

## Check Your Understanding

### Part A – Multiple Choice Questions:

- Which process accounts for the return of needed nutrients to the blood?
  - Filtration.
  - Secretion.
  - Excretion.
  - Reabsorption.
- Which part of a nephron is **MOST** affected by ADH?
  - loop of Henle.
  - collecting duct.
  - distal convoluted tubule.
  - proximal convoluted tubule.
- Tubular secretion of histamines occurs in the
  - loop of Henle.
  - collecting duct.
  - distal convoluted tubule.
  - proximal convoluted tubule.
- The pH of blood is increased by the movement of hydrogen ions from the
  - distal convoluted tubule into the peritubular capillaries.
  - peritubular capillaries into the distal convoluted tubule.
  - peritubular capillaries into the proximal convoluted tubule.
  - proximal convoluted tubule into the peritubular capillaries.
- The cells that line the proximal convoluted tubule are specialized for
  - filtration.
  - transport.
  - secretion.
  - contraction.
- In which kidney region are the majority of Bowman's capsules found?
  - Renal vein.
  - Renal pelvis.
  - Renal cortex.
  - Renal medulla.
- Which of the following is **LEAST** likely to be found in the filtrate of a nephron?
  - Water.
  - Proteins.
  - Nutrients.
  - Nitrogenous wastes.
- High solute concentration in the blood (hypertonic blood) is detected by the
  - glomerulus.
  - distal tubule.
  - hypothalamus.
  - posterior pituitary gland.
- Which of the following **MOST** correctly describes the site of urea entry into blood and site of urea removal from blood?
  - Entry at liver, removal at liver.
  - Entry at kidneys, removal at liver.
  - Entry at liver, removal at kidneys.
  - Entry at muscles, removal at kidneys.
- Which of the following would cause the kidneys to reabsorb more water?
  - Increased blood volume.
  - Increased cardiac output.
  - Decreased blood pressure.
  - Decreased ADH concentration.
- Which of the following movements correctly describes the reabsorption of glucose?
  - From filtrate to blood.
  - From blood to filtrate.
  - From blood to intestines.
  - From intestines to blood.
- If the pH of blood is too high
  - more hydrogen, sodium and bicarbonate ions are excreted.
  - the kidneys reabsorb increased amounts of water to dilute the pH.
  - more hydrogen ions are excreted, while less bicarbonate ions are reabsorbed.
  - fewer hydrogen ions are excreted, while more bicarbonate ions are reabsorbed.
- In which blood vessel of the kidney can the highest concentration of metabolic wastes be found?
  - Renal vein.
  - Renal artery.
  - Efferent arteriole.
  - Peritubular capillary bed.
- Urea is a significant component of the fluid that passes from the
  - distal convoluted tubule into blood.
  - glomerulus into Bowman's capsule.
  - proximal convoluted tubule into blood.
  - peritubular capillary bud into the loop of Henle.
- Which of the following is a correct function of the peritubular capillary bed associated with a single nephron?
  - Filtering of blood.
  - Reabsorption of nutrients.
  - Transport of blood to the liver.
  - Gathering wastes for excretion.
- Deamination of amino acids is **MOST** directly responsible for the metabolic waste
  - bile.
  - urea.
  - uric acid.
  - ammonia.
- Which of the following can be found in plasma and urine, but **NOT** in the glomerular filtrate?
  - Urea.
  - Glucose.
  - Histamines.
  - Inorganic salts.
- If alcohol intake increases,
  - ADH secretion increases.
  - ADH secretion decreases.
  - aldosterone secretion increases.
  - aldosterone secretion decreases.