Question Number	Answer	Acceptable answers	Mark
1(a)(i)	Any **two** of the following points: (yeast cell) • has a nucleus (1) • does not have a flagellum (1) • does not have a plasmid (1) (bacterial cell) • has chromosomal DNA / circular DNA (1) • has a capsule (1) • has a slime coat (1) • does not have mitochondria (1)	Accept: has a vacuole accept: named bacterial feature e.g pilli, small ribosome, if not labelled in yeast cell	**(2)**

Question Number	Answer	Acceptable answers	Mark
1(a)(ii)	does not have chloroplasts/chlorophyll	cannot photosynthesise	**(1)**

Question Number	Answer	Acceptable answers	Mark
1(b)(i)	7×10^9 (-) 5×10^{10} **(1)** = (-)4.3×10^{10} or (-)43×10^9	two marks for correct bald answer accept 43 000 000 000 allow one mark for correct subtraction from wrongly selected numbers only accept the numbers in the table with a correct minus calculation	**(2)**

Question Number	Answer	Acceptable answers	Mark
1(b)(ii)	A description including any **two** of the following points: • involved in defence against disease / part of immune system (1) • phagocytosis (1) • antibody / antitoxin production (1)	accept: (fight pathogen / harmful microorganism / named microorganism) accept: engulf / ingest / surround /digest cells reject: make antigens ignore: refs to role of red blood cells or platelets	**(2)**

Question Number	Answer	Acceptable answers	Mark
1(b)(iii)	tired / lack of energy / lethargy / short of breath	anaemia /fainting / less oxygen / increased anaerobic respiration reject: references to asthma	**(1)**

Question number	Answer	Mark
2(a)(i)	Any one variable from • temperature • amount of drying • type of potato • age of potato	(1)

Question number	Answer	Mark
2(a)(ii)	To get an accurate reading of mass	(1)

Question number	Answer	Mark
2(a)(iii)	An explanation that combines identification via a judgement (1 mark) to reach a conclusion via justification/reasoning (1 mark): any **one** identification point from: • there is no change in mass at 0.3 mol dm^{-3} (check once drawn) (1) • this is the isotonic salt concentration in the potato (1) **Plus** reasoning/justification • because there is no net movement of water/no salt concentration gradient (1)	(2)

Question number	Answer	Mark
2(a)(iv)	• repeat the test using intermediate concentrations (between 0.2 and 0.4 mol dm^3)	(1)

Question number	Answer	Mark
2(b)	B	(1)

Question number	Answer	Additional guidance	Mark
2(c)	• 68 ÷ 8000 (1) • 0.0085 (1) • 8.5 (μm) (1)	award full marks for correct numerical answer without working	(3)