

- Question 1 The action of platelet-derived growth factor is to stimulate the production of which cells?

Selected Answer: Platelets

- Question 2 1 out of 1 points

A healthcare professional is educating a patient about asthma. The professional states that good control is necessary due to which pathophysiologic process? Selected Answer: Uncontrolled inflammation leads to increased bronchial hyperresponsiveness and eventual scarring. • Question 3 1 out of 1 points What is an expected change in the cardiovascular system that occurs with aging? Selected Answer: Arterial stiffening • Question 4 1 out of 1 points People diagnosed with neurofibromatosis have varying degrees of the condition because of which genetic principle? Selected Answer: Expressivity • Question 5 1 out of 1 points When endothelial cells are injured, what alteration contributes to atherosclerosis? Selected Answer: Cells are unable to make the normal amount of vasodilating cytokines. • Question 6 1 out of 1 points A healthcare professional cares for older adults in a skilled nursing facility. What should the professional assess for in these individuals related to cardiovascular functioning? Selected Answer: Increased rate of falling and dizzy spells • Question 7 1 out of 1 points What physical sign does the healthcare professional relate to the result of turbulent blood flow through a vessel? Selected Answer: Murmur heard on auscultation • Question 8 1 out of 1 points What are tumor cell markers? Selected Answer: Hormones, enzymes, antigens, and antibodies that are produced by cancer cells • Question 9 1 out of 1 points Once they have penetrated the first line of defense, which microorganisms do natural killer (NK) cells actively attack? Selected Answer: mycoplasma • Question 10 1 out of 1 points Which gastric hormone inhibits acid and pepsinogen secretion, as well as decreases the release of gastrin? Selected Answer: Somatostatin • Question 11 1 out of 1 points What is the single most common cause of cellular injury? Selected Answer: Hypoxic injury • Question 12 1 out of 1 points A professor has taught the students about the sources of increased ammonia in patients with hepatic encephalopathy. What statement by a student indicates the professor should review this material? Selected Answer: Accumulation of short-chain fatty acids are a source of increased ammonia. • Question 13 1 out of 1 points Surfactant produced by type II alveolar cells facilitates alveolar distention and ventilation by which mechanism? Selected Answer: Decreasing surface tension in the alveoli • Question 14 1 out of 1 points A patient is brought to the Emergency Department with a gunshot wound to the chest. The healthcare professional assesses an abnormality involving a pleural rupture that acts as a one-way valve, permitting air to enter on inspiration but preventing its escape by closing during expiration. What action by the healthcare professional is the priority? Selected Answer: Assist with a chest tube

insertion. • Question 15 1 out of 1 points What is the only surface inside the nephron where cells are covered with microvilli to increase the reabsorptive surface area called? Selected Answer: Proximal convoluted tubules • Question 16 1 out of 1 points A patient is having an IgE-mediated hypersensitivity reaction. What action by the healthcare professional is best? Selected Answer: Give the patient an antihistamine. • Question 17 1 out of 1 points A patient has been diagnosed with a renal stone. Based on knowledge of common stone types, what self-care measure does the healthcare professional plan to teach the patient when stone analysis has returned? Selected Answer: Ingest 1000 mg of calcium a day. • Question 18 1 out of 1 points Which hormone is required for water to be reabsorbed in the distal tubule and collecting duct? Selected Answer: Antidiuretic hormone • Question 19 1 out of 1 points The cardiac electrical impulse normally begins spontaneously in the sinoatrial (SA) node because of what reason? Selected Answer: It depolarizes more rapidly than other automatic cells of the heart. • Question 20 1 out of 1 points What is one function of the tumor cell marker? Selected Answer: To screen individuals at high risk for cancer • Question 21 1 out of 1 points When comparing the clinical manifestations of both diabetic ketoacidosis (DKA) and hyperglycemic hyperosmolar nonketotic syndrome (HHS), which condition is associated with only DKA? Selected Answer: Kussmaul respirations • Question 22 1 out of 1 points Which cAMP-mediated response is related to antidiuretic hormone? Selected Answer: Increased retention of water • Question 23 1 out of 1 points The student wants information about a patient's renal function. What test does the healthcare professional tell the student to evaluate? Selected Answer: Serum blood urea nitrogen and creatinine • Question 24 1 out of 1 points What is the most important cause of pulmonary artery constriction? Selected Answer: Low alveolar partial pressure of arterial oxygen (PaO₂) • Question 25 1 out of 1 points In teaching a women's community group, which risk factor does the healthcare professional teach is related to high morbidity of cancer of the colon, uterus, and kidney? Selected Answer: Women who have a high body mass index • Question 26 1 out of 1 points A healthcare professional is caring for four patients. Which patient does the professional assess for pulmonary emboli (PE) as the priority? Selected Answer: Deep venous thrombosis • Question 27 1 out of 1 points What is the second most commonly recognized genetic cause of intellectual disability? Selected Answer: Fragile X syndrome • Question 28 1 out of 1 points A person has acne, easy bruising, thin extremities, and truncal obesity. The healthcare professional assesses the person for which of these? Selected Answer: Use of glucocorticoids • Question 29 1 out of 1 points What is the cause of functional dysphagia? Selected Answer: Neural or muscular disorders • Question 30 1 out of 1 points What effect is a result of inhibiting the parasympathetic nervous system with a drug such as atropine? Selected Answer: Salivation decreases. • Question 31 1 out of 1 points Renal failure is the most common cause of which type of hyperparathyroidism? Selected Answer: Secondary • Question 32 1 out of 1 points A healthcare professional wants to determine the adequacy of a person's alveolar ventilation. What assessment finding is most important for the professional to consider? Selected Answer: Arterial blood gas shows a PaCO₂ of 44 mmHg. • Question 33 1 out of 1 points The acute inflammatory response is characterized by fever that is produced by the hypothalamus being affected by what? Selected Answer: Endogenous pyrogens • Question 34 1 out of 1 points A healthcare professional is caring for four patients. Which patient does the professional assess for neurogenic diabetes insipidus (DI)? Selected Answer: Posterior pituitary trauma • Question 35 1 out of 1 points Within a physiologic range, what does an increase in left ventricular end-diastolic volume (preload) result in? Selected Answer: Decrease in repolarization • Question 36 0 out of 1 points Which patient would the healthcare professional assess for elevated levels of antidiuretic hormone (ADH) secretion? Selected Answer: Has long-

