d. low birth weight, prematurity, and toxemia.

ANSWER: d
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
KEYWORDS: Bloom's: Remember

112. Why might an addicted newborn be given a narcotic shortly after birth?
a. To avoid serious withdrawal symptoms
b. To prepare it for the doses it will receive through the mother's milk
c. Newborns would never be given narcotics
d. Newborns cannot be born addicted

ANSWER: a
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
KEYWORDS: Bloom's: Understand

113. Which of the following substances, when ingested by pregnant women, might lead to increased tremors and startling in their babies?
a. Alcohol
b. Heroin
c. Cocaine
d. Marijuana

ANSWER: d
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
KEYWORDS: Bloom's: Remember

114. In Child Psychology class, you learn that the research on maternal prenatal use of marijuana
a. has no effect on the cognitive functioning of children.
b. is directly related to learning and memory problems in young children.
c. shows mixed results in terms of the cognitive effects in children.
d. is related to lower levels of hyperactivity, impulsivity, and attention problems in children.

ANSWER: c
REFERENCES: 3.4 Environmental Influences on Prenatal Development
LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
KEYWORDS: Bloom's: Understand

115. Why might prenatal exposure to marijuana predispose offspring to dependency on opiates?
    a. Children learn by example.
    b. It may make their brains more sensitive to the reinforcing aspects of opiates, even in adulthood.
    c. It activates opiate receptors, called OP-1 receptors.
    d. It is actually not addictive and does not cause brain alterations in the mother or fetus.

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

116. Which of the following is TRUE about in utero exposure to marijuana?
    a. It may impair brain systems that regulate emotional behavior.
    b. It can predispose the offspring to dependence on hallucinogens.
    c. It may enhance the child's capacity to conform to social rules and norms.
    d. It can lead to devastating withdrawal symptoms that occur shortly after birth.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

117. Which of the following is TRUE about the fetal brain?
    a. It cannot become dependent upon drugs.
    b. It has CB-1 receptors that are altered by exposure to marijuana.
    c. Exposure to cocaine can cause extreme brain growth.
    d. Exposure to aspirin is more toxic to the infant brain than cocaine.

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

118. Prenatal exposure to cocaine can result in
    a. stillbirth.
    b. prematurity.
    c. schizophrenia.
    d. ADHD.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

119. In a study by Lewis and colleagues (2004), children who had been exposed to cocaine in utero, and were assessed at age 4, had
    a. more problems expressing themselves than in receptive language.
    b. more problems understanding language than in expressing themselves.
    c. delayed physical development.
    d. problems in reading comprehension.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

120. A study of 6-year-olds (Delaney-Black, 2004) found that the effects of cocaine on children varied by
    a. age of mother and sex of child.
    b. amount of cocaine used by the mother and amount of cocaine used by the father.
    c. amount of cocaine used by the mother and sex of child.
    d. amount of cocaine and amount of other illegal drugs used by the mother.

    ANSWER: c
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

121. In comparison to other infants, infant "X" has more problems with jitteriness, concentration, and sleep. What might we assume about infant "X?"
    a. This infant is more likely to be HIV positive.
    b. This infant is likely to have been exposed to cocaine in utero.
    c. This infant is likely to have had good prenatal nutrition.
    d. This infant was most likely exposed to Accutane in utero.

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Apply

122. In research studies, mothers are not randomly assigned to use drugs such as cocaine. This methodological problem is called
    a. a sampling error.
    b. attrition.
    c. the placebo effect.
    d. a selection factor.

    ANSWER: d
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Apply

123. In studies using laboratory animals, in utero exposure to cocaine is associated with which of the following?
    a. Less tolerance of stressors
    b. Lethargy
    c. Underdevelopment of the reticular formation of the brain
    d. Mood-related conditions like depression or bipolar disorder

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

124. How much alcohol must a mother consume before her fetus develops fetal alcohol syndrome?
    a. An average of two drinks per day
    b. This syndrome only develops if the mother is an alcoholic
    c. It depends upon the sex of the fetus
    d. There is no guaranteed safe minimum

    ANSWER: d
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

125. Research shows that even moderate drinking of alcohol by pregnant women may result in
    a. fetal alcohol effects.
    b. Rh incompatibility.
    c. pre-eclampsia.
    d. trigeminal neuralgia.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

126. A cluster of symptoms less severe that FAS shown by children of women who drank moderately during pregnancy is called
    a. FAC.
    b. FAR.
    c. FAE.
    d. FAD.

