

## Life; Ch. 16 Test; Endocrine & Reproductive Systems

### Multiple Choice

*Identify the choice that best completes the statement or answers the question.*

- \_\_\_\_\_ 1. Why do hormones cause changes only in specific body organs?
  - a. A hormone is carried to a specific location by tiny tubes.
  - b. A hormone interacts only with target cells, which fit together with that hormone.
  - c. A hormone is produced only in the location where it is needed.
  - d. A hormone works only through negative feedback.
- \_\_\_\_\_ 2. The endocrine system acts on the body through chemical products called
  - a. hormones.
  - b. blood and saliva.
  - c. sugars.
  - d. target cells.
- \_\_\_\_\_ 3. The endocrine system produces chemicals that
  - a. begin to function after puberty.
  - b. require a system of nerves to control many body activities.
  - c. travel to selected locations through tiny tubes.
  - d. control both daily activities and long-term changes through hormones.
- \_\_\_\_\_ 4. Which endocrine gland(s) link(s) the endocrine system and the nervous system?
  - a. hypothalamus
  - b. parathyroid glands
  - c. pituitary gland
  - d. thyroid gland
- \_\_\_\_\_ 5. Which endocrine gland(s) communicate(s) with the hypothalamus to control many body activities, including growth from infancy to adulthood?
  - a. adrenal glands
  - b. pancreas
  - c. pituitary gland
  - d. thyroid gland
- \_\_\_\_\_ 6. The way the endocrine system maintains homeostasis is often compared to a(n)
  - a. violent thunderstorm that startles people and increases their heartbeat.
  - b. heating system that turns a furnace on and off to control a room's temperature.
  - c. monthly cycle that releases an egg from an ovary.
  - d. period of human development that takes about nine months to be completed.
- \_\_\_\_\_ 7. Which of the following is an example of negative feedback in the endocrine system?
  - a. When a hormone travels through the bloodstream, it will interact only with its target cells.
  - b. After age 40 or so, people's muscle strength begins to decrease and their skin starts to wrinkle.
  - c. When people are startled by a frightening event, their heart beats faster.
  - d. When the amount of a hormone reaches a certain level, the endocrine system stops the release of that hormone.

- \_\_\_\_\_ 8. The endocrine system often uses a negative feedback process to
  - a. bring about fertilization.
  - b. control the production of eggs and sperm.
  - c. maintain homeostasis.
  - d. produce the proper number of chromosomes.
- \_\_\_\_\_ 9. Which of the following structures is formed when fertilization occurs?
  - a. egg
  - b. ovary
  - c. sperm
  - d. zygote
- \_\_\_\_\_ 10. The joining of a sperm and an egg is called
  - a. implantation.
  - b. ovulation.
  - c. fertilization.
  - d. menstruation.
- \_\_\_\_\_ 11. Sperm are produced in the
  - a. bladder.
  - b. scrotum.
  - c. testes.
  - d. urethra.
- \_\_\_\_\_ 12. The scrotum is part of the
  - a. menstrual cycle.
  - b. endocrine system.
  - c. female reproductive system.
  - d. male reproductive system.
- \_\_\_\_\_ 13. Eggs are produced in the
  - a. ovaries.
  - b. fallopian tubes.
  - c. uterus.
  - d. vagina.
- \_\_\_\_\_ 14. Human eggs are usually fertilized in the
  - a. uterus.
  - b. fallopian tube.
  - c. ovary.
  - d. cervix.
- \_\_\_\_\_ 15. A mature egg is released from the ovary during a process called
  - a. fallopian tube.
  - b. ovulation.
  - c. menstruation.
  - d. fertilization.
- \_\_\_\_\_ 16. In a female's body, an egg develops in an ovary, and the uterus prepares for the arrival of a fertilized egg during
  - a. homeostasis.
  - b. labor and delivery.
  - c. pregnancy.

d. the menstrual cycle.

