

Student name: _____

TRUE/FALSE - Write 'T' if the statement is true and 'F' if the statement is false.

1) The cerebral cortex is also called the gray matter.

- ☐ true
- ☐ false

2) A relatively frail person lifting a car off of a child pinned beneath it would be an example of the power of the fight-or-flight response.

- ☐ true
- ☐ false

3) The ciliary muscles of the eye are influenced by the sympathetic system alone, and the sweat glands and blood glucose are influenced by the parasympathetic system alone.

- ☐ true
- ☐ false

4) Muscular bracing can lead to problems such as headaches and backaches.

- ☐ true
- ☐ false

5) When we experience little or no stress, the limbic system is in charge, and when we have significant levels of

- ☐ true
- ☐ false

stress, the cerebral cortex is in charge.

6) When measuring

blood pressure, the higher number is the diastolic reading and the lower number is the systolic reading.

- ☐ true
- ☐ false

7) Brain cells destroyed by prolonged stress can regenerate on their own.

- ☐ true
- ☐ false

8) Men and women respond to stress differently because of gender-based hormonal differences.

- ☐ true
- ☐ false

9) A systolic blood pressure greater than 140 and/or a diastolic blood pressure greater than 90 are classified as high

blood pressure or hypertension.

- ☐ true
- ☐ false

10) Cortisol and aldosterone are types of muscle tissue.

- ☐ true
- ☐ false

11) When the hypothalamus experiences a stressor, it activates the two major stress reactivity pathways: the

endocrine system and the autonomic nervous system.

- ☐ true
- ☐ false

12) Stress causes a decrease in saliva production and an increase in hydrochloric acid in the stomach.

- ☐ true
- ☐ false

13) During stress, the hypothalamus activates the adrenal and thyroid glands, which in turn secrete cortisol, aldosterone, epinephrine, norepinephrine, and thyroxin.

- ☐ true
- ☐ false

14) Contraction of the smooth muscles results in constriction in the walls of the blood vessels.

- ☐ true
- ☐ false

15) The frontal lobe of the brain is associated with movement, orientation, recognition, and the perception of stimuli.

- ☐ true
- ☐ false

16) The reticular activating system (RAS) is the part of the brain where the world outside meets the thoughts and feelings from inside.

- ☐ true
- ☐ false

17) The reticular activating system (RAS) needs to be activated to normal levels for the rest of the brain to function as it should.

☐ true

☐ false

18) In most people, cortisol levels are lowest a few hours after waking and continue to rise throughout the day.

☐ true

☐ false

19) Persistent stress results in the death of cardiac muscle cells and a loss of contractility of the heart. This damage is irreversible.

☐ true

☐ false

20) During stress, the surface temperature of the skin increases.

☐ true

☐ false

21) Perspiration increases during stress.

☐ true

☐ false

22) Stress may alter peristalsis of the small and large intestines necessary for the transport of food substances.

☐ true

☐ false

MULTIPLE CHOICE - Choose the one alternative that best completes the statement or answers the question.

24) The upper part of the brain responsible for thinking functions is called the:

- A) cerebral cortex.
- B) subcortex.
- C) cerebellum.
- D) diencephalon.

25) The lower part of the brain responsible for various physiological processes necessary to stay alive is called the:

- A) cerebral cortex.
- B) cerebrum.
- C) subcortex.
- D) sulcus.

26) The part of the subcortex responsible for coordination is called the:

- A) cerebellum.
- B) medulla oblongata.
- C) thalamus.
- D) hippocampus.

27) The part of the subcortex responsible for the regulation of heartbeat and breathing is called the:

- A) cerebellum.
- B) pons.
- C) thalamus.
- D) medulla oblongata.

28) The part of the subcortex responsible for regulating sleep is called the:

- A) cerebellum.
- B) pons.
- C) thalamus.
- D) medulla oblongata.

29) The part of the subcortex responsible for the regulation of emotions is called the:

- A) cerebellum.
- B) pons.

- C) medulla oblongata.
- D) diencephalon.

30) The part of the diencephalon that relays sensory impulses to the cerebral cortex is called the:

- A) thalamus.
- B) hypothalamus.

- C) medulla oblongata.
- D) pons.

31) The part of the diencephalon that activates the autonomic nervous system is called the:

- A) pons.
- B) hypothalamus.

- C) thalamus.
- D) medulla oblongata.

32) The system that controls such body processes as hormone balance, temperature, and width of blood vessels is called the:

- A) limbic system.
- B) endocrine system.
- C) autonomic nervous system.

- D) reticular activating system.

33) The system that produces emotions, which is also known as the "seat of emotions," is called the:

- A) limbic system.
- B) endocrine system.
- C) cardiovascular system.

D) reticular activating system.

34) Which of the following statements defines the endocrine system?

