

Exam one BMNS4001 Week Commencing 13th November 2023.

Please note you have 1.5 hours to answer the multiple choice questions unless you have been allocated extra time 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. Marks will be internally verified before being released this may take up to 28 days. Please note you must press submit at the end of the exam and within time so please keep a note of the time as the link will close.

1

Distribution of blood flow is mainly regulated by (1 Point)

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

2

Blood pressure refers to the forces of blood pushing against: (1 Point)

- ☐ The heart
- ☐ Artery walls
- ☐ The brain
- ☐ Capillaries

3

What is considered to be a normal blood pressure reading (1 Point)

- ☐ Less than 120/80
- ☐ 120-139/ 80-89
- ☐ 140-159/90-99
- ☐ 160/100

4

What organ helps to neutralise the acid in chyme in the small intestines
(1 Point)

- ☐ Small inestines
- ☐ Villi
- ☐ Gall bladder.
- ☐ Pancreatic enzymes

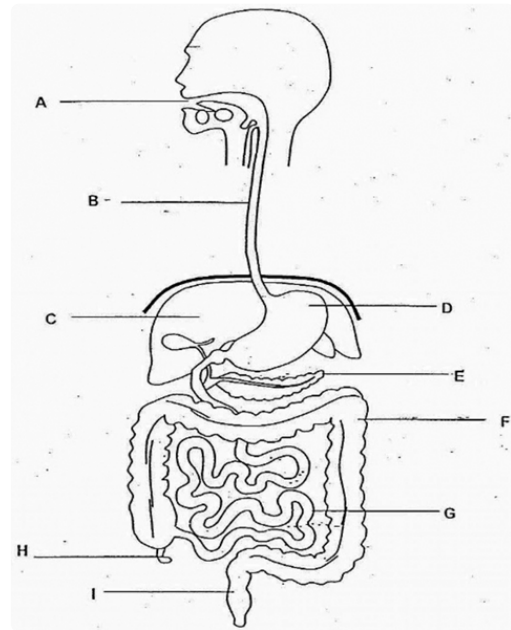
5

Where in the digestive tract does most absorbsion take place (1 Point)

- ☐ Illeum
- ☐ Stomach
- ☐ Duodenum
- ☐ Large intestines

6

What does letter C make ? (1 Point)



- ☐ Bile
- ☐ Protease
- ☐ Lipase
- ☐ Amylase

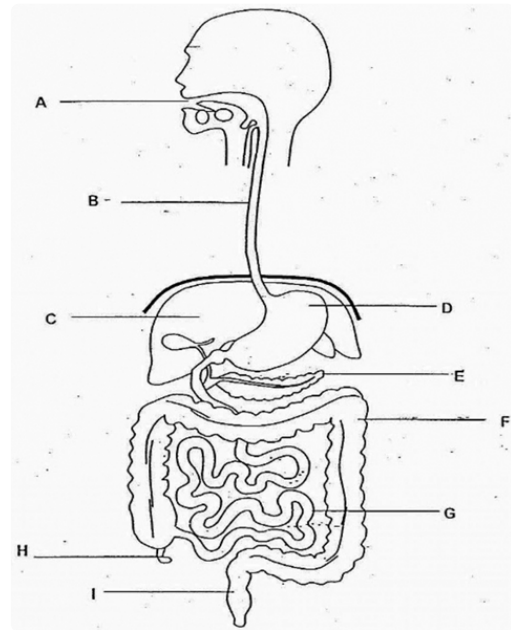
7

Which white blood cells fight bacterial or fungal infection the most common first responders in microbial infections? (1 Point)

- ☐ Macrophages
- ☐ Oesophils
- ☐ Neutrophils
- ☐ Lymphocytes

8

What is letter H called? (1 Point)



- ☐ Appendix
- ☐ Oesophagus
- ☐ Large intestines
- ☐ Small intestined

9

Carbohydrates are broken down into (1 Point)

- ☐ Glucose.
- ☐ Amino Acids
- ☐ Fatty acids and glycerol

10

What is the function of arterioles? (1 Point)

- ☐ To carry blood away from the heart
- ☐ To carry blood towards the heart
- ☐ To regulate blood flow to the capillaries
- ☐ To exchange gases between the blood and the capillaries.

11

Which of the following is the body's biggest blood vessel (1 Point)

- ☐ Artery
- ☐ Aorta
- ☐ Pulmonary Artery
- ☐ Pulmonary Vein

12

What are the functions of arteries (1 Point)

- ☐ To carry blood away from the heart
- ☐ To carry blood towards the heart
- ☐ To exchange gases between the blood and tissues
- ☐ To filter waste products from the blood.

13

What receptors detect changes in blood pressure? (1 Point)

- ☐ Chemo receptors
- ☐ Baroreceptors

14

All white blood cells except the lymphocytes are made in the (1 Point)

- ☐ Thymus
- ☐ Lymph nodes
- ☐ Adrenal glands
- ☐ Bone marrow

15

What is the role of the pharynx in respiration? (1 Point)

- ☐ To transport oxygen from the lungs to the body's tissues
- ☐ To transport carbon dioxide from the body's tissues to the lungs
- ☐ To regulate breathing rate
- ☐ To transport air from the nose and mouth to the larynx

16

What is the function of albumin (1 Point)

- ☐ It is a transportive fluid
- ☐ It increases osmotic pressure
- ☐ Involved in blood clotting
- ☐ Responsible for immunity

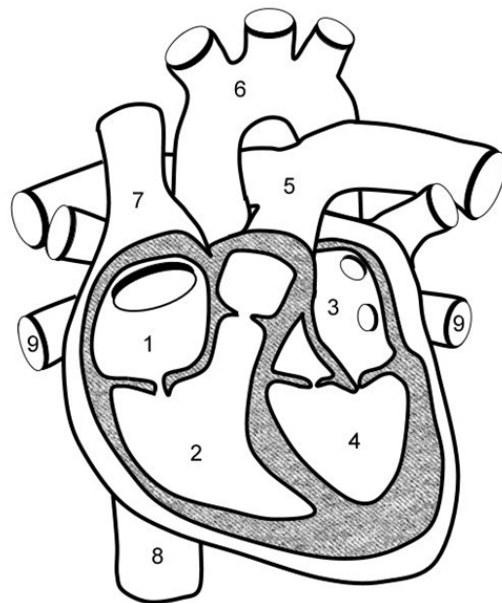
17

Mean arterial pressure (MAP) is equal to (1 Point)

- ☐ Force exerted on the walls during atrial relaxation
- ☐ Cardiac output X total peripheral resistance
- ☐ Resistance x heart rate
- ☐ Heart rate x Stroke volume

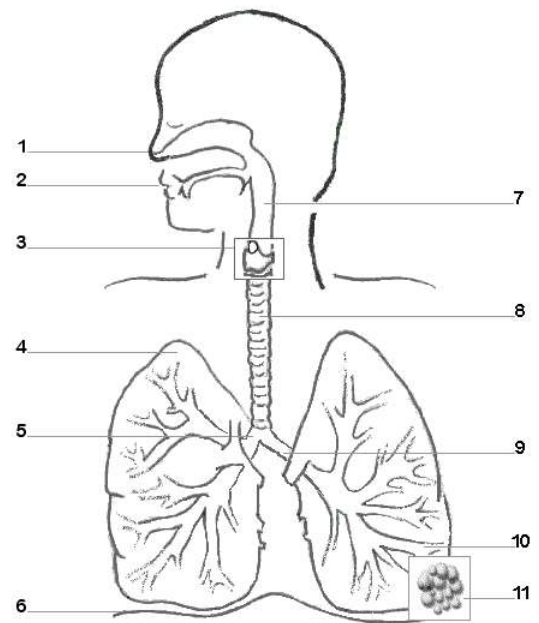
18

What is chamber number one
(1 Point)



