

Exam

Name \_\_\_\_\_

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

- 1) Which of the following is an organ system? 1) \_\_\_\_\_  
 A) brain                      B) lungs                      C) heart                      D) urinary

Answer: D

Explanation: A)  
 B)  
 C)  
 D)

- 2) The respiratory system \_\_\_\_\_. 2) \_\_\_\_\_  
 A) cleanses the blood of pathogens and debris  
 B) continuously supplies oxygen to the blood while removing carbon dioxide  
 C) delivers oxygen, carbon dioxide, nutrients and hormones to cells of the body  
 D) rids the body of urea, uric acid, and ammonia

Answer: B

Explanation: A)  
 B)  
 C)  
 D)

- 3) The cardiovascular system \_\_\_\_\_. 3) \_\_\_\_\_  
 A) promotes growth and development  
 B) transports blood throughout the body  
 C) eliminates nitrogenous wastes from the body  
 D) cleanses the blood of pathogens and other debris

Answer: B

Explanation: A)  
 B)  
 C)  
 D)

- 4) Bones and joints belong to this organ system. 4) \_\_\_\_\_  
 A) muscular                      B) skeletal                      C) urinary                      D) nervous

Answer: B

Explanation: A)  
 B)  
 C)  
 D)

- 5) The pancreas belongs to the endocrine system, and is an accessory organ of this organ system. 5) \_\_\_\_\_  
 A) reproductive                      B) nervous                      C) lymphatic                      D) digestive

Answer: D

Explanation: A)  
 B)  
 C)  
 D)

6) The spleen, thymus, and tonsils are all part of the \_\_\_\_\_ system. 6) \_\_\_\_\_  
A) cardiovascular B) respiratory  
C) lymphatic/immune D) endocrine

Answer: C  
Explanation: A)  
B)  
C)  
D)

7) Name the body system that eliminates nitrogen-containing wastes from the body. 7) \_\_\_\_\_  
A) digestive B) respiratory C) circulatory D) urinary

Answer: D  
Explanation: A)  
B)  
C)  
D)

8) The major organs of this system allow you to draw, play tennis, dance, and frown. 8) \_\_\_\_\_  
A) skeletal B) cardiovascular C) nervous D) muscular

Answer: D  
Explanation: A)  
B)  
C)  
D)

9) This body system is an essential companion to the cardiovascular system because it picks up leaked fluid from the blood vessels and returns it to the blood. 9) \_\_\_\_\_  
A) digestive B) urinary  
C) lymphatic/immunity D) endocrine

Answer: C  
Explanation: A)  
B)  
C)  
D)

10) The stomach belongs to this organ system. 10) \_\_\_\_\_  
A) respiratory B) reproductive C) cardiovascular D) digestive

Answer: D  
Explanation: A)  
B)  
C)  
D)

11) These organs belong to two organ systems. 11) \_\_\_\_\_  
A) larynx and trachea B) nerves and spinal cord  
C) ovaries and testes D) bladder and ureters

Answer: C  
Explanation: A)  
B)  
C)  
D)

12) The thyroid gland belongs to this organ system. 12) \_\_\_\_\_  
A) lymphatic/immunity B) endocrine  
C) nervous D) respiratory

Answer: B  
Explanation: A)  
B)  
C)  
D)

13) This organ is a large muscular tube that ends at the anus. 13) \_\_\_\_\_  
A) trachea B) esophagus C) small intestine D) large intestine

Answer: D  
Explanation: A)  
B)  
C)  
D)

14) The \_\_\_\_\_ and \_\_\_\_\_ are part of the respiratory system. 14) \_\_\_\_\_  
A) bronchi, thymus B) lungs, esophagus  
C) testes, ovaries D) alveoli, trachea

Answer: D  
Explanation: A)  
B)  
C)  
D)

15) The integumentary system \_\_\_\_\_. 15) \_\_\_\_\_  
A) is a site for blood-cell formation  
B) protects the deep organs from injury and drying out  
C) breaks down ingested food  
D) contributes to the acid-base balance of the blood

Answer: B  
Explanation: A)  
B)  
C)  
D)

16) The major organs of the cardiovascular and respiratory systems, the heart and lungs, reside in the \_\_\_\_\_ cavity. 16) \_\_\_\_\_  
A) thoracic B) spinal  
C) abdominopelvic D) cranial

Answer: A  
Explanation: A)  
B)  
C)  
D)