- A) It is a part of the diencephalon that relays sensory impulses to the cerebral cortex.
- B) It is a system of the body that is comprised of hormones that regulate physiological functions.
- C) It is a system of the body that produces emotions

in response to physical and psychological signals.

D) It is a network of nerves that connects the mind and the body.

35) The network of nerves that connects the mind and the body is called the:

- A) limbic system.
- B) endocrine system.
- C) autonomic nervous system.

D) reticular activating system.

36) The part of the brain that "sounds the alarm" that stress is present is called:

- A) vasopressin.
- B) oxytocin.
- C) the hippocampus.

D) the cerebral cortex.

37) Which of the following is released by the anterior portion of the hypothalamus to activate the endocrine system?

- A) Thyrotropic hormone releasing factor (TRF)
- B) Cortisol

C) Aldosterone

D) Corticotropin releasing factor (CRF)

38) What is secreted by the pituitary gland and in turn activates the adrenal cortex to secrete corticoid hormones?

- A) Thyrotropic hormone releasing factor (TRF)
- B) Thyrotropic hormone (TTH)
- C) Adrenocorticotrophic hormone (ACTH)

D) Corticotropin releasing factor (CRF)

39) Adrenocorticotrophic hormone (ACTH) activates the _____ to secrete corticoid hormones.

- A) cerebral cortex
- B) adrenal cortex

C) cerebellum
D) medulla oblongata

40) What is released by the hypothalamus and in turn stimulates the pituitary gland to secrete thyrotropic hormone (TTH)?

- A) Thyrotropic hormone releasing factor (TRF)
- B) Vasopressin (ADH)
- C) Adrenocorticotrophic hormone (ACTH)

D) Corticotropin releasing factor (CRF)

41) What stimulates the thyroid gland to secrete thyroxin?

- A) Thyrotropic hormone (TTH)
- B) Thyrotropic hormone releasing factor (TRF)
- C) Adrenocorticotrophic hormone (ACTH)

D) Corticotropin releasing factor (CRF)

42) The anterior hypothalamus stimulates the _____ to secrete oxytocin and vasopressin (ADH).

- A) thalamus
- B) hippocampus

- C) pituitary gland
- D) cerebral cortex

43) The hormones epinephrine and norepinephrine lead to various changes in the body including:

- A) the dilation of the blood vessels in the muscles.
- B) the constriction of bronchial tubes.
- C) an increase in the basal metabolic rate.

- D) a decrease in oxygen consumption.

44) _____ regulate the metabolism of glucose.

- A) Mineralocorticoids
- B) Vasopressors

- C) Glucocorticoids
- D) Phagocytes

45) The primary glucocorticoid is:

- A) cortisol.
- B) aldosterone.

- C) oxytocin.
- D) vasopressin.

46) _____ regulate the balance between sodium and potassium.

- A) Vasopressors
- B) Glucocorticoids

- C) Mineralocorticoids
- D) Phagocytes

47) The primary mineralocorticoid is:

- A) cortisol.
- B) aldosterone.

- C) oxytocin.
- D) vasopressin.

48) The inner portion of the adrenal gland that secretes catecholamines is called the:

- A) adrenal cortex.
- B) adrenal medulla.

- C) medulla oblongata.
- D) diencephalon.

49) The catecholamine commonly called adrenaline is:

- A) epinephrine.
- B) cortisol.

- C) norepinephrine.
- D) aldosterone.

50) The catecholamine commonly called noradrenaline is:

- A) epinephrine.
- B) cortisol.

- C) norepinephrine.
- D) aldosterone.

51) Which of the following is a function of the hormone thyroxin?

- A) It increases feelings of tiredness.
- B) It decreases blood pressure.
- C) It decreases gastrointestinal motility.

- D) It increases free fatty acids.

52) Which of the following is the part of the autonomic nervous system responsible for expending energy?

- A) The sympathetic nervous system
- B) The parasympathetic nervous system
- C) The endocrine system

D) The reticular activating system

53) Which of the following is the part of the autonomic nervous system responsible for conserving energy?

- A) The sympathetic nervous system
- B) The parasympathetic nervous system
- C) The endocrine system

D) The reticular activating system

54) When you encounter a stressor, the sympathetic nervous system regulates the body to:

- A) decrease heart rate.
- B) constrict pupils.
- C) dilate abdominal arteries.

D) increase mental activity.

55) Which of the following is NOT an example of an involuntary function?

- A) Heart rate
- B) Blood pressure
- C) Muscle contraction

D) Respiratory rate

56) The body system responsible for digestion is called the:

- A) reproductive system.
- B) nervous system.
- C) gastrointestinal system.

D) cardiovascular system.

57) The substance that starts to break down food to small, manageable pieces before it passes through the esophagus is called:

- A) bile.
- B) saliva.

