**Questions of previous years: Pathophysiology**

**2nd & final exam ☺**

1. \_\_\_\_\_\_ are receptors in the hung that decrease ventilator rate and volume when stimulated.

1. Carbon dioxide receptors.
2. Baroreceptors
3. Stretch receptors.
4. Chemorcceptors.

2. A 20 years-old male is in acute pain. An arterial blood gas reveals decreased carbon dioxide levels. Which of the following is the most likely cause?

1. Hyperventilation
2. Hypoventilation
3. Apnea
4. Cyanosis.

3. A low ventilation-perfusion ratio results in:

1. Increased dead space.
2. Shunting.
3. Alveolar collapse.
4. Bronchoconstriction.

4. A30-year-old male is involved in a motor vehicle accident and sustains trauma to lungs and chest wall. He experiences respiratory failure. Which of the following lab values would be expected?

1. Electrolyte imbalances.
2. Low PaCO2
3. Low hematocrit.
4. Low blood pH.

5. Airway hyper responsiveness in asthma is related to:

1. Increased sympathetic nervous system response.
2. The release of stress hormones.
3. Exposure to an allergen causing mast cell degranulation.
4. Hereditary decrease in IgE responsiveness.

6. Airway obstruction contributing to increased airflow resistance and hypoventilation in asthma is caused by:

1. Type II alveolar cell injury and decreased surfactant.
2. Alveolar fibrosis and pulmonary edema.
3. Mucus secretion, bronchoconstriction, and airway edema .
4. Collapse of cartilaginous rings in the broachi.

7. A 53-years-old male with a 20-year history of smoking is diagnosed with emphysema .changes in his lungs are caused by:

1. Viral infections.
2. Destruction of alveolar macrophages.
3. Alpha-1-antitrypsin deficiency.
4. Fibrotic lung disease.

8. A kidney has a glumerular capillary hydrostatic pressure of 50mmHg, a Bowman capsule hydrostatic pressure of 15mmHg, and a glumerular capillary oncotic pressure of 12mmHg. What is the net filtration?

1. 23 mmHg
2. 27mmHg
3. 35mmHg
4. 38mmHg

9. The renin-angiotensin system will be activated by:

1. Increased blood volume
2. Elevated sodium concentration
3. Decreased blood pressure in the afferent arterioles
4. Renal hypoxia

10. Oliguria is defined as a 24-hour urine output of less than:

1. 1000 ml
2. 800 ml
3. 500 ml
4. 400 ml

11. Which of these hormones synthesized and secreted by the kidneys stimulates bone marrow production of red blood cells?

1. Creatine
2. Aldosteron
3. Erythropoietin
4. Renin

12. The best clinical measure of renal function is:

1. Glomerular filtration rate
2. Circulating ADH levels
3. Volume of urine output
4. Urine-specific gravity

13. Glomerular filtration rate and plasma creatinine concentration are\_\_\_\_\_\_ related.

1. Directly
2. Indirectly
3. Inversely
4. Not

14. Blood plasma is referred to as:

1. Intracellular fluid
2. Extracellular fluid
3. Interstitial fluid
4. Intravascular fluid

15. A 60-years-old female with a 25-years history of smoking is diagnosed with emphysema. She has an increased anterior-posterior chest diameter because of:

1. Air trapping
2. Increase inspiratory reverse volumes
3. Increase flow rates
4. Alveolar destruction

16. Which of the following shows a correct sequence of events in pulmonary embolism?

1. Hypoxic vasoconstriction occurs, causing an increase in surfactant production
2. Dead space develops, causing dislodgement of a portion of the thrombus
3. Hypoxemia inhibits the production of surfactant, causing alveolar collapse
4. Alveoli collapse, causing an increase in the ventilation-perfusion ratio

17. A 26-year-old female recently underwent surgery and is now experiencing dyspnea, cough, fever, and leukocytosis. Tests reveal that she has a **collapse lung** caused by removal of air from obstructed alveoli. This condition is called:

1. Compression atelectasis
2. Bronchiectasis
3. Absorption atelectasis
4. Hypoventilation

18. A 13-month-old infant pressure with vomiting; abdominal pain; and pale, bulky, greasy, and foul-smelling stools. A possible diagnosis would be:

1. Failure to thrive
2. Gluten-sensitive enteropathy
3. Gastroesophageal reflux
4. Meconium ileus

19. A 46-years-old female is diagnosed with gastric ulcers. This disease is associated with:

1. Pain relief with eating
2. An increased risk of gastric cancer
3. Regurgitation of bile
4. Decreased gastrin production

20. The condition in which a series of alveoli in the left lower lobe receive adequate ventilation but do not have adequate perfusion is called:

1. A right-to-left shunt
2. Alveolar dead space
3. Low ventilation to perfusion ratio
4. Pulmonary hypotension

21. A 19-year-old female with type 1 diabetes mellitus was admitted to the hospital with the following lab values: serum glucose 50- mg\dl (high); urine glucose and ketones 4+ (high); arterial pH 7.20 (low). Her parents state that she has been sick with the "flu" for a weak. Which of the following statements best explain her **acidotic state**?

1. Increased insulin levels promote protein breakdown and ketone formation
2. Her uncontrolled diabetes has led to renal failure
3. Low serum promotes lipid storage and a corresponding release of ketones
4. Insulin deficiency promotes lipid metabolism and ketone formation

22. A 13-year-old male uses insulin to control his type 1 diabetes experiences hunger, lightheadedness, tachycardia, pallor, headache, and confusion during gym class. The most probable cause of these symptoms is:

1. Hyperglycemia resulting from incorrect insulin administration
2. Dawn phenomenon caused by eating a snack before gym class
3. Hypoglycemia caused by increased exercise
4. Somogyi effect by insulin sensitivity

23. A55-years-old female is admitted to the medical unit for complications of long-term, poorly controlled type 2 diabetes mellitus. Which of the following would be expected in addition to elevated glucose?

1. Elevated serum lipids
2. Metabolic alkalosis
3. Elevated liver enzymes
4. Low red blood cell count

24. Chronic complications of diabetes mellitus such as microvascular and macrovascular disease are primarily related to:

1. Pancreatic changes
2. Hyperglycemia
3. Ketone toxicity
4. Hyperinsulinemia

25. A 49-yrae-old female is diagnosed with hypercortisolism. An increase in which of the following would be expected?

1. Protein catabolism and liver gluconeogenesis
2. Fat storage and glucose utilization
3. Production and secretion of adrenocortical hormones
4. Fat, protein, and carbohydrate anabolism

26. Which of the following hormones are produced in the hypothalamus?

1. ACTH
2. Oxytocin
3. PRL
4. TSH

27. Target cells for Oxytocin are located in the:

1. Renal tubules
2. Thymus
3. Liver
4. Uterus

28. A50-years-old male patient is deficient in ADH production. Which of the following would be an expected symptom?

1. Increased blood volume
2. Increased urine osmolality
3. Increased urine volume
4. Increased arterial vasoconstriction

29. A 70-year-old female has brittle bones secondary to osteoporosis. Her physician prescribe calcitonin to:

1. Activate vitamin D
2. Stimulate osteoclastic activity
3. Inhibit calcium resorption from boned
4. Promote thyroid hormone release

30. An essential ingredient for thyroid hormone synthesis is:

1. Zinc
2. Sodium
3. Iodine
4. Calcium

31. Which of the following alterations would slow down the rate of parathyroid hormone secretion?

1. Increased serum calcium levels
2. Decreased serum calcium levels
3. Decreased levels of TSH
4. Increased levels of TSH

32. A 40-year-old male undergoes surgery for a parathyroid hormone-secreting tumor. Which of the following would be expected following surgery?

1. Increased serum calcium
2. Decreased bone formation
3. Decreased calcium reabsorption in the kidney
4. Increased calcitonin

33. Insulin is primarily regulated by:

1. Metabolic rate
2. Serum glucose levels
3. Prostaglandins
4. Enzyme activation

34. A 30-years-old male is diagnosed with a hormone-secreting tumor of the pancreas alpha cells. Which of the following would most likely be increased in this patient?

