

Quick Quiz

	Answers				Marks
Topic	Q1	Q2	Q3	Q4	
7Aa	C	D	B	A	4
7Ab	A	A	D	C	4
7Ac	B	C	A	B	4
7Ad	C	A	C	D	4
7Ae	A	B	D	A	4

End of Unit Test Mark Scheme Standard (S)

Question	Part	Step	Answer	Mark scheme
1		1st	Any two from: reproduction, sensitivity, growth, respiration, excretion, nutrition.	2 marks – 1 mark for each correct
2		1st	Jack because he is still growing or the others do not grow	1 mark 1 mark
3		1st	A organisms	1 mark
4	a	1st	C leaves	1 mark
	b	1st	holding the plant in place or taking in water or taking in mineral salts/nutrients/minerals	1 mark
5		3rd	top left = brain, top right = lung, bottom left = liver, bottom right = stomach (accept: phonetic misspellings such as 'livver', 'stumack')	2 marks – 2 marks for all correct, 1 mark for 2 or 3 correct, 0 marks for 1 or 0 correct
6	a	3rd	circulatory system	1 mark
	b	2nd	heart	1 mark
7	a	2nd	D excretion	1 mark
	b	4th	kidney – cleans blood/makes urine bladder – stores urine ureter – carries urine to bladder urethra – tube that carries urine to outside (accept: phonetic misspellings)	2 marks – 1 mark for organ name, 1 mark for correct function
8	a	2nd	top left = coverslip, bottom left = slide, bottom right = specimen (accept: cover slip and phonetic misspellings such as 'spesiman') (do not accept: cover, slip, tissue, cells)	2 marks – 2 marks for all correct, 1 mark for 2 correct, 0 marks for 1 or 0 correct
	b	3rd	B stage	1 mark
	c	4th	D ×50	1 mark

Question	Part	Step	Answer	Mark scheme
	d	4th	Any one from: the light source is off; the mirror is not adjusted properly; the objective lens is not in place; the specimen is too thick.	1 mark
9		4th	Any one from: stores substances, makes substances, destroys substances.	1 mark
10	a	4th	a group of the same type of cells (do not accept: cells, a group of cells)	1 mark
	b	4th	root hair tissue, xylem tissue (accept: phonetic misspellings such as 'zilem')	2 marks – 1 mark for each correct
11	a	5th	top to bottom: nucleus, vacuole, cell wall, cytoplasm, chloroplast, cell surface membrane (accept: cell membrane) (do not accept: phonetic misspellings)	3 marks – 3 marks for all correct, 2 marks for 4 or 5 correct, 1 mark for 2 or 3 correct, 0 marks for 1 or 0 correct
	b	6th	mitochondria/mitochondrion (accept: phonetic misspelling)	1 mark
	c	5th	D vacuole, chloroplast	1 mark – 1 mark for 2 correct, 0 marks for 1 or 0 correct examples
	d	6th	chloroplast – where photosynthesis occurs, makes food for the plant vacuole – stores materials, contains cell sap	2 marks – 1 mark for each correct

Final Step Calculation

Marks	Step
0–7	1st or below
8–9	2nd
10–11	3rd
12–15	4th
16–21	5th
22–26	6th
27+	7th

End of Unit Test Mark Scheme Higher (H)

Question	Part	Step	Answer	Mark scheme
1		3rd	top left = brain, top right = lung, bottom left = liver, bottom right = stomach (accept: phonetic misspellings such as 'livver', 'stumack')	2 marks – 2 marks for all correct, 1 mark for 2 or 3 correct, 0 marks for 1 or 0 correct
2	a	3rd	Excretion	1 mark
	b	4th	kidney/bladder/ureter/urethra kidney – cleans blood/makes urine bladder – stores urine ureter – carries urine to bladder urethra – tube that carries urine to outside (accept: phonetic misspellings)	2 marks – 1 mark for organ name, 1 mark for correct function
3	a	3rd	circulatory system	1 mark
	b	6th	it carries oxygen and food to cells which are needed for respiration	1 mark
4	a	4th	B digestive system	1 mark
	b	4th	small intestine (do not accept: intestine, stomach)	1 mark
	c	4th	List of organs: gullet (accept food pipe), stomach, small intestine, large intestine, rectum, anus. (accept: any five including throat) (accept: phonetic misspellings such as 'stumack', 'intestin', 'recktem')	2 marks – 1 mark for all organs listed, 1 mark for correct order. If organs are missed out, students can still get 1 mark for correct ordering of those that they have named.