- \_\_\_\_\_ 17. When a human egg is not fertilized, extra blood and tissue from the uterus are released through the vagina in a process called
- a. menstruation.
  - b. elimination.
  - c. ovulation.
  - d. reproduction.
- \_\_\_\_\_ 18. Where does a fertilized egg develop after it leaves the fallopian tube?
- a. the cervix
  - b. the ovary
  - c. the uterus
  - d. the vagina
- \_\_\_\_\_ 19. Which of the following describes the first nine months of human development in the correct order?
- a. egg, sperm, zygote
  - b. embryo, fetus, afterbirth
  - c. zygote, embryo, fetus
  - d. zygote, fetus, embryo
- \_\_\_\_\_ 20. Eating a healthy diet while pregnant is important because
- a. nutrients from the mother help protect the fetus from dangerous chemicals.
  - b. nutrients from the mother pass directly to the fetus through the placenta.
  - c. proper nutrition will make the child a picky eater in the future.
  - d. a healthy diet will prevent viruses from passing through the placenta to the fetus.
- \_\_\_\_\_ 21. Which of the following statements about the placenta is NOT true?
- a. The placenta protects an embryo from alcohol and other harmful substances that might be present in the mother's blood.
  - b. In the placenta, the embryo's and mother's blood vessels are close to each other, but their blood does not mix.
  - c. Carbon dioxide and other wastes pass from the embryo through the placenta into the mother's blood.
  - d. The placenta prevents some diseases from spreading from the mother to the embryo.
- \_\_\_\_\_ 22. What happens during the stage of childbirth called labor?
- a. Strong muscle contractions push the baby out of the mother's body.
  - b. The fetus develops a heartbeat, its bones become distinct, and it begins to move.
  - c. The umbilical cord is tied, then cut a few centimeters away from the baby's abdomen.
  - d. Strong muscle contractions of the uterus cause the cervix to enlarge.
- \_\_\_\_\_ 23. What happens during the stage of childbirth called delivery?
- a. Muscle contractions push the placenta out of the mother's body.
  - b. The baby comes out of the mother's body.
  - c. The lining of the uterus thickens in preparation for the arrival of a zygote.
  - d. A zygote with the proper number of chromosomes is formed.
- \_\_\_\_\_ 24. You are a doctor helping to deliver a baby. As you rush to your patient's room, the nurse tells you that you are just in time for the afterbirth. What will be delivered?
- a. a baby

- b. the cervix
  - c. the placenta
  - d. the uterus
- \_\_\_\_\_ 25. Which period makes up the stage of development called childhood?
- a. birth to age 7
  - b. birth to age 10
  - c. ages 7 to about 10
  - d. ages 2 to about 12
- \_\_\_\_\_ 26. Which of the following is a physical change that usually takes place during childhood?
- a. Friends become more important as individuals begin to think about others.
  - b. Individuals learn coordinated tasks such as using a fork.
  - c. Individuals learn to crawl, then begin to walk.
  - d. Individuals begin to play with toys.
- \_\_\_\_\_ 27. What is the main event that happens during puberty?
- a. Individuals begin to ask questions about their future.
  - b. Individuals need large amounts of food because of rapid growth.
  - c. Individuals may feel pain because their bodies grow so rapidly.
  - d. An individual's body becomes able to reproduce.
- \_\_\_\_\_ 28. During which period of development does a person's thinking mature and become more like an adult?
- a. adulthood
  - b. adolescence
  - c. childhood
  - d. infancy
- \_\_\_\_\_ 29. Which of the following changes does NOT occur during the stage of development called infancy?
- a. learning coordinated tasks such as writing with a pencil
  - b. arms and legs growing faster than the head
  - c. crawling and starting to walk
  - d. speaking words and understanding simple directions
- \_\_\_\_\_ 30. Which of the following is the best description of adolescence?
- a. the stage when children become adults physically and mentally
  - b. the stage when individuals first produce hormones
  - c. the stage that's the same as puberty
  - d. the stage when people have "growing pains"

### Modified True/False

*Indicate whether the statement is true or false. If false, change the identified word or phrase to make the statement true.*

- \_\_\_\_\_ 31. The organs of the endocrine system produce chemical messengers called enzymes.
- \_\_\_\_\_ 32. The male sex cell is called a sperm.
- \_\_\_\_\_ 33. Sex cells contain twice as many chromosomes as other body cells.

