

Exam 2 Anatomy and Physiology and the Biopsychosocial Model of Health (BMNS4001)

Please note you have 1.5 hours to answer the multiple choice questions and 10 minutes to submit your answers via the button at the bottom of the page. Please note you will not be able to submit your responses after this time. If you should have any IT issues you need to contact IT on 0300 500 5055. Please note they close at 4.30. Marks will be internally verified before being released this may take up to 28 days.

* Required

* This form will record your name, please fill your name.

1

The endocrine system works together with the _____ system to maintain the body's equilibrium (1 Point)

- ☐ Digestive
- ☐ Respiratory
- ☐ Nervous
- ☐ Reproductive

2

Smoking can delay wound healing because it: * (1 Point)

- ☐ Increases blood flow to the wound
- ☐ Reduces oxygen supply to the tissues
- ☐ Enhances immune response
- ☐ Increased nutrient delivery to the wound area

3

If blood glucose levels falls what process in the liver converts glycogen to glucose? (1 Point)

- ☐ Glycogenolysis
- ☐ Glyconeogenesis
- ☐ Glycolysis
- ☐ Glycogenesis

4

If the body becomes more acidic as there is a higher level of CO₂ in the blood how does the body compensate? * (1 Point)

- ☐ The medulla responds by sending a greater number of nerve impulses to the intercostal muscles and diaphragm. The subsequent increased activity of these structures brings about a decrease in rate and depth of breathing.
- ☐ The medulla responds by sending a greater number of nerve impulses to the intercostal muscles and diaphragm. The subsequent increased activity of these structures brings about an increase in rate and depth of breathing.

5

What is the function of the Medulla Oblongata (1 Point)

- ☐ Coordinates and balances the actions of the muscles
- ☐ Controls involuntary actions like blood pressure, heart rate, breathing, and swallowing
- ☐ Voluntary or conscious activities of the body-learning, judgment
- ☐ The main communications link between the brain and the rest of the body

6

True or false insulin and glucagon are antagonistic to each other? (1 Point)

- ☐ True
- ☐ False

7

The primary function of the kidneys is to: * (1 Point)

- ☐ Produce hormones
- ☐ Regulate blood pressure
- ☐ Filter waste products from the blood
- ☐ Control body temperature

8

Urine is formed in a three-step process: which of the following gives the correct order in which these steps take place in the nephron? (1 Point)

- ☐ Tubular secretion, tubular reabsorption, glomerular filtration
- ☐ Tubular reabsorption, tubular secretion, glomerular filtration
- ☐ Glomerular filtration, tubular reabsorption, tubular secretion
- ☐ Option lomerular filtration, tubular secretion, tubular reabsorption

9

True or false the blood vessels in the skin dilate when the body needs to conserve heat to maintain the body temprature. * (1 Point)

- ☐ True
- ☐ False

10

The amount of blood flow through the skin can influence skin color. True or false * (1 Point)

- ☐ True
- ☐ False

11

Fatty acids in the liver are transformed to glucose through a process called (1 Point)

- ☐ Glycogenolysis
- ☐ Glyconeogenesis
- ☐ Glycolysis
- ☐ Glycogenesis

12

What pH range does the body like to stay within? * (1 Point)

- ☐ 7.25-7.35
- ☐ 7.35-7.45
- ☐ 7.00-8.00
- ☐ 7.45-7.55

13

The action of aldosterone is to increase _____. (1 Point)

- ☐ Sodium reabsorption
- ☐ Potassium reabsorption
- ☐ Sodium elimination
- ☐ Chloride excretion

14

Which receptors monitor Carbon dioxide levels? * (3 Points)

- ☐ Chemoreceptors
- ☐ Baroreceptors
- ☐ Ph receptors

15

The kidney secretes ___ for the purpose of stimulating bone marrow activity.
(1 Point)

- ☐ Aldosterone
- ☐ Renin
- ☐ ADH
- ☐ Erythropoietin

16

Which action helps to restore correct body temperature following an increase in the temperature of the blood passing through the thermoregulatory centre of the brain * (1 Point)

- ☐ Sweating
- ☐ Shivering
- ☐ Reduced blood supply to the skin
- ☐ Contraction of the erector muscle

17

Poor wound healing in elderly patients is often down to tick all that apply. (1 Point)

- ☐ Increased skin elasticity
- ☐ Reduced immune system
- ☐ Reduced cellular regeneration capacity

18

How does lymph move within the lymphatic system? * (1 Point)

- ☐ Pumped by the heart
- ☐ Gravity
- ☐ Smooth muscle contraction
- ☐ Respiratory pump and active muscular contraction

19

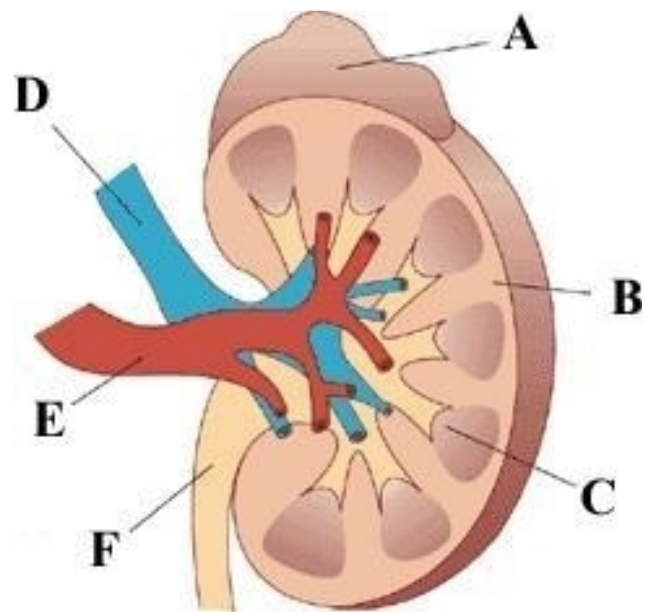
True or false once a wound has healed heparin dissolves the clot in a wound
* (1 Point)

- ☐ True
- ☐ False
- ☐ Maybe

Which of the following would not be classified as a lymphatic structure *
(1 Point)

- ☐ Pancreas
- ☐ Spleen
- ☐ Peyer's patches
- ☐ Tonsils

This is a cross section of a human kidney what is letter A? (1 Point)



- ☐ Renal artery
- ☐ Renal Vein
- ☐ Adrenal gland
- ☐ Ureter
- ☐ Renal pyramid
- ☐ Medulla
- ☐ Cortex

22

The kidney secretes –, which is an enzyme-hormone that raises blood pressure. (1 Point)

- ☐ Renin
- ☐ Aldosterone
- ☐ Erthropoietin
- ☐ ADH

23

Which of the following are goals of the proliferative phase of wound healing (choose four)? * (4 Points)

- ☐ Formation of granulation tissue
- ☐ Angiogenesis
- ☐ Contraction
- ☐ Epithelialization
- ☐ Hemostasis

24

What part of the brain is responsible for thermoregulation? * (1 Point)

