1. Which of the following characteristics of an axon is most dependent on
its diameter?

a. The magnitude of its resting potential.
b. The duration of its refractory period.
c. The conduction velocity of its action potential.
d. The overshoot of its action potential.
e. The activity of its sodium-potassium pump.

2. A red blood cell will swell the most when it is placed in a solution containing

a. 100 mmol calcium chloride.
b. 150 mmol sodium chloride.
c. 200 mmol potassium chloride.
d. 250 mmol urea.
e. 300 mmol mannitol.

3. If the extracellular K+ concentration is increased from 4 meq/L to 10 meq/L,

a. The membrane potential will become more negative.
b. The sodium conductance will increase.
c. The potassium conductance will increase.
d. The membrane will become more excitable.
e. The Na-K pump will become inactivated.

4. Inactivation of the sodium-potassium pump will cause

a. An increase in the intracellular volume.
b. An increase in the intracellular potassium concentration.
c. Hyperpolarization of the membrane potential.
d. An increase in the excitability of nerve cells.
e. An increase in the flow of sodium out of the cell **33.**

5. Membrane excitability will be increased by the greatest amount by
a. Increasing extracellular Na+.
b. Increasing extracellular K+.
c. Decreasing extracellular Cl2□.
d. Decreasing extracellular Ca2+.
e. Decreasing extracellular H+

6. The resting potential of a nerve membrane is primarily dependent on the concentration gradient of
a. Potassium.
b. Sodium.
c. Calcium.
d. Chloride.
e. Bicarbonate.

7. The diagram below illustrates the concentration of a substance in two chambers. If the concentration of the substance in chamber A doubles, the diffusion of the substance will change from 10 mg/h to
a. 5 mg/h.
b. 10 mg/h.
c. 15 mg/h.
d. 20 mg/h.
e. 30 mg/h .

8. Which of the following statements best characterizes a molecule whose reflection coefficient to a membrane is zero?

a. It will not permeate the membrane.
b. It can only cross the membrane through the lipid bilayer.
c. It causes water to flow across the membrane.
d. It is as diffusible through the membrane as water.
e . It is transported across the membrane by a carrier.

9. The characteristic of a water-insoluble substance most important in governing its diffusibility through a cell membrane is its

a. Hydrated diameter.
b. Molecular weight.
c. Electrical charge.
d. Lipid solubility.
e. Three-dimensional shape.

10. Which one of the following muscle proteins plays an important role in contraction of both smooth and striated muscle?

a. Calmodulin.
b. Troponin.
c. Tropomyosin.
d. Actin.
e. Myosin light chains.

11. During the process of excitation-contraction coupling in skeletal muscle, calcium is released from the sarcoplasmic reticulum by

a. Inositol triphosphate (IP3).
b. Protein kinase A.
c. An increase in intracellular calcium concentration.
d. Membrane depolarization.
e. An increase in intracellular sodium concentration.

12. Which of the following words or phrases is most closely associated with an end-plate potential at the neuromuscular junction?

a. “All-or-none response”.
b. Depolarization.
c. Hyperpolarization.
d. Action potential.
e. Electrically excitable gates.

13. In a nerve, the magnitude of the action potential overshoot is normally a function of the

a. Magnitude of the stimulus.
b. Intracellular potassium concentration.
c. Extracellular sodium concentration.
d. Resting membrane potential.
e. Diameter of the axon.

14. Nicotinic receptors are responsible for

a. Producing the skeletal muscle end-plate potential.
b. Decreasing the rate of phase-4 depolarization at the SA node.
c. Increasing the force of stomach contractions.
d. Delaying the emptying of liquids from the stomach.
e. Decreasing the excitability of sympathetic postganglionic neurons.

15. Inactivation of phospholamban in cardiac muscle decreases

a. The velocity of contraction in smooth muscle.
b. The duration of contraction.
c. The strength of contraction.
d. The depolarization required to initiate a contraction.
e . The amount of calcium released from the sarcoplasmic reticulum.