- 17) Which two body systems contribute to acid-base balance of blood?
- A) nervous and urinary
  - B) respiratory and endocrine
  - C) cardiovascular and endocrine
  - D) urinary and respiratory

17) \_\_\_\_\_

Answer: D

Explanation: A)  
B)  
C)  
D)

- 18) The major function of this body system is to keep us healthy by protecting us from foreign substances and pathogens.
- A) respiratory
  - B) urinary
  - C) lymphatic/immunity
  - D) cardiovascular

18) \_\_\_\_\_

Answer: C

Explanation: A)  
B)  
C)  
D)

## Answer Key

Testname: EX2

- 1) D
- 2) B
- 3) B
- 4) B
- 5) D
- 6) C
- 7) D
- 8) D
- 9) C
- 10) D
- 11) C
- 12) B
- 13) D
- 14) D
- 15) B
- 16) A
- 17) D
- 18) C

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

- 1) This is the formula for calculating the diameter of an unknown microscope field. 1) \_\_\_\_\_
- A) diameter of field A  $\times$  total magnification of field A = diameter of field B  $\times$  total magnification of field B
  - B) diameter of field A + total magnification of field A = diameter of field B + total magnification of field B
  - C) diameter of field A + diameter of field B = total magnification of field A + total magnification of field B
  - D) diameter of field A  $\times$  diameter of field B = total magnification of field A  $\times$  total magnification of field B

Answer: A

- Explanation: A)  
B)  
C)  
D)

- 2) You are looking at very lightly stained cells under the microscope, and you want to increase the contrast so that you can see them "better." You \_\_\_\_\_ the iris diaphragm to \_\_\_\_\_ the light. 2) \_\_\_\_\_
- A) open, increase      B) open, dim      C) close, increase      D) close, dim

Answer: D

- Explanation: A)  
B)  
C)  
D)

- 3) If the diameter of your microscope field is 1 mm at low power (10 $\times$ ) and your ocular lens is 10 $\times$ , then what is the diameter of your field when you switch to the 50 $\times$  objective lens? 3) \_\_\_\_\_
- A) 0.02 mm      B) 0.2 mm      C) 0.002 mm      D) 2 mm

Answer: B

- Explanation: A)  
B)  
C)  
D)

- 4) The \_\_\_\_\_ is a substage lens that concentrates light on the specimen. 4) \_\_\_\_\_
- A) light source      B) condenser  
C) iris diaphragm lever      D) objective lens

Answer: B

- Explanation: A)  
B)  
C)  
D)

5) If your ocular lens is 10×, and you are using your 45× objective lens to view a slide, the total magnification is \_\_\_\_\_.

- A) 250×                      B) 55×                      C) 90×                      D) 450×

Answer: D

Explanation: A)  
B)  
C)  
D)

6) The \_\_\_\_\_ of the microscope carries three or four objective lenses.

- A) arm                      B) base                      C) ocular                      D) nosepiece

Answer: D

Explanation: A)  
B)  
C)  
D)

7) You have learned that the objective lens magnifies the object on the slide, producing the \_\_\_\_\_ image, and that the ocular lens magnifies that image, forming the \_\_\_\_\_ image.

- A) ocular, objective                      B) objective, real  
C) real, virtual                      D) virtual, ocular

Answer: C

Explanation: A)  
B)  
C)  
D)

8) As you increase the total magnification of the specimen, the working distance \_\_\_\_\_.

- A) increases                      B) decreases                      C) remains the same

Answer: B

Explanation: A)  
B)  
C)

9) The working distance for a 10× objective lens is \_\_\_\_\_.

- A) much less than the working distance for the 100× objective lens  
B) a little bit less than the working distance for the 100× objective lens  
C) a little bit greater than the working distance for the 100× objective lens  
D) much greater than the working distance for the 100× objective lens

Answer: D

Explanation: A)  
B)  
C)  
D)

- 10) You begin your observations using the \_\_\_\_\_ lens and the \_\_\_\_\_ adjustment knob. 10) \_\_\_\_\_  
A) highest-power, fine B) lowest-power, coarse  
C) midrange-power, fine D) midrange-power, coarse

Answer: B

Explanation: A)  
B)  
C)  
D)

- 11) To transport a microscope, hold it \_\_\_\_\_. 11) \_\_\_\_\_  
A) horizontally, with one hand supporting the objective lenses  
B) cradled in both arms  
C) upright, with one hand on its arm and the other hand supporting its base  
D) close to your body with one arm and cover the top of it with your other arm