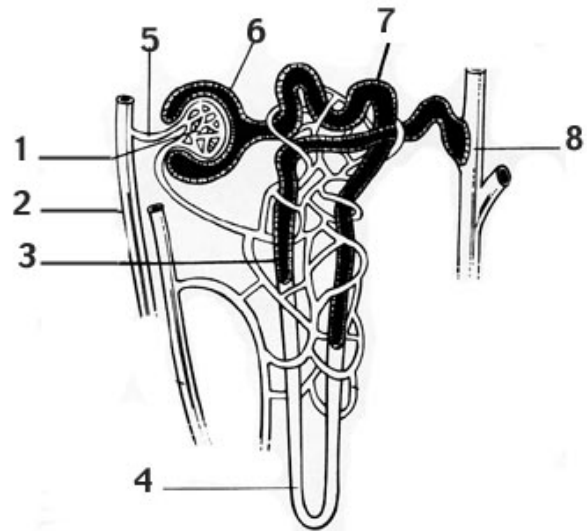
- ☐ Medulla
- ☐ Pons
- ☐ Cerebellum
- ☐ Hypothalamus

25

Where are these receptors that are sensitive to concentrations of Carbon dioxide located? * (1 Point)

- ☐ Lungs
- ☐ In the carotid sinus
- ☐ In the aortic arch
- ☐ In the carotid and aortic arch

This is a diagram of a nephron what is the name of number 8 ? (1 Point)



- ☐ Distal convoluted tubule
- ☐ Proximal convoluted tubule
- ☐ Loop of Henle
- ☐ Afferent arteriole
- ☐ Efferent arteriole
- ☐ Bowmans Capsule
- ☐ Glomerulus
- ☐ Collecting duct

27

In the nephron which ion is exchanged with sodium? (1 Point)

- ☐ Calcium
- ☐ Potassium
- ☐ Chloride
- ☐ Magnesium

28

Urine is moved down the ureters by * (1 Point)

- ☐ High pressure
- ☐ Gravity
- ☐ Peristalsis
- ☐ Spinctor contraction

Which of the following choices correctly traces the route of glomerular filtrate on its path to the collecting duct of a nephron? (1 Point)

- ☐ Proximal tubule, Bowman's capsule, descending loop of Henle, ascending loop of Henle, distal tubule
- ☐ Bowman's capsule, proximal tubule, descending loop of Henle, ascending loop of Henle, distal tubule
- ☐ Bowman's capsule, distal tubule, descending loop of Henle, ascending loop of Henle, proximal tubule
- ☐ Bowman's capsule, proximal tubule, ascending loop of Henle, descending loop of Henle, distal tubule

A chemical that is secreted by an endocrine gland and carried in the blood to a target organ to perform a particular function is called: (1 Point)

- ☐ Steroid
- ☐ Hormone
- ☐ Enzyme
- ☐ Endocrine gland

When we have sweated a great deal and have not drank much water, this will be detected as: (1 Point)

- ☐ Pituitary glands
- ☐ Hypothalamus
- ☐ Chemoreceptors
- ☐ Baroreceptors

Which of the following is a common reason for delayed wound healing? Tick all that apply * (1 Point)

- ☐ Increased physical exercise
- ☐ High blood oxygen levels
- ☐ Inadequate nutrition
- ☐ Diabetes

33

In the final phase of skin healing, known as the maturation phase, what happens to the wound? * (1 Point)

- ☐ It begins to close
- ☐ It becomes inflamed
- ☐ Scar tissue remodels and becomes stronger
- ☐ New skin cells are formed rapidly

34

What is the body's preferred blood pH? * (1 Point)

- ☐ 7.1- 7.35
- ☐ 7.35-7.45
- ☐ 7.27- 7.35
- ☐ 7.0- 8.00

35

Which statement best defines thermoregulation? * (1 Point)

- ☐ Maintenance of body temperature
- ☐ Regulation of fluids
- ☐ Balancing blood sugar levels
- ☐ Controlling body Ph

36

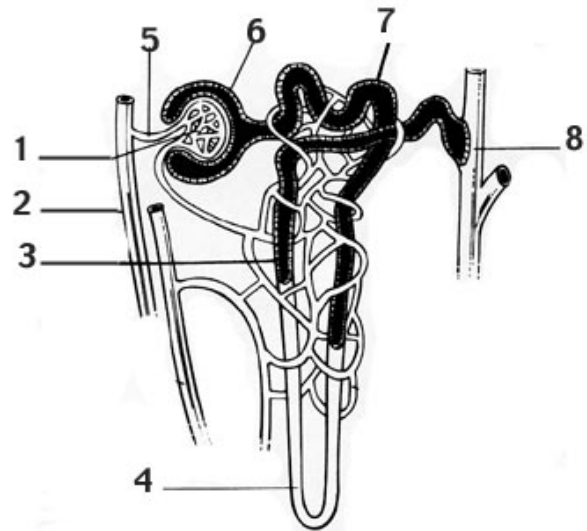
In the context of wound healing what is the purpose of the scab that forms over a wound? * (1 Point)

- ☐ Prevents infection
- ☐ Facilitates clotting
- ☐ Provides moisture
- ☐ Protects the wound during healing

Which of the following increase glucose levels at times of stress? * (1 Point)

- ☐ Aldosterone and cortisol
- ☐ Adrenaline and cortisol
- ☐ Adrenaline
- ☐ Cortisol

This is a diagram of a nephron what is the name of number 7? (1 Point)



- ☐ Distal convoluted tubule
- ☐ Proximal convoluted tubule
- ☐ Loop of Henle
- ☐ Afferent arteriole
- ☐ Efferent arteriole
- ☐ Bowmans Capsule
- ☐ Glomerulus
- ☐ Collecting duct

39

The layer of the skin that provides protection against bacteria as well as chemical and mechanical injuries is the * (1 Point)

- ☐ Dermis
- ☐ Epidermis
- ☐ Subcutaneous
- ☐ Sebaceous

40

Most tubular re-absorption occurs at the _____. (1 Point)

- ☐ Loop of Henle
- ☐ Proximal convoluted tubule
- ☐ Distal convoluted tubule
- ☐ Glomerulus

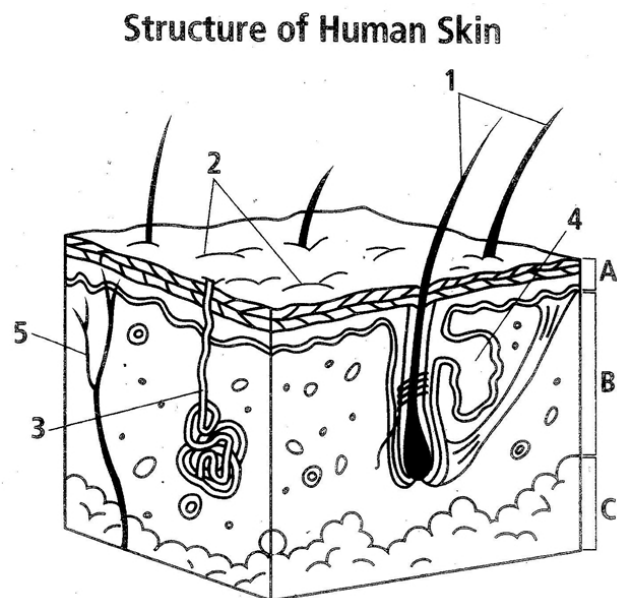
41

True or false angiogenesis is the development of new blood vessels *
(1 Point)

- ☐ True
- ☐ False
- ☐ Maybe

42

What is number 1 * (1 Point)



- ☐ Sweat gland
- ☐ Hair follicles
- ☐ Pore
- ☐ Nerve
- ☐ Sebaceous gland

43

Which cells are attacked and killed in type one diabetes? (1 Point)

- ☐ Beta cells
- ☐ Alpha Cells
- ☐ Islets of Langerhans
- ☐ Alpha and beta cells

44

The lymphatic capillaries are * (1 Point)

- ☐ More permeable than blood capillaries
- ☐ Less permeable than blood capillaries
- ☐ Equally permeable to blood capillaries

45

What happens if blood glucose levels are high? (1 Point)

- ☐ The alpha cells secrete insulin
- ☐ The beta cells secrete insulin and the alpha cells reduce secretion of glucagon
- ☐ The alpha cells secrete insulin and the beta cells reduce the amount of glucagon released.

