15.4 Review
Name___________________________________

Anatomy & Physiology

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Fill in the blank or provide a short answer:
1) Urinary bladder inflammation often caused by bacterial infection is called __________. 1)
2) Another term for kidney stones, which form when urine becomes extremely concentrated, is __________. 2)
3) The smooth triangular region of the bladder base that is outlined by the openings of the two ureters and the urethra is called the __________. 3)
4) The abnormal condition that results from the lack of ADH release, causing huge amounts of very dilute urine to be voided, is called __________. 4)
5) Voiding, urination, and __________ are terms that indicate the passage of urine from the bladder. 5)
6) Highly sensitive cells within the hypothalamus that react to changes in blood composition and cause the release of antidiuretic hormone (ADH) when appropriate are called: 6)
7) The primary urinary symptom of Addison’s disease (hypoaldosteronism) is called __________. 7)

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.
8) Extracellular fluid is found everywhere in the body EXCEPT: 8)
   A) within living cells
   B) humors of the eye and lymph
   C) interstitial fluid
   D) blood plasma
   E) cerebrospinal fluid

9) Which one of the following does NOT describe the bladder: 9)
   A) retroperitoneal
   B) muscular
   C) collapsible
   D) anterior to the pubic symphysis
   E) smooth

10) The noninvasive treatment for kidney stones that uses ultrasound waves to shatter calculi is called: 10)
    A) lithiasis  B) lithotomy  C) lithoscopy  D) lithectomy  E) lithotripsy

11) Which one of the following is NOT true of incontinence: 11)
    A) it occurs when we are unable to voluntarily control the external sphincter
    B) it can result from pressure on the bladder
    C) it is never considered normal
    D) it is normal in older children who sleep soundly
    E) it is normal in children 2 years old or younger
12) In a healthy young adult female, water accounts for:
   A) less than one-half of body weight
   B) three-quarters of body weight
   C) one-quarter of body weight
   D) approximately one-half of body weight
   E) 99% of body weight

13) The bladder is able to expand as urine accumulates within it due to the presence of:
   A) transitional epithelium
   B) pseudostratified epithelium
   C) segmentation
   D) sphincters
   E) rugae

14) The average adult bladder is moderately full with __________ of urine within it.
   A) 100 mL
   B) 1 gallon
   C) 1 liter
   D) 2 liters
   E) 500 mL

15) A simple rule concerning water and electrolyte regulation is:
   A) potassium passively follows sodium
   B) water passively follows salt
   C) salt passively follows water
   D) water actively follows salt
   E) salt actively follows water

16) Enlargement of the prostate gland that surrounds the neck of the bladder in adult men is called
    __________, which may cause voiding difficulty.
    A) hypoplasia
    B) eutrophy
    C) dystrophy
    D) hyperplasia
    E) atrophy

17) Which one of the following is NOT a typical symptom of urinary tract infection in adults:
    A) dysuria
    B) urinary retention
    C) cloudy urine
    D) urinary urgency
    E) urinary frequency

18) The voluntarily controlled sphincter fashioned by skeletal muscle at the point where the urethra
    passes through the pelvic floor is called the:
    A) internal urethral sphincter
    B) external ureteral sphincter
    C) internal ureteral sphincter
    D) detrusor sphincter
    E) external urethral sphincter
19) Which one of the following is NOT one of the major roles of the kidneys in normal healthy adults:  
A) ensuring proper blood pH  
B) excretion of nitrogen-containing wastes  
C) maintenance of water balance of the blood  
D) conversion of ammonia to bicarbonate ion  
E) maintenance of electrolyte balance of the blood

20) The results of the renin-angiotensin mechanism mediated by the juxtaglomerular apparatus of the renal tubules include all of the following EXCEPT:  
A) increased peripheral resistance  
B) blood pressure increase  
C) blood volume increase  
D) suppression of aldosterone  
E) vasoconstriction

21) In contrasting urine and filtrate by the time it reaches the collecting ducts, it could be said that:  
A) they contain essentially the same concentration of nutrients  
B) filtrate contains almost everything that blood plasma does  
C) they contain essentially the same amount of water  
D) filtrate contains more unnecessary substances than urine does  
E) urine contains almost everything that blood plasma does

22) The main hormone that acts on the kidneys to regulate sodium ion concentration of the extracellular fluid (ECF) is:  
A) aldosterone  
B) epinephrine  
C) ADH  
D) renin  
E) secretin

23) Regardless if aldosterone is present or not, the percentage of sodium that is reabsorbed within the proximal convoluted tubules of the kidney is:  
A) 50%  
B) 80%  
C) 70%  
D) 60%  
E) 90%

24) In one 24-hour period, the kidneys of an average-sized healthy adult filter approximately through their glomeruli into the tubules.  
A) 50-75 liters of blood plasma  
B) 200-240 liters of blood plasma  
C) 150-180 liters of blood plasma  
D) 100-125 liters of blood plasma  
E) 10-15 liters of blood plasma

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

25) Following the micturition reflex, it is impossible to postpone bladder emptying.  
26) The urethra, which carries urine exiting the bladder by peristalsis, is typically shorter in females than in males.  
27) The most important trigger for aldosterone release is the renin-angiotensin mechanism, mediated by the renal tubules.
28) Antidiuretic hormone (ADH) causes increased water loss through the urine.

29) Urine moves down the ureters into the bladder due to gravitational pull alone.

30) A descending urinary tract infection is the most common type of UTI.