Marking Scheme

1. Marks Question Marking details **Available** Q.2 3 (a) (i) A cytoplasm; B cell membrane; C cell wall; (ii) Chloroplast; 2 Photosynthesis; 1 (iii) Nucleus (allow chloroplast); NOT vacuole (b) EM for dead cells/ tissues only; 1 **Question Total** [7]

2.

	Question			Marking details		Marks available						
					A01	AO2	AO3	Total	Maths	Prac		
2	(a)			High (power)/ x40		1		1	1	1		
	(b)			drop(s) of iodine/ iodine solution(1) onto {cells/onion} (1) (Lower) coverslip (1)	3			3		3		
	(c)	(i)	I	79/ 80mm		1		1		1		
			II	If 79 answer = 3950 (2) If 80 answer = 4000 (2) 79 or 80/0.02, but incorrect answer =1 Ecf from (I) e.g. 76 = 3800 (2)		2		2	2	2		
		(ii)		Cell wall/ vacuole	1			1				
	(d)			Able to see structures in much greater detail/ owtte references to being able to see at higher magnification.	1			1		1		
				Question 2 Total	5	4	0	9	3	8		
				1								

3.

Question			Marking details	Marks Available					
		tion		AO1	AO2	AO3	Total	Maths	Prac
	(a)		Microscope/ light microscope	1			1		1
	(b)		400= 2 marks If incorrect award the following for 1 mark 10 x 40		2		2	2	1
	(c)		(add a) stain/ named stain/ iodine (solution)/ methylene blue Ignore dye			1	1		
	(d)		Contains {chromosomes/DNA/ genetic information/ genes}/ controls (activities of) cell	1			1		1
			Question total	2	2	1	5	2	3

4.

Oue	ction	Marking details	Marks available						
Question		Marking details	AO1	AO2	AO3	Total	Maths	Prac	
(a)	(i)	A = Cell membrane (1) B= Vacuole (1)	2			2			
	(ii)	Chloroplast , X (1) Respiration/ releases energy/ produces ATP/ provides energy (1) NOT anaerobic respiration/ produces energy Accept respire Nucleus ✓ (1)	3			3			
(b)	(i)	Staining Ignore name		1		1		1	
	(ii)	X 100		1		1	1	1	
		Question total	5	2	0	7	1	2	