

## CHAPTER 3

### HORMONES AND SEXUALITY

#### TEST QUESTIONS

##### A. MULTIPLE CHOICE

1. Hormones are transported throughout the body by
  - a. nerves
  - b. muscles
  - c. the bloodstream
  - d. all of the above

p. 60, Factual, c

2. The network of ductless glands in our bodies is called the
  - a. endocrine system
  - b. hormone system
  - c. pituitary system
  - d. endoderm system

p. 60, Factual, a

3. Which of these hormones is produced by the ovaries?
  - a. estrogen
  - b. testosterone
  - c. progesterone
  - d. all of the above

p. 60, Factual, d

4. Which of these produces the hormone estrogen?
  - a. the testicles
  - b. the ovaries
  - c. the adrenal glands
  - d. all of the above

p. 60, Factual, d

5. Follicle-stimulating hormone and luteinizing hormone are secreted by the
- pituitary gland
  - adrenal gland
  - ovaries
  - all of the above

p. 60, Factual, a

6. Follicle-stimulating hormone
- stimulates the maturation of a follicle in one of the ovaries
  - stimulates production of sperm in the testicles
  - both of the above
  - none of the above

p. 60, Factual, c

7. The hormone that stimulates production of sperm and maturation of ova is
- follicle-stimulating hormone
  - luteinizing hormone
  - estrogen
  - testosterone

p. 60, Factual, a

8. Which hormone stimulates the testicles to produce male hormones?
- follicle-stimulating hormone
  - luteinizing hormone
  - testosterone
  - gonadotropin

p. 60, Factual, b

9. Which of these hormones triggers ovulation?
- follicle-stimulating hormone (FSH)
  - progesterone
  - luteinizing hormone (LH)
  - estrogen

p. 60, Factual, c

10. Oxytocin is associated with
- milk release during breast-feeding
  - labor contractions
  - orgasmic contractions
  - all of the above

pp. 60–61, Factual, d

11. The release of FSH and LH from the pituitary gland follows the release of
- estrogen
  - testosterone
  - GnRH
  - progesterone

p. 61, Factual, c

12. The average length of women's menstrual cycles is
- 24 hours
  - 4 days
  - 14 days
  - 28 days

p. 62, Factual, d

13. For numbering purposes, day 1 of the menstrual cycle is
- the start of menstruation
  - the end of menstruation
  - ovulation
  - puberty

p. 62, Factual, a

14. A woman's menstrual cycle begins with the release of
- estrogen
  - progesterone
  - follicle-stimulating hormone
  - luteinizing hormone

p. 63, Factual, c

15. The release of estrogen during the preovulatory phase of the menstrual cycle
- inhibits release of follicle-stimulating hormone
  - stimulates release of luteinizing hormone
  - promotes growth of the endometrium
  - all of the above

p. 63, Factual, d

16. The correct order of events leading to ovulation is
- development of a follicle, release of LH, secretion of estrogen, increased levels of FSH
  - increased levels of FSH, release of LH, development of a follicle, secretion of estrogen
  - release of LH, increased levels of FSH, secretion of estrogen, development of a follicle
  - increased levels of FSH, development of a follicle, secretion of estrogen, release of LH

p. 63, Factual, d

17. In humans, the \_\_\_\_\_ signals the onset of ovulation within 12 to 24 hours.
- change in the cervical mucus to white and sticky
  - LH surge
  - onset of bleeding
  - sudden increase in sexual interest

p. 63, Factual, b

18. The rupturing of the follicle and the release of the mature egg into the abdominal cavity is called
- proliferation
  - ovulation
  - fertilization
  - preovulation

p. 63, Factual, b

19. The mucus of the cervix becomes \_\_\_\_\_ at ovulation.
- white and sticky
  - clear and slippery
  - thick and yellowish
  - red with released blood

p. 64, Factual, b

20. In the \_\_\_\_\_ phase of the menstrual cycle, the cells of the corpus luteum begin to secrete high levels of progesterone.
- a. preovulatory phase
  - b. ovulation
  - c. postovulatory phase
  - d. menstruation

p. 64, Factual, c

21. If implantation fails to occur, the corpus luteum
- a. will secrete estrogen continually for 3 months
  - b. will degenerate
  - c. will secrete progesterone continually for 3 months
  - d. all of the above

p. 64, Factual, b

22. Menstruation consists of
- a. blood
  - b. cervical mucus
  - c. sloughed off endometrial tissue
  - d. all of the above

p. 64, Factual, d

23. Women's menstrual cycles
- a. are always 28 days
  - b. are always  $28 \pm 1$  days
  - c. average 28 days, but often vary by at least 7 days
  - d. average 28 days and vary by no more than 2 days

p. 64, Factual, c

24. Women's menstrual cycles vary mostly because of big differences in the length of their \_\_\_\_\_.
- a. ovulation phases
  - b. postovulatory phases
  - c. preovulatory phases
  - d. menstrual phases

p. 64, Factual, c

25. Some studies have found that women who live together eventually have synchronized menstrual cycles. Evidence suggests that this is due to
- hormones
  - pheromones
  - estrogen
  - gonadotropins