standing kidney disease from diabetes • Question 37 1 out of 1 points A student asks why some vaccinations are given orally and some are given by injection. What response by the professor is best? Selected Answer: Each route stimulates a different lymphocyte-containing tissue, resulting in different types of cellular and humoral immunity. • Question 38 1 out of 1 points The Bainbridge reflex is thought to be initiated by sensory neurons in which cardiac location? Selected Answer: Atria • Question 39 1 out of 1 points A healthcare professional is caring for four patients. Which patient should the professional assess for hyperkalemia? Selected Answer: Renal failure • Question 40 1 out of 1 points What is the role of the normal intestinal bacterial flora? Selected Answer: Metabolizing bile salts, estrogens, and lipids • Question 41 1 out of 1 points A patient diagnosed with diabetic ketoacidosis (DKA) has the following laboratory values: arterial pH 7.20; serum glucose 500 mg/dL; positive urine glucose and ketones; serum potassium (K) 2 mEq/L; serum sodium (Na) 130 mEq/L. The patient reports that he has been sick with the flu for 1 week. What relationship do these values have to his insulin deficiency? Selected Answer: Decreased glucose use causes fatty acid use, ketogenesis, metabolic acidosis, and osmotic diuresis. • Question 42 1 out of 1 points A student asks the professor how a faulty negative-feedback mechanism results in a hormonal imbalance. What response by the professor is best? Selected Answer: Excessive hormone production results from a failure to turn • Question 43 1 out of 1 points A healthcare provider notes that tapping the patient's facial nerve leads to lip twitching. What electrolyte value is correlated with this finding? Selected Answer: Ca : 8.2 mg/dL • Question 44 1 out of 1 points A patient is having a spirometry measurement done and asks the healthcare professional to explain this test. What response by the professional is best? Selected Answer: To measure the volume and flow rate during forced expiration • Question 45 1 out of 1 points Which characteristic is the most important determinant of immunogenicity when considering the antigen? Selected Answer: Foreignness • Question 46 1 out of 1 points Which renal change is found in older adults? Selected Answer: Decrease in the number of nephrons • Question 47 1 out of 1 points If a patient develops acidosis, the nurse would expect the oxyhemoglobin dissociation curve to react in which manner? Selected Answer: Shift to the right, causing more oxygen (O₂) to be released to the cells • Question 48 1 out of 1 points Under anaerobic conditions, what process provides energy for the cell? Selected Answer: Glycolysis • Question 49 1 out of 1 points A patient suffered multiple traumatic injuries and received many blood transfusions within a few days of the injuries. For which medical condition should the healthcare professional monitor the patient for? Selected Answer: Hemosiderosis • Question 50 1 out of 1 points The student asks the professor to explain what characteristic is demonstrated by lungs with decreased compliance? Selected Answer: stiffness • Question 51 1 out of 1 points What is one function of the tumor cell marker? Selected Answer: To screen individuals at high risk for cancer • Question 52 1 out of 1 points Vaccinations are able to provide protection against certain microorganisms because of what? Selected Answer: Rapid response from IgA • Question 53 1 out of 1 points A student asks the healthcare professional to describe exotoxins. Which statement by the professional is best? Selected Answer: Exotoxins are released during bacterial growth. • Question 54 1 out of 1 points A class of students has learned about contributing factors to duodenal ulcers. What statement indicates to the professor that the students need a review? Selected Answer: Gastric emptying is slowed, causing greater exposure of the mucosa to acid.. • Question 55 1 out of 1 points A healthcare professional is caring for a patient who has a delay in electrical activity reaching the ventricle as seen on ECG. What ECG finding would the healthcare professional associate with this problem? Selected Answer: PR interval measuring 0.28 sec • Question 56 1 out of 1 points How do free radicals cause cell damage? Selected Answer: Giving up an electron, which causes injury to the