1. Amylin
2. Glucagon
3. Insulin
4. Somatostatin

35. Insulin has an effect on which of the following groups of electrolytes?

1. Sodium, chloride, phosphate
2. Calcium, magnesium, potassium
3. Hydrogen, bicarbonate, chloride
4. Potassium, magnesium, phosphate

36. The most potent naturally occurring glucocorticoid is:

1. Aldosteron
2. Testosterone
3. Cortisol
4. Prolactin

37. antidiuretic hormone is important to:

1. The body's water balance and urine concentration
2. Maintaining electrolyte levels and concentrations
3. Follicular maturation
4. Regulation of metabolic processes

38. Prolactin-inhibiting factor's target tissue is the:

1. Hypothalamus
2. Anterior pituitary
3. Mammary gland
4. Posterior pituitary

39. Antidiuretic hormone (ADH) and Oxytocin are secreted into the bloodstream as active hormones by the:

1. Anterior pituitary
2. Posterior pituitary
3. Hypothalamus
4. Pineal gland

40. A 50-year-old female patient underwent surgery to remove a pituitary tumor. During surgery, the pituitary stalk was severed. Secretion of which of the following hormones would increase?

1. RPL
2. TSH
3. GH
4. LH

41. Removal of the posterior pituitary would cause a decrease in the release of which hormone?

1. PRL
2. ADH
3. ACTH
4. GH

42. Antidiuretic hormone (ADH) release from the posterior pituitary is stimulated by:

1. Low blood pressure sensed by baroreceptors in the kidneys
2. High serum osmolarity sensed by osmoreceptors in the hypothalamus
3. Low osmolarity sensed by osmoreceptors in the kidneys
4. High concentration of potassium sensed by chemoreceptors in the carotid body

43. Plasma proteins are not commonly found in the urine because:

1. All proteins filtered are subsequently reabsorbed
2. All of the plasma proteins are too large to fit through the filtration slits
3. All proteins filtered are subsequently degraded before elimination
4. The negative charge of the glumerular filtration membrane repels the plasma proteins

44. Natriuretic hormones affect the balance of:

1. Calcium
2. Sodium
3. Magnesium
4. Potassium

45. Hyperlepidemia and hyperglycemia are associated with:

1. Hypernatermia
2. Hypertonic Hyponatremia
3. Hypokalemia
4. Acidosis

46. A 52-year-old diabetic male presents to the ER with lethargy, confusion, and depressed reflexes. His wife indicates that he does not follow the prescribed diet and takes his medication sporadically. Which of the following is most likely to occur?

1. Hypo-osmolar Hyponatremia
2. Hypertonic Hyponatremia
3. Decrease urine formation
4. Decreased extracellular fluid osmolality

47. On average the kidneys receive approximately \_\_\_\_\_\_\_\_ of the cardiac output.

1. 10% to 20%
2. 15% to 20%
3. 20% to 25%
4. 30% to 35%

48. Elderly individuals are at a higher risk for developing dehydration because they have:

1. A higher total body water volume
2. A decreased lean body mass
3. A decreased intravascular volume
4. An increased tendency towards developing edema

49. Which of the following conditions would decrease oncotic pressure in the capillaries?

1. High protein diet
2. Liver failure
3. Low blood pressure
4. Low blood glucose

50. Water movement between the intracellular and extracellular find compartments is determined by:

1. Osmotic forces
2. Plasma oncotic pressure
3. Antidiuretic hormone
4. Buffer system

51. An experiment was designed to test the effects of the starling forces on fluid movement. Which of the following alterations would results in fluids movement into the interstitial space?

1. Increase capillary oncotic pressure
2. Increase interstitial hydrostatic pressure
3. Decrease capillary hydrostatic pressure
4. Increase interstitial oncotic pressure

52. Water balance is closely related to \_\_\_\_\_\_\_ balance.

1. Potassium
2. Chloride
3. Bicarbonate
4. Sodium

53. A 60-year-old male with a 30-year history of smoking is diagnosed with a hormone-secreting lung tumor. Further testing indicates that the tumor secretes ADH. Which of the following would be expected to results from this condition?

1. Increased urine osmolality
2. Decreased blood volume
3. Increased plasma osmolality
4. Increased urine output

54. Adernocoritcotropic hormones (ACTH) release can be stimulated by:

1. High serum levels of Cortisol
2. Hypotension
3. Hypoglycemia
4. Stress

55. a 39-year-old female underwent surgery to remove an adrenal tumor. To completely remove it, the zona glomerulosa had to be removed. Secretion of which of the following hormones would be expected to decrease?

