

Question number	Answer	Notes	Marks
1 (a) (i)	cell <u>membrane</u> ; nucleus (must be lobed); cytoplasm;	ignore shape of cell must be labelled if cell wall no credit for membrane	3
	(ii) nucleus / bigger / irregular / not (bi)concave / eq / no haemoglobin;	allow converse	1
(b)	1 ingest / engulf / surround / phagocytosis / eq; 2 enzymes; 3 digest / breakdown / eq; 4 lymphocytes; 5 antibodies / antitoxins; 6 specific / eq; 7 antigen: 8 memory / memory cell / eq;		Max 5
		Total	9

Question number	Answer	Marks
2 (a) (i)	A: palisade (cell) / mesophyll / vacuole; R spongy B: <u>guard</u> cell;	2
(ii)	reduce water loss/transpiration/evaporation; prevent entry of microorganisms; Ignore waterproof	1
(iii)	carbon dioxide + water; glucose + oxygen; allow correct chemical formula	2
(iv)	diffusion / diffuses; stomata / pores / holes; concentration gradient / eq;	2
(b)	reduce water loss; less light; less photosynthesis; conserve energy / eq;	Max 2
(c)	named organ and substance: lungs + carbon dioxide / water kidney + urea / urine / water / salts / eq skin + sweat / water / salts / urea / eq liver + bile;;	2

Total 11 Marks

Question number	Answer	Notes	Marks
1	(a)(i) 1. gain entry / break through egg membrane / break into egg / penetrate egg / eq; 2. chromosomes / DNA / genes / alleles / genetic material; (ii) 1. respiration; 2. ATP / energy; (iii) swim / move / eq;	1.Ignore digest / fertilise 2. Ignore nucleus	2 2 1
	(b) 1. dendrites connect with other neurones / eq; 2. axon carries/allows impulse / eq; 3. myelin sheath for protection / insulation / faster impulse / eq; 4. connected to muscle fibres / allows impulse to reach muscle fibres / enables muscle fibres to contract / synapses with muscle fibres;		Max 2