chemical bonds of the cell membrane • Question 57 1 out of 1 points What causes the edema that occurs during the inflammatory process? Selected Answer: Increased capillary permeability • Question 58 0 out of 1 points A student learns what information about acute pancreatitis? Selected Answer: Autoimmune process with IgG attacking pancreatic acinar cells • Question 59 1 out of 1 points A student asks why carbon monoxide causes tissue damage. What response by the professor is best? Selected Answer: Binds to hemoglobin so that it cannot carry oxygen • Question 60 1 out of 1 points The healthcare professional working with older adults teaches general infection-prevention measures as a priority for this age group due to which change in lymphocyte function? Selected Answer: Decreased number of circulating T cells • Question 61 1 out of 1 points A healthcare professional is caring for a patient who has continuous increases in left ventricular filling pressures. What disorder would the professional assess the patient for? Selected Answer: Pulmonary edema • Question 62 1 out of 1 points Why is leakage of lysosomal enzymes during chemical injuries significant? Selected Answer: Enzymatic digestion of the nucleus and nucleolus occurs, halting DNA synthesis. • Question 63 1 out of 1 points A patient has diabetes mellitus. A recent urinalysis showed increased amounts of protein. What therapy does the healthcare provider educate the patient that is specific to this disorder? Selected Answer: More frequent blood glucose monitoring • Question 64 1 out of 1 points A student asks the professor to explain what effect natriuretic peptides have during heart failure when the heart dilates. Which response by the professor is best? Selected Answer: Inhibits renin and aldosterone • Question 65 1 out of 1 points Which type of immunity is produced by an individual after either natural exposure to the antigen or after immunization against the antigen? Selected Answer: Active-acquired immunity • Question 66 1 out of 1 points A patient has a history of excessive use of magnesium-containing antacids and aluminum-containing antacids. What lab value does the healthcare professional correlate to this behavior? Selected Answer: Phosphate 1.9 mg/dL • Question 67 1 out of 1 points A student asks the healthcare professional to explain the function of the papillary muscles. What response by the professional is best? Selected Answer: These muscles prevent backward expulsion of the atrioventricular valves. • Question 68 1 out of 1 points A healthcare professional is assessing a child whose parents report poor grades in school, trouble paying attention, and naughty behaviors that have become so frequent the child is always in trouble. For which health condition should the professional facilitate testing? Selected Answer: Lead poisoning • Question 69 1 out of 1 points The pathophysiologic process of edema is related to which mechanism? Selected Answer: Lymphatic obstruction • Question 70 1 out of 1 points During the cardiac cycle, why do the aortic and pulmonic valves close after the ventricles relax? Selected Answer: Blood fills the cusps of the valves and causes the edges to merge, closing the valves. • Question 71 1 out of 1 points A patient's urinalysis came back positive for glucose. What does the healthcare professional expect the patient's blood glucose to be at a minimum? Selected Answer: 180 mg/dL • Question 72 1 out of 1 points The student asks the healthcare professional to explain how pulmonary edema and pulmonary fibrosis cause hypoxemia. What description by the professional is best? Selected Answer: Creates alveolar dead space • Question 73 1 out of 1 points What does vomiting-induced metabolic alkalosis cause? Selected Answer: Retention of bicarbonate to maintain the anion balance • Question 74 1 out of 1 points What pathologic change occurs to the kidney's glomeruli as a result of hypertension? Selected Answer: Ischemia of the tubule • Question 75 1 out of 1 points A patient has a peptic ulcer related to h. pylori bacteria. What treatment does the healthcare professional educate the patient on? Selected Answer: Antibiotic therapy • Question 76 1 out of 1 points A patient is in severe shock and is receiving vasopressin. A student asks the health care professional to explain the rationale for this treatment. What response by the