1. Aldosteron
2. Cortisol
3. Epinephrine
4. Testosterone

56. The main site of aldosterone synthesis is the:

1. Liver
2. Kidneys
3. Adrenal cortex
4. Hypothalamus

57. A 50-year-old male with one kidney had to undergo surgery for an adrenal tumor. His zona glomerulosa was largely removed during the surgery. Which of the following would most likely occur?

1. Hypernatermia
2. Dehydration
3. Hypokalemia
4. Alkalosis

58. Aldosteron secretion is regulated by:

1. The sympathetic nervous system
2. Adernocoritcotropic hormones (ACTH)
3. The renin-angiotensin system
4. Positive feedback control system

59. Which of the following hormones is secreted by the adrenal medulla?

1. Cortisol
2. Epinephrine
3. Androgens
4. Estrogens

60. Catecholamines promote:

1. Nutrient absorption
2. Fluid retention
3. Hypotension
4. Hyperglycemia

61. A 15-yrae-old male took an illicit drug that acts by directly inhibiting phenylethanolamine *N*-methyltransferase. Secretion of which of the following hormones would be inhibited?

1. Dopamine
2. Epinephrine
3. Norepinephrine
4. Tyrosine

62. The most potent naturally occurring glucocorticoid is :

1. aldosterone
2. testosterone
3. Cortisol
4. Prolactin

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68. Both Cushing syndrome and Addison disease can manifest with elevated levels of:

1. ADH
2. Cortisol
3. Adernocoritcotropic hormone (ACTH)
4. Aldosteron

69. Which of the following alterations would you expect to find in a patient with untreated Cushing disease or syndrome?

1. Bradycardia
2. Tachypnea
3. Hyperkalemia
4. Hypertension

70. Characteristic physical features of individuals with Cushing syndrome include:

1. Weight loss and muscle wasting
2. Truncal obesity and thin skin
3. Pallor and swollen tongue
4. Depigmented skin and eyelid lag.

71. A 35-year-old female took corticosteroid therapy for several months. Which of the following would be expected?

1. Renal toxicity
2. Episodes of hypoglycemia
3. Hirsutism
4. Type 2 diabetes mellitus

72. the most common cause of Addison disease is:

1. An autoimmune reaction
2. Dietary deficiency of sodium and potassium
3. Cancer
4. Viral infection of the pituitary gland

73. A 50- year-old female present with lightheadedness and overaa abnormal feelings. CT scan reveals an **adrenal cortical tumor**. Lab tests reveal that the tumor is hormone secreting. Which of the following would be expected?

1. Increased renin levels
2. Hypotension
3. Hypokalemia
4. Hyponatremia

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75. The body's inability to *conserve water and sodium* when affected by Addison disease is explained by which of the following conditions?

1. Low levels of Cortisol
2. High levels of ACTH
3. Hypersecretion of ADH
4. Aldosteron deficiency

76. Mental status changes and muscle weakness in people with Addison disease are primarily caused by:

1. Hyperkalemia
2. Hypoglycemia
3. Severe metabolic acidosis
4. Glucose intolerance

77. What is the cause of the hyperpigmentation seen in people with Cushing syndrome and Addison disease?

1. Abnormal levels of Cortisol
2. Permissive effects of aldosteron when Cortisol levels are altered
3. Elevated levels of ACTH
4. Hypersensitivity of melanocytes with sun exposure

78. A 30-year-old female presents with hypertension, headache, tachycardia, impaired glucose tolerance, and weight loss. Which of the following is the most likely diagnosis?

1. Addison disease
2. Conn disease
3. Cushing disease
4. Pheochromocytoma

79. Regulation of the release of epinephrine from the adrenal medulla is an example of \_\_\_\_\_ regulation.

1. Negative feedback
2. Positive feedback
3. Neural
4. Substrate level dependent

80. Which of the following is a protein hormone?

1. Thyroxin(T4)
2. Aldosteron
3. Testosterone
4. Insulin

81. A 45-year-old female has elevated thyroxin production. Which of the following would accompany this condition?

1. Increase TRH
2. Increased anterior pituitary stimulation
3. Decreased D3
4. Decreased TSH

82. A new hormone was isolated and found to be a water-soluble amine. Which of the following is the most like this new hormone?

1. GH
2. LH
3. ADH
4. Epinephrine

83. When insulin bind to its receptors on muscle cells, an increase in glucose uptake by the muscle cells occurs. This is an example of a \_\_\_\_\_ effect by a hormone.