46

Chronic diseases such as _____ can significantly impair wound healing due to poor blood circulation. Tick all that apply * (1 Point)

- ☐ COPD
- ☐ Diabetes
- ☐ Common Cold
- ☐ Hypertensions

47

Which type of diabetes is most common (1 Point)

- ☐ Type one
- ☐ Type 2

48

What is different about the way an impulse is transmitted along neurones compared to across a synapse? * (1 Point)

- ☐ Synapses transmit electrical impulses but neurones transmit chemical messages
- ☐ Neurones transmit impulses but a synapse does not
- ☐ Neurones transmit electrical impulses but synapses transmit chemical messages

49

The last part of a nephron is the _____. (1 Point)

- ☐ Collecting duct
- ☐ Distal convoluted tubule
- ☐ Proximal convoluted tubule
- ☐ Descending loop of henle

50

What is the name of the vessel that carries blood to the kidney * (1 Point)

- ☐ Renal artery
- ☐ Renal vein
- ☐ Pulmonary artery
- ☐ Afferent arteriole

51

What part of the brain controls the pituitary gland by sending messages or signals in the forms of hormones? (1 Point)

- ☐ Pituitary
- ☐ Penal
- ☐ Hypothalamus
- ☐ Adrenal Glands
- ☐ Thyroid gland

52

True or false: The respiratory system is involved in regulating pH * (1 Point)

- ☐ True
- ☐ False
- ☐ Maybe

53

The outermost covering of the kidney is the _____. (1 Point)

- ☐ Medulla
- ☐ Cortex
- ☐ Capsule
- ☐ Renal pelvis

54

Which of the following functions by filtering and keeping the mucus and dirt away from our lungs * (1 Point)

- ☐ Alveoli
- ☐ Cilia
- ☐ Bronchioles
- ☐ All of the above

55

Which of the following is least likely to be present in the glomerular filtrate (the filtrate produced by the nephron before it enters the loop of Henle) of a healthy adult nephron? (1 Point)

- ☐ Glucose
- ☐ Amino acids
- ☐ Electrolytes
- ☐ Large molecular proteins

56

Where are the Carbon dioxide receptors located? * (1 Point)

- ☐ Aorta
- ☐ Aortic arch and carotid
- ☐ Medulla
- ☐ The brain

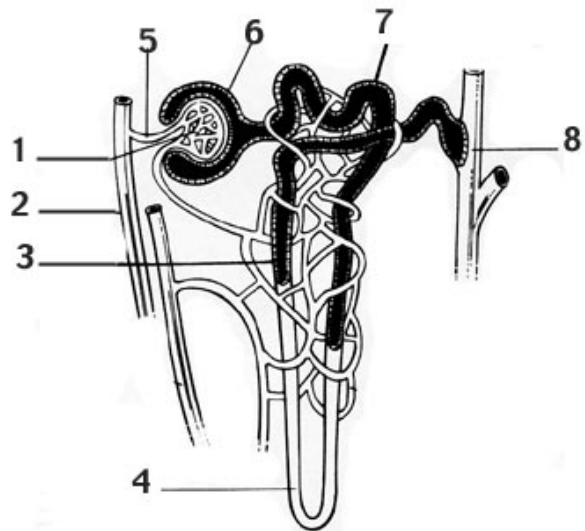
57

Which cells play a crucial role in the inflammatory phase of wound healing by fighting infection? * (1 Point)

- ☐ Red blood cells
- ☐ Macrophages
- ☐ Fibroblasts
- ☐ White blood cells

58

Which substance is reabsorbed in the descending loop of Henle? (1 Point)



- ☐ Sodium
- ☐ Potassium
- ☐ Water and sodium
- ☐ Water

59

What are some systemic factors that can contribute to delayed wound healing? * (1 Point)

- ☐ Age
- ☐ Adequate nutrition
- ☐ Localised infection
- ☐ Good wound care

60

Adequate blood supply is crucial for wound healing. Conditions like _____ can therefore impede the healing process. (1 Point)

- ☐ Hypertension
- ☐ Peripheral arterial disease
- ☐ Increased heart rate
- ☐ Bronchitis

61

What happens if the concentration of water in the blood decreases? *

(1 Point)

- ☐ Less ADH is released, causing the kidney to reabsorb less water
- ☐ More ADH is released, causing the kidney to reabsorb less water.
- ☐ More ADH is released, causing the kidney to reabsorb more water.

62

The kidney secretes — for the purpose of stimulating bone marrow activity.

(1 Point)

- ☐ Renin
- ☐ Aldosterone
- ☐ Erythropoietin
- ☐ ADH

63

The T-lymphocytes and B-lymphocytes are the major cells of the * (1 Point)

- ☐ Thymus
- ☐ Lymph nodes
- ☐ Adrenal Glands
- ☐ Tonsils

64

Which organ is a primary site for the production of lymphocytes in the lymphatic system? * (1 Point)

- ☐ Liver
- ☐ Spleen
- ☐ Pancreas
- ☐ Kidneys

65

What is the main function of cortisol? (1 Point)

- ☐ Increase metabolism
- ☐ To increase blood glucose levels
- ☐ To decrease blood glucose levels

66

The tiny air sacs present in human lungs is called_ * (1 Point)

- ☐ Alveoli
- ☐ Bronchus
- ☐ Bronchi
- ☐ Bronchioles

67

The fluid that passes through the lymphatic vessels * (1 Point)

- ☐ Flows towards the heart
- ☐ Passes from the lymphatic vessels into the arteries
- ☐ Moves in a single direction toward the heart

68

What is the name of the shunt vessels involved in vasodilation and vasoconstriction? * (1 Point)

- ☐ Veins
- ☐ Capillaries
- ☐ Arterioles
- ☐ Arteries

69

Where are B lymphocytes made * (1 Point)

- ☐ Thymus
- ☐ Lymph nodes and spleen
- ☐ Adrenal Glands
- ☐ Bone marrow

70

The bone marrow plays an important role in the lymphatic system. Red bone marrow produces immature lymphocytes, which are then transferred to the thymus to be matured. How do the lymphocytes travel from the bone marrow to the thymus? (1 Point)

- ☐ Through the digestive system
- ☐ Through the lymphatic system
- ☐ Through the lymph nodes
- ☐ Through the blood stream

71

Endocrine glands secrete their products through ducts rather than directly into the blood (1 Point)

- ☐ True
- ☐ False

72

A chemical that is secreted by an endocrine gland and carried in the blood to a target organ to perform a particular function is called: * (1 Point)

- ☐ Steroid
- ☐ Hormone
- ☐ Enzyme
- ☐ Endocrine gland

73

The adrenal medulla—secretes epinephrine and norepinephrine (1 Point)

- ☐ True
- ☐ False

74

Which cell type is responsible for the removal of debris and dead cells during the inflammatory phase of wound healing? * (1 Point)

