

## Sample Autonomous PCP IV entrance exam questions

- 1) Distention of the external jugular veins in a patient sitting at a 45 degree angle is suggestive of:
  - a) right ventricular failure
  - b) hypovolemia
  - c) muscular development of the neck
  - d) left sided heart failure
  
- 2) The major extracellular cation is:
  - a) calcium
  - b) sodium
  - c) potassium
  - d) magnesium
  
- 3) An end tidal CO<sub>2</sub> (ETCO<sub>2</sub>) value that would be considered normal is:
  - a) 30 – 40 mmHg
  - b) 35 – 45 mmHg
  - c) 30 – 40 mmol/L
  - d) 35 – 45 mmol/L
  
- 4) What are the two main hormones that act on the kidney to regulate fluid and electrolyte balance?
  - 1) aldosterone
  - 2) angiotensin
  - 3) renin
  - 4) antidiuretic hormone
  - a) 1,2
  - b) 1,2,4
  - c) 1,4
  - d) 1,2,3,4
  
- 5) Your patient has been hyperventilating due to a personal crisis. She complains of vertigo, headache, chest pain, spasms in her hands and numbness to her face. This is caused by:
  - a) respiratory alkalosis due to decreased PCO<sub>2</sub>
  - b) respiratory acidosis due to decreased PCO<sub>2</sub>
  - c) respiratory alkalosis due to increased PCO<sub>2</sub>
  - d) respiratory acidosis due to increased PCO<sub>2</sub>

- 6) A systemic elevation in blood pressure in an effort to maintain cerebral blood flow and perfusion accompanied by a paradoxical slowing of the heart rate occurs late in the course of increasing intracranial pressure in a head injured patient. This is called:
- a) korotkoff sign
  - b) kernig sign
  - c) cushing reflex
  - d) kehr sign
  - e) none of the above
- 7) Your patient suffers from the arrhythmia problem of atrial fibrillation. This rhythm is known to cause blood clots. If a blood clot were to leave the right atrium and pass through the right ventricle the clot could cause:
- 1) a heart attack (blockage of a coronary artery)
  - 2) a pulmonary embolism
  - 3) an obstruction of a pulmonary vein
  - 4) an obstruction of a pulmonary artery
  - 5) an embolic stroke
- a) 1,2,4
  - b) 2,4
  - c) 1,4
  - d) 1,3,5
  - e) all of the above
- 8) Three (3) main arteries branch off the aortic arch. In order, they are:
- a) left common carotid, subclavian, brachiocephalic
  - b) brachiocephalic, left common carotid, subclavian
  - c) brachiocephalic, right common carotid, subclavian
  - d) subclavian, brachiocephalic, right common carotid
- 9) The four valves of the heart function passively, dependent on pressure gradients for their opening and closure. Which valve has two leaflets?
- a) Mitral Valve
  - b) Pulmonary Valve
  - c) Aortic Valve
  - d) Tricuspid Valve

- 10) Histamine is stored in immune cells called:
- a) antibodies
  - b) antigens
  - c) proteins
  - d) mast cells
  - e) none of the above
- 11) The primary neurotransmitter of the parasympathetic nervous system is:
- a) norepinephrine
  - b) epinephrine
  - c) serotonin
  - d) acetylcholine
- 12) The parasympathetic nerve fibers originate from which part of the nervous system?
- a) thoraco-lumbar
  - b) cranial-sacral
  - c) thoraco-sacral
  - d) cranial-lumbar
- 13) The vocal cords attach to these two (2) structures:
- a) cricoid and hyoid bone
  - b) cricothyroid ligament and arytenoid cartilage
  - c) thyroid cartilage and arytenoid cartilage
  - d) cricoid cartilage and thyroid cartilage
- 14) The anti-diuretic hormone is secreted from the:
- a) kidney
  - b) pituitary gland
  - c) adrenal gland
  - d) hypothalamus
- 15) The adult trachea is \_\_\_\_\_ cm long.
- a) 8 cm
  - b) 10 cm
  - c) 15 cm
  - d) 20 cm

- 16) A solute is defined as:
- the substance / compound that is dissolved in a solution
  - the mixture of an electrolyte solution
  - the liquid in which another substance is dissolved in, forming a solution
  - a hypotonic solution compared to a red blood cell
- 17) You have a patient involved in a motor vehicle collision who is complaining of abdominal pain. Early signs and symptoms of shock could present as:
- restlessness
  - tachycardia
  - normal or slightly elevated blood pressure
  - low blood pressure
  - pale skin
- 1,2,4,5
  - 2,4
  - 1,2,3,5
  - 2,4,5
- 18) As an electrical impulse travels through the heart, it produces waves seen on the ECG paper. Choose the wave(s) that represent depolarization.
- P
  - Q
  - R
  - S
  - T
- 5 only
  - 1 only
  - 2,3,4
  - 1,2,3,4
  - all of the above
- 19) Your patient presents with constant lower quadrant abdominal pain. Signs and symptoms indicating an acute abdominal aneurysm may include:
- abdominal pain radiating into the back
  - absent or weak femoral pulses
  - confusion
  - all of the above
  - a and c only

20) A pulse deficit is:

- a) a drop in blood pressure from sitting to supine position
- b) a change in pulse from sitting to supine position
- c) a patient without a pulse
- d) a difference of apical and peripheral pulses