professional is most accurate? Selected Answer: Antidiuretic hormone causes vasoconstriction to help increase blood pressure. • Question 77 1 out of 1 points What is apoptosis? Selected Answer: Normal mechanism for cells to self-destruct when growth is excessive • Question 78 1 out of 1 points Free radicals play a major role in the initiation and progression of which diseases? Selected Answer: Cardiovascular diseases such as hypertension and ischemic heart disease • Question 79 1 out of 1 points An amniocentesis indicates a neural tube defect when an increase in which protein is evident? Selected Answer: Alpha fetoprotein • Question 80 1 out of 1 points A patient had a thyroidectomy and now reports tingling around the mouth and has a positive Chvostek sign. What laboratory finding would be most helpful to the healthcare professional? Selected Answer: Serum calcium • Question 81 1 out of 1 points A patient's chart indicates Kussmaul respirations. The student asks the healthcare professional what this is caused by. What response by the professional is most accurate? Selected Answer: A compensatory measure is needed to correct metabolic acidosis. • Question 82 1 out of 1 points A pregnant woman has Graves disease. What test/s does the healthcare professional advise the woman about? Selected Answer: Blood test for hyperthyroidism • Question 83 1 out of 1 points A healthcare professional is assessing a child who has complete trisomy of the twenty-first chromosome. What findings does the professional relate to this condition? Selected Answer: An IQ of 25 to 70, low nasal bridge, protruding tongue, and flat, low-set ears • Question 84 1 out of 1 points Where is two thirds of the body's water found? Selected Answer: Intracellular fluid compartments • Question 85 1 out of 1 points A healthcare professional is working with a person who drinks several 6-packs of beer a week. What testing does the professional encourage the person to get? Selected Answer: Hepatic function • Question 86 1 out of 1 points After a partial gastrectomy, gastric bypass, or pyloroplasty, clinical manifestations that include increased pulse, hypotension, weakness, pallor, sweating, and dizziness are the results of which mechanism? Selected Answer: Rapid gastric emptying • Question 87 1 out of 1 points A patient has portal hypertension-induced splenomegaly. Which lab value would the healthcare professional associate with this condition? Selected Answer: Low platelet count • Question 88 1 out of 1 points Oxygenated blood flows through which vessel? Selected Answer: Pulmonary veins • Question 89 1 out of 1 points A student studying biology asks the professor to describe how the ras gene is involved in cancer proliferation. What explanation by the professor is best? Selected Answer: A mutation in this gene allows continuous cell growth. • Question 90 1 out of 1 points What is the blood type of a person who is heterozygous, having A and B alleles as codominant? Selected Answer: AB • Question 91 1 out of 1 points The healthcare professional explains to a student that the amount of volume of blood in the heart is directly related to the _____ of contraction. Selected Answer: strength • Question 92 1 out of 1 points Which statement is true about phagocytosis? Selected Answer: Phagocytosis involves the ingestion of bacteria. • Question 93 1 out of 1 points Which primary characteristic is unique for the immune response? Selected Answer: The immune response is specific to the antigen that initiates it. • Question 94 0 out of 1 points A professor has taught a student about skeletal alterations seen in chronic kidney disease. Which statement by the student indicates the professor needs to give more information? Selected Answer: The synthesis of 1,25-vitamin D 3, which reduces intestinal absorption of calcium, is impaired. • Question 95 1 out of 1 points A patient reports dumping syndrome after a partial gastrectomy. What does the healthcare professional teach this patient? Selected Answer: Eat small, frequent high-protein meals. • Question 96 1 out of 1 points What is the process that ensures mitral and tricuspid valve closure after the ventricles are filled with blood? Selected Answer: Increased pressure in the ventricles pushes the valves to close. • Question 97 1 out of 1 points A student asks the professor to differentiate Type 2 diabetes mellitus from Type 1. The professors'

response would be that Type 2 is best described as what? Selected Answer: Resistance to insulin by insulin-sensitive tissues • Question 98 1 out of 1 points What organic compound facilitates transportation across cell membranes by acting as receptors, transport channels for electrolytes, and enzymes to drive active pumps? Selected Answer: Proteins • Question 99 1 out of 1 points What is the major determinant of the resistance that blood encounters as it flows through the systemic circulation? Selected Answer: Muscle layer of the arterioles • Question 100 1 out of 1 points A patient has been admitted for a possible small intestinal obstruction. What is the first sign the healthcare professional assesses for that would indicate the presence of this condition? Selected Answer: Vomiting • Question 101 0 out of 0 points When completing this exam, did you comply with Walden University's Code of Conduct including the expectations for academic integrity? Selected Answer: Yes