- ☐ Macrophages
- ☐ Mast cells
- ☐ Fibroblasts
- ☐ Lymphocytes

75

The endocrine gland(s) that sits on top of the kidneys and secretes both metabolic stabilizers and stress regulators (1 Point)

- ☐ Pancreas
- ☐ Adrenals
- ☐ Thyroid
- ☐ Pituitary gland

76

In wound healing what is the purpose of myofibroblasts? * (1 Point)

- ☐ Immune response
- ☐ Contraction of wound
- ☐ Synthesis of antibodies
- ☐ Clot formation

77

What are the functions of the kidney (1 Point)

- ☐ Simple filtration
- ☐ Selective reabsorption
- ☐ Secretion
- ☐ All of the above

78

What part of the body releases anti diuretic hormone? (1 Point)

- ☐ Osmoregulatory centre of the hypothalamus
- ☐ Kidneys
- ☐ Pancreas
- ☐ Adrenals
- ☐ Posterior pituitary
- ☐ Anterior pituitary

79

What happens if the concentration of water in the blood decreases?
(1 Point)

- ☐ Less ADH is released, causing the kidney to reabsorb less water.
- ☐ More ADH is released, causing the kidney to reabsorb less water.
- ☐ More ADH is released, causing the kidney to reabsorb more water.

80

How many nephrons does the average adult human kidney contain (a nephron is the main functional unit of the kidney)? (1 Point)

- ☐ Roughly 100,000
- ☐ Exactly one
- ☐ Roughly 1,000,000
- ☐ Roughly 1,000

81

Which vitamin is essential for collagen synthesis and plays a crucial role in the wound healing process? * (1 Point)

- ☐ Vitamin A
- ☐ Vitamin B
- ☐ Vitamin D
- ☐ Vitamin C

82

What is the significance of the epidermal layer in wound healing * (1 Point)

- ☐ Provides strength to the wound
- ☐ Initiates inflammation
- ☐ Re-epithelialization
- ☐ Promotes clot formation

83

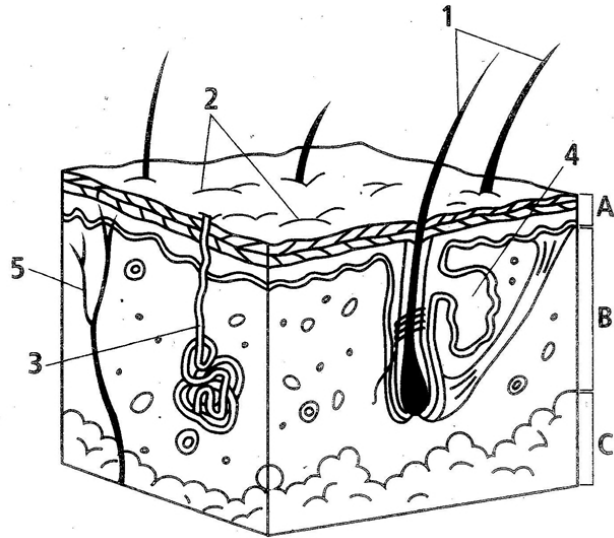
The skin is able to synthesize Vitamin D when exposed to sunlight true or false * (1 Point)

- ☐ True
- ☐ False

84

Structure of Human Skin

What is number 5 * (1 Point)



- ☐ Sweat gland
- ☐ Hair follicles
- ☐ Pore
- ☐ Nerve
- ☐ Sebaceous gland

85

The exchange of gases between the external environment and the lungs * (1 Point)

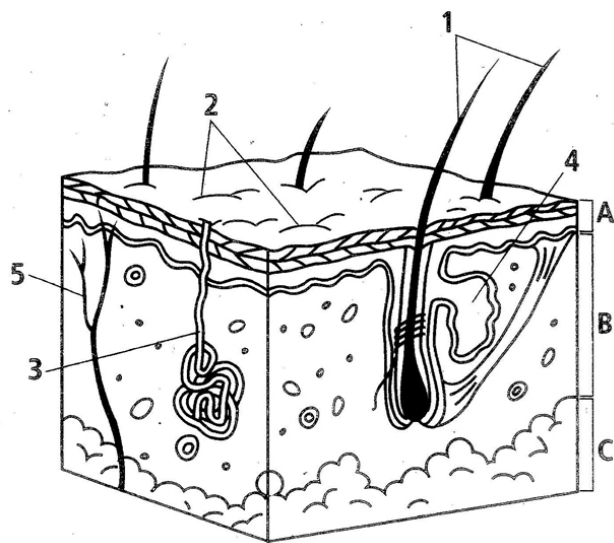
- ☐ Respiration
- ☐ External respiration
- ☐ Cellular respiration
- ☐ None of the above

What is the main function of the lymphatic system? * (1 Point)

- ☐ To protect the body from diseases and remove waste products from the cells
- ☐ To break down food the body ingests to a form which can be absorbed by the blood stream
- ☐ To distribute oxygenated blood to all parts of the body
- ☐ Control water balance in the body

Structure of Human Skin

What is number 4 * (1 Point)

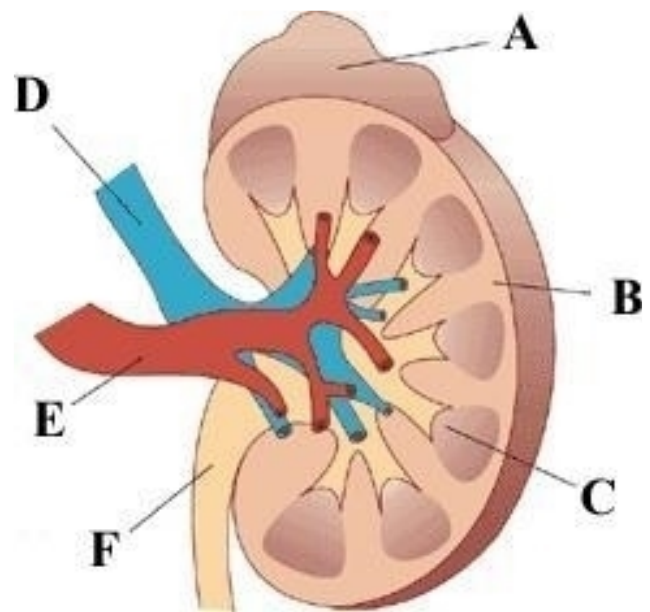


- ☐ Sweat gland
- ☐ Hair follicles
- ☐ Pore
- ☐ Nerve
- ☐ Sebaceous gland

Which of the following accurately describes thyroid hormone? (1 Point)

- ☐ Released from the anterior pituitary
- ☐ Binds to the receptors on the outside of the cell
- ☐ Derived from cholesterol
- ☐ Bind to the receptors on the inside of the cells

This is a cross section of a human kidney what is letter D (1 Point)



- ☐ Renal artery
- ☐ Renal Vein
- ☐ Adrenal gland
- ☐ Ureter
- ☐ Renal pyramid
- ☐ Medulla
- ☐ Cortex

90

If it has been several hours since your last meal and your blood glucose level drops, which hormone does the pancreas secrete to move sugar into the blood? (1 Point)

- ☐ Alpha cells
- ☐ Beta cells
- ☐ Insulin
- ☐ Glucagon

91

Where is the respiratory centre of the brain located? * (1 Point)