- C) cortisol.
- D) aldosterone.

58) The pipe through which food passes into the stomach is called the:

- A) esophagus.
- B) trachea.

- C) small intestine.
- D) large intestine.

59) The substance found in the stomach that helps break down food for digestion is:

- A) esophageal acid.
- B) saliva.

- C) cortisol.
- D) hydrochloric acid.

60) In the human digestive system, food from the stomach passes into the:

- A) colon.
- B) liver.

- C) small intestine.
- D) large intestine.

61) The part of the digestive system that receives unusable food substance from the small intestine is called the:

- A) liver.
- B) kidney.

- C) large intestine.
- D) esophagus.

62) The exit point from the body for unusable food substances is called the:

- A) esophagus.
- B) anal opening.

- C) small intestine.
- D) large intestine.

63) Muscles that are attached to bones are called:

- A) smooth muscles.
- B) tendons.

- C) skeletal muscles.
- D) large muscles.

64) Muscles that control the contraction of internal organs are called:

- A) smooth muscles.
- B) ligaments.

- C) internal muscles.
- D) large muscles.

65) One of the reasons that the lie detector test is not infallible and is viewed with caution is that people can control

their nervousness, thereby affecting their:

- A) oxytocin levels.
- B) galvanic skin response.

- C) trophotropic response.
- D) cortisol levels.

66) The average blood pressure for a young adult is:

- A) 120/80.
- B) 160/90.

- C) 125/75.
- D) 140/90.

67) Cortisol is secreted from the adrenal cortex and is responsible for:

- A) the growth of fat cells.
- B) an increase in blood glucose.
- C) the secretion of saliva.
- D) aggressive behavior.

68) Aldosterone is the primary mineralocorticoid that is responsible for:

- A) a decrease in blood volume.
- B) an increase in urine production.
- C) a decrease in sodium retention.
- D) an increase in blood pressure.

69) In males, testosterone levels increase significantly with acute stress, and this increase is associated with:

- A) nurturing emotions.
- B) relaxation.
- C) hostility.
- D) All of the answers are correct.

70) In females, the increase of oxytocin and estrogen during stress response:

- A) initiates the fight-or-flight response.
- B) initiates the tend-and-befriend response.
- C) initiates the trophotropic response.
- D) All of the answers are correct.

71) In females, the effects of cortisol and epinephrine are mediated by the hormones:

- A) testosterone

and oxytocin.

- B) estrogen and testosterone.
- C) oxytocin and progesterone.

D) oxytocin and estrogen.

72) The temporal lobe of the brain is associated with:

- A) reasoning, planning, parts of speech, movement, emotions, and problem solving.
- B) movement, orientation, recognition, and the perception of stimuli.

C) the perception and recognition of sounds, memory, and speech.

D) vision.

73) High cortisol levels that do not decline during the day have been found in:

- A) victims of rape.
- B) people with depression.
- C) Holocaust survivors.

D) All of the answers are correct.

74) Total cholesterol between 200 and 239 mg/dl is considered:

- A) high.
- B) borderline high.

C) low.

D) dangerous.

75) Identify the correct order in which food moves through the gastrointestinal system.

- A) Esophagus, large intestine, and small intestine
- B) Large intestine, small intestine, and esophagus
- C) Esophagus, small intestine, and large intestine

D) Small intestine, esophagus, and large intestine

76) The nervous system includes:

- A) the brain.
- B) the spinal cord.
- C) the peripheral nerves.

D) All of the answers are correct.

77) The hormone that instructs the kidneys to retain water is:

- A) oxytocin.
- B) vasopressin (ADH).
- C) adrenocorticotrophic hormone (ACTH).

D) thyroxin.

Answer Key

Test name: chapter 2

- 1) TRUE
- 2) TRUE
- 3) FALSE
- 4) TRUE
- 5) FALSE
- 6) FALSE
- 7) FALSE
- 8) TRUE
- 9) TRUE
- 10) FALSE
- 11) TRUE
- 12) TRUE
- 13) TRUE
- 14) TRUE
- 15) FALSE
- 16) TRUE
- 17) TRUE
- 18) FALSE
- 19) TRUE

20) FALSE

21) TRUE

22) TRUE

23) TRUE

24) A

25) C

26) A

27) D

28) B

29) D

30) A

31) B

32) C

33) A

34) B

35) D

36) C

37) D

38) C

39) B

40) A

41) A

42) C

43) C

44) C

45) A

46) C

47) B

48) B

49) A

50) C

51) D

52) A

53) B

54) D

55) C

56) C

57) B

58) A

59) D

60) C

61) C

62) B

63) C

64) A

65) B

66) A

67) B

68) D

69) C

70) B

71) D

72) C

73) D

74) B

75) C

76) D

77) B