1. Pharmacologic
2. Permissive
3. Synergistic
4. Direct

84.A 19-year-old female with type 1 diabetes mellitus was admitted to the hospital with the following lab values : serum glucose 500 mg/dl (high) ; urine glucose and ketones 4+ ( high) ; arterial pH 7.20 (low). Her parents state that she has been sick with the “flu” for a week. Which of the following statements best explains her **acidotic state**?

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3. Production and sedretion of adrenocortical hormones
4. Fat, protein, and carbohydrate anabolism

89. A 30-years-old male was diagnosed with hypothyroidism. Synthesis of which of the following would decrease in this patient?

1. Corticosteroid B globulin
2. Sex hormone binding globulin
3. Thyroid binding globulin
4. Albumin

90. To adapt to high hormone concentrations, many target cells have the capacity for:

1. Negative feedback
2. Positive feedback
3. Down-regulation
4. Up-regulation

91. Lipid-soluble hormone receptors cross the plasma membrane by:

1. Diffusion
2. Osmosis
3. Active transport
4. Endocytosis

92. Target cell receptors for most water-soluble hormones are located in the:

1. Cytosol
2. Cell membrane
3. Endoplasmic reticulum
4. Nucleus

93. The releasing hormone that are made in the hypothalamus travel to the anterior pituitary via the:

1. Vessels of the zona fasciculate
2. Neurons in the infundibular stem
3. Median eminence and pars nervosa
4. Hyperphysical portal system

94. The hormone whose action leads to receptors autophosphorylation and activation of tyrosine kinase is:

1. GH
2. PRL
3. Insulin
4. Estrogen

95. The \_\_\_\_\_ represents the sum of all ventricular muscle cell depolarization.

1. PRinterval
2. QRS complex
3. QT interval
4. P wave

96. A 50-year-old male visits the cardiologist for an EKG. Results indicate that he has no PR interval and a variable rate QRS with rhythm irregularity. Which of the following is the most likely diagnosis?

1. Atrial tachycardia
2. Atrial fibrillation
3. Sinus dysrhyhthm
4. Idioventricular rhythm

97. A 65-year-old male is transported to the ER for chest pain. An electrocardiogram reveals a prolonged QRS interval. This result indicates:

1. Increased ejection time
2. Increased isovolumetric contraction time
3. Mitral valve opening
4. Aortic valve closing

98. A 54-year-old male is diagnosed with left bundle branch block. Which of the following structures would not receive an electrical impulse?

1. AV node
2. SA node
3. Bundle of his
4. The left ventricles

99. In a normal electrocardiogram , the P-R interval represents:

1. atrial depolarization
2. ventricular depolarization
3. onset of atrial activation to onset of ventricular Activity
4. “electrical systole” of the ventricles

100. Pulmonary symptoms, such as dyspnea and cough , common to the left heart failure are a result of:

1. Inflammatory pulmonary edema
2. Decreased cardiac output
3. Pulmonary vascular congestion
4. Bronchoconstriction

101. A 60-year-old female with a 25-year history of smoking is diagnosed with emphysema. She has an increased anterior posterior chest diameter because of:

1. Air trapping
2. Increase inspiratory reserve volumes
3. Increased flow rates
4. Alveolar destruction

102. A 50 y/o male complains of abdominal pain , diarrhea and bloody stools . a possible diagnosis would be:

1. ulcerative colitis
2. hiatal hernia
3. pyloric obstruction
4. achalasia

103. A newborn is in respiratory distress and requires ventilation. Test reveal that he does not produce surfactant to the absence of:

1. type I alveolar cells
2. type II alveolar cells
3. alveolar macrophages
4. goblet cells

104. The movement of blood into and out of the capillary beds of the lungs to the body organs and tissues is called:

1. perfusion
2. ventilation
3. diffusion
4. active transport

105. During passive inspiration, muscular contraction of the diaphragm causes air to move into the lung. The mechanisms that drive air movement during passive inspiration are:

1. a decrease in the intraveolar pressure and lifting of the rib cage
2. a decrease in the size of the thorax and alveolar expansion
3. an increase in the size of the thorax and a decrease in intrapleural pressure