- ☐ Medulla
- ☐ Cerebellum
- ☐ Midbrain
- ☐ Pons

92

The most important function of sweat is to remove from the body excess. *
(1 Point)

- ☐ Salt
- ☐ Water
- ☐ Urea
- ☐ Heat

93

Lymph is prevented from moving backwards in the lymphatic system by which of the following? (1 Point)

- ☐ Gravity
- ☐ Muscular contraction
- ☐ Valves within the vessels

94

Where is the site of gas exchange in the lungs? * (1 Point)

- ☐ Alveoli
- ☐ Bronchus
- ☐ Bronchi
- ☐ Bronchioles

95

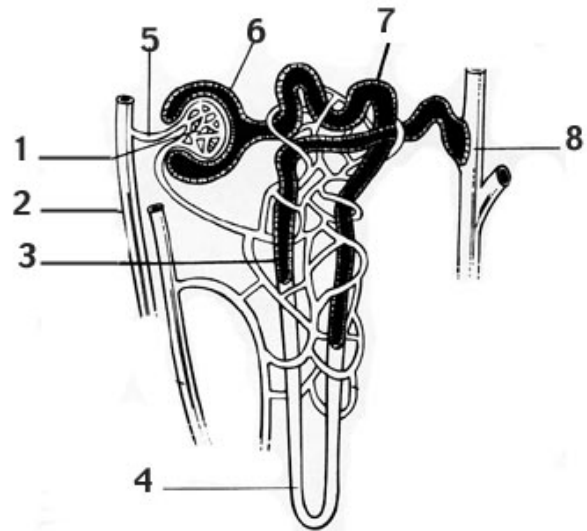
One of the main functions of breathing is to allow oxygen to pass from the alveoli of the lungs into the blood. True or false * (1 Point)

- ☐ True
- ☐ False

Glucagon is released by what type of cells in the pancreas? (1 Point)

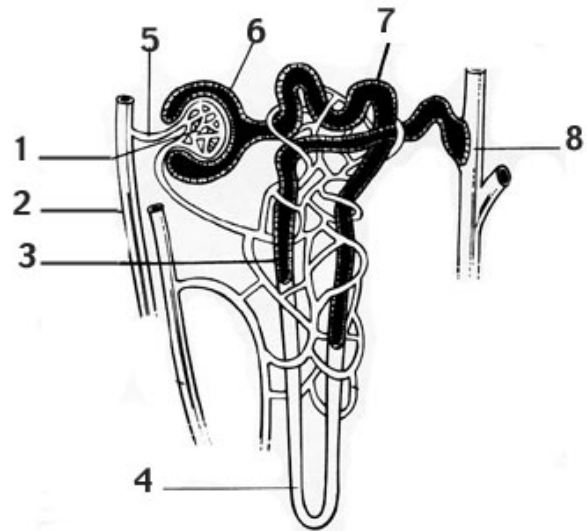
- ☐ Beta cells
- ☐ Alpha Cells
- ☐ Islets of Langerhans
- ☐ Alpha and beta cells

This is a diagram of a nephron what is the name of number 1? (1 Point)



- ☐ Distal convoluted tubule
- ☐ Proximal convoluted tubule
- ☐ Loop of Henle
- ☐ Afferent arteriole
- ☐ Efferent arteriole
- ☐ Bowmans Capsule
- ☐ Glomerulus
- ☐ Collecting duct

This is a diagram of a nephron what is the name of number 6? (1 Point)



- ☐ Distal convoluted tubule
- ☐ Proximal convoluted tubule
- ☐ Loop of Henle
- ☐ Afferent arteriole
- ☐ Efferent arteriole
- ☐ Bowmans Capsule
- ☐ Glomerulus
- ☐ Collecting duct

99

What is the name of the glucose transporter (1 Point)

- ☐ Glut 1
- ☐ Glut 4
- ☐ Glut 3
- ☐ Glut 5

100

What can happen to the red blood cells if blood glucose levels are too low (1 Point)

- ☐ Crenation
- ☐ Cell Death
- ☐ Hemolysis

101

Worn-out and damaged red blood cells are destroyed in the * (1 Point)

- ☐ Tonsils
- ☐ Lymph nodes
- ☐ Spleen
- ☐ Thymus

102

What is osmoregulation? (1 Point)

- ☐ Maintaining blood pressure and volume
- ☐ Maintaining salt and water balance
- ☐ Controls the function of the kidney

103

True or false if your core temperature rises too much your enzymes can become denatured? * (1 Point)

- ☐ True
- ☐ False
- ☐ Maybe

104

What is the average glomerular filtration rate? (1 Point)

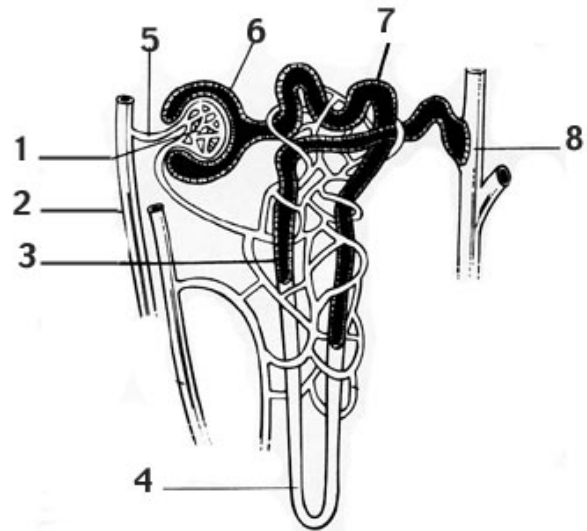
- ☐ 10 litres per day
- ☐ 100 litres per day
- ☐ 180 litres per day
- ☐ 90 litres per day

105

Which statement best defines osmoregulation * (1 Point)

- ☐ Maintenance of body temperature
- ☐ Regulation of fluids
- ☐ Balancing blood sugar levels
- ☐ Controlling body Ph

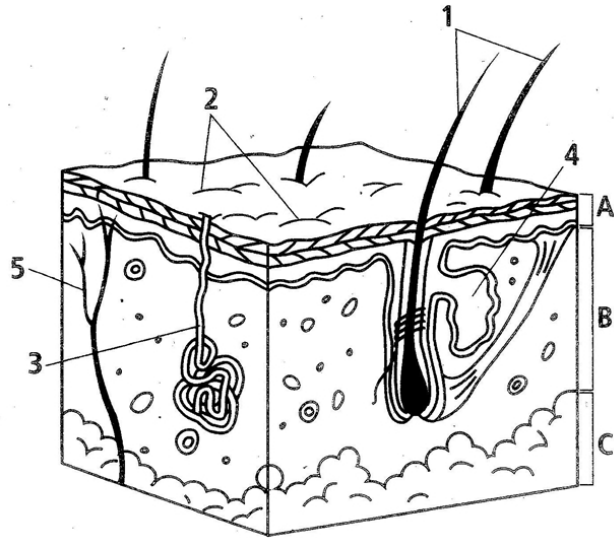
This is a diagram of a nephron what is the name of number 4? (1 Point)



- ☐ Distal convoluted tubule
- ☐ Proximal convoluted tubule
- ☐ Loop of Henle
- ☐ Afferent arteriole
- ☐ Efferent arteriole
- ☐ Bowmans Capsule
- ☐ Glomerulus
- ☐ Collecting duct

Structure of Human Skin

What is number 3 ? *
(1 Point)



- ☐ Sweat gland
- ☐ Hair follicles
- ☐ Pore
- ☐ Nerve
- ☐ Sebaceous gland

Which one of the following is the reaction of the skin of a human when the body becomes very cold? * (1 Point)

- ☐ The arterioles constrict, the hair stands on end and sweat production ceases.
- ☐ The arterioles constrict, the hair lies flat on the skin and sweating occurs.
- ☐ The arterioles dilate, the hair lies flat on the skin and sweating occurs.