16. Which of the following statements about synaptic transmission at the neuromuscular junction is true?

a. It is enhanced by high levels of cholinesterase

b. It is caused by an influx of potassium ions through the muscle membrane

c. It is depressed by abnormally low levels of magnesium

d. It is depressed by increased parasympathetic nerve activity

e. It is produced by the release of acetylcholine from the alpha motoneuron

17. When comparing the contractile responses in smooth and skeletal muscle, which of the following is most different?

a. The source of activator calcium

b. The role of calcium in initiating contraction

c. The mechanism of force generation

d. The source of energy used during contraction

e. The nature of the contractile proteins

18. The amount of force produced by a skeletal muscle can be increased by

a. Increasing extracellular Mg2+

b. Decreasing extracellular Ca2+

c. Increasing the activity of acetylcholine esterase

d. Decreasing the interval between contractions

e. Increasing the preload beyond 2.2 ⌈m

19. The velocity of nerve conduction is increased with a decrease in the

a. Diameter of the nerve fiber

b. Degree of myelinization

c. Space constant of the nerve fiber

d. Capacitance of the nerve fiber membrane

e. Resting membrane potential

20. The rate of diffusion of a particle across a membrane will increase if

a. The area of the membrane decreases
b. The thickness of the membrane increases
c. The size of the particle increases
d. The concentration gradient of the particle decreases
e. The lipid solubility of the particle increases

21. Periodic hyperkalemic paralysis is characterized by high potassium concentration and muscle weakness. Which of the following is likely to cause muscle weakness as a result of increased extracellular potassium concentration?

a. Hyperpolarization of muscle cells
b. Inactivation of sodium channels in muscle cells
c. Increased release of neurotransmitters from alpha motoneurons
d. Decreased potassium conductance in muscle cells
e. Increased duration of action potentials produced by alpha motoneurons

22. The flow of calcium into the cell is an important component of the upstroke phase of action potentials in

a. Cardiac ventricular muscle
b. Intestinal smooth muscle
c. Skeletal muscle fibers
d. Nerve cell bodies
e. Presynaptic nerve terminals

23. The membrane potential will depolarize by the greatest amount if the membrane permeability increases for

a. Potassium
b. Sodium and potassium
c. Chloride
d. Potassium and chloride
e. Sodium

24. Which of the following will be less during the overshoot of an action potential than during the resting state?

a . Membrane conductance for sodium
b. Membrane conductance for potassium
c. Transference for sodium
d. Transference for potassium
e. Total membrane conductance

25. Preventing the inactivation of sodium channels will decrease

a. The relative refractory period of nerve cells
b. The upstroke velocity of nerve cell action potentials
c. The downstroke velocity of nerve cell action potentials
d. The magnitude of the overshoot in nerve cell action potentials
e. The duration of nerve cell action potentials

26. Statements descriptive of both the equilibrium and steady states include which of the following?

a. The sum of all the fluxes across the membrane is zero in both
b. Both are maintained by the consumption of free energy
c. The concentration gradient across the membrane is zero in both
d. Both are maintained by homeostatic processes
e. The membrane potential is zero in both

27. Connexin is an important component of the

a. Gap junction
b. Sarcoplasmic reticulum
c. Microtubule
d. Synaptic vesicle
e. Sodium channel

28. An increase in sodium conductance is associated with

a. The plateau phase of the ventricular muscle action potential
b. The downstroke of the skeletal muscle action potential
c. The upstroke of the smooth muscle action potential

d. The refractory period of the nerve cell action potential
e. The end-plate potential of the skeletal muscle fiber

29. Electrically excitable gates are normally involved in
a. The depolarization of the end-plate membrane by ACh
b. Hyperpolarization of the rods by light
c. Release of calcium from ventricular muscle sarcoplasmic reticulum
d. Transport of glucose into cells by a sodium-dependent, secondary active transport system
e. Increase in nerve cell potassium conductance caused by an increase in extracellular potassium

30. The sodium gradient across the nerve cell membrane is
a. A result of the Donnan equilibrium
b. Significantly changed during an action potential
c. Used as a source of energy for the transport of other ions
d. An important determinant of the resting membrane potential
e. Maintained by a Na/Ca exchanger

31. Increasing the extracellular potassium concentration will
a. Increase the threshold for eliciting an action potential
b. Hyperpolarize the membrane potential
c. Decrease potassium permeability
d. Decrease the activity of the sodium-potassium pump
e. Make the equilibrium potential for potassium more negative