- ☐ Right atrium
- ☐ Left Atrium
- ☐ Right Ventricle
- ☐ left Ventricle

This is a diagram of the respiratory system in which part does gas exchange take place? (1 Point)



- ☐ Bronchus
- ☐ Lung
- ☐ Larynx
- ☐ Trachea
- ☐ Nose
- ☐ Pharynx
- ☐ Alveoli
- ☐ Diaphragm
- ☐ Mouth

20

Which mineral is essential for the production and maturation of red blood cells? (1 Point)

- ☐ Calcium
- ☐ Iron
- ☐ Sodium
- ☐ Potassium

21

How many lobes does the right lung have (1 Point)

- ☐ 2
- ☐ 3
- ☐ 4

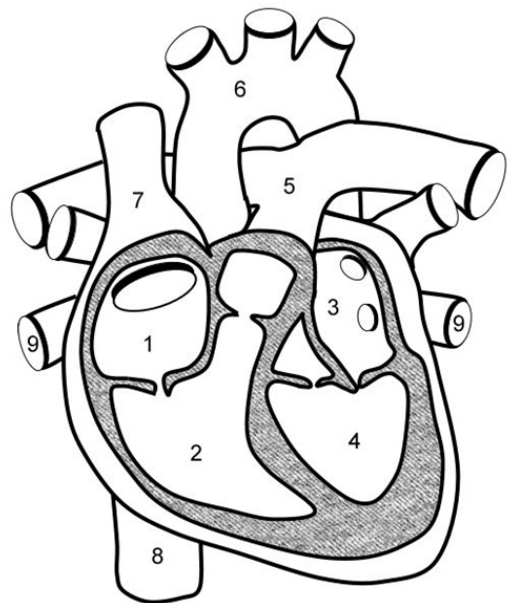
22

Where does lipase work (1 Point)

- ☐ Large intestines
- ☐ Gall bladder
- ☐ Small intestines
- ☐ Duodenum

23

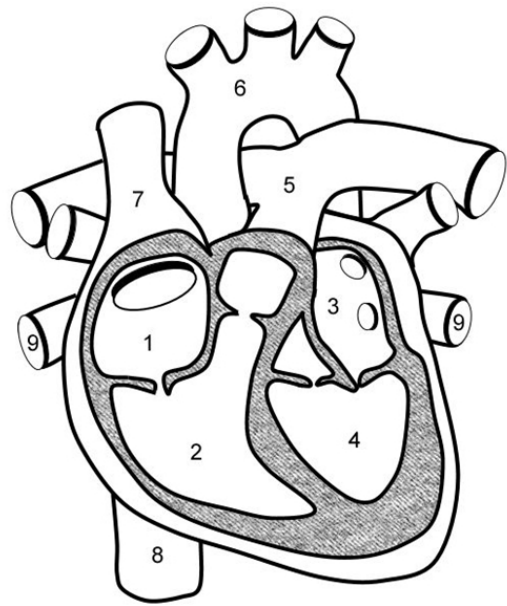
Deoxygenated blood returns to the heart via which number/numbers.
(1 Point)



- ☐ 7
- ☐ 7 and 8
- ☐ 1 and 3
- ☐ 8

24

What is number one? (1 Point)



- ☐ Right atrium
- ☐ Left atrium
- ☐ Right ventricle
- ☐ Left ventricle

25

The pressure of blood is highest in the ... (1 Point)

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

26

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

27

What is cardiac output determined by? (1 Point)

- ☐ Force exerted on the walls during atrial relaxation
- ☐ Cardiac output X total peripheral resistance
- ☐ Resistance x heart rate
- ☐ Heart rate x Stroke volume

28

The blood vessels that returns deoxygenated blood from the lower half of the body is called (1 Point)

- ☐ Inferior vena cava
- ☐ Superior vena cava
- ☐ Right atrium
- ☐ Left atrium

29

What are the receptors called that detect changes in ph. and levels of carbon dioxide in the body? (1 Point)

- ☐ Baroreceptors
- ☐ Chemo receptors
- ☐ Osmo receptors

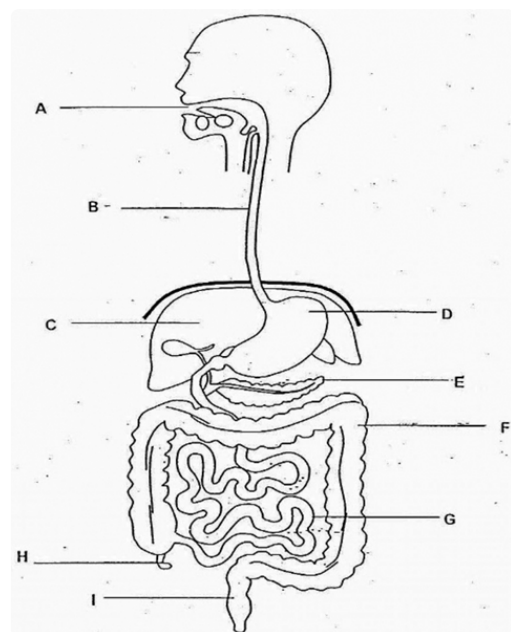
30

What are the functions of capillaries? (1 Point)

- ☐ To carry blood away from the heart
- ☐ To carry blood towards the heart
- ☐ To exchange gases between the blood and tissues
- ☐ To filter waste products from the blood.

31

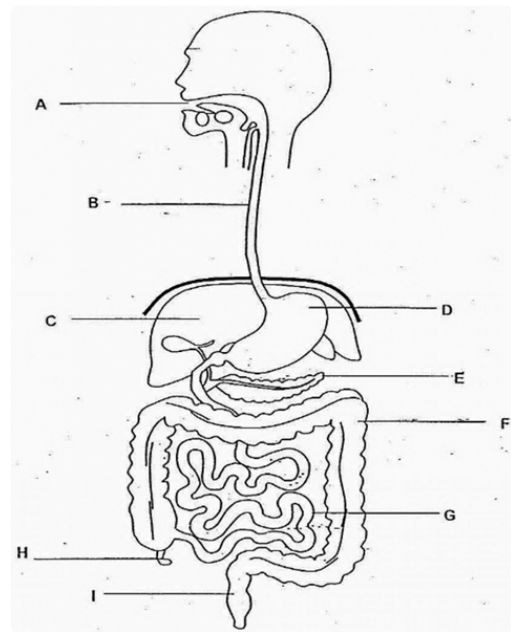
What is letter E (1 Point)



- ☐ Gall bladder
- ☐ Spleen
- ☐ Small intestines
- ☐ Pancreas

32

What is letter F ? (1 Point)



- ☐ Large intestine
- ☐ small Intestines
- ☐ Villi
- ☐ Appendix

33

Which of the following are components of blood? Tick all that apply
(1 Point)

- ☐ Plasma
- ☐ Platelets
- ☐ Gases and other dissolved substances
- ☐ All of the above

34

True or false : All arteries carry oxygenated blood and all veins transport deoxygenated blood (1 Point)

- ☐ False
- ☐ True

35

The blood vessel bringing the deoxygenated blood from head and upper parts of the body into the heart is (1 Point)

- ☐ Inferior vena cava
- ☐ Superior vena cava
- ☐ Right atrium
- ☐ Left atrium

36

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

37

.....is a condition where plaque builds up on the inside of arteries.
(1 Point)

- ☐ Arthralgia
- ☐ Arthrocentesis
- ☐ Angioneogenesis
- ☐ Atherosclerosis

38

Please put the following in the correct order (5 Points)

Kidneys detect hypoxia

Erythropoietin released by kidneys into the blood.