- \_\_\_\_\_ 34. The release of a mature egg into a fallopian tube is called menstruation.  
\_\_\_\_\_
- \_\_\_\_\_ 35. During the first eight weeks after fertilization, a developing human is known as a(n) embryo.  
\_\_\_\_\_
- \_\_\_\_\_ 36. Labor involves strong muscular contractions of the fallopian tubes. \_\_\_\_\_
- \_\_\_\_\_ 37. Identical twins develop from two different eggs that are fertilized by different sperm.  
\_\_\_\_\_
- \_\_\_\_\_ 38. During infancy, humans learn to feed themselves and play with toys.  
\_\_\_\_\_
- \_\_\_\_\_ 39. The time between childhood and adulthood is called adolescence. \_\_\_\_\_
- \_\_\_\_\_ 40. One typical social change during early childhood is that individuals begin to take on adult responsibilities. \_\_\_\_\_

### **Completion**

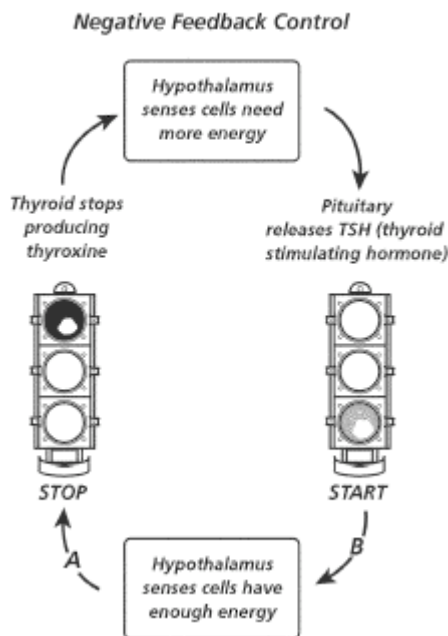
*Complete each statement.*

41. The endocrine gland called the \_\_\_\_\_ gland communicates with the hypothalamus to control many body activities.
42. A hormone released by the \_\_\_\_\_ glands controls the amount of calcium in the blood.
43. The thyroid and pituitary are part of the \_\_\_\_\_ system.
44. The endocrine system maintains \_\_\_\_\_, or internal balance, through negative feedback.
45. The endocrine system controls the amount of a particular \_\_\_\_\_ in the blood by stopping its release when it reaches a certain level.
46. A sperm and egg join to form a fertilized egg, which is called a(n) \_\_\_\_\_.
47. The hormone \_\_\_\_\_ controls the development of male characteristics.
48. Sperm are produced in the organs called \_\_\_\_\_.
49. One important function of ovaries is to produce \_\_\_\_\_ cells.
50. Fertilization usually takes place in the \_\_\_\_\_, or passageways for eggs.
51. The monthly cycle of changes in the female reproductive system is called the \_\_\_\_\_ cycle.
52. During the menstrual cycle, the lining of the \_\_\_\_\_ builds up with extra blood and tissue to prepare for a fertilized egg.
53. A developing human is called a(n) \_\_\_\_\_ between the ninth week of development and birth.

54. The baby is pushed out of the uterus during \_\_\_\_\_, or the second stage of birth.
55. Contractions push the placenta out of the mother's body during the stage of birth known as \_\_\_\_\_.
56. A human usually learns to walk during the stage of development known as \_\_\_\_\_.
57. A person might have his or her first jobs, start to manage his or her own money, and develop more complex social relationships during the stage of development known as \_\_\_\_\_.
58. The period of development during which a person becomes physically able to reproduce is called \_\_\_\_\_.
59. Adolescence includes \_\_\_\_\_ changes as well as physical changes.
60. During the period of life called \_\_\_\_\_, language skills develop, and individuals learn to communicate and carry on conversations.