32. Which of the following would cause an immediate reduction in the amount of potassium leaking out of a cell?
a. Increasing the permeability of the membrane to potassium
b. Increasing the intracellular potassium concentration

c. Increasing (hyperpolarizing) the membrane potential
d. Reducing the activity of the sodium-potassium pump
e. Decreasing the potassium equilibrium potential

33. Excitation-contraction coupling in smooth muscle is initiated when calcium binds to
a. Myosin light chains
b. Calmodulin
c. Troponin
d. Tropomyosin
e. Protein kinase A

34. Synaptic transmission between pain fibers from the skin and spinal cord neurons is mediated by
a. Acetylcholine
b. Substance P
c. Endorphins
d. Somatostatin
e. Serotonin

35. In which one of the following transport processes is the substance moving down its electrochemical gradient?
a. Sodium out of nerve cells
b. Calcium into the sarcoplasmic reticulum
c. Hydrogen into the lumen of the distal nephron
d. Glucose into adipose tissue
e. Potassium into striated muscle cells

36. When skeletal muscle is in its resting state, myosin cross-bridges are prevented from binding to actin molecules by
a. Calmodulin
b. Troponin
c. Tropomyosin
d. Titin
e. Phospholamban

37. The activity of the calcium pump on the sarcoplasmic reticulum of cardiac muscle is regulated by
a. Inositol triphosphate
b. Myosin light chain kinase
c. Phospholamban
d. Protein kinase A
e. Phospholipase C

38. Patients who are extremely allergic to bee stings will self-administer epinephrine when stung. The activation of adrenergic beta-receptors by the injected epinephrine will decrease
a. The contraction of airway smooth muscle
b. The strength of ventricular muscle contraction
c. The rate of depolarization in the SA node
d. The transport of calcium into skeletal muscle fibers
e. The rate of glycogenolysis in the liver

39. Nitric oxide produces many of its physiologic effects by stimulating the synthesis of
a. Cyclic AMP
b. Cyclic GMP
c. Protein kinase A
d. Protein kinase C
e. Calmodulin

40. The NMDA receptor is activated by
a. Glycine
b. Acetylcholine
c. Substance P
d. Histamine
e. Glutamate

تـم بـحمـد الله

Q Bank:

Chapter 1: Functional Organization of the Human Body and Control of the "Internal Environment" Cells as the Living Units of the Body

MULTIPLE CHOICE

1. A large volume of blood is transfused to a person whose baroreceptor–blood pressure control system is not functioning, and arterial blood pressure rises from the normal level of 100 to 160 mm Hg. If at another time the same volume of blood is infused into the same person when the baroreceptor system is functioning and the arterial pressure increases from the normal level from 100 mm Hg to 120 mm Hg, calculate the gain of the baroreceptor system in this person.

a. −3
b. −2
c. −1
d. 0
e. +1
f. +2
g. +3

B ANS:

2. The most abundant type of cell in the human body is which of the following?

a. Neuron
b. Epithelial cell
c. Red blood cell
d. White blood cell
e. Vascular smooth muscle cell
f. Skeletal muscle cell

C ANS:

3. The most abundant substance in the human body and the approximate percentage of that substance in the body is which of the following?

a. Protein, 30%
b. Protein, 60%
c. Water, 30%
d. Water, 60%
e. Carbohydrate, 30%
f. Carbohydrate, 60%

D ANS:

4. Which of the following substances has the highest extracellular fluid to intracellular fluid concentration ratio for most mammalian cells?

a. Sodium ions
b. Potassium ions
c. Carbon dioxide
d. Glucose
e. Protein

ANS: A

5. Exchange of substances between the cardiovascular system and the interstitial fluid occurs mainly in which of the following?

a. Arteries
b. Arterioles
c. Capillaries
d. Venules
e. Veins

ANS: C

6. Which of the following is the approximate distance from the capillaries to most cells of the body?

a. Less than 50 angstroms
b. Less than 50 microns
c. Less than 50 millimeters
d. Less than 100 angstroms
e. Less than 100 microns
f. Less than 100 millimeters

ANS: A

7. When a person is at rest, how much time is required for the blood in the circulation to traverse the entire circulatory circuit?