    ANSWER: c
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

127. Which of the following is associated with fetal alcohol syndrome (FAS)?
    a. Smaller-than-average brain size
    b. Low level of infant activity
    c. Poor vision
    d. Larger-than-average physical growth

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

128. Although the ____ associated with fetal alcohol syndrome diminish(es) as a child moves into adolescence, the ____ persist(s).
    a. facial deformities; academic and behavioral problems
    b. academic and behavioral problems; facial deformities
    c. facial deformities; addiction to alcohol
    d. addiction to alcohol; hyperactivity

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

129. The research on the effects of alcohol on humans is correlational. However, experimental research exposing animal subjects to alcohol
    a. finds no negative or detrimental effects.
    b. supports the correlational evidence found in humans.
    c. finds similar results to the human research for some animals, but not for others.
    d. to date, shows no experimental research done on the effects of alcohol in animals.

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

130. Some studies report no adverse effects of caffeine on the developing fetus. Other studies have found that those who consume large amounts of caffeine are more likely than non-users to
    a. also smoke during pregnancy.
    b. have low-birth-weight infants or miscarriages.
    c. have infants with higher rates of mental retardation.
    d. eat poor diets during pregnancy.

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

131. Caroline likes to drink coffee and is concerned about the effects the caffeine may have on her developing fetus. Her doctor has reviewed the most recent literature and advises Caroline
    a. to stay away from all products that include caffeine, as even a small amount has been proven to be teratogenic to a fetus.
    b. that the research is inconsistent, so it's best to avoid caffeine intake.
    c. that coffee is teratogenic to a fetus, but tea and chocolate are not.
    d. that drinking coffee is fine as long as you do not drink more than three cups per day.

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Apply

132. Cigarette smoke contains many ingredients. However, only two of these are able to pass through the placenta to the fetus. They are
    a. nicotine and hydrocarbons.
    b. nicotine and carbon monoxide.
    c. carbon monoxide and hydrocarbons.
    d. hydrocarbons and carbon dioxide.

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

133. Why might maternal smoking lead to child cognitive and behavioral problems?
    a. Because of the effects of nicotine
    b. Because of the effects of tar and other poisons in the smoke
    c. Due to maternal psychological disorders
    d. Due to carbon monoxide and reduced fetal oxygen

    ANSWER: d
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

134. According to recent research, pregnant women give many reasons as to why they do not quit smoking during pregnancy. These reasons include all of the following EXCEPT
    a. they are under too much stress to stop smoking.
    b. smoking fights feelings of depression.
    c. everybody around them smokes.
    d. stopping smoking is unhealthier for the fetus than continuing smoking.

    ANSWER: d
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

135. Some mothers continue smoking even though they are aware of the dangers it poses to their developing fetuses. Why?
    a. Because smoking helps fight feelings of depression
    b. Because smoking helps stimulate fetal activity and brain development
    c. Because it is only paternal smoking that is related to fetal development
    d. Because the research is wrong; smoking is not harmful during pregnancy

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Understand

136. Babies of fathers who smoke have higher rates of birth defects, infant mortality, and cardiovascular problems. This may be due to
    a. the production of abnormal sperm.
    b. the effects of second-hand smoke.
    c. decreased endorphin production in the fetus.
    d. increased thyroid hormone production in the fetus.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

137. Prenatal exposure to lead
    a. is associated with lower intelligence scores in childhood.
    b. is associated with low birth weight in babies.
    c. causes abnormal organ growth in the developing fetus.
    d. causes permanent brain damage in the developing fetus.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

138. According to experimental research done with rodents (de Oliveira et al., 2001), why might in utero exposure to lead cause memory problems?
    a. Because lead damages the hypothalamus
    b. Because lead may decrease neurotransmitter levels in the hippocampus
    c. Because lead exposure damages the frontal lobes
    d. Because lead may decrease serotonin levels in the amygdala

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

139. A Yugoslavian study (2000) examining the effects of lead exposure in children found that the children who lived near the smelter
    a. had somewhat lower intelligence scores.
    b. had significantly lower intelligence scores.
    c. had higher rates of aggressive behavior.
    d. had delayed motor development.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

140. Which of the following about exposure to mercury is accurate?
    a. Direct exposure after birth is required to harm the child.
    b. Prenatal exposure is only harmful in very large doses.
    c. Fetal exposure can occur through what the pregnant mother eats.
    d. It is associated with severe birth defects such as deformed facial features and stunted limbs.