109

True or false the skin is the biggest sense organ * (1 Point)

- ☐ True
- ☐ False

110

The lymphatic system includes 500 to 700 very small organs scattered throughout the body, connected by a series of vessels. What is the name given to these organs that are used to help remove waste products from the cells? * (1 Point)

- ☐ Lymphocytes
- ☐ Thrombocytes
- ☐ Phagocytes
- ☐ Lymph Nodes

111

This part of the brain is often referred to as the master gland because it controls several other hormones glands in the body what is it called? *
(1 Point)

- ☐ Pituitary
- ☐ Pineal gland
- ☐ Hypothalamus
- ☐ Adrenal glands
- ☐ Thyroid gland

112

What is angiogenesis * (1 Point)

- ☐ Blood vessels constrict to stop bleeding
- ☐ White blood vessels attack infection
- ☐ New blood vessels form
- ☐ The scar tissue strenghtens and matures

113

What type of wound healing occurs when there is minimal tissue loss and the edges of the wound can be approximated? * (1 Point)

- ☐ Primary intention
- ☐ Secondary intention

114

Lymph is initially formed from (1 Point)

- ☐ Interstitial fluid
- ☐ Blood plasma
- ☐ Cytoplasm

115

During which phase of wound healing does the formation of granulation tissue and angiogenesis occur? * (1 Point)

- ☐ Inflammatory phase
- ☐ Hemostasis phase
- ☐ Inflammatory phase
- ☐ Proliferative phase

116

What part of the brain controls osmoregulation and thermoregulation?
(1 Point)

- ☐ Pituitary
- ☐ Penal
- ☐ Hypothalamus
- ☐ Adrenal Glands
- ☐ Thyroid gland

117

During this first stage of healing what primarily occurs? * (1 Point)

- ☐ Blood vessels constrict to stop bleeding
- ☐ White blood vessels attack infection
- ☐ New tissue and blood vessels form
- ☐ The scar tissue strengthens and matures

118

Which of the following describes the blood vessels, sweat glands, and temperature of the skin after a period of exercise? * (1 Point)

- ☐ Blood vessels - constricted; Sweat glands - inactive; Skin temperature - low.
- ☐ Blood vessels - constricted; Sweat glands - inactive; Skin temperature - high
- ☐ Blood vessels - dilated , Sweat glands - active; skin temperature high
- ☐ Blood vessels - constricted; Sweat glands - active; Skin temperature - lowers

119

How does the body lose heat (3 points) * (3 Points)

- ☐ Vasodilation
- ☐ Vasoconstriction
- ☐ Sweating
- ☐ Respiration

120

Where does ADH have its greatest effect? (1 Point)

- ☐ Distal convoluted tubule
- ☐ Loop of Henle
- ☐ Collecting duct
- ☐ Proximal convoluted tubule

121

Infection at the wound site can delay healing by: (1 Point)

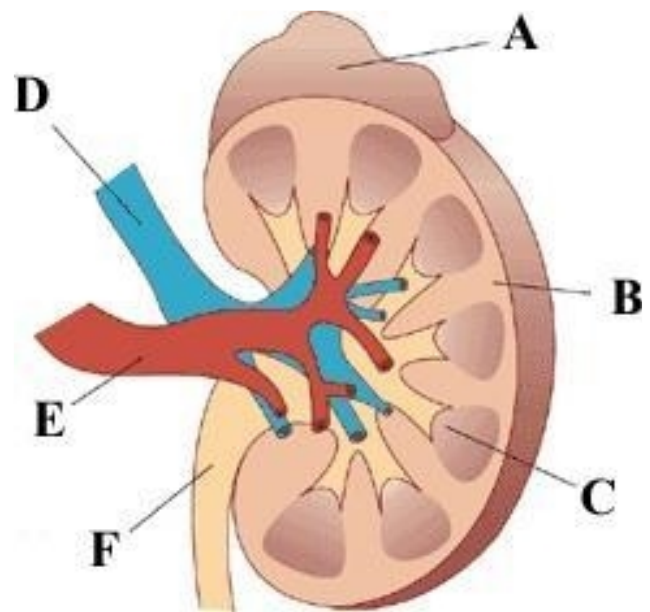
- ☐ Promoting rapid cell regeneration
- ☐ Increasing blood supply to the wound
- ☐ Causing inflammation and tissue damage
- ☐ Enhancing the body's immune response.

Contraction of the errector pili muscles cause * (1 Point)

- ☐ Goose bumps
- ☐ Sweat to be released from sweat glands
- ☐ Vasodilation

123

This is a cross section of a human kidney what is letter F ? (1 Point)



- ☐ Renal artery
- ☐ Renal Vein
- ☐ Adrenal gland
- ☐ Ureter
- ☐ Renal pyramid
- ☐ Medulla
- ☐ Cortex

124

Which glands discharge an oily secretions into hair follicles? * (1 Point)

- ☐ Apocrine
- ☐ Merocrine
- ☐ Sebaceous

125

Healthy granulation tissue is granular and uneven in texture; it does not bleed easily and is pink / red in colour. True or false * (1 Point)

- ☐ True
- ☐ False

126

Hormones influence nearly every cell, organ, and organ system in body (1 Point)

- ☐ True
- ☐ False

127

Urine is moved down the ureters by (1 Point)

- ☐ Gravity
- ☐ High pressure
- ☐ Peristalsis
- ☐ Sphincters closing

128

What is the main function of the thymus gland? (1 Point)

- ☐ Regulates sleep
- ☐ Helps regulate immunity
- ☐ Regulates sleep and hunger
- ☐ Regulates sleep and immunity

129

What is the role of lymph nodes in the lymphatic system? * (1 Point)

- ☐ Fluid filtration
- ☐ Nutrient absorption
- ☐ Blood transportation
- ☐ Fluid absorption

130

What is the outer layer of the skin called? * (1 Point)

- ☐ Epidermis
- ☐ Dermis
- ☐ Adipose

131

Urine leaves the kidney via the (1 Point)

- ☐ Ureters
- ☐ Urethra
- ☐ Glomerulus
- ☐ Bladder

132

What can happen to the red blood cells if blood glucose levels are too high?
(1 Point)

- ☐ Crenation
- ☐ Cell Death
- ☐ Hemolysis

133

Which of the following is a physiological function that is mediated by a hormone released by the parathyroid * (1 Point)

- ☐ Maturation of the egg and sperm
- ☐ Regulation of blood calcium levels
- ☐ Retention of water
- ☐ Increase in thyroid hormones