p. 65, Factual, b

26. In mammals that have an estrous cycle, the female is sexually receptive only during
- the preovulatory phase
  - ovulation
  - the postovulatory phase
  - menstruation

p. 65, Factual, b

27. Studies indicate that women
- show a large peak in sexual interest in the week before ovulation
  - show a large peak in sexual interest at the time of ovulation
  - show a large peak in sexual interest in the week after ovulation
  - can be interested in sex any time during the menstrual cycle

p. 65, Factual, d

28. In Western culture, negative attitudes about menstruation can be traced as far back as the
- biblical Hebrews
  - early Christians
  - Puritans
  - Victorians

p. 66, Factual, a

29. Anthropologists believe that menstrual taboos within a culture
- emphasize the procreational purpose of sex
  - deny the pleasurable aspects of sex
  - serve to emphasize the low status and inferiority of women
  - all of the above

p. 67, Factual, c

30. Many couples avoid sexual intercourse during menstruation because
- the chance of pregnancy is greatest at this time
  - of socially learned negative attitudes
  - the chance of infection is greatest at this time
  - women are biologically programmed not to be interested in sex at this time

p. 68, Applied, b

31. During menstruation, couples should
- avoid sex because of the chance of infection
  - avoid sex because the chance of pregnancy is high
  - avoid sex because women are biologically programmed not to be interested in sex at this time
  - none of the above

p. 68, Applied, d

32. In terms of risk for pregnancy, the safest phase of the menstrual cycle to have sexual intercourse is during
- the preovulatory phase
  - ovulation
  - the postovulatory phase
  - menstruation

p. 69, Applied, d

33. Amenorrhea can be caused by
- intense exercise and stress
  - anorexia nervosa
  - pituitary or ovarian problems
  - all of the above

p. 69, Factual, d

34. Susan is always dieting and is underweight. She is likely to experience
- amenorrhea
  - premenstrual syndrome
  - painful menstruation
  - toxic shock syndrome

p. 69, Applied, a

35. Which of these statements regarding PMS is FALSE?
- a. physical symptoms of PMS can include swelling, weight gain, tenderness, and headaches
  - b. women with PMS generally have abnormal progesterone levels
  - c. emotional symptoms of PMS may include depression, tension, anxiety, and an inability to concentrate
  - d. symptoms of PMS show rapid relief once menstruation begins

p. 70, Factual, b

36. Susan is feeling nervous, irritable, and has anxieties, but the symptoms disappear when her menstrual period begins. Susan probably has
- a. amenorrhea
  - b. premenstrual syndrome
  - c. dysmenorrhea
  - d. menarche

p. 70, Applied, b

37. The symptoms of PMS are often made worse by
- a. negative attitudes about menstruation
  - b. caffeine
  - c. excess salt intake
  - d. all of the above

p. 71, Applied, d

38. Recent studies indicate that PMS is due in part to
- a. an estrogen/progesterone imbalance
  - b. high levels of estrogen
  - c. high levels of progesterone
  - d. an interaction of ovarian hormones with serotonin

p. 71, Factual, d

39. Secondary dysmenorrhea is often caused by
- a. endometriosis
  - b. pelvic inflammatory disease
  - c. ovarian cysts
  - d. all of the above

p. 71, Factual, d



40. Primary dysmenorrhea is caused by an overproduction of
- a. prostaglandins
  - b. ibuprofen
  - c. Mittelschmerz
  - d. progesterone

p. 71, Factual, a

41. Women who suffer from primary dysmenorrhea can often get relief by
- a. having orgasms
  - b. anti-prostaglandin drugs
  - c. birth control pills
  - d. all of the above

p. 71, Applied, d

42. A condition in which the endometrium tissue grows in places other than the inner uterus is called
- a. endometriosis
  - b. dysmenorrhea
  - c. toxic shock syndrome
  - d. premenstrual syndrome

p. 72, Factual, a

43. Endometriosis is a condition that causes pain at menstruation and is caused by
- a. endometrial tissue growing outside the uterus
  - b. overproduction of prostaglandins
  - c. bacterial infection
  - d. all of the above

p. 72, Factual, a

44. Toxic shock syndrome is caused by
- a. endometrial tissue growing outside the uterus
  - b. overproduction of prostaglandins
  - c. toxins produced by a bacterium
  - d. all of the above

p. 72, Factual, c

45. In men, FSH production is inhibited by increases in blood levels of
- testosterone
  - inhibin
  - GnRH
  - all of the above

p. 73, Factual, b

46. Women have monthly cycles of fluctuating hormone levels and men do not because of differences in their
- pituitary glands
  - FSH and LH
  - hypothalamus
  - all of the above

p. 74, Factual, c

47. Castration in sexually experienced men causes
- a total and permanent loss of sexual desire in all cases
  - a gradual decline in sexual desire in all cases
  - only a temporary loss of sexual desire in all cases
  - loss of sexual desire in most men, but little change in others

p. 74, Factual, d

48. The most important hormone for sexual desire in women appears to be
- estrogen
  - progesterone
  - testosterone
  - depo-provera

