**Chapter 11**

1. Which aspect of the transplant surgery was necessary for the success of Berthold's rooster "hormone replacement" experiment?
   1. The transplanted organ needed to be reconnected to the proper vasculature
   2. the transplanted organ needed to be reconnected to the proper nerves
   3. The transplanted organ needed to be reimplanted in its original location
   4. No connections to other organs were necessary
2. Hormones are released into the bloodstream by \_\_\_\_\_.
   1. white blood cells
   2. red blood cells
   3. T cells
   4. Endocrine glands
3. Which of the following is NOT a primary endocrine gland?
   1. Hypothalamus
   2. Thymus
   3. Pancreas
   4. Mammillary body
4. Based on their chemical structure, hormones can be classified into four classes: steroids, peptides, proteins, and:
   1. Adrenalines
   2. Cortisols
   3. Glucagons
   4. Amines
5. Which peptide hormones is initially synthesized in the hypothalamus?
   1. Cortisol
   2. Prolactin
   3. Progesterone
   4. Oxytocin
6. The period of time during which an organism is more susceptible to environmental influences is called the:
   1. critical period
   2. optimal window
   3. zone of optimal growth
   4. sensitive period
7. Based on Young's studies of guinea pig development, the role of hormones in prenatal animals is to \_\_\_\_\_ brain areas related to sex-typical behavior.
   1. activate
   2. create
   3. atrophy
   4. organize
8. During prenatal development, the presence of androgen in males leads to the suppression of \_\_\_\_\_ and the transformation of the \_\_\_\_\_.
   1. Wolffian ducts; Müllerian ducts
   2. oxytocin; vasopressin
   3. vasopressin; oxytocin
   4. Müllerian ducts; Wolffian ducts
9. During prenatal development, the absence of androgen in females leads to the suppression of \_\_\_\_\_ and the transformation of the \_\_\_\_\_.
   1. Müllerian ducts; Wolffian ducts
   2. oxytocin; vasopressin
   3. vasopressin; oxytocin
   4. Wolffian ducts; Müllerian ducts
10. Prairie voles, which form long-lasting pair bonds, have higher density of \_\_\_\_\_ receptors in reward areas of the brain than Montane voles which do not form long-lasting pair bonds.
    1. Acetylcholine
    2. Testosterone
    3. Cortisol
    4. Vasopressin
11. An individual with higher baseline levels of \_\_\_\_\_ would be expected to engage in more prosocial behavior than an individual with low levels.
    1. Testosterone
    2. Cortisol
    3. Androgen
    4. Oxytocin
12. Which of the following best describes the dose-response relationship between nasal spray oxytocin and trustworthiness in human behavior?
    1. the more oxytocin administered, the more trustworthy the person will become
    2. the effectiveness of oxytocin plateaus at moderate doses, with large doses producing roughly the same effect as moderate doses
    3. At low levels oxytocin increases trustworthiness, but at higher doses it primarily causes drowsiness
    4. more data is still needed to assess the efficacy of oxytocin sprays
13. Which scientific result presents the strongest evidence that dogs have adapted to human social cues since domestication began?
    1. Oxytocin levels in humans increase when they are around dogs, but not cats or horses
    2. A wide range of mammals have oxytocin receptors
    3. Humans show larger changes in oxytocin after interacting with a pet than after interacting with other humans
    4. dogs follow points better than apes and wolves
14. The rat and human menstrual cycle are similar in \_\_\_\_\_ but differ in \_\_\_\_\_.
    1. duration; hormones
    2. behavior; hormones
    3. lordosis; estrus
    4. hormones; duration
15. In rats and other rodents, increased sexual behavior when a new female is presented is named after President:
    1. Taft
    2. Roosevelt
    3. McKinley
    4. Coolidge
16. Compared to males, females show lower synthesis of \_\_\_\_\_ compared to men, thought to contribute to differential rates of depression.
    1. Dopamine
    2. Acetylcholine
    3. Androgens
    4. Serotonin
17. Which of the following is a major problem with early neuroscience studies of sexual orientation?
    1. only involved nonhumans
    2. only involved humans
    3. failed to look at brain structure
    4. small sample size
18. Which of the following is a problem with using fMRI or PET to assess brain differences in human sexuality?
    1. these methods can not measure brain function
    2. these methods can not measure brain structure
    3. these methods do provide sufficient spatial resolution
    4. these methods are correlational
19. Which of the following is a difficulty in studying transsexuality in humans?
    1. DTI studies have not yet been conducted
    2. Lack of existing animal models
    3. Few scientists are studying this topic
    4. large individual variation
20. Which brain region has been linked with maternal behaviors in rats (lesions to this area can lead to disorganized maternal behavior)?
    1. Hippocampus
    2. Amygdala
    3. mammillary bodies
    4. hypothalamus
21. Soon after a rat's pups are born, hormone levels continue to fluctuate. Hormones critical in regulating behavior during this time include prolactin, oxytocin, and:
    1. Somatostatin
    2. Cortisol
    3. Progesterone
    4. Endorphins
22. In longer-term studies of rats, what was the general finding about the effect of giving birth on brain function?
    1. older mother rats tend to score worse on cognitive tests than same-age virgin rats
    2. older mother rats tend to show significant cognitive declines relative to pre-pregnancy scores
    3. older mother rats tend to score about the same as same-age virgin rats on cognitive tasks
    4. older mother rats tend to score better on cognitive tests than same-age virgin rats
23. In males expecting a child, levels of \_\_\_\_\_ tend to increase before the child's birth and levels of \_\_\_\_\_ tend to decrease after the child's birth.
    1. testosterone; progesterone
    2. testosterone; cortisol
    3. progesterone; testosterone
    4. prolactin; testosterone
24. Which of the following blue-footed booby parental behaviors is consistent with the terminal investment hypothesis?
    1. younger birds produced more hatchlings than older birds
    2. older birds were more likely to leave the nest than younger birds
    3. younger birds built larger nests than older birds
    4. older birds increased parental effort when sick
25. Which device allows scientists to deliver hormones at regular intervals without the need for injections?
    1. subdural electrode
    2. intracranial electrode
    3. pacemaker
    4. osmotic pump

**Answer Key**

1. D
2. D
3. D
4. D
5. D
6. D
7. D
8. D
9. D
10. D
11. D
12. D
13. D
14. D
15. D
16. D
17. D
18. D
19. D
20. D
21. D
22. D
23. D
24. D
25. D