134

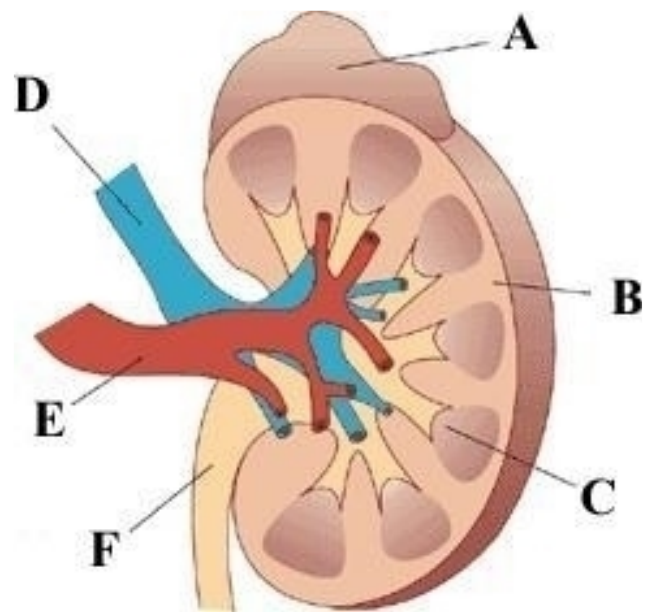
Fatty acids in the liver are transformed to glucose through a process called (1 Point)

- ☐ Glycogenolysis
- ☐ Glyconeogenesis
- ☐ Glycolysis
- ☐ Glycogenesis

Which part of the central nervous system coordinates and balances the actions of the muscles (1 Point)

- ☐ Cerebrum
- ☐ Cerebellum
- ☐ Hypothalamus
- ☐ Medulla
- ☐ Midbrain
- ☐ Central nervous system

This is a cross section of a human kidney what is the middle part of the kidney called? (1 Point)



- ☐ Renal artery
- ☐ Renal Vein
- ☐ Adrenal gland
- ☐ Ureter
- ☐ Renal pyramid
- ☐ Medulla
- ☐ Cortex

137

Which of the following is a secondary messenger? * (1 Point)

- ☐ Insulin
- ☐ Glucagon
- ☐ ADH
- ☐ cAMP

138

What part of the body releases anti diuretic hormone? * (1 Point)

- ☐ Osmoregulatory centre of the hypothalamus
- ☐ Kidneys
- ☐ Pancreas
- ☐ Adrenals
- ☐ Posterior pituitary
- ☐ Anterior pituitary

139

Which of the following organs functions as a filter and humidifier * (1 Point)

- ☐ Larynx
- ☐ Pharynx
- ☐ Nasal Chambers
- ☐ All of the above

140

The function unit of the kidney is (1 Point)

- ☐ Ureters
- ☐ Bladder
- ☐ Urethra
- ☐ Nephron

141

Which of the following blood glucose levels would be considered hyperglycaemia? (1 Point)

- ☐ Above 4.0mmol/l before a meal and above 7.8 mmol/l two hours after eating
- ☐ Above 7mmol/l before a meal and above 8.5mmol/l two hours after a meal.

142

Both lymph and venous blood flow are heavily dependent on * (1 Point)

- ☐ The pumping action of the heart
- ☐ Skeletal muscle contractions and differences in thoracic pressures due to respiratory movement
- ☐ Contraction of the vessels themselves
- ☐ Two way valves

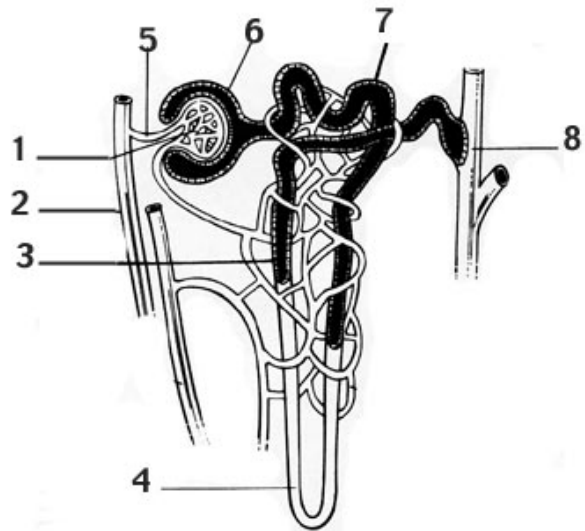
143

Urine is eliminated from the body via the (1 Point)

- ☐ Ureters
- ☐ Bladder
- ☐ Urethra
- ☐ Nephron

144

Which substance is reabsorbed in the descending loop of Henle?
(1 Point)



- ☐ Sodium
- ☐ Potassium
- ☐ Water and sodium
- ☐ Water

145

Which of the following statements is true about the entry of air into the lungs * (1 Point)

- ☐ Air enters the body and travels to the lungs through the mouth and the nose
- ☐ Air enters the body and travels to the lungs through the oesophagus and gullet
- ☐ Air enters the body and travels to the lungs through the windpipe and the pores
- ☐ Air enters the body and travels to the lungs through the nose and the nervous system.

146

Which of the following structures in the kidney is responsible for filtering blood? * (1 Point)

- ☐ Glomerulus
- ☐ Ureters
- ☐ Renal pelvis
- ☐ Urethra

147

Blood going to the lungs through the pulmonary arteries contains a high concentration of and a low concentration of * (1 Point)

- ☐ Oxygen and haemoglobin
- ☐ Carbon dioxide and oxygen
- ☐ Oxygen and carbon dioxide

148

The first stage of skin healing, where blood clotting occurs, is known as: *
(1 Point)

- ☐ Inflammatory phase
- ☐ Hemostasis
- ☐ Proliferative stage
- ☐ Maturation

149

Which type of diabetes is a autoimmune disease? (1 Point)

- ☐ Type one
- ☐ Type 2

150

Endocrine glands are different than exocrine glands in that exocrine glands (1 Point)

- ☐ Release hormones into the blood
- ☐ Secrete through ducts
- ☐ Affect many body organs
- ☐ Include the reproductive organs.

151

The action of aldosterone is to increase * (1 Point)

- ☐ Increase absorption of potassium
- ☐ Increase absorption of sodium
- ☐ Sodium elimination
- ☐ Potassium elimination

152

The last part of a nephron is the _____. (1 Point)

- ☐ Glomerulus
- ☐ Distal convoluted tubule
- ☐ Loop of henle
- ☐ Collecting duct

153

The renal pyramids are located within the _____. (1 Point)

- ☐ Medulla
- ☐ Cortex
- ☐ Renal pelvis
- ☐ Capsule

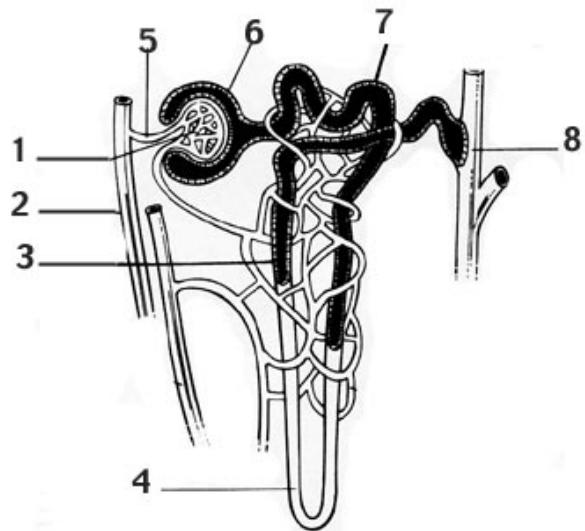
154

Functions of the integumentary system (skin) include all of the following except * (1 Point)

- ☐ Maintenance of body temperature
- ☐ Synthesis of vitamin C
- ☐ Excretion of salts and wastes
- ☐ Protection