### Short Answer

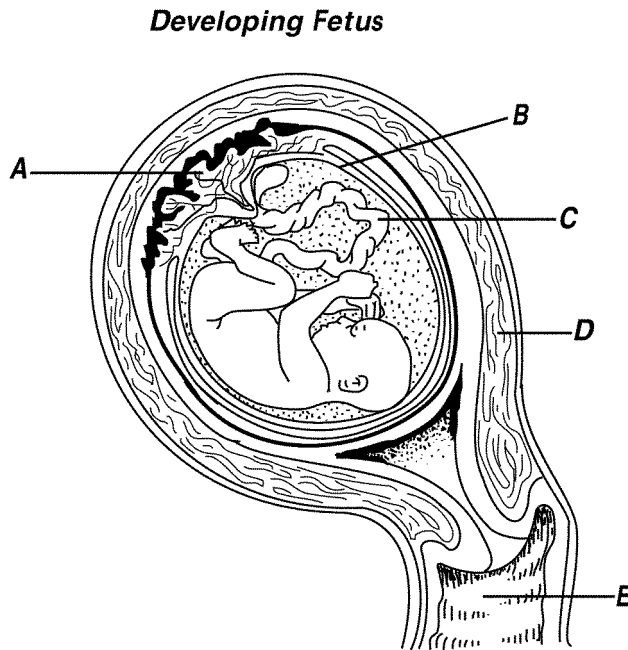
*Use the diagram to answer each question.*



61. What hormone does the pituitary release? What organ signals the pituitary to release this hormone?
62. The diagram uses a model to show how the release of thyroxine is controlled. What happens at point A?
63. The diagram uses a model to show how the release of thyroxine is controlled. What happens at point B?
64. What event makes the hypothalamus sense that body cells need more energy?

65. What is the function of the hormone thyroxine?
66. Why is the cycle illustrated in this diagram called a negative feedback system?

*Use the diagram to answer each question.*



67. Identify structure A and explain its function.
68. Which structure—A, B, C, D, or E—is NOT involved either in protecting the fetus or supplying the fetus with what it needs to survive and develop?
69. Identify structure C and describe its function.
70. What is structure B? How does it protect the fetus?
71. Suppose structure C became damaged. What effect would this have on the fetus?
72. What is structure D? What does it do during delivery?

## Essay

73. Explain how the hypothalamus links the nervous system and the endocrine system.
74. What are chromosomes? What happens to them during fertilization?
75. Trace the path of sperm cells through the male reproductive system.
76. What happens to an egg after it has been fertilized? What happens to an egg that has not been fertilized?

77. Some babies delivered at around six months can survive, but only with intense medical care. Based on what you know about the development of the fetus, explain some of the medical problems that a very premature baby might face.
78. Describe how substances are exchanged between the mother and the fetus during pregnancy.
79. How are identical twins produced? How are fraternal twins produced?
80. List three stages of human development from birth up to adulthood and describe approximately when each stage begins and ends.



## Life; Ch. 16 Test; Endocrine & Reproductive Systems

### Answer Section

#### MULTIPLE CHOICE

1. ANS: B PTS: 1 DIF: L2  
OBJ: CaLS.16.1.1 Describe how the endocrine system controls body processes.  
STA: S 7.5.b BLM: comprehension
2. ANS: A PTS: 1 DIF: L2  
OBJ: CaLS.16.1.1 Describe how the endocrine system controls body processes.  
STA: S 7.5.b BLM: comprehension
3. ANS: D PTS: 1 DIF: L1  
OBJ: CaLS.16.1.1 Describe how the endocrine system controls body processes.  
STA: S 7.5.b BLM: knowledge
4. ANS: A PTS: 1 DIF: L2  
OBJ: CaLS.16.1.2 Identify the endocrine glands. STA: S 7.5.b  
BLM: comprehension
5. ANS: C PTS: 1 DIF: L1  
OBJ: CaLS.16.1.2 Identify the endocrine glands. STA: S 7.5.b  
BLM: knowledge
6. ANS: B PTS: 1 DIF: L2  
OBJ: CaLS.16.1.3 Explain how negative feedback controls hormone levels.  
STA: S 7.5.b BLM: comprehension
7. ANS: D PTS: 1 DIF: L1  
OBJ: CaLS.16.1.3 Explain how negative feedback controls hormone levels.  
STA: S 7.5.b BLM: knowledge
8. ANS: C PTS: 1 DIF: L1  
OBJ: CaLS.16.1.3 Explain how negative feedback controls hormone levels.  
STA: S 7.5.b BLM: knowledge
9. ANS: D PTS: 1 DIF: L1  
OBJ: CaLS.16.2.1 Define sexual reproduction. STA: S 7.5.d  
BLM: knowledge
10. ANS: C PTS: 1 DIF: L1  
OBJ: CaLS.16.2.1 Define sexual reproduction. STA: S 7.5.d  
BLM: knowledge
11. ANS: C PTS: 1 DIF: L1  
OBJ: CaLS.16.2.2 Describe the structures and functions of the male reproductive system.  
STA: S 7.5.d BLM: knowledge
12. ANS: D PTS: 1 DIF: L1  
OBJ: CaLS.16.2.2 Describe the structures and functions of the male reproductive system.  
STA: S 7.5.d BLM: knowledge
13. ANS: A PTS: 1 DIF: L1  
OBJ: CaLS.16.2.3 Describe the structures and functions of the female reproductive system.  
STA: S 7.5.d BLM: knowledge