Question	Part	Step	Answer	Mark scheme
5	a	3rd	organs through which water flows: root, stem, leaf	1 mark for all organs in the correct order
	b	4th	tissue	1 mark
	c	5th	expected answer is root hair cell (accept: other specialised plant cells, e.g. phloem, guard, epithelial, palisade) The cell absorbs water from the ground. (accept: other correct functions of named cells)	2 marks – 1 mark for the name of a specialised cell, 1 mark for the correct function of that cell
	d i	6th	any one from: nucleus, cell surface membrane, cytoplasm, mitochondria (accept: misspellings, cell membrane) (do not accept: membrane)	1 mark
	d ii	6th	correct function of cell part given in part i	1 mark
	e	2nd	C microscope	1 mark
6	a	5th	D ×50	1 mark
	b	5th	so that light can pass through the specimen and make structures in it visible	1 mark
	c	5th	stains make particular structures (e.g. nucleus) easier to see and so easier to study	1 mark
7		5th	The kidneys remove the waste materials from the blood. The kidneys make urine. Urine is stored in the bladder. Urine/waste materials is/are removed from the body when the sheep pees. The kidneys and bladder form part of the urinary system.	3 marks – 1 mark for each of the points on the left to a maximum of three
8		6th	D photosynthesis	1 mark

Final Step Calculation

Marks	Step
0–6	2nd or below
7–8	3rd
9–12	4th
13–16	5th
17–20	6th
21+	7th

Quick Check

Quick Check	Answers																								
7Aa	1 A – movement; B – respiration; C – sensitivity; D – growth; E – reproduction; F – excretion; G – nutrition 2 Top row: movement, sensitivity, reproduction, nutrition Second row: reproduction, respiration/movement, growth, sensitivity Third row: excretion, nutrition/movement, respiration/movement, sensitivity Bottom row: sensitivity, excretion, non-living item, growth																								
7Ab	1 student’s own answers 2 1 aim, 2 prediction, 3 method, 4 results, 5 conclusion, 6 evaluation 3 It makes it easier to find information. It makes it easier to compare information.																								
7Ac	student’s own concept map																								
7Ac WS	1 True 2 True 3 False – specimens are put on slides before being looked at under a microscope. 4 True 5 True 6 False – when a microscope image is clear and sharp, it is said to be ‘in focus’. 7 False – stains are useful because they make parts of cells show up more clearly. 8 False – a microscope usually has a few objective lenses and one eyepiece lens. 9 False – specimens need to be thin. 10 False – if a microscope has a ×10 objective lens and a ×5 eyepiece lens, its total magnification will be ×50.																								
7Ad	1 <table><tr><th>Part of cell</th><th>Animal cell</th><th>Plant cell</th></tr><tr><td>cell surface membrane</td><td>3</td><td>3</td></tr><tr><td>cell wall</td><td></td><td>3</td></tr><tr><td>chloroplast</td><td></td><td>3</td></tr><tr><td>cytoplasm</td><td>3</td><td>3</td></tr><tr><td>mitochondria</td><td>3</td><td>3</td></tr><tr><td>nucleus</td><td>3</td><td>3</td></tr><tr><td>vacuole</td><td></td><td>3</td></tr></table> 2 cell surface membrane – a thin bag that controls what goes into and out of the cell cell wall – a cellulose box that helps support the cell chloroplast – where plant cells make their food cytoplasm – where the cell’s activities happen mitochondria – where energy is released by respiration nucleus – the ‘control centre’ of the cell vacuole – storage space 3 A group of the same type of cells working together.	Part of cell	Animal cell	Plant cell	cell surface membrane	3	3	cell wall		3	chloroplast		3	cytoplasm	3	3	mitochondria	3	3	nucleus	3	3	vacuole		3
Part of cell	Animal cell	Plant cell																							
cell surface membrane	3	3																							
cell wall		3																							
chloroplast		3																							
cytoplasm	3	3																							
mitochondria	3	3																							
nucleus	3	3																							
vacuole		3																							

Quick Check	Answers
7Ae	What do we use to see cells in detail? A microscope. What does a nucleus do? Controls a cell. What is the function of the small intestine? Digests and absorbs food. In what organ does air go to and from the lungs? Windpipe or trachea. What would cells that do a lot of photosynthesis have a lot of? Chloroplasts. Which organs are in the water transport system? Roots, stem, leaves. In what system would you find the bladder? Urinary system. What does the nervous system do? Carry signals around the body. Which organ system are the lungs part of? The breathing system. What organ does food go down into the stomach? Food pipe or gullet. Which organ system is the heart part of? The circulatory system. What liquid is made by the kidneys? Urine. Which organ system is the stomach part of? The digestive system. What type of organisms have water transport systems? Plants. What does the cell surface membrane do? Controls what goes into and out of the cell. What is an organ? A group of different tissues that work together. What do xylem cells do? Carry water. What can muscle cells do that most other cells cannot? They can change length. Name three parts of an animal cell. Nucleus, cytoplasm, cell surface membrane. What processes occur in mitochondria? Respiration. What does the liver do? Makes and destroys substances. What is a tissue? A group of cells of the same type working together to do a job. What organ absorbs water from waste food? Large intestine. How are xylem cells specialised for their job of carrying water? They are hollow. Name three cell parts that are only found in plant cells. Cell wall, vacuole, chloroplasts. Why do we need to use microscopes to look at cells? Cells are very small. What does a cell wall do? Supports a plant cell. What is an organ system? A collection of organs working together. What is a microscope slide? A piece of glass that a specimen is put onto. What do chloroplasts do? Make food by photosynthesis.