Reduction in tissue hypoxia due to increased red blood cells

Increases the amount of erythrocytes in the blood

Bone marrow increase erythropoiesis

What is the function of basophils (1 Point)

- ☐ Parasitic infections and allergic response (inflammatory)
- ☐ Allergic and antigen response release histamine.
- ☐ Phagocytosis of pathogens
- ☐ Fight Bacterial or fungal infection the most common first responders in microbial infections

What factors aid venous return ? (3 Points)

- ☐ Respiratory pump
- ☐ Valves
- ☐ Muscular pump
- ☐ Blood pressure

41

If the body becomes more acidic as there is higher levels of carbon dioxide 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.

42

How are carbon dioxide and oxygen transported throughout the body? (1 Point)

- ☐ Erthrocytes
- ☐ Lymphocytes
- ☐ Platlets
- ☐ Macrophages

43

How many chambers are in the heart (1 Point)

- ☐ Two
- ☐ four
- ☐ Three
- ☐ One

44

What three components are needed for homeostasis (1 Point)

- ☐ A sensor a control centre and an effector
- ☐ A sensor and effector
- ☐ A sensor a control centre and a feedback centre
- ☐ A control centre a feedback centre and an effector

45

What are the smallest blood vessels called (1 Point)

- ☐ Artery
- ☐ Veins
- ☐ Capillaries
- ☐ Venules
- ☐ Veins

46

As blood flows from the aorta toward the capillaries and from capillaries toward the vena cava: (1 Point)

- ☐ Flow decreases and pressure decreases
- ☐ Flow increases
- ☐ Flow increases and pressure increases
- ☐ Pressure increases

47

Deoxygenated blood returns to the body and enters which chamber of the heart (1 Point)

- ☐ Right Atrium
- ☐ Right ventricle
- ☐ Left atrium
- ☐ Left ventricle

48

Please put the following blood vessels in the correct order when leaving the heart: (6 Points)

Veins

Venules

Aorta

Arteries

Arterioles

Capillaries

49

Proteins are broken down into (1 Point)

- ☐ Glucose.
- ☐ Amino Acids
- ☐ Fatty acids and glycerol

50

Where is lipase made?

- ☐ Gall bladder
- ☐ Pancreas
- ☐ Stomach
- ☐ Gall bladder
- ☐ Mouth

51

How is food moved along the alimentary canal? (2 Points)

- ☐ Bolus
- ☐ Peristalsis
- ☐ Epiglottis
- ☐ Spincter

52

What percentage of the blood is plasma ? (1 Point)

- ☐ 55 %
- ☐ 65 %
- ☐ 75 %
- ☐ 85 %

What is digestion? (1 Point)

- ☐ The breakdown of food (either chemically or mechanically) in order to utilise nutrients
- ☐ Process of taking food into the digestive system so that it may be hydrolysed or digested
- ☐ Nutrients pass from the guts to the blood stream
- ☐ Elimination of indigested food

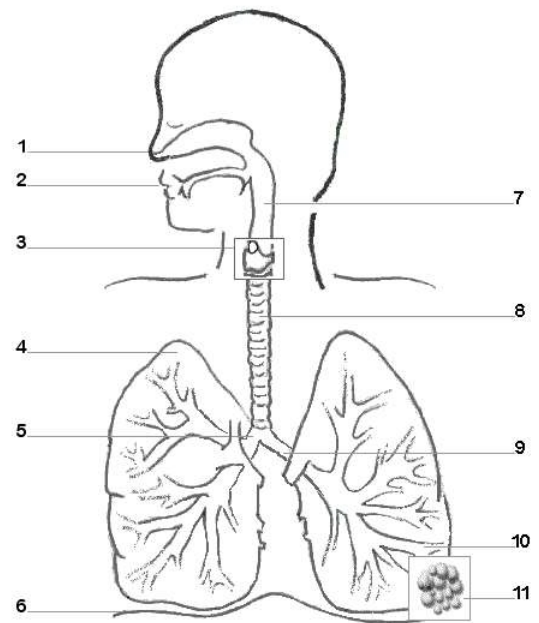
What type of digestion takes place in the mouth ? (1 Point)

- ☐ Mechanical
- ☐ Chemical
- ☐ Mechanical and chemical

Which of the following are modifiable causes of heart disease (1 Point)

- ☐ Age
- ☐ BMI
- ☐ Type one diabetes
- ☐ Smoking

This is a diagram of the respiratory system what is number 7? (1 Point)



- ☐ Bronchus
- ☐ Lung
- ☐ Larynx
- ☐ Trachea
- ☐ Nose
- ☐ Pharynx
- ☐ Alveoli
- ☐ Diaphragm
- ☐ Mouth

57

In which cavity is the heart situated? (1 Point)

- ☐ Abdominal cavity
- ☐ Thoracic cavity
- ☐ Pleural cavity
- ☐ Cranial cavity

58

Blood pressure is highest when leaving which heart chamber? (1 Point)

- ☐ Right atrium
- ☐ Left Ventricle
- ☐ Right ventricle
- ☐ Left atrium

59

What is absorption? (1 Point)

- ☐ The breakdown of food (either chemically or mechanically) in order to utilise nutrients
- ☐ Process of taking food into the digestive system so that it may be hydrolysed or digested
- ☐ Nutrients pass from the guts to the blood stream
- ☐ Elimination of indigested food

60

Which artery brings blood to the lungs? (1 Point)

- ☐ Pulmonary Artery
- ☐ Pulmonary Veins
- ☐ Tricuspid Artery
- ☐ None of the above

61

Put the following in the correct order from the outside in. (3 Points)

Tunica externa

Tunica Media

Tunica intima

62

What is ingestion (1 Point)

- ☐ The breakdown of food (either chemically or mechanically) in order to utilise nutrients
- ☐ Process of taking food into the digestive system so that it may be hydrolised or digested
- ☐ Nutrients pass from the guts to the blood stream
- ☐ Elimination of indigested food

63

Secretion is an important process of digestion. Which of the following best describes one concept of secretion in reference to the digestive system?
(1 Point)

- ☐ Secretion is the release of waste products from the action of digestion
- ☐ Secretion is the release of digestive enzymes from various organs to digest food.
- ☐ Secretion is the movement of food through the gastrointestinal tract.

64

True or false The cardiac cycle is a sequence of events occurring in one minute (1 Point)

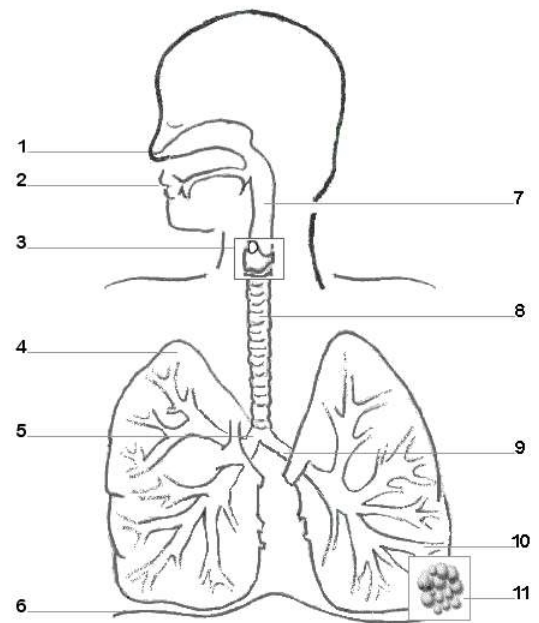
- ☐ False
- ☐ True

65

What is the role of the bronchi in respiration? (1 Point)

- ☐ To transport oxygen from the lungs to the body's tissues
- ☐ To transport carbon dioxide from the body's tissues to the lungs
- ☐ To regulate breathing rate
- ☐ To transport air from the nose and mouth to the larynx

This is a diagram of the respiratory system in which part does air get warmed, filtered and humidified?
(1 Point)



- ☐ Bronchus
- ☐ Lung
- ☐ Larynx
- ☐ Trachea
- ☐ Nose
- ☐ Pharynx
- ☐ Alveoli
- ☐ Diaphragm
- ☐ Mouth

67

What are the functions of red blood cells. (1 Point)

- ☐ Transport oxygen and carbon dioxide
- ☐ Carry oxygen
- ☐ Carry oxygen and antibodies
- ☐ Carry carbon dioxide back to the lungs

68

Why do we have acid in the stomach? (1 Point)

- ☐ The acidity neutralises harmful pathogens
- ☐ The acidity activates the protein-digesting enzyme (pepsin
- ☐ To help digest fats.