14. ANS: B PTS: 1 DIF: L1  
OBJ: CaLS.16.2.3 Describe the structures and functions of the female reproductive system.  
STA: S 7.5.d BLM: knowledge
15. ANS: B PTS: 1 DIF: L1  
OBJ: CaLS.16.2.4 Sequence the events that occur during the menstrual cycle.  
STA: S 7.5.d BLM: knowledge
16. ANS: D PTS: 1 DIF: L1  
OBJ: CaLS.16.2.4 Sequence the events that occur during the menstrual cycle.  
STA: S 7.5.d BLM: knowledge
17. ANS: A PTS: 1 DIF: L1  
OBJ: CaLS.16.2.4 Sequence the events that occur during the menstrual cycle.  
STA: S 7.5.d BLM: knowledge
18. ANS: C PTS: 1 DIF: L1  
OBJ: CaLS.16.3.1 List the changes that occur to the zygote, embryo, and fetus during development.  
STA: S 7.1.f BLM: knowledge
19. ANS: C PTS: 1 DIF: L2  
OBJ: CaLS.16.3.1 List the changes that occur to the zygote, embryo, and fetus during development.  
STA: S 7.1.f BLM: comprehension
20. ANS: B PTS: 1 DIF: L3  
OBJ: CaLS.16.3.2 Explain how the developing embryo is protected and nourished.  
STA: S 7.5.e BLM: synthesis
21. ANS: A PTS: 1 DIF: L2  
OBJ: CaLS.16.3.2 Explain how the developing embryo is protected and nourished.  
STA: S 7.5.e BLM: comprehension
22. ANS: D PTS: 1 DIF: L2  
OBJ: CaLS.16.3.3 Describe what happens during childbirth. STA: S 7.5.b  
BLM: comprehension
23. ANS: B PTS: 1 DIF: L2  
OBJ: CaLS.16.3.3 Describe what happens during childbirth. STA: S 7.5.b  
BLM: comprehension
24. ANS: C PTS: 1 DIF: L2  
OBJ: CaLS.16.3.3 Describe what happens during childbirth. STA: S 7.5.e  
BLM: application
25. ANS: D PTS: 1 DIF: L2  
OBJ: CaLS.16.3.4 Identify changes that occur from infancy to adulthood.  
STA: S 7.1.f BLM: comprehension
26. ANS: B PTS: 1 DIF: L2  
OBJ: CaLS.16.3.4 Identify changes that occur from infancy to adulthood.  
STA: S 7.1.f BLM: comprehension
27. ANS: D PTS: 1 DIF: L1  
OBJ: CaLS.16.3.4 Identify changes that occur from infancy to adulthood.  
STA: S 7.1.f BLM: knowledge
28. ANS: B PTS: 1 DIF: L2  
OBJ: CaLS.16.3.4 Identify changes that occur from infancy to adulthood.  
STA: S 7.1.f BLM: comprehension

29. ANS: A PTS: 1 DIF: L2  
OBJ: CaLS.16.3.4 Identify changes that occur from infancy to adulthood.  
STA: S 7.1.f BLM: comprehension
30. ANS: A PTS: 1 DIF: L2  
OBJ: CaLS.16.3.4 Identify changes that occur from infancy to adulthood.  
STA: S 7.1.f BLM: comprehension