155

Which number is the collecting duct ? (1 Point)



- ☐ 1
- ☐ 2
- ☐ 6
- ☐ 7
- ☐ 8

156

Insulin is released by what type of cells in the pancreas? (1 Point)

- ☐ Beta cells
- ☐ Alpha Cells
- ☐ Islets of Langerhans
- ☐ Alpha and beta cells

157

What effect does ADH have on urine output? (1 Point)

- ☐ Minimal
- ☐ Increases
- ☐ Decreases
- ☐ Maintains

158

Which of the following are made in the adrenal cortex * (1 Point)

- ☐ Aldosterone and cortisol
- ☐ Adrenaline and cortisol
- ☐ Adrenaline
- ☐ Cortisol

159

Hormones help balance the body's reactions differently than nerve impulses in that: (1 Point)

- ☐ The reactions takes longer to occur
- ☐ Hormones can target specific target cells found somewhere else in the body
- ☐ The reactions can last much longer
- ☐ All of the above

160

The thymus is most active during * (1 Point)

- ☐ Middle age
- ☐ Child hood
- ☐ Old age
- ☐ Fetal development

161

When ADH is secreted, urine will be (1 Point)

- ☐ More concentrated
- ☐ Less concentrated
- ☐ Polyuria
- ☐ Have a larger volume

162

Which part of the central nervous system coordinates and balances the actions of the muscles (1 Point)

- ☐ Cerebrum
- ☐ Cerebellum
- ☐ Hypothalamus
- ☐ Medulla
- ☐ Midbrain
- ☐ Central nervous system

163

Which of the following applies to the thoracic duct? * (1 Point)

- ☐ It drains the entire body above the diaphragm
- ☐ It empties the empties its contents into the subclavian vein
- ☐ It carries blood into the lymphatic system
- ☐ It arises in the vessels of the brain

164

Which of the following is a physiological function that is mediated by a hormone released by the posterior pituitary? (1 Point)

- ☐ Maturation of the egg and sperm
- ☐ Regulation of blood calcium levels
- ☐ Retention of water
- ☐ Increase in thyroid hormone levels

165

True or false ultrafiltration takes place in the nephron? (1 Point)

- ☐ True
- ☐ False

166

What part of the body detects changes in water potential? (1 Point)

- ☐ Osmoregulatory centre of the hypothalamus
- ☐ Kidneys
- ☐ Pancreas
- ☐ Adrenals
- ☐ Posterior pituitary

167

If blood glucose levels are low what happens (1 Point)

- ☐ Beta cells secrete glucagon which aids the conversion of glycogen to glucose
- ☐ Alpha cells secrete glucagon and beta cells reduce the release of insulin, glucagon aids the conversion of glycogen into glucose
- ☐ Alpha cells secrete insulin

168

After eating a big meal, the carbohydrates are broken down into glucose and passed into your bloodstream. Your pancreas tells the body to move the excess glucose out of the blood and into the cells. Some of the sugar is used for immediate energy. The rest is converted to glycogen. Which of the following best describes glycogen? (1 Point)

- ☐ A hormone that lowers blood sugar
- ☐ A compact stored form of glucose
- ☐ A hormone that increases blood sugar

169

Which of these statements is true about internal respiration? * (1 Point)

- ☐ Production of ATP
- ☐ Exchange of gases between the bloodstream and tissue cells
- ☐ Exchange of gases between alveoli and the bloodstream
- ☐ Breathing between the atmosphere and the alveoli

170

Which section of the nephron is after the ascending limb of the loop of Henle? (1 Point)

- ☐ Descending limb of the loop
- ☐ Proximal convoluted tubule
- ☐ Distal Convoluted tubule
- ☐ Collecting duct

171

Fill in the blank glucose + Oxygen = H₂O + Co₂ + ... (1 Point)

- ☐ ADP
- ☐ ATP
- ☐ ATTP
- ☐ Potassium

172

Which of the following factors can lead to impaired wound healing? Tick all that apply. * (1 Point)

- ☐ Poor nutrition
- ☐ Inadequate hydration
- ☐ Use of certain medications such as steroids
- ☐ High protein diet

173

Which of the following are functions of the interneurons? Tick all that apply (1 Point)

- ☐ Processes impulses in brain and spinal cord
- ☐ Connect sensory and motor neurons
- ☐ They connect the central nervous system and peripheral nervous system

174

Which of the following connects the Bowman's capsule to the loop of Henle in the nephron?

- ☐ Distal convoluted tubule
- ☐ Collecting duct
- ☐ Collecting tubule
- ☐ Proximal convoluted tubule.

175

This part of the brain is often referred to as the master gland because it controls several other hormones glands in the body what is it called?

(1 Point)

- ☐ Pituitary
- ☐ Penal
- ☐ Hypothalamus
- ☐ Adrenal Glands
- ☐ Thyroid gland

176

The spleen helps to fight infections by producing white blood cells. When the body detects that it is being invaded by a disease, the spleen releases the white blood cells into the blood stream to fight off the foreign attacker. What are these white blood cells called? (1 Point)

- ☐ Macrophages
- ☐ Lymphocytes
- ☐ B Cells
- ☐ T cells

177

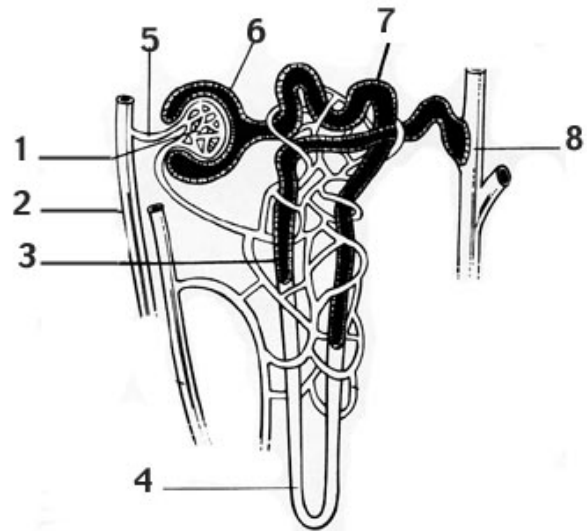
Presence of which of the following in the urine, even in small amounts, is indicative of a possible problem in the renal system of a patient? (1 Point)

- ☐ Glucose
- ☐ Creatinine
- ☐ Urea
- ☐ Sodium

Which of these is NOT an endocrine function of the pancreas? (1 Point)

- ☐ The secretion of glucagon
- ☐ The secretion of insulin
- ☐ The secretion of pancreatic enzymes

This is a diagram of a nephron what is the name of number 5? (1 Point)



- ☐ Distal convoluted tubule
- ☐ Proximal convoluted tubule
- ☐ Loop of Henle
- ☐ Afferent arteriole
- ☐ Efferent arteriole
- ☐ Bowmans Capsule
- ☐ Glomerulus
- ☐ Collecting duct

180

What happens when blood glucose levels become too high? (1 Point)

- ☐ ADH is secreted, causing the conversion of glucose to glycogen.
- ☐ Insulin is secreted, causing the conversion of glucose to glycogen.
- ☐ Glucagon is secreted causing the conversion of glycogen to glucose.

181

What is the primary purpose of fibroblasts in the wound healing process *
(1 Point)

- ☐ Phagocytosis
- ☐ Collagen synthesis
- ☐ Antibody production
- ☐ Hemostasis

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