a. 1 second
b. 1 minute
c. 3 minutes
d. 4 minutes
e. 5 minutes

ANS: B

8. _____ feedback is often referred to as a *vicious cycle* because it leads to _____ instability and sometimes death.
a. Positive, progressive
b. Positive, diminished
c. Negative, progressive
d. Negative, diminished
e. Adaptive, progressive

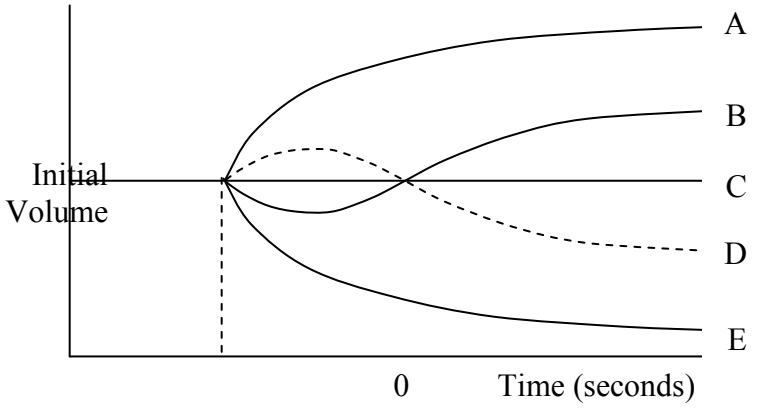
A ANS:

9. Which one of the following is an example of positive feedback in the body?
a. Clotting of blood
b. Return of blood pressure toward normal after a hemorrhage
c. Increased respiration rate caused by accumulation of carbon dioxide in the blood
d. Decreased sympathetic nervous system activity that occurs in response to increased blood pressure

A ANS:

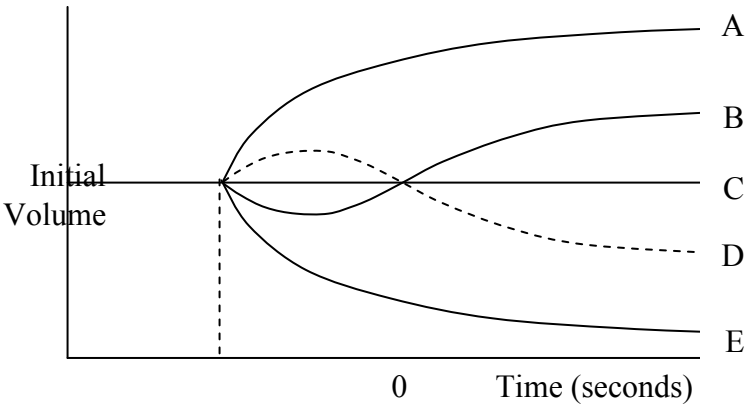
Chapter 4: Transport of Substances Through the Cell Membrane

1. The diagram illustrates possible changes in red blood cell volume resulting from a change in extracellular fluid composition for a cell equilibrated in a 150 mmol/L solution of sodium chloride (NaCl) at time 0. Which curve best illustrates the volume change caused by immersion of the cell in an aqueous solution of 300 mOsm/L calcium chloride ($CaCl_2$)?



Answer: C

2. The diagram illustrates possible changes in red blood cell volume



resulting from a change in extracellular fluid composition for a cell equilibrated in a 150 mmol/L solution of sodium chloride (NaCl) at time 0. Which curve best illustrates the volume change caused by immersion of the cell in an aqueous solution of 200 mOsm/L NaCl and 200 mOsm/L glycerol?

Answer: B

3. An artificial membrane is created that consists of a lipid bilayer. No protein molecules are present in this artificial membrane. The lipid composition of the membrane is essentially the same as that of a normal, biological membrane. Which of the following substances permeates the membrane more readily than water molecules?
   A. Glucose
   B. Glycerol
   C. Oxygen
   D. Sodium
   E. Urea

Answer: C

4. A cell is equilibrated in an aqueous solution of 300 mOsm/L sodium chloride. Which of the following best describes what will happen to cell volume when the cell is placed in an aqueous solution of 300 mOsm glycerol?
   A. Decrease
   B. Decrease and then increase
   C. Increase
   D. Increase and then decrease
   E. No change

Answer: C

5. The osmotic pressure of an aqueous solution is dictated by the number of nonpermeant molecules per unit volume of solution. Which of the following pairs of aqueous solutions will exert equal osmotic pressures across a normal cell membrane after steady-state conditions have been established?