### MODIFIED TRUE/FALSE

31. ANS: F, hormones
- PTS: 1 DIF: L2  
OBJ: CaLS.16.1.1 Describe how the endocrine system controls body processes.  
STA: S 7.5.b BLM: knowledge
32. ANS: T PTS: 1 DIF: L1  
OBJ: CaLS.16.2.1 Define sexual reproduction. STA: S 7.5.d  
BLM: knowledge
33. ANS: F, half
- PTS: 1 DIF: L1 OBJ: CaLS.16.2.1 Define sexual reproduction.  
STA: S 7.5.d BLM: knowledge
34. ANS: F, ovulation
- PTS: 1 DIF: L1  
OBJ: CaLS.16.2.4 Sequence the events that occur during the menstrual cycle.  
STA: S 7.5.d BLM: knowledge
35. ANS: T PTS: 1 DIF: L1  
OBJ: CaLS.16.3.1 List the changes that occur to the zygote, embryo, and fetus during development. STA: S 7.1.f BLM: knowledge
36. ANS: F, uterus
- PTS: 1 DIF: L1  
OBJ: CaLS.16.3.3 Describe what happens during childbirth. STA: S 7.5.b  
BLM: knowledge
37. ANS: F, Fraternal
- PTS: 1 DIF: L1  
OBJ: CaLS.16.3.3 Describe what happens during childbirth. STA: S 7.2.b  
BLM: knowledge
38. ANS: T PTS: 1 DIF: L1  
OBJ: CaLS.16.3.4 Identify changes that occur from infancy to adulthood.  
STA: S 7.1.f BLM: knowledge
39. ANS: T PTS: 1 DIF: L1  
OBJ: CaLS.16.3.4 Identify changes that occur from infancy to adulthood.  
STA: S 7.1.f BLM: knowledge

40. ANS: F, adolescence

PTS: 1 DIF: L1  
OBJ: CaLS.16.3.4 Identify changes that occur from infancy to adulthood.  
STA: S 7.1.f BLM: knowledge

## COMPLETION

41. ANS: pituitary

PTS: 1 DIF: L1  
OBJ: CaLS.16.1.1 Describe how the endocrine system controls body processes.  
STA: S 7.5.b BLM: knowledge

42. ANS: parathyroid

PTS: 1 DIF: L1 OBJ: CaLS.16.1.2 Identify the endocrine glands.  
STA: S 7.5.b BLM: knowledge

43. ANS: endocrine

PTS: 1 DIF: L1 OBJ: CaLS.16.1.2 Identify the endocrine glands.  
STA: S 7.5.b BLM: knowledge

44. ANS: homeostasis

PTS: 1 DIF: L2  
OBJ: CaLS.16.1.3 Explain how negative feedback controls hormone levels.  
STA: S 7.5.b BLM: comprehension

45. ANS: hormone

PTS: 1 DIF: L2  
OBJ: CaLS.16.1.3 Explain how negative feedback controls hormone levels.  
STA: S 7.5.b BLM: comprehension

46. ANS: zygote

PTS: 1 DIF: L1 OBJ: CaLS.16.2.1 Define sexual reproduction.  
STA: S 7.5.d BLM: knowledge

47. ANS: testosterone

PTS: 1 DIF: L1  
OBJ: CaLS.16.2.2 Describe the structures and functions of the male reproductive system.  
STA: S 7.5.d BLM: knowledge

48. ANS: testes

PTS: 1 DIF: L1  
OBJ: CaLS.16.2.2 Describe the structures and functions of the male reproductive system.  
STA: S 7.5.d BLM: knowledge

49. ANS: egg

PTS: 1 DIF: L1

OBJ: CaLS.16.2.3 Describe the structures and functions of the female reproductive system.

STA: S 7.5.d BLM: knowledge

50. ANS: fallopian tubes

PTS: 1 DIF: L2

OBJ: CaLS.16.2.3 Describe the structures and functions of the female reproductive system.

STA: S 7.5.d BLM: comprehension

51. ANS: menstrual

PTS: 1 DIF: L1

OBJ: CaLS.16.2.4 Sequence the events that occur during the menstrual cycle.

STA: S 7.5.d BLM: knowledge

52. ANS: uterus

PTS: 1 DIF: L2

OBJ: CaLS.16.2.4 Sequence the events that occur during the menstrual cycle.