69

The ileum is the longest section of: (1 Point)

- ☐ The liver
- ☐ The stomach
- ☐ The large intestines
- ☐ The small intestines

70

What is the function of neutrophils (1 Point)

- ☐ Parasitic infections and allergic response (inflammatory)
- ☐ Allergic and antigen response release histamine.
- ☐ Phagocytosis of pathogens
- ☐ Fight Bacterial or fungal infection the most common first responders in microbial infections

71

Which of the following is the term that refers to the movement of food through the digestive system via the action of smooth muscles? (1 Point)

- ☐ Secretion
- ☐ Propulsion
- ☐ Segmentation
- ☐ Peristalsis

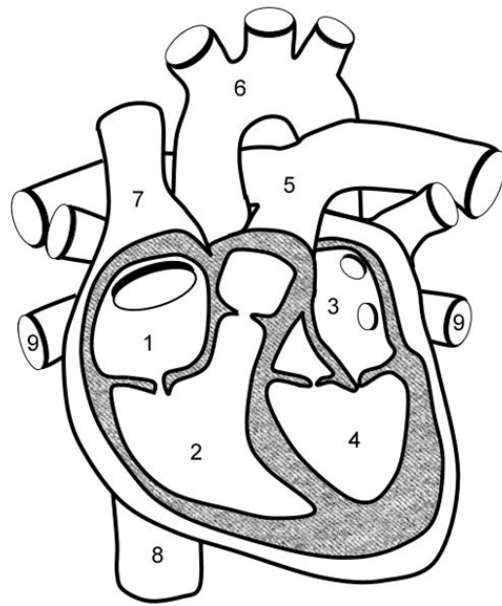
72

True or false : Systole refers to relaxation of the heart chambers. (1 Point)

- ☐ True
- ☐ False

73

What is number 6 (1 Point)



- ☐ Pulmonary artery
- ☐ Pulmonary Vein
- ☐ Aorta
- ☐ Vena Cava

74

Which of the following features contribute to the large surface area in the ileum? (1 Point)

- ☐ It is very long
- ☐ It contains a large number of villi
- ☐ The surface of each epithelial cell is covered in microvilli
- ☐ All of the above

75

What secretes hydrochloric acid into the stomach? (1 Point)

- ☐ H cells
- ☐ Chief Cells
- ☐ Parietal cells
- ☐ Mucous lying

76

During digestion, proteins are broken down into molecules of (1 Point)

- ☐ Glucose
- ☐ Fatty acids and glycerol
- ☐ Amino Acids
- ☐ Nucleic acid

77

Where is the cardiorespiratory centre? (1 Point)

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

78

Which receptors monitor Carbon dioxide levels? (1 Point)

- ☐ Chemoreceptors
- ☐ Baroreceptors
- ☐ pH receptors

What are erthrocytes? (1 Point)

- ☐ Red blood cells
- ☐ White blood cells
- ☐ Clotting agents
- ☐ Platlets

What are the functions of veins? (1 Point)

- ☐ To carry blood away from the heart
- ☐ To carry blood towards the heart
- ☐ To exchange gases between the blood and tissues
- ☐ To filter waste products from the blood.

81

What do you mean by systolic BP? (1 Point)

- ☐ Force exerted on the walls during ventricular contraction
- ☐ Force exerted on the walls during ventricular relaxation
- ☐ Force exerted on the walls during atrial contraction
- ☐ Force exerted on the walls during atrial relaxation

82

The branches of lymph capillaries found inside the villi in the small intestine are called (1 Point)

- ☐ Lymph nodes
- ☐ Thoracic ducts
- ☐ Lacteals
- ☐ Thoracic lymph ducts

83

What are leucocytes (1 Point)

- ☐ Red blood cells
- ☐ Platelets
- ☐ Clotting agents
- ☐ White blood cells

84

Which type of blood vessel has a 'pulse'? (1 Point)

- ☐ Artery
- ☐ Vein
- ☐ Capillary

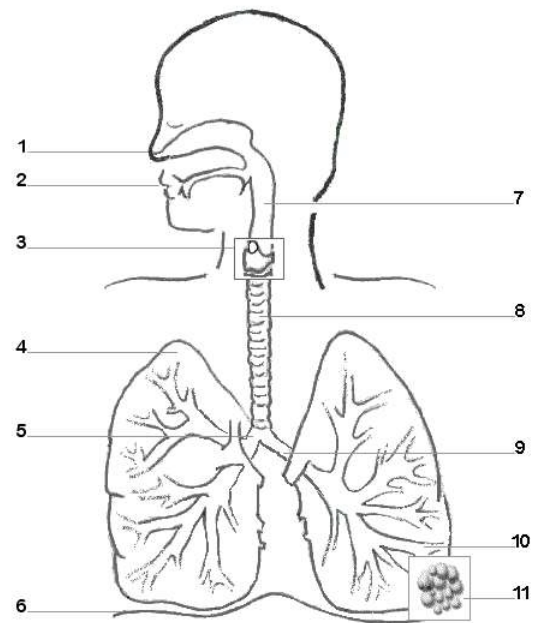
What is the primary function of bile? Tick all that apply (2 Points)

- ☐ To break down proteins
- ☐ Emulsify fats
- ☐ Break down carbohydrates
- ☐ Reduce the pH of chyme.

The processing of food involves a series of steps. (1 Point)

- ☐ Absorption, digestion, ingestion, assimilation, defaecation
- ☐ Ingestion, digestion, absorption, assimilation, defaecation
- ☐ Egestion, digestion, absorption, assimilation, defaecation
- ☐ Defaecation, digestion, absorption, assimilation, ingestion

What is number 3 ? (1 Point)

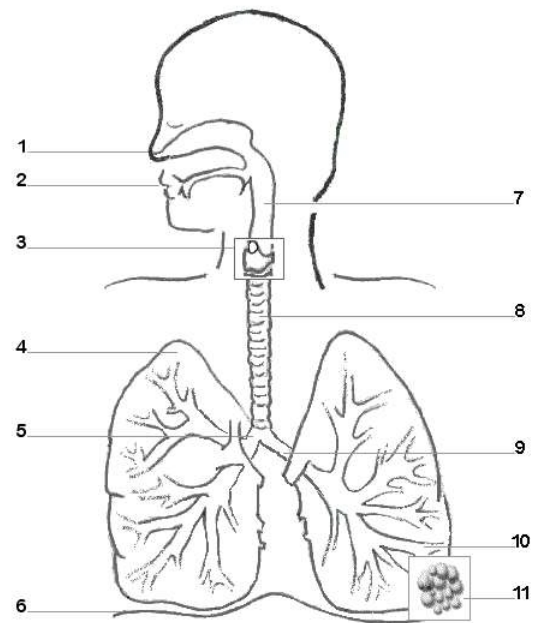


- ☐ Bronchus
- ☐ Lung
- ☐ Larynx
- ☐ Trachea
- ☐ Nose
- ☐ Pharynx
- ☐ Alveoli

Which of the following is/are major factor(s) that influence(s) mean arterial pressure? (3 Points)