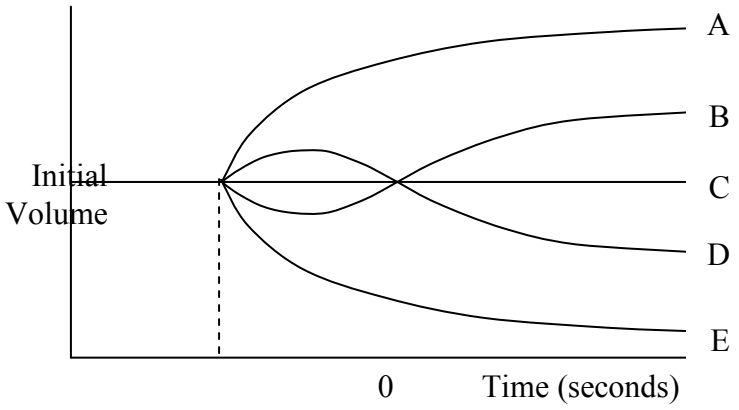
	Solution A	Solution B
A.	10% albumin	10% IgG
B.	100 mmol/L NaCl	200 mmol/L $CaCl_2$
C.	300 mOsm/L glucose	300 mOsm/L urea
D.	300 mOsm/L glycerol	300 mOsm/L NaCl
E.	300 mOsm/L glycerol	300 mOsm/L urea

Answer: E

6. The concentration of calcium ions inside ventricular muscle cells averages 10^{-4} mmol/L at rest (i.e., between contractions). The calcium concentration in the transverse tubules (T tubules) averages 2.5 mmol/L at rest. A protein transporter on the membrane of the T tubule exchanges sodium for calcium. The transporter uses the transmembrane sodium gradient to fuel the exchange. Which of the following transport mechanisms best describes this type of transporter?
   A. Facilitated diffusion
   B. Primary active transport
   C. Secondary active co-transport
   D. Secondary active counter-transport
   E. Simple diffusion

Answer: D

7. The diagram illustrates possible changes in red blood cell volume resulting from a change in extracellular fluid composition for a cell equilibrated in150 mmol/L NaCl at time 0. Which curve best illustrates the volume caused by immersion of the cell in an aqueous solution of 150 mmol/L $CaCl_2$?



Answer: E

8. Human red blood cells (RBCs) placed in a solution of 300 mOsm/L glycerol will swell and burst. However, rabbit RBCs placed in 300 mOsm/L glycerol neither swell nor shrink. This difference between human and rabbit RBCs occurs even when both cell types are equilibrated in isotonic saline (300 mOsm/L NaCl) before placement in the glycerol. Based on this information, which of the following can be concluded about a 300 mOsm/L solution of glycerol for the different cell types?

	Rabbit RBCs	Human RBCs
A.	Hypertonic and hyperosmotic	Hypotonic and hyposmotic
B.	Hypotonic and hyposmotic	Hypertonic and hyperosmotic
C.	Hypotonic and isosmotic	Isotonic and isosmotic
D.	Isotonic and isosmotic	Hypotonic and isosmotic
E.	Isotonic and isosmotic	Isotonic and isosmotic

Answer: D

9. The molarity of a 2% solution of NaCl is 340 mmol/L. The molecular weight of NaCl is 58.5. What is the osmolarity of a 2% solution of NaCl (in mOsm/L)?
   A. 170
   B. 340
   C. 510
   D. 680

Answer: D

10. Secondary active transport typically moves which of the following substances against a concentration gradient?

	Glucose	Amino acids	Sodium ions
A.	No	No	No
B.	No	No	Yes
C.	Yes	No	Yes
D.	Yes	Yes	No
E	Yes	Yes	Yes

Answer: D

11. Which of the following transport mechanisms can move sodium ions across a cell membrane?

	Primary active transport	Secondary active transport	Simple diffusion
A.	No	No	No
B.	No	Yes	Yes
C.	Yes	No	Yes
D.	Yes	Yes	No
E.	Yes	Yes	Yes

Answer: E

Chapter 16: The Microcirculation and the Lymphatic System: Capillary Fluid Exchange, Interstitial Fluid, and Lymph Flow

1. Which one of the following substances in plasma is the major factor that contributes to plasma colloid osmotic pressure?