STA: S 7.5.d BLM: comprehension

53. ANS: fetus

PTS: 1 DIF: L1

OBJ: CaLS.16.3.1 List the changes that occur to the zygote, embryo, and fetus during development.

STA: S 7.1.f BLM: knowledge

54. ANS: delivery

PTS: 1 DIF: L1

OBJ: CaLS.16.3.3 Describe what happens during childbirth. STA: S 7.5.b

BLM: knowledge

55. ANS: afterbirth

PTS: 1 DIF: L1

OBJ: CaLS.16.3.3 Describe what happens during childbirth. STA: S 7.5.e

BLM: knowledge

56. ANS: infancy

PTS: 1 DIF: L1

OBJ: CaLS.16.3.4 Identify changes that occur from infancy to adulthood.

STA: S 7.1.f BLM: knowledge

57. ANS: adolescence

PTS: 1 DIF: L3

OBJ: CaLS.16.3.4 Identify changes that occur from infancy to adulthood.

STA: S 7.1.f BLM: application

58. ANS: puberty

PTS: 1 DIF: L1

OBJ: CaLS.16.3.4 Identify changes that occur from infancy to adulthood.

STA: S 7.1.f BLM: knowledge

59. ANS: mental

PTS: 1 DIF: L2

OBJ: CaLS.16.3.4 Identify changes that occur from infancy to adulthood.

STA: S 7.1.f BLM: comprehension

60. ANS: childhood

PTS: 1 DIF: L2

OBJ: CaLS.16.3.4 Identify changes that occur from infancy to adulthood.

STA: S 7.1.f BLM: comprehension

## SHORT ANSWER

61. ANS:

The pituitary releases the hormone TSH because the hypothalamus signals it to do so.

PTS: 1 DIF: L2

OBJ: CaLS.16.1.3 Explain how negative feedback controls hormone levels.

STA: S 7.5.b BLM: comprehension

62. ANS:

The pituitary stops producing TSH.

PTS: 1 DIF: L2

OBJ: CaLS.16.1.3 Explain how negative feedback controls hormone levels.

STA: S 7.5.b BLM: analysis

63. ANS:

The thyroid gland produces the hormone thyroxine.

PTS: 1 DIF: L2

OBJ: CaLS.16.1.3 Explain how negative feedback controls hormone levels.

STA: S 7.5.b BLM: analysis

64. ANS:

The thyroid gland stops producing the hormone thyroxine.

PTS: 1 DIF: L3

OBJ: CaLS.16.1.3 Explain how negative feedback controls hormone levels.

STA: S 7.5.b BLM: comprehension

65. ANS:

Thyroxine controls how much energy is available to cells.

PTS: 1 DIF: L2  
OBJ: CaLS.16.1.3 Explain how negative feedback controls hormone levels.  
STA: S 7.5.b BLM: comprehension

66. ANS:

The cycle is a negative feedback system because the condition it produces (making energy available to cells) turns the system off. When the amount of thyroxine reaches a high enough level to supply the cells with enough energy, the endocrine system signals the thyroid gland to stop releasing thyroxine.

PTS: 1 DIF: L2  
OBJ: CaLS.16.1.3 Explain how negative feedback controls hormone levels.  
STA: S 7.5.b BLM: analysis

67. ANS:

A is the placenta. It is the structure through which the fetus receives oxygen and food from the mother. Wastes from the fetus pass through the placenta to the mother.

PTS: 1 DIF: L2  
OBJ: CaLS.16.3.2 Explain how the developing embryo is protected and nourished.  
STA: S 7.5.e BLM: application

68. ANS:

E, the vagina

PTS: 1 DIF: L2  
OBJ: CaLS.16.3.2 Explain how the developing embryo is protected and nourished.  
STA: S 7.5.b BLM: application

69. ANS:

C is the umbilical cord. It connects the fetus to the placenta. The umbilical cord contains blood vessels that transport food, oxygen, and wastes between the fetus and the mother.

PTS: 1 DIF: L2  
OBJ: CaLS.16.3.2 Explain how the developing embryo is protected and nourished.  
STA: S 7.5.b BLM: application

70. ANS:

The fluids in B, the amniotic sac, cushion and protect the fetus from injury.