- ☐ Heart size
- ☐ Blood volume
- ☐ White blood cell count
- ☐ Cardiac output
- ☐ Total peripheral resistance

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



- ☐ Bronchus
- ☐ Lung
- ☐ Larynx
- ☐ Trachea
- ☐ Nose
- ☐ Pharynx
- ☐ Alveoli
- ☐ Diaphragm
- ☐ Mouth

90

What are the smallest blood vessels? (1 Point)

- ☐ Capillaries
- ☐ Veins
- ☐ Arteries
- ☐ Venules

91

What is the function of venules? (1 Point)

- ☐ To carry blood away from the heart
- ☐ To carry blood towards the heart
- ☐ To regulate blood flow to the capillaries
- ☐ To transport blood from the capillaries to the veins

92

Globulins of the blood plasma are responsible for (1 Point)

- ☐ Blood clotting
- ☐ Defence mechanisms
- ☐ Osmotic pressure
- ☐ Oxygen transportation

93

What are enzymes? (1 Point)

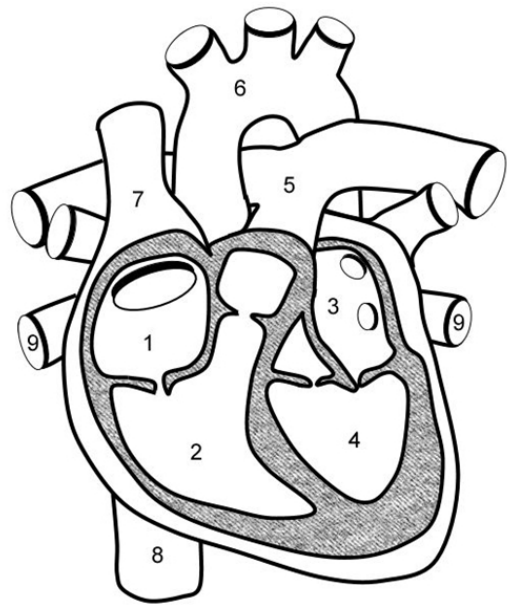
- ☐ Enzymes are tiny food particles that can not be digested.
- ☐ Enzymes are fruits and vegetables
- ☐ Enzymes are chemicals that help break down food

94

True or false: The sinoatrial (SA) node is located in the left atrium. (1 Point)

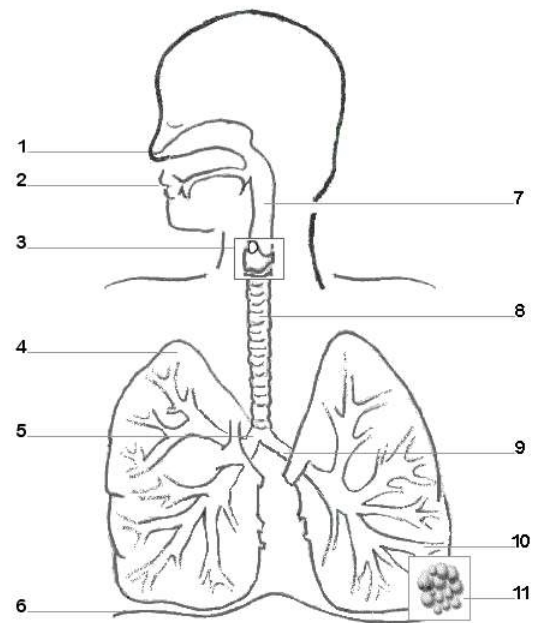
- ☐ True
- ☐ False

What is number 3 (1 Point)



- ☐ Right atrium
- ☐ Left Atrium
- ☐ Right Ventricle
- ☐ Left Ventricle

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



- ☐ Bronchus
- ☐ Lung
- ☐ Larynx
- ☐ Trachea
- ☐ Nose
- ☐ Pharynx
- ☐ Alveoli

97

Where is bile made (1 Point)

- ☐ Liver
- ☐ Stomach
- ☐ Gall bladder
- ☐ Spleen

98

Blood pressure is much lower in the veins than when compared to the _____. (1 Point)

- ☐ Capillaries
- ☐ Arteries
- ☐ Arterioles

99

The pyloric sphincter is located at..... (1 Point)

- ☐ At the top of the stomach
- ☐ At the bottom of the stomach

100

What is the bodies preferred ph? (3 Points)

- ☐ 7.1-7.35
- ☐ 7.35-7.45
- ☐ 7.27-7.35
- ☐ 7.0-8

101

True or false: Arteries have more muscular walls than veins (1 Point)

- ☐ True
- ☐ False

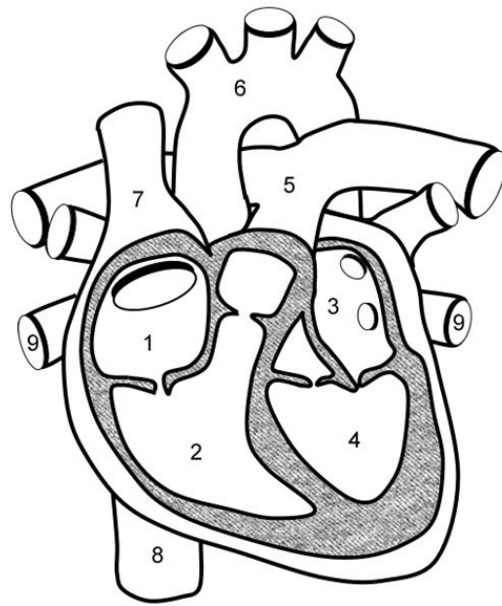
102

Red blood cells have (tick all that apply) (3 Points)

- ☐ A nucleus
- ☐ No nucleus
- ☐ Contain haemoglobin
- ☐ Have a biconcave shape

103

What is valve called between chambers one and two (1 Point)



- ☐ Tricuspid or AV Valve
- ☐ Bicuspid/ mitral valve
- ☐ Pulmonary Valve
- ☐ Aortic Valve

104

What is the function of Eosinophils (1 Point)

- ☐ Parasitic infections and allergic response (inflammatory)
- ☐ Allergic and antigen response release histamine.
- ☐ Phagocytosis of pathogens
- ☐ Fight Bacterial or fungal infection the most common first responders in microbial infections

105

What is the role of the medulla oblongata in respiration? (1 Point)

- ☐ To transport oxygen from the lungs to the body's tissues
- ☐ To transport carbon dioxide from the body's tissues to the lungs
- ☐ To regulate breathing rate
- ☐ To expand and contract the chest cavity

106

What is the largest artery in the body (1 Point)

- ☐ Pulmonary artery
- ☐ Aorta
- ☐ Pulmonary vein
- ☐ Carotid artery

107

Which white blood cells release histamine and heparin? (1 Point)

- ☐ Basophils
- ☐ Neutrophils
- ☐ Monocytes
- ☐ Eosinophils

108

Which white blood cells produce antibodies (1 Point)

- ☐ Neutrophils
- ☐ Basophils
- ☐ Lymphocytes
- ☐ Monocytes

109

What vitamins are produced in the large intestines ? (1 Point)

- ☐ None
- ☐ Vitamin B
- ☐ Vitamin K
- ☐ Vitamin B and K

110

Where is bile stored ? (1 Point)

