

	question type	question	answer	distractor
1	Multiple choice	What is the mechanism by which water can enter the root?	osmosis	diffusion active transport pumping
2	True or False	Transpiration is the evaporation of water from the leaves of a plant.	True	
3	Multiple choice	Mature xylem vessels have which combination of adaptations?	dead cells, no organelles and thickened cell walls	dead cells, large nucleus and lignin small living cells, no organelles and lignin small living cells, no organelles and thickened cell walls
4	Multiple choice	Which property of water is important for water transport in the xylem?	cohesive	high specific heat capacity transparent high boiling point
5	Multiple choice	Why is micropropagation not possible for cloning animals?	Plants have fewer tissues than animals and their development program is simpler	Animals only grow in certain specific regions called meristems Plants are able to produce their own food in photosynthesis Animal cells cannot undergo mitosis which is essential for micropropagation
6	Multiple choice	What is the best definition of cloning?	the production of many organisms or cells that are genetically identical	a type of reproduction that makes many offspring very fast a type of reproduction that only involves meiosis and not mitosis a way of producing babies that have desired features such as intelligence or musicality
7	Multiple choice	Which of the following is an example of a desirable characteristic in a cloned plant?	ability to grow well in mineral-deficient soils	requirement for high light intensities for photosynthesis resistance to plant pathogens such as the protistan Plasmodium ability to pump sugars and other nutrient molecules into the roots from the soil
8	True or False	Mitosis is a type of cell division that will always produce genetically identical daughter cells	True	
9	True or False	"Enucleated" is a word used to describe a cell with a haploid nucleus	False	
10	Multiple choice	What is meant by a diploid cell?	a cell with two versions of every chromosome	a cell with 46 chromosomes a cell with 23 chromosomes a fertilised egg cell that has divided once by mitosis to form two cells joined together
	Multiple choice	How do carbon atoms get from the non-living to the living parts of an ecosystem?	carbon dioxide is absorbed into the leaves and trapped in photosynthesis	plants absorb food molecules such as proteins and complex carbohydrates through their roots

11				plants absorb simple food molecules such as glucose and amino acids through their roots animals eat other animals or plants and so take in carbon atoms that way
12	Multiple choice	Which of the following could reduce carbon dioxide concentrations in the atmosphere?	planting new trees and reforesting agricultural land	deforestation increased burning of fossil fuels less reliance on sustainable sources of electricity e.g. wind power
13	Multiple choice	What is the correct word equation for photosynthesis?	carbon dioxide + water ----> glucose + oxygen	carbon dioxide + water + oxygen ----> glucose + energy carbon dioxide + light energy ----> starch + water + oxygen carbon dioxide + light energy ----> glucose + oxygen
14	Multiple choice	Which option best describes the conditions needed for fossil fuel formation?	no decomposition, long periods of time, pressure and heat	decomposition by bacteria but not fungi, long time and lots of silt decomposition by fungi but not bacteria, layers of silt building up heat and pressure no decomposition, long periods of time and ice forming at depth producing crystals in the cells
15	True or False	Energy is recycled in an ecosystem much like carbon atoms.	False	
16	Multiple choice	Which statement about respiration is incorrect?	Respiration happens in all living things during the day except for plants that respire at night	Respiration produces heat as a waste product Anaerobic respiration produces a lot less useful energy for an organism than aerobic respiration. Anaerobic respiration in animals does not produce carbon dioxide.
17	Multiple choice	Which of the following is unlikely to be a consequence of an enhanced greenhouse effect?	crops grow less well because of the altered concentration of carbon dioxide in the atmosphere	polar ice caps melt changing climate further in the future extreme weather patterns (storms/floods etc.) become more common in the future some infectious diseases start to appear in new parts of the world
18	Multiple choice	Which of the following substances found in blood plasma is not filtered out of the blood in the glomerulus?	protein	glucose urea salt
19	Multiple choice	Where is the body is ADH made?	pituitary gland	adrenal gland thyroid gland pineal gland
20	True or False	ADH stands for anti-dialysis hormone	False	
21	True or False	ADH makes the collecting duct walls less permeable to water and so results in a dilute urine being produced.	False	
22	Multiple choice	What is the name for the tube that carries urine from the kidneys to the bladder for storage?	ureter	urethra vas deferens nephron
23	Multiple choice	Which of the following molecules is never found in	glucose	salt water

		urine?		urea
24	Multiple choice	What is the best definition of homeostasis?	the systems that act in the body to maintain a constant internal environment	the regulation of body temperature to ensure the body gets neither too hot nor too cold the movement of blood flow to different parts of the body depending on conditions a series of waves of muscle contraction that push food along the alimentary canal
25	Multiple choice	Which cells secrete antibodies?	plasma cells	B lymphocytes phagocytes T lymphocytes
26	True or False	Antibodies are made of protein	True	
27	Multiple choice	Which of the following diseases is caused by a bacterial pathogen?	Cholera	AIDS Malaria Influenza
28	Multiple choice	Which statement best explains why a person cannot suffer from measles twice in their lifetime?	Memory cells produced in the primary response allow a much quicker, larger response to the measles virus on subsequent infections	Antibodies produced in the primary response are still in the blood and so can remove measles virus rapidly from the body Once the cells have been infected with measles virus their cell membrane changes so that the virus cannot enter. Antibodies are long-lived structures in the blood and so are always there ready to bind to measles antigens in future.
29	True or False	Viruses are made of a special type of cell not found in animals or plants	False	
30	Multiple choice	Which of the following is a difference between active and passive immunity?	Active immunity produces a long-lasting protection whereas passive immunity only protects the body for a short period of time	Active immunity involves the transfer of antibodies to the person whereas passive involves memory cells Active immunity is only found when defending the body against viruses whereas passive can protect against bacterial infections as well Active immunity involves phagocytes whereas passive immunity only involves lymphocytes