   A. Sodium chloride
   B. Glucose
   C. Albumin
   D. Cholesterol
   E. Potassium

   Answer: C

2. A decrease in which one of the following would tend to decrease the filtration rate across a capillary wall?
   A. Plasma colloid osmotic pressure
   B. Hydraulic conductivity of the wall
   C. Plasma albumin concentration
   D. Interstitial hydrostatic pressure
   E. Arteriole resistance

   Answer: B

3. Using the data provided, calculate the rate of net fluid movement (in ml/min) across the capillary wall.

   Plasma colloid osmotic pressure = 40 mm Hg
   Capillary hydrostatic pressure = 10 mm Hg
   Venous hydrostatic pressure = 5 mm Hg
   Arterial pressure = 80 mm Hg
   Interstitial hydrostatic pressure = 5 mm Hg
   Interstitial colloid osmotic pressure = 5 mm Hg
   Filtration coefficient = 10 ml/min/mm Hg

   A. 100 (filtration)
   B. 200 (reabsorption)
   C. 200 (filtration)
   D. 300 (filtration)
   E. 300 (reabsorption)

   Answer: E

4. A decrease in which one of the following would tend to increase lymph flow?
   A. Hydraulic conductivity of the capillary wall
   B. Plasma colloid osmotic pressure
   C. Capillary hydrostatic pressure
   D. Interstitial hydrostatic pressure
   E. Interstitial colloid osmotic pressure

Answer: B

5. Using the data provided, calculate the filtration coefficient for the capillary bed (in ml/min/mm Hg).

Plasma colloid osmotic pressure = 30 mm Hg
Capillary hydrostatic pressure = 40 mm Hg
Interstitial hydrostatic pressure = 5 mm Hg
Interstitial colloid osmotic pressure = 5 mm Hg
Filtration rate = 150 ml/min
Venous hydrostatic pressure = 10 mm Hg

   A. 10
   B. 15
   C. 20
   D. 25
   E. 30

Answer: B

6. An increase in arteriole resistance would most likely result in which of the following sets of changes in a microcirculatory bed?

	Interstitial hydrostatic pressure	Capillary hydrostatic flow	Lymph flow
A.	↑	↑	↑
B.	↑	↑	↓
C.	↑	↓	↓
D.	↓	↓	↓
E.	↓	↓	↑
F.	↓	↑	↑

Answer: D

7. Using the data provided for the hydrostatic and oncotic pressures across a muscle capillary wall, calculate the net filtration pressure (in mm Hg) for fluid movement across the capillary wall.

Venous hydrostatic pressure = 5 mm Hg
Arterial pressure = 100 mm Hg

Capillary hydrostatic pressure = 35 mm Hg
Plasma colloid osmotic pressure = 25 mm Hg
Interstitial colloid osmotic pressure = 10 mm Hg
Interstitial hydrostatic pressure = −5 mm Hg

A. 0
B. 5
C. 10
D. 15
E. 25

Answer: E

8. A decrease in which one of the following would tend to increase the filtration rate across a capillary wall?
   A. Plasma colloid osmotic pressure
   B. Hydraulic conductivity of the wall
   C. Interstitial albumin concentration
   D. Capillary hydrostatic pressure
   E. Arteriole diameter

Answer: A

9. A healthy 20-year-old medical student has an exercise stress test. Which of the following sets of changes would be expected to occur in the student's skeletal muscles during exercise?