- ☐ Pancreas
- ☐ Gallbladder
- ☐ Small intestine
- ☐ Large intestine
- ☐ Liver

111

What is the name of the muscular tube that connects the mouth to the stomach? (1 Point)

- ☐ Trachea
- ☐ Oesophagus
- ☐ Larynx
- ☐ Small intestines

112

Pulmonary arteries in the heart transport (1 Point)

- ☐ Deoxygenated blood
- ☐ Oxygenated blood
- ☐ Lymph
- ☐ Both oxygenated and deoxygenated blood

113

True or false : Vasoconstriction – decreases the size of the lumen (1 Point)

- ☐ True
- ☐ False

114

Which of the following is NOT an accessory structure of the digestive system? (1 Point)

- ☐ Spleen
- ☐ Gall bladder
- ☐ Liver
- ☐ Pancreas

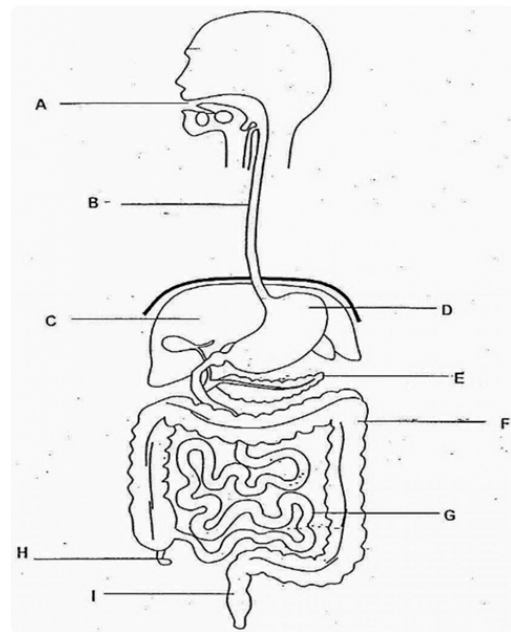
115

This muscular valve prevents gastric juices from flowing back out of the stomach and into the oesophagus (1 Point)

- ☐ Cardiac Spincter
- ☐ Pyloric sphincter
- ☐ Anal sphincter
- ☐ Uvula

116

What is letter B called? (1 Point)



- ☐ Trachea
- ☐ Oesophagus
- ☐ Bronchus
- ☐ Epiglottis

117

In the mouth dietary starch is converted to (1 Point)

- ☐ Maltose
- ☐ Glucose
- ☐ Amino Acids
- ☐ Fatty acids

118

Fats are broken down into (1 Point)

- ☐ Glucose.
- ☐ Amino Acids
- ☐ Fatty acids and glycerol

119

The cells that set the immune process into motion are phagocytic cells known as (1 Point)

- ☐ Antigens
- ☐ Plasma cells
- ☐ Macrophages
- ☐ Neutrophils

120

Where are red blood cells made (1 Point)

- ☐ Bone marrow
- ☐ Kidneys
- ☐ Liver
- ☐ Spleen

121

Dietary proteins are converted into (1 Point)

- ☐ Maltose
- ☐ Glucose
- ☐ Amino acids
- ☐ Fatty Acids

122

What type of cell are phagocytes? (1 Point)

- ☐ Lymphocytes
- ☐ Erthrocytes
- ☐ White blood cells

123

Which of the following affects venous return tick all that apply (1 Point)

- ☐ Valves and respiratory pump
- ☐ Tissues , valves, arteries.
- ☐ Respiratory pump, valves and muscular pump
- ☐ Veins, valves and respiratory pump

124

Glucose and amino acids are transported (1 Point)

- ☐ Via the lacteals to the thoracic duct via the lymphahtic system
- ☐ To the liver via the hepatic portal vein

125

An increase in blood volume will tick all that apply (2 Points)

- ☐ Lower blood pressure
- ☐ Increase Blood pressure
- ☐ lower heart rate
- ☐ Increase cardiac output.

126

What is the role of the nasal cavity in respiration? (1 Point)

- ☐ To transport oxygen from the lungs to the body's tissues
- ☐ To transport carbon dioxide from the body's tissues to the lungs
- ☐ To regulate breathing rate
- ☐ To filter, warm, and moisten air before it enters the lungs

127

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

128

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

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

129

What is responsible for generating BP? (1 Point)

- ☐ Contraction of atria
- ☐ Contraction of ventricles
- ☐ Relaxation of atria
- ☐ Relaxation of ventricles

130

How much blood is in the human body? (1 Point)

- ☐ 3 litres
- ☐ 6 litres
- ☐ 5 litres
- ☐ 4 litres

131

The common bile duct delivers bile from the ____ to the ____ (1 Point)

- ☐ Liver, gall bladder
- ☐ Gall bladder to the duodenum
- ☐ Pancrease to liver
- ☐ Stomach, duodenum

132

Which accessory organ produces bile? (1 Point)

- ☐ Pancreas
- ☐ Gallbladder
- ☐ Small intestine
- ☐ Large intestine
- ☐ Liver

133

Parotid, submandibular, and sublingual all refer to: (1 Point)

- ☐ Pancreatic enzymes
- ☐ Secretions from the liver
- ☐ Secretions from the stomach
- ☐ Salivary glands

134

What of the following are long term consequences of high blood pressure (3 Points)

- ☐ Diabetes
- ☐ Stroke
- ☐ Heart disease
- ☐ Kidney failure

Which organs secrete directly into the small intestines (1 Point)

- ☐ Salivary glands and the pancreas
- ☐ Gall bladder and the lacteals
- ☐ Villi and the salivary glands
- ☐ The pancreas and the gall bladder.

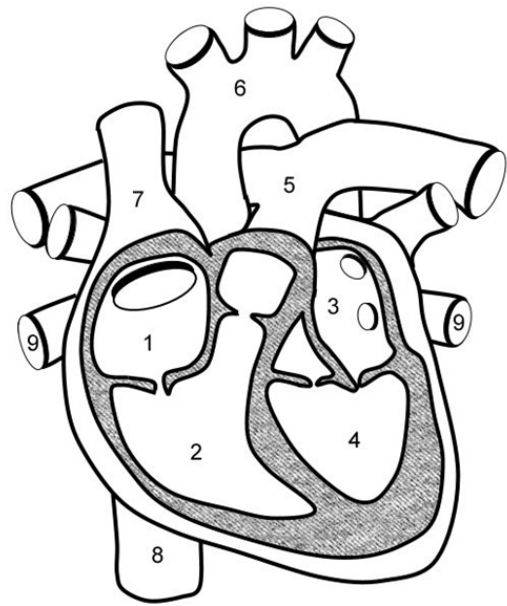
Blood going to the lungs through the pulmonary arteries contains a high concentration of and a low concentration of (1 Point)

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

.....nerves increases heart rate and force of heart beat
(1 Point)

- ☐ Vagus
- ☐ Chemoreceptors
- ☐ Sympathetic
- ☐ Parasympathetic

Oxygen rich blood leaves the heart delivering blood to the body via which number (1 Point)



- ☐ 5
- ☐ 1
- ☐ 2
- ☐ 6
- ☐ 3
- ☐ 4

139

When describing the flow of blood around the heart put the following in the correct order (9 Points)

Oxygenated blood leaves the heart via the aorta

Oxygenated blood returns from the lungs and enters the left atrium atrium

Deoxygenated blood enters the right ventricle

Deoxygenated blood enters the right atrium

The valve between the right and left atrium AV valve

Deoxygenated blood returns to the heart via the superior and inferior vena cava

Deoxygenated blood goes via the pulmonary artery to the lungs to be

Oxygenated blood returns to the heart via the pulmonary veins

Oxygenated blood then goes into the left ventricle

140

What is the pace maker of the heart called (1 Point)