p. 74, Factual, c

49. Kim has shown a loss of sexual desire after reaching menopause (note: this usually does not occur). Her doctor would probably advise that she be given \_\_\_\_\_ to restore desire.
- estrogen
  - progesterone
  - testosterone
  - follicle stimulating hormone

p. 74, Applied, c

50. Taking anabolic steroids to improve athletic performance can lead to
- mild to severe mental disorders
  - liver damage, elevated calcium levels, and increased blood pressure
  - testicular atrophy in men and masculinizing effects in women
  - all of the above

p. 75, Factual, d

**B. TRUE-FALSE**

51. The endocrine system includes the pituitary gland, adrenal glands, and sweat glands.
- True
  - False

p. 60, Factual, b

52. Young, adult men normally do not have any estrogen in their bodies.
- True
  - False

p. 60, Factual, b

53. Follicle-stimulating hormone stimulates the production of sperm in the testicles.
- True
  - False

p. 60, Factual, a

54. The pituitary gland controls the release of FSH and LH.
- True
  - False

p. 61, Factual, b

55. A woman's ovaries continue to produce new eggs until she reaches menopause.
- True
  - False

p. 61, Factual, b

56. The average length of women's menstrual cycles is 30 days (1 month).
- True
  - False

p. 62, Factual, b

57. In the preovulatory phase of the menstrual cycle, the follicle releases large amounts of estrogen.
- a. True
  - b. False

p. 63, Factual, a

58. During ovulation, the follicle is released into the abdominal cavity.
- a. True
  - b. False

p. 63, Factual, b

59. Some women can tell when they are ovulating.
- a. True
  - b. False

p. 64, Factual, a

60. In the postovulatory phase of the menstrual cycle, the follicle releases less progesterone than before.
- a. True
  - b. False

p. 64, Factual, b

61. The length of adult women's menstrual cycles is almost always  $28 \pm 2$  days.
- a. True
  - b. False

p. 64, Factual, b

62. Men and women may be able to affect one another's biological functions via their natural body odors.
- a. True
  - b. False

pp. 64–65, Factual, a

63. Menstruation is a natural characteristic of female mammals.
- a. True
  - b. False

p. 65, Factual, b

64. Although women can have sex at any time, they really do not desire it except at the time of ovulation.

- a. True
- b. False

p. 65, Factual, b

65. Many couples show a drop in sexual activity during menstruation. This is usually the result of hormones.

- a. True
- b. False

pp. 66–68, Factual, b

66. Sexual intercourse during menstruation is unhealthy.

- a. True
- b. False

pp. 66–68, Applied, b

67. Menstruation is a sign that a woman is sexually experienced.

- a. True
- b. False

pp. 61–68, Factual, b

68. Amenorrhea is common among women athletes who have a low body fat level.

- a. True
- b. False

p. 69, Factual, a

69. Most women with PMS can get relief with injections of progesterone.

- a. True
- b. False

p. 70, Factual, b

70. It is recommended that women suffering from PMS should avoid caffeine.

- a. True
- b. False

p. 71, Applied, a

71. Primary dysmenorrhea is caused primarily by an overproduction of prostaglandins.  
a. True  
b. False

p. 71, Factual, a

72. Many cases of dysmenorrhea are caused by endometriosis.  
a. True  
b. False

p. 71, Factual, a

73. It is okay for women who use extra-absorbent tampons to change them just once a day.  
a. True  
b. False

p. 72, Applied, b

74. Levels of FSH and LH in men undergo monthly cycles somewhat similar to those seen in women.  
a. True  
b. False

p. 73, Factual, b

75. Men's hypothalamus are different from women's hypothalamus.  
a. True  
b. False

p. 74, Factual, a

76. Men's pituitary glands are different from women's pituitary glands.  
a. True  
b. False

pp. 73–74, Factual, b

77. The reason women's hormone levels fluctuate and men's do not is due to differences in the hypothalamus (brain).  
a. True  
b. False

p. 74, Factual, a

78. Castration always eliminates sexual desire in men.  
a. True  
b. False

p. 74, Factual, b

79. The loss of estrogen and progesterone at menopause does not reduce sexual desire in most women.  
a. True  
b. False

p. 74, Applied, a

80. For women, the most important hormone for sexual desire is testosterone.  
a. True  
b. False

p. 74, Factual, a

81. The use of anabolic steroids can make a man's penis bigger.  
a. True  
b. False

p. 76, Factual, b

82. Women who take anabolic steroids risk permanent masculinization, even after they quit.  
a. True  
b. False

p. 76, Factual, a

**C. ESSAY**

83. Describe the hormonal events that take place during the menstrual cycle.
84. Explain some differences between menstrual cycles and estrous cycles.
85. What are pheromones? What evidence is there that pheromones may play a role in the regulation of human menstrual cycles?
86. Describe why menstruation is often associated with negative beliefs, and why this should not be the case.
87. What role do hormones play in human sexual desire?

88. Explain the difference between dysmenorrhea and PMS, and discuss what we know about the biological causes of each.
89. Describe the brain-pituitary-gonad feedback loop for the production of sperm and testosterone in men.