106. Surfactant facilitates alveolar distension and ventilation by:

1. decreasing thoracic compliance
2. attracting water to the alveolar surface
3. decreasing surface tension in alveoli
4. increasing diffusion in alveoli

107. In a patient with acidosis or a fever, you would expect the oxyhemoglobin dissociation curve to:

1. shift to the right, causing more O2 to be released to the cells
2. shift to the left, allowing less O2 to be released to the cells
3. shift downward, allowing less O2 to dissolve in the plasma
4. shift upward , allowing more O2 to dissolve in the plasma

108. A kidney has a glumerular capillary hydrostatic pressure of 50 mm Hg. A Bowman capsule hydrostatic pressure of 15 mm Hg. And a glumerular capillary oncotic pressure of 12 mm Hg. What is the net filtration pressure ?

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111. Which of these hormones synthesized and secreted by the kidneys bone marrow production of RBCs?

1. Creatine
2. aldosterone
3. Erythropoietin
4. Renin

112.carbon dioxide is mainly transported in the blood:  
 a) attached to oxygen   
 B) dissolved in red blood cells  
 c) combined with albumin  
 D) in the form of bicarbonate

113. The most common cause of pulmonary edema is:

1. a)right heart failure
2. b)left heart failure
3. asthma
4. lung cancer

114. 60 years old female with emphysema is having difficulty expiring a given volume of air .She is most likely experiencing ---------- pulmonary diseases :

1. Restrictive
2. Obstructive
3. Athletic

115.Asthma is thought to be caused by:

1. an autosomal
2. b)auto immunity
3. c) interaction between genetic and environmental factors

116. Asthma is classified by:

1. phathophysiologic differences
2. clinical severity
3. genetic treat

117. 10 years old male is brought the ER with prolonged bronchospam and severe hypoxemia:

a)exercise induced asthma

1. chronic obstructive pulmonary disease
2. status asthmaticus

118. Individual with recent diagnoses of emphysema most often present with:

1. a productive cough
2. cyanosis
3. infection and inflammation

119. 30 years old meal prison inmate contracted tuberculosis during an outbreak .the organism that caused this condition is a :

1. bacterium
2. fungus
3. virus

120. The level of T3 in graves diseases is unusually abnormally:

1. low
2. High
3. Variable

121. 35 years old female with graves' disease is admitted to a medical surgical unit .which of the following symptoms would be expected before treatment:

1. weight gain .cold intolerance
2. Slow heart rate, Rash
3. skin hot and moist. Rapid heart rate

122. visual disturbance are a common occurrence in patient with untreated Graves diseases . the main of this:

1. decrease blood flow to the eye
2. orbital edema and extracellular muscle paralysis
3. TSH neurotoxicity to retinal cells

123. A 25 years old female with Graves diseases is admitted to medical surgical unit . palpation of her neck would most likely reveal:

1. a normal sized thyroid
2. diffuse thyroid nodules
3. a small discrete enlargement

124. the basal metabolic rate is unusually -------- with hypothyroidism

1. high
2. low
3. steady

125-A 30 years old male was diagnose with congenital hypothyroidism . if left understand , the child would have:

a) Mental retardation and stunted growth

b) Increase risk of childhood thyroid cancer

126. An essential ingredient for thyroid hormone synthesis:

1. zinc
2. sodium
3. iodine

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3. Decrease capillary hydrostatic pressure
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132. Water balance is closely related to\_\_\_\_balance.

1. Potassium
2. chloride
3. bicarbonate
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  4. acidosis

137. A 52 year old diabetic male presents to the ER with lethargy, confusion, and depressed reflexes . His wife indicates that he does not follow the prescribed diet and takes his medication sporadically .Which of the following is most likely to occur?

* 1. Hypo\_osmolar hyponatremia
  2. hypertonic hyponatremia
  3. decreased urine formation
  4. decreased extracellular fluid osmolality

138. On average the kidneys receive approximately \_\_\_\_ of the cardiac output.

* 1. 10% to 20%
  2. 15% to 20%
  3. 20% to 25%
  4. 30% to 35%

139. Prolactin-inhibiting factor's target is the:

1. hypothalamus
2. anterior pituitary
3. mammary glands
4. posterior pituitary

140. Antidiuretic hormone (ADH) and oxytocin are secreted into the bloodstream as active hormones by the:

1. anterior pituitary
2. posterior pituitary
3. hypothalamus
4. pineal gland

141. A 50 year old female patient underwent surgery to remove a pituitary tumor .during surgery ,the pituitary stalk was severed .Secretion of which of the following hormones would increase?