Answer: C

Explanation: A)  
B)  
C)  
D)

- 12) When you want to study a slide under the microscope, you place it on the \_\_\_\_\_. 12) \_\_\_\_\_  
A) arm B) stage C) head D) base

Answer: B

Explanation: A)  
B)  
C)  
D)

- 13) With the higher power objective lenses, use only this knob to focus. 13) \_\_\_\_\_  
A) fine adjustment knob B) iris diaphragm lever C) course adjustment knob

Answer: A

Explanation: A)  
B)  
C)

- 14) As you examine the tissue on your slide, you switch to a greater magnification to increase the size of the cells you see. You \_\_\_\_\_ the light intensity to see better at the greater magnification. 14) \_\_\_\_\_  
A) make no adjustment to B) decrease C) increase

Answer: C

Explanation: A)  
B)  
C)



- 15) You prepare a wet mount of your own cheek cells and place it under the microscope, but find that you cannot see any detail of the cells. What can you do to make details more visible? 15) \_\_\_\_\_
- A) increase light intensity
  - B) prepare another slide and stain with methylene blue
  - C) view at a higher power
  - D) view at a lower power

Answer: B

Explanation: A)  
B)  
C)  
D)

- 16) As total magnification increases, the depth of field \_\_\_\_\_. 16) \_\_\_\_\_
- A) increases
  - B) decreases
  - C) remains the same

Answer: B

Explanation: A)  
B)  
C)

- 17) The ability to discriminate two close objects as separate is called \_\_\_\_\_. 17) \_\_\_\_\_
- A) parfocal
  - B) working distance
  - C) virtual image
  - D) resolution (or resolving power)

Answer: D

Explanation: A)  
B)  
C)  
D)

- 18) Microscope specimens have depth, as well as length and width. If you are focused on the middle layer of cells and wish to see the top layer of cells clearly, you should move the \_\_\_\_\_. 18) \_\_\_\_\_
- A) slide toward or away from you
  - B) slide to the left or right
  - C) lens further away from the slide
  - D) lens closer to the slide

Answer: C

Explanation: A)  
B)  
C)  
D)

- 19) When studying a slide in a microscope, begin focusing with the \_\_\_\_\_ - power objective lens in place. 19) \_\_\_\_\_
- A) highest
  - B) midrange
  - C) lowest

Answer: C

Explanation: A)  
B)  
C)

- 20) The microscope field is the \_\_\_\_\_. 20) \_\_\_\_\_  
A) platform on which the slide rests  
B) area you see through the lenses of the microscope  
C) space near the microscope where you sit  
D) area in which you place the microscope

Answer: B

Explanation: A)  
B)  
C)  
D)

- 21) You are looking at a slide of three crossed threads. Yellow is on the bottom, blue is in the middle, and red is on the top. When you rotate the adjustment knob forward (away from you) on your microscope, the stage rises. You move the adjustment knob to focus on the middle thread. As you rotate the adjustment knob forward, which color thread will come into focus next? 21) \_\_\_\_\_  
A) red B) blue C) yellow

Answer: C

Explanation: A)  
B)  
C)

- 22) If a circular object seen in your low-power field (diameter 1 mm) occupies about 1/4 of the diameter of the field, the object's diameter is about \_\_\_\_\_. 22) \_\_\_\_\_  
A) 2.5  $\mu\text{m}$  B) 0.25  $\mu\text{m}$  C) 250  $\mu\text{m}$  D) 25  $\mu\text{m}$

Answer: C

Explanation: A)  
B)  
C)  
D)

- 23) As you increase the total magnification of the specimen, the size of the field \_\_\_\_\_. 23) \_\_\_\_\_  
A) increases B) decreases C) remains the same

Answer: B

Explanation: A)  
B)  
C)

- 24) The total magnification of an object can be found by \_\_\_\_\_. 24) \_\_\_\_\_  
A) dividing the power of the objective lens by the power of the ocular lens  
B) multiplying the power of the objective lens by the number of objective lenses on your microscope  
C) multiplying the power of the objective lens by the power of the ocular lens  
D) adding the power of the objective lens and the power of the ocular lens

Answer: C

Explanation: A)  
B)  
C)  
D)

25) The depth of field \_\_\_\_\_.

- A) depends on the tissue being studied
- B) depends on the thickness of the slide
- C) is the depth of the slide that is clearly in focus

Answer: C

Explanation: A)  
B)  
C)

25) \_\_\_\_\_

Answer Key

Testname: EX3

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