	Vascular resistance	Capillary hydrostatic pressure	Lymph flow
A.	↑	↑	↑
B.	↑	↑	↓
C.	↑	↓	↓
D.	↑	↓	↑
E.	↓	↓	↓
F.	↓	↓	↑
G.	↓	↑	↑
H.	↓	↑	↓

Answer: G

10. A 65-year-old man has a 20-year history of alcoholism and liver disease. He visits his physician complaining of swelling of his extremities. A decrease in which of the following is the most likely cause of the ascites?
    A. Capillary hydrostatic pressure
    B. Arteriole conductance
    C. Interstitial hydrostatic pressure
    D. Plasma colloid osmotic pressure
    E. Interstitial colloid osmotic pressure

Answer: D

11. An increase in which one of the following would tend to decrease the filtration rate across a capillary wall?
    A. Arteriole diameter
    B. Hydraulic conductivity of the wall
    C. Interstitial albumin concentration
    D. Capillary hydrostatic pressure
    E. Plasma colloid osmotic pressure

Answer: E

12. A twofold increase in which of the following would result in the greatest increase in the transport of oxygen across the capillary wall?
    A. Capillary hydrostatic pressure
    B. Intercellular clefts in the capillary wall
    C. Oxygen concentration gradient
    D. Plasma colloid osmotic pressure
    E. Capillary wall hydraulic permeability

Answer: C

13. An increase in which of the following would tend to decrease lymph flow?
    A. Interstitial hydrostatic pressure
    B. Plasma colloid osmotic pressure
    C. Capillary hydrostatic pressure
    D. Interstitial colloid osmotic pressure
    E. Capillary hydraulic permeability

Answer: B

14. Plasma colloid osmotic pressure
    A. Is less than interstitial colloid osmotic pressure
    B. Decreases by 50% in the muscle capillaries as blood flows from the arteriole end to the venous end
    C. Is primarily caused by the presence of substances in the plasma, such as sodium and potassium
    D. Promotes the movement of fluid from the interstitium into the plasma

Answer: D

Simple Q:

Be careful that the entire exam is in true \false form …..

Q1: which of the following is mediated by parasympathetic muscarinic receptors?

a. Dilation of bronchial smooth muscle
b. Constriction of gastrointestinal sphincters
c. Dilation of the pupils
d. Increased cardiac contractility

Q2: Adrug successfully decreases the blood pressure in a hypertensive patient; the drug effect is produced by:

a. Inhibition of beta2 receptors in SA node
b. Stimulation of alpha2 on vascular smooth muscle
c. Stimulation of alpha2 in SA node
d. Stimulation of beta1 receptors in ventricular muscle
e. Inhibition of alpha1 receptors on vascular smooth muscle

Q3: which of the following is feature of the sympathetic, but not the parasympathetic nervous system?

a. Ganglia located in the effecter organ
b. Long preganglionic fibers
c. Preganglionic neuron release nor epinephrine
d. Postganglionic neuron release Ach.

Q4: Activation of the parasympathetic nerve fibers results in:

a. Defection
b. Micturition
c. Sweating
d. Dilation of the pupil

Q5: Ach is the chemical transmitter at:

a. All neuromuscular junctions in the somatic nervous system
b. All post ganglionic sympathetic endings
c. All autonomic ganglia
d. All parasympathetic effecter endings

Q6: Block of the vagus nerve at rest results in an increase in heart rate

Q7: The bladder is a reflex organ that contracts in response to stretch

Q8: during voluntary Micturition there is inhibition of motoneurones innervating the external sphincter of the bladder

Q9: preganglionic sympathetic nerve axons release Ach at their synapse with the adrenal medullary cells

Q10: parasympathetic nerves generally have opposite effects to those of sympathetic nerves when both supply the same organ

Q11: A generalized increase in sympathetic activity is characterized by a fall in the blood glucose level

Q12: Ach is the transmitter released by some sympathetic postganglionic fibers

Q13: A drug which blocks alpha adrenoreceptors id likely to cause a reduction in sweat production

Q14: Atropine (a drug that blocks the action of the Ach at autonomic postganglionic nerve endings) is liable to cause

a. Diarrhea
b. An excessive flow of saliva

answers of sample physio exam:

Q1:
a-f
b-f
c-f
d-f

Q2:
a-f
b-f
c-f
d-f
e-t

Q3
a-f
b-f
c-f
d-f

Q4:
a-t
b-t
c-f
d-f

Q5:
a-t
b-f
c-t
d-t

Q6:t

Q7:t

Q8:t

Q9:t

Q10:t

Q11:f

Q12:t

Q13:f

Q14: a-f b-f