    ANSWER: c
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

141. We have learned about the devastating effects of mercury and PCBs on fetal development through natural experiments in both Japan and Taiwan. In Japan, pregnant women consumed mercury-contaminated ____; in Taiwan, pregnant women consumed PCB contaminated ____.
    a. fish; rice
    b. rice; fish
    c. fish; vegetables
    d. vegetables; fish

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Apply

142. Because fetal exposure to ____ can cause defects in a number of organs, pregnant women are advised to avoid unnecessary exposure to ____.
    a. radiation; X-rays
    b. folic acid; iron.
    c. radiation; ultrasound
    d. folic acid; red meat

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

143. Stress
    a. has physiological components that may affect the fetus.
    b. appears to have no effect on the fetus.
    c. only affects the fetus when other teratogens, such as smoking, are present.
    d. appears to be more harmful to male fetuses than to female fetuses.

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

144. With regard to maternal stress, hormones such as ____ can pass through the placenta and have an effect on the developing fetus.
    a. oxytocin
    b. adrenaline
    c. thalidomide
    d. progestin

    ANSWER: b
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

145. Research investigating the effects of paternal age on child outcomes indicates that the ages of ____ are somewhat of a turning point for men, as children conceived past these ages are at increased risk for psychological disorders such as schizophrenia and bipolar disorder.
    a. 29 and 30
    b. 32 to 34
    c. 40 to 45
    d. 50 to 54

    ANSWER: a
    REFERENCES: 3.4 Environmental Influences on Prenatal Development
    LEARNING OBJECTIVES: VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus
    KEYWORDS: Bloom's: Remember

Matching

Match the following:

a. connects fetus to placenta
b. another name for pre-clampsia
c. high blood pressure during pregnancy
d. found in leafy green vegetables
e. an estrogen named diethylstilbestrol
f. environmental influences or agents that can damage an embryo or fetus
g. first two weeks after conception

h. hollowed out area in the blastocyst from which the nervous system develops
i. filters what is passed between mother and fetus
j. development from the top down
k. inner layer of cells of the embryo
l. viral infection associated with intellectual disability and heart disease in the embryo
m. less severe symptoms than FAS, associated with moderate alcohol intake
n. period during which the embryo is particularly vulnerable to certain teratogens
o. middle layer of cells of the embryo
p. development from central to outer
q. physician who provides prenatal care
r. hormone used to maintain pregnancy that can cause masculinization of the fetus
s. third through eighth week after conception
t. present at birth; resulting from the prenatal environment

REFERENCES: 3.1 The Germinal Stage: Wanderings
3.2 The Embryonic Stage
3.3 The Fetal Stage
| 3.4 Environmental Influences on Prenatal Development

LEARNING OBJECTIVES: VOYG.RATH.17.3.1 - Describe the events that occur during the germinal stage of prenatal development.
VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.
VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.
VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus
VOYG.RATH.17.3.5 - Describe the potential effects of substances that can cross the placental barrier on the embryo and fetus

KEYWORDS: Bloom's: Remember

146. Neural tube

ANSWER: h

147. Placenta

ANSWER: i

148. Teratogens

ANSWER: f

149. Folic acid

ANSWER: d

150. Germinal stage

ANSWER: g

151. Toxemia

ANSWER: c

152. Cephalocaudal development

ANSWER: j

153. Endoderm

ANSWER: k

154. Congenital

ANSWER: t

155. Embryonic stage

ANSWER: s

156. Obstetrician

ANSWER: q

157. Pre-eclampsia

ANSWER: b

158. Progestin

ANSWER: r

159. DES

ANSWER: e

160. Rubella

ANSWER: l

161. Mesoderm

ANSWER: o

162. Critical period

ANSWER: n

163. Fetal alcohol effect (FAE)

ANSWER: m

164. Umbilical cord

ANSWER: a

165. Proximodistal development

ANSWER: p

Subjective Short Answer

166. What occurs during the germinal stage of prenatal development?

ANSWER: In this period, the zygote divides into multiple cells; first into 2 cells within 36 hours, then into 32 cells in the subsequent 36 hours. It takes 3 to 4 days before the zygote reaches the uterus. After wandering there for another 3 to 4 days, the process of implantation will take up to one week. The time period between conception and implantation is called the germinal period. Also during this time, what begins as a fluid filled ball called the blastocyst differentiates itself. Some cells form the embryonic disk that will eventually become the embryo and fetus. The trophoblast, which begins as one layer of cells, differentiates into four membranes that will protect and nourish the embryo.