- ☐ SA node
- ☐ RA node
- ☐ Left and right bundle branches

141

Which organ of the body detects hypoxia and stimulates the production of erythrocytes through a process called Erythropoiesis (1 Point)

- ☐ Liver
- ☐ Lungs
- ☐ Spleen
- ☐ Kidneys

142

Cardiac output is the amount of blood pumped by : (1 Point)

- ☐ Both atria in one minute
- ☐ A atrium in one minute
- ☐ Both ventricles in one minute
- ☐ A ventricle in one minute

143

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

- ☐ True
- ☐ False
- ☐ Maybe

144

What are the names of the tubes that air travels down to get to the lungs in order from biggest to smallest (3 Points)

Bronchioles

Bronchus

Bronchi

145

What is the primary function of digestion? (1 Point)

- ☐ To break down food into nutrients
- ☐ To regulate appetite
- ☐ To transport oxygen to the body cells

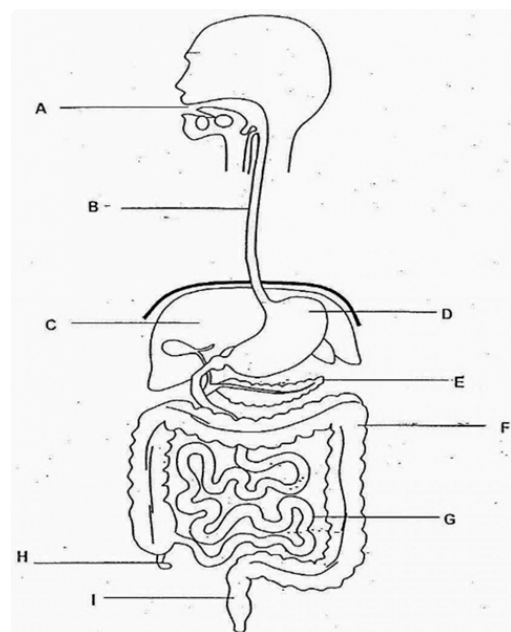
146

The gastrointenstinal track includes all of the following except for (1 Point)

- ☐ Oesophagus
- ☐ Liver
- ☐ Small Intestines
- ☐ Stomach

147

What is letter G (1 Point)



- ☐ Large intestines
- ☐ Small intestines
- ☐ Duodenum
- ☐ Pancrease

148

Lacteals (lymphatic capillaries) are responsible for the absorption of?
(1 Point)

- ☐ Carbohydrates
- ☐ Fats
- ☐ Vitamins
- ☐ Proteins

149

Glucose and amino acids travel from the villus epithelial layer from the capillaries to target organ via the (1 Point)

- ☐ Artery
- ☐ Vein
- ☐ Hepatic Portal vein
- ☐ Lymphatic system

150

True or false the pulmonary circuit is the blood pathway between the right side of the heart, to the lungs, and back to the left side of the heart.

(1 Point)

- ☐ True
- ☐ False

151

What is the effect of increased blood pressure on baroreceptors (1 Point)

- ☐ Increased firing rate
- ☐ Decreased firing rate
- ☐ No effect
- ☐ None of the above

152

The enzyme pepsin digests which dietary component? (1 Point)

- ☐ Fat
- ☐ Carbohydrates
- ☐ Vitamins
- ☐ Protein

153

Where are globulins made. (1 Point)

- ☐ Bone marrow
- ☐ Kidneys
- ☐ Liver
- ☐ Spleen

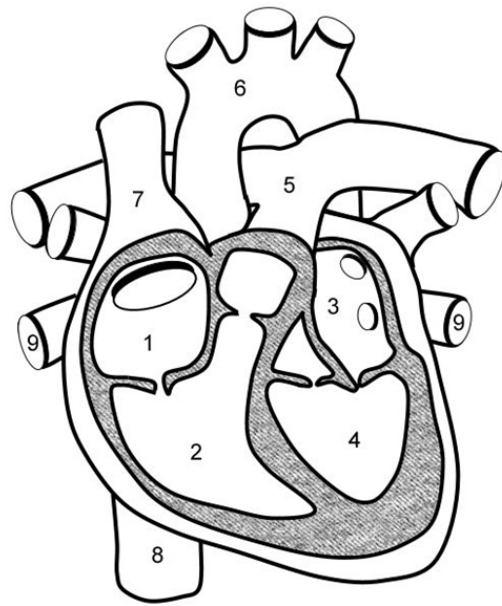
154

True or false : The cardiac cycle is a sequence of events occurring in one minute. (1 Point)

- ☐ True
- ☐ False

155

What is valve called between chambers three and four (1 Point)



- ☐ Tricuspid or AV Valve
- ☐ Bicuspid/ mitral valve/ AV valve
- ☐ Pulmonary Valve
- ☐ Aortic Valve

156

Define homeostasis (1 Point)

- ☐ When you stay at home
- ☐ Maintaing the internal environment within defined parameters
- ☐ Maintaing a constant internal enviroment

157

The pH of the stomach is very acidic what stops the acid destroying the stomach lining? (1 Point)

- ☐ H Cells
- ☐ Chief cells
- ☐ Parietal cells
- ☐ Mucous lining

158

What is the role of hemoglobin in respiration? (1 Point)

- ☐ To transport oxygen from the lungs to the body's tissues
- ☐ To transport carbon dioxide from the body's tissues to the lungs
- ☐ To regulate breathing rate
- ☐ To transport air from the nose and mouth to the larynx

159

What are the function of lymphocytes (1 Point)

- ☐ Transporting oxygen
- ☐ Increaseing osmotic pressure
- ☐ Blood clotting
- ☐ Immunity and fighting infection

160

What is the shape of red blood cells (1 Point)

- ☐ Round
- ☐ Oval
- ☐ Spherical
- ☐ Biconcave

161

Following the sections of the large intestine, as material passes from the transverse colon, what section does it enter next? (1 Point)

- ☐ Ascending colon
- ☐ Descending colon
- ☐ Sigmoid colon
- ☐ Rectum

162

Cardiac output is determined by (1 Point)

- ☐ Peripheral resistance X tissue fluid
- ☐ Heart rate X Stroke Volume
- ☐ Blood pressure X Cardiac Rate
- ☐ Peripheral resistance X Stroke volume

163

Why do we have acid in the stomach? (1 Point)

- ☐ The acidity neutralises harmful pathogens
- ☐ The acidity activates the protein-digesting enzyme (pepsin
- ☐ To help digest fats

164

The normal diastolic blood pressure in a normal healthy adult human is (1 Point)

- ☐ 80 mm Hg
- ☐ 90 mm Hg
- ☐ 100 mm Hg
- ☐ 110 mm Hg

165

The 120 in the reading 120/80 represents the (1 Point)

- ☐ Systolic
- ☐ Diastolic
- ☐ Arterial pulse
- ☐ Hypertension

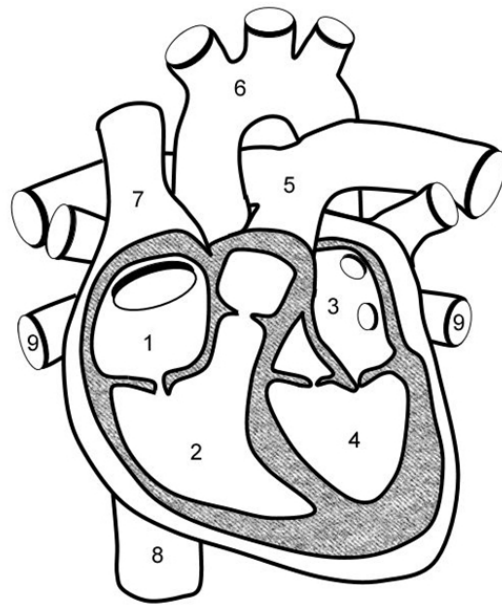
166

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

167

Which number returns oxygenated blood from the lungs to the heart?
(1 Point)