* 1. PRL
  2. TSH
  3. GH
  4. LH

142. Removal of the posterior pituitary would cause a decrease in the release of which hormone:

* 1. PRL
  2. ADH
  3. ACTH
  4. GH

143. Antidiuretic hormone (ADH) release from the posterior pituitary is stimulated by:

* 1. low blood pressure sensed by baroreceptors in the kidneys
  2. high serum osmolarity sensed by osmoreceptors in the hypothalamus
  3. low osmolarity sensed by osmoreceptors in the kidneys
  4. high concentration of potassium sensed by chemoreceptors in the carotid body

144. Antidiuretic hormone is important in:

* 1. the body's water balance and urine concentration
  2. maintaining electrolyte levels and concentration
  3. follicular maturation
  4. regulation process .

145. Which of the following hormones are product in the hypothalamus?

1. ACTH
2. Oxytocin
3. PRL
4. TSH

146. arget cells for oxytocin are located in the:

* 1. renal tubules
  2. thymus
  3. liver
  4. uterus

147. A 50 year-old male patients deficient in ADH production . which of the following would be an expected symptoms?

1. Increased blood volume
2. Increased urine osmolality
3. Increased urine volume
4. Increased arterial vasoconstriction

148. A 70 year-old female has brittle bones secondary to osteoporsis .Her physician prescribes calcitonin to:

* 1. active vitamin D
  2. stimulate osteoclastic from bones
  3. inhibit calcium resorption from bones
  4. promote thyroid hormone release

149. An essential ingredient for thyroid hormone synthesis is:

* 1. zinc
  2. sodium
  3. idoine
  4. calcium

150. A12-year-old male is newly diagnosed with type 1 diabetes mellitus, which of the following is most beneficial in confirming the diagnosis?

* 1. Fasting plasma glucose levels and glucose tolerance tests
  2. Random serum glucose levels
  3. Genetic testing
  4. Glycosylated hemoglobin measurement

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| B | **61** | B | **41** | D | **21** | C | **1** |
| C | **62** | B | **42** | C | **22** | A | **2** |
| D | **63** | D | **43** | A | **23** | B | **3** |
| A | **64** | B | **44** | B | **24** | B | **4** |
| C | **65** | B | **45** | A | **25** | C | **5** |
| B | **66** | B | **46** | B | **26** | C | **6** |
| C | **67** | C | **47** | D | **27** | C | **7** |
| C | **68** | B | **48** | C | **28** | A | **8** |
| D | **69** | B | **49** | C | **29** | C | **9** |
| B | **70** | A | **50** | C | **30** | D | **10** |
| D | **71** | D | **51** | A | **31** | C | **11** |
| A | **72** | D | **52** | C | **32** | A | **12** |
| C | **73** | A | **53** | B | **33** | C | **13** |
| A | **74** | D | **54** | B | **34** | D | **14** |
| D | **75** | A | **55** | D | **35** | A | **15** |
| B | **76** | C | **56** | C | **36** | C | **16** |
| C | **77** | B | **57** | A | **37** | C | **17** |
| D | **78** | C | **58** | B | **38** | B | **18** |
| C | **79** | B | **59** | B | **39** | B | **19** |
| D | **80** | D | **60** | A | **40** | B | **20** |

**]]Answers: [[**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A | **141** | C | **121** | A | **101** | D | **81** |
| B | **142** | B | **122** | A | **102** | D | **82** |
| B | **143** | B | **123** | B | **103** | D | **83** |
| A | **144** | B | **124** | A | **104** | D | **84** |
| B | **145** | A | **125** | C | **105** | C | **85** |
| D | **146** | C | **126** | C | **106** | A | **86** |
| C | **147** | B | **127** | A | **107** | B | **87** |
| C | **148** | B | **128** | A | **108** | A | **88** |
| C | **149** | B | **129** | C | **109** | C | **89** |
| A | **150** | A | **130** | D | **110** | C | **90** |

**Please forgive us for any mistake! ☺**

**Done by: فريق عمل كلية الصيدلة المستقل**

**Independent pharmacy work team 2012 ;)**

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