LEARNING OBJECTIVES: VOYG.RATH.17.3.1 - Describe the events that occur during the germinal stage of prenatal development.

KEYWORDS: Bloom's: Understand

167. Briefly describe the difference(s) between "cephalocaudal" and "proximodistal" development.

ANSWER: Cephalocaudal development basically means "developing from the top down." In other words, fetal and infant development follows a pattern of developing the head (the brain) first and then progresses downward. This pattern of development makes sense, as the brain is the most important organ to develop and it assists with all other development. Proximodistal development refers to development that moves from "near to far." Essentially, this means moving from the center of the body outward. The heart and other major organs will develop before more distant body parts such as fingers and toes. These two patterns of development ensure that the most vital organs and body parts develop earliest to maximize the chances for infant survival.

REFERENCES: 3.1 The Germinal Stage: Wanderings

LEARNING OBJECTIVES: VOYG.RATH.17.3.2 - Explain the developmental processes that occur during the embryonic stage of prenatal development.

KEYWORDS: Bloom's Analyze

168. How can we determine that the fetus can hear what is occurring in the external world?

ANSWER: Several lines of research suggest that the fetus can hear. In one clever study, mothers read a Dr. Seuss story to their fetuses beginning in the eighth month after conception. When the infants were two days old, they were given a special pacifier that when suckled upon would activate a recording device. When the infant suckled at a particular rate, the device would activate the mother's voice and the infant would hear her reading the same Dr. Seuss story that they were exposed to in utero. The infants quickly adopted this particular sucking speed, which clearly showed a preference for, and memory of, the sound of their mother's voice heard in utero.

REFERENCES: 3.3 The Fetal Stage

LEARNING OBJECTIVES: VOYG.RATH.17.3.3 - Characterize the growth and movements of the fetus in the fetal stage of prenatal development.

KEYWORDS: Bloom's Analyze

169. A friend of yours is pregnant. She has read about the potential problems that could occur with a pregnancy. Based upon this chapter, what do you think are the three most potentially harmful things an expectant mother could do that might harm a developing fetus?

ANSWER: Although there are many things that can harm the developing fetus, remind the mother that the placenta is designed to filter many harmful elements. Perhaps the most significant things the mother should be concerned about, and that she can do something about, are things that she ingests. Drugs and alcohol are probably the most harmful because they can cross the placenta and directly impact the fetus. It is not known how much of a substance, such as drugs or alcohol, it takes to harm the fetus. So, the best advice is to avoid these substances altogether. A second significant teratogen that a mother can control is smoking. Smoking affects the lungs of the mother and may very well damage the developing lungs of the fetus. Lastly, the mother's diet is known to have a significant impact on the developing fetus. Maternal malnutrition is linked to many problems including low birth weight and alterations in the fetal brain.

REFERENCES: 3.4 Environmental Influences on Prenatal Development

LEARNING OBJECTIVES: VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus

KEYWORDS: Bloom's Analyze

170. Briefly discuss the concept of "critical periods of vulnerability." What does this tell us about prenatal development?

ANSWER: According to this concept, there are more critical periods during prenatal development than during other times. What this means is that there are periods of prenatal development during which exposure to teratogens can cause the most harm. One example is the heart. It appears that the heart is most vulnerable to teratogens during the third to fifth weeks after conception. Because most of the organs develop during the embryonic stage, the developing fetus is more vulnerable to the impact of teratogens during this stage than during the fetal stage. This tells us that prenatal development is a continuous process and the timing of exposure to teratogens can determine the significance of the impact of those teratogens on prenatal development.

REFERENCES: 3.4 Environmental Influences on Prenatal Development

LEARNING OBJECTIVES: VOYG.RATH.17.3.4 - Discuss how maternal health, weight, and nutrition can affect the developing fetus

KEYWORDS: Bloom's Analyze