- ☐ five
- ☐ Four
- ☐ Seven
- ☐ Nine

168

Where is amylase made? Tick all that apply (2 Points)

- ☐ Gall bladder
- ☐ Pancreas
- ☐ Stomach
- ☐ Liver
- ☐ Mouth

169

Why is oxygen important to blood and to the cells? (1 Point)

- ☐ Oxygen helps the blood to clot
- ☐ Oxygen brings nutrients to the cells
- ☐ Oxygen is necessary for cell growth and energy
- ☐ Oxygen is not important carbon dioxide is more important

170

Parasympathetic sympathetic stimulation of the heart results in ? (1 Point)

- ☐ SA node decreases firing
- ☐ Increased AV node excitability
- ☐ Decreased ventricular contraction
- ☐ Tachycardia

171

What is the role of the intercostal muscles in respiration? (1 Point)

- ☐ To transport oxygen from the lungs to the body's tissues
- ☐ To transport carbon dioxide from the body's tissues to the lungs
- ☐ To regulate breathing rate
- ☐ To expand and contract the chest cavity

172

This gas is a waste product of respiration (1 Point)

- ☐ oxygen
- ☐ Nitrogen
- ☐ Carbon Dioxide

173

Bile is responsible for breaking down: (1 Point)

- ☐ Carbohydrates
- ☐ Proteins
- ☐ Fats/lipids
- ☐ Cellulos

174

The Aorta is a systemic artery that carries _____ blood away from the heart. (1 Point)

- ☐ Deoxygenated
- ☐ Oxygenated

175

Where is bile stored (1 Point)

- ☐ Liver
- ☐ Stomach
- ☐ Gall bladder
- ☐ Spleen

176

Blood pressure is usually expressed as; (1 Point)

- ☐ Diastolic pressure over systolic pressure
- ☐ Systolic pressure over diastolic pressure
- ☐ Diastolic pressure over pulse pressure
- ☐ Pulse pressure over diastolic pressure

177

What is the primary role of surfactant in the alveoli of the lungs? (1 Point)

- ☐ To transport oxygen in the bloodstream
- ☐ To stop alveolar collapse
- ☐ To filter out impurities from inhaled air
- ☐ To reduce the pH of the alveolar environment

178

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

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

179

What secretes hydrochloric acid into the stomach (1 Point)

- ☐ H Cells
- ☐ Chief cells
- ☐ Parietal cells
- ☐ Mucous lining

180

Fatty acids and glycerol are transported (1 Point)

- ☐ Via the lacteals to the thoracic duct via the lymphatic system
- ☐ To the liver via the hepatic portal vein

181

In coronary heart disease, what are the fatty deposits on the walls of the arteries called? (1 Point)

- ☐ Plaques
- ☐ Platelets
- ☐ Plasma

182

What stops food going down the trachea? (2 Points)

- ☐ Bolus
- ☐ Peristalsis
- ☐ Epiglottis
- ☐ Spincter

A student has a hamburger, french fries, and soda for lunch. Which sequence represents the correct order of events in the nutritional processing of this food (1 Point)

- ☐ Ingestion → digestion → absorption → egestion
- ☐ Digestion → absorption → ingestion → egestion
- ☐ Digestion → egestion → ingestion → absorption
- ☐ Ingestion → absorption → digestion → egestion

Which of the following are parts of the small intestine? (1 Point)

- ☐ Duodenum, jejunum, Ileum
- ☐ Rectum, colon, anus.
- ☐ Duodenum, illeum, caecum
- ☐ Appendix, illeum, anus.

185

The cardiac sphincter is located at..... (1 Point)

- ☐ At the top of the stomach
- ☐ At the bottom of the stomach

186

What is the function of monocytes (1 Point)

- ☐ Parasitic infections and allergic response (inflammatory)
- ☐ Allergic and antigen response release histamine.
- ☐ Phagocytosis of pathogens
- ☐ Fight Bacterial or fungal infection the most common first responders in microbial infections

187

The right ventricle of the heart pumps blood to the: (1 Point)

- ☐ Lungs
- ☐ Aorta
- ☐ Rest of the body
- ☐ Left Ventricle

188

True or false the left side of the heart is more muscular than the right.
(1 Point)

- ☐ True
- ☐ False

189

What is egestion (1 Point)

- ☐ The breakdown of food (either chemically or mechanically) in order to utilise nutrients
- ☐ Process of taking food into the digestive system so that it may be hydrolysed or digested
- ☐ Nutrients pass from the guts to the blood stream
- ☐ Elimination of indigested food

190

Due to the short distance between the lungs and the heart, the walls of the right ventricles are; (1 Point)

- ☐ Thinner than the left atrium
- ☐ Thinner than the left ventricle
- ☐ Thicker than the left ventricle

191

What sort of circulatory system is the human circulatory system? (1 Point)

- ☐ An open circulatory system
- ☐ A closed circulatory system
- ☐ Double circulatory system

192

What is the function of the alveoli? (1 Point)

- ☐ To transport air from the lungs to the mouth
- ☐ To transport carbon dioxide from the body's tissues to the lungs
- ☐ To transport blood from the lungs to the heart
- ☐ To transport air from the nose and mouth to the larynx

193

If a baroreceptor in the aorta detects low blood pressure, which of the following will result? (1 Point)

- ☐ Vasoconstriction
- ☐ The lumen of the blood vessels would increase in size.
- ☐ Stroke volume would decrease
- ☐ Heart rate will decrease

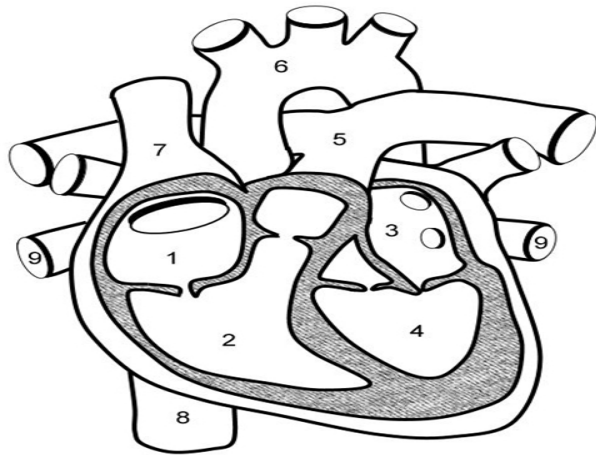
194

What is the role of the phagocytes in the immune system? (1 Point)

- ☐ To eat harmful pathogens
- ☐ To ingest and destroy harmful pathogens
- ☐ To release antibodies against harmful pathogens

195

What is number 3 (1 Point)



- ☐ Right Ventricle
- ☐ Left Ventricle
- ☐ Right atrium
- ☐ Left Atrium

196

What stops food going down the trachea? (1 Point)

- ☐ Epiglottis
- ☐ Bolus
- ☐ Peristalsis
- ☐ Spincter

197

What enzymes does the pancreas **not** make (1 Point)

- ☐ Protease
- ☐ Lipase
- ☐ Amylase
- ☐ Bile

198

Which of the following blood cells play an important role in blood clotting?
(1 Point)

- ☐ Thrombocytes
- ☐ Neutrophils
- ☐ Leucocytes
- ☐ Erythrocytes

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