

| | question type | question | answer | distractor |
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| 1 | Multiple choice | Which of the following is a response in the skin to the body overheating? | sweat production is stimulated | vasoconstriction more blood flows nearer the surface as capillaries move to the skin surface hair erector muscles contract |
| 2 | Multiple choice | What is the best definition for vasodilation? | the arterioles that take blood to the capillaries near the surface widen to allow more blood to flow near the surface | the arterioles that take blood to the capillaries near the surface widen to ensure less blood flows near the surface the capillaries near the surface widen so more blood flows there the capillaries near the surface widen to ensure less blood flows there |
| 3 | Multiple choice | What is meant by the phrase evaporative cooling? | heat energy is needed for water to evaporate and this energy comes from the skin lowering its temperature | heat energy from sweat can cause other chemicals on the skin to evaporate thus leading to cooling sweat is cooled in the sweat gland so the skin is cooled by being bathed in cool sweat water can only evaporate when it has been properly cooled |
| 4 | Multiple choice | What is the function of the subcutaneous layer in the skin? | it contains adipose cells that store lipids thus acting as an insulator | it is a storage area for polysaccharides like glycogen it generates heat due to its high metabolic rate thus keeping the body warm it contains the hot and cold receptors that measure the external body temperature |
| 5 | True or False | Mineral ions are transported in phloem sieve tubes | False | |
| 6 | Multiple choice | What is the name of the cells that are specialised for the uptake of water in a plant? | root hair cells | root villi cells root epidermis cells root mesophyll cells |
| 7 | Multiple choice | What is the function of lignin in the cell walls of xylem vessels? | it is a rigid molecule to strengthen the cell wall | it allows water to cross between xylem vessels and neighbouring cells xylem vessels have no cellulose in their cell walls lignin is needed to block the holes between adjacent xylem cells |
| 8 | Multiple choice | What is the name of the experimental apparatus that measures rates of transpiration? | potometer | photometer pedometer photolyser |
| 9 | Multiple choice | What is transported in phloem in a plant? | sucrose and amino acids | water and mineral ions sucrose, amino acids and proteins sucrose, amino acids and starch |
| 10 | Multiple choice | Which of the following bacteria can convert ammonium ions into nitrate ions? | Nitrifying bacteria | Decomposers Nitrogen-fixing bacteria Denitrifying bacteria |

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| 11 | Multiple choice | Which of the following bacteria are able to turn nitrate ions into nitrogen gas? | Denitrifying bacteria | Nitrogen-fixing bacteria Decomposers Nitrifying bacteria |
| 12 | Multiple choice | Which of the following bacteria can form a symbiotic relationship with leguminous plants? | Nitrogen-fixing bacteria | Denitrifying bacteria Nitrifying bacteria Decomposers |
| 13 | Multiple choice | What role does lightning play in the Nitrogen cycle? | it oxidises nitrogen gas in the atmosphere and produces nitrate ions that can fall in rainwater | it provides the light that allows the nitrogen-fixing bacteria to see where the nitrates are in the soil it is used to make fertilisers in factories to promote the growth of crop plants when it strikes the ground, it can kill soil-living nitrifying bacteria |
| 14 | Multiple choice | Which of the following bacteria will thrive in a water-logged soil? | Denitrifying bacteria | Nitrifying bacteria Decomposers Nitrogen-fixing bacteria |
| 15 | Multiple choice | Nitrogen-fixing bacteria that live in the soil can convert nitrogen gas into which substance? | ammonium | urea proteins amino acids |
| 16 | Multiple choice | This is where small, soluble molecules are absorbed into bloodstream. | Small intestine | Large intestine Stomach Mouth |
| 17 | Multiple choice | Water is removed from undigested food here. | Large intestine | Small intestine Stomach Mouth |
| 18 | Multiple choice | A type of protein that catalyses a chemical reaction | enzyme | protein starch teeth |
| 19 | Multiple choice | This part of the intestine is where faeces is stored. | rectum | stomach small intestine large intestine |
| 20 | Multiple choice | Which of the following enzymes are found in bile? | there are no enzymes in bile | lipase amylase protease |
| 21 | Multiple choice | What is the name of the structure found in a villus that transports fatty acids and glycerol? | lacteal | capillary artery lymph node |
| 22 | True or False | Peristalsis only happens in the oesophagus | False | |
| 23 | Multiple choice | What term means to turn large fat droplets into smaller fat droplets? | emulsification | chemical digestion hydrolysis lipase |
| 24 | Multiple choice | What is the name of the type of muscle found in the heart? | cardiac muscle | smooth muscle skeletal muscle coronary muscle |
| 25 | Multiple choice | what is the function of the atria-ventricular valves? | to prevent blood flowing back into the atria when the ventricles contract | to prevent blood flowing into the ventricles when the atria contract to prevent blood flowing into the ventricles when the heart is relaxed to prevent blood flowing into the atria when the heart is relaxed |
| | Multiple choice | what is unusual about the blood in the pulmonary vein? | it is the only vein that contains oxygenated blood | it is the only vein that contains deoxygenated blood |

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| 26 | | | | it is the only vein that has blood with a high carbon dioxide concentration it has blood that needs transporting to the lungs |
| 27 | True or False | The wall of the right ventricle is a lot thicker than the wall of the left ventricle. | False | |
| 28 | True or False | The heartstrings (chordae tendinae) help to open the valves in the heart | False | |
| 29 | Multiple choice | Which chamber of the heart pumps deoxygenated blood into the pulmonary artery? | right ventricle | left ventricle right atrium left atrium |
| 30 | Multiple choice | Why are the tanks in a fish farm covered in nets? | to prevent predation by consumers | to prevent intraspecific competition to prevent the fish from escaping from the tank to stop ammonia from the tank evaporating and causing air pollution |