PTS: 1 DIF: L2  
OBJ: CaLS.16.3.2 Explain how the developing embryo is protected and nourished.  
STA: S 7.5.b BLM: application

71. ANS:

If C, the umbilical cord, were damaged, it would interfere with the transferring of materials between the placenta and the fetus. The fetus would probably not survive if it could not receive necessary materials or have wastes removed.

PTS: 1 DIF: L3  
OBJ: CaLS.16.3.2 Explain how the developing embryo is protected and nourished.  
STA: S 7.5.e BLM: synthesis

72. ANS:

D is the uterus. During delivery, it undergoes strong muscular contractions that push the baby out of the uterus, through the vagina, and out of the mother's body.

PTS: 1

DIF: L2

OBJ: CaLS.16.3.3 Describe what happens during childbirth.

STA: S 7.5.b

BLM: application

## ESSAY

73. ANS:

As an organ of the nervous system, the hypothalamus sends out nerve messages that control sleep, hunger, and other conditions. As an organ of the endocrine system, the hypothalamus produces hormones that help control other endocrine glands in the body.

PTS: 1

DIF: L2

OBJ: CaLS.16.1.2 Identify the endocrine glands.

STA: S 7.5.b

BLM: comprehension

74. ANS:

Chromosomes are rod-shaped structures that carry the information that controls inherited characteristics. During fertilization, the 23 chromosomes in a sperm join the 23 chromosomes in an egg to form a zygote with 46 chromosomes.

PTS: 1

DIF: L2

OBJ: CaLS.16.2.1 Define sexual reproduction.

STA: S 7.5.d

BLM: comprehension

75. ANS:

Sperm cells form in the testes. They travel through other structures and mix with fluids produced in nearby glands. This mixture of sperm and fluid is called semen, and it leaves the body through the urethra, which runs through the penis.

PTS: 1

DIF: L2

OBJ: CaLS.16.2.2 Describe the structures and functions of the male reproductive system.

STA: S 7.5.d

BLM: comprehension

76. ANS:

An egg that has been fertilized travels through the fallopian tube to the uterus, where it begins to develop. An egg that has not been fertilized breaks down and passes out of the woman's body through the vagina.

PTS: 1

DIF: L2

OBJ: CaLS.16.3.1 List the changes that occur to the zygote, embryo, and fetus during development.

STA: S 7.5.d

BLM: comprehension

77. ANS:



Between six and nine months, the fetus's brain develops grooves and ridges. The lungs become developed enough to exchange oxygen and carbon dioxide. The eyelids can open. The fetus doubles in length and reaches a mass of around 3 kg. A baby born before these developments are complete might have difficulty breathing, or might be too small. If the eyes are not totally developed, there could be a risk of blindness or poor vision. If the brain is not fully developed, the functions of the nervous system might be impaired.

PTS: 1 DIF: L3

OBJ: CaLS.16.3.1 List the changes that occur to the zygote, embryo, and fetus during development. STA: S 7.1.f BLM: evaluation

78. ANS:

The placenta connects the mother and the developing fetus. It is a tissue in which the developing fetus's blood vessels flow next to the mother's. Carbon dioxide and other wastes from the developing fetus are exchanged with nutrients, oxygen, and other substances from the mother. Blood from the fetus does not mix with blood from the mother.

PTS: 1 DIF: L2

OBJ: CaLS.16.3.2 Explain how the developing embryo is protected and nourished.

STA: S 7.5.e BLM: comprehension

79. ANS:

Identical twins develop from the same zygote. At an early stage of development, the embryo splits into two identical embryos. Fraternal twins develop from two separate eggs that are released at the same time. The eggs are fertilized by different sperm.

PTS: 1 DIF: L2

OBJ: CaLS.16.3.3 Describe what happens during childbirth. STA: S 7.2.b

BLM: comprehension

80. ANS:

The first stage is infancy. It lasts from birth to about two years. The second stage is childhood. It begins at two years and continues until the age of about 12. The third stage is adolescence. It begins at about 12 years and continues through the teen years.

PTS: 1 DIF: L2

OBJ: CaLS.16.3.4 Identify changes that occur from infancy to adulthood.

STA: S 7.1.f BLM: comprehension