

Cell Structure and Cell Organisation 2 MS

QUESTION 1

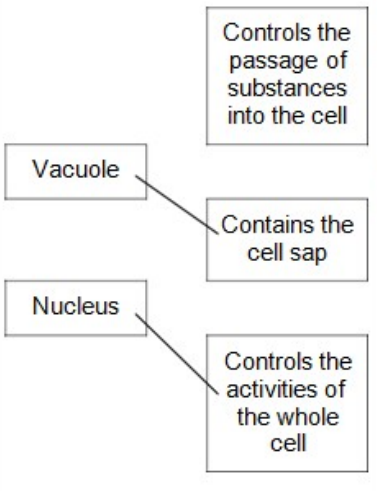
QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)i)	C and D		1
a)ii)	cell wall		1
b)i)	A		1
b)ii)	D		1
c)	respiration		1
Total marks			5

QUESTION 2

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	B large(r) surface / area or large(r) membrane	no mark for "B", alone accept reference to microvilli accept reasonable descriptions of the surface do not accept wall / cell wall ignore villi / hairs / cilia	1
b)i)	any one from: ⊖ insulin / hormone ⊖ enzyme / named enzyme	if named hormone / enzyme must be correct for pancreas	1
b)ii)	many ribosomes (ribosomes) produce protein or allow many mitochondria(1) provide energy to build protein or to make protein(1)	accept insulin / hormone / 1 enzyme named is (made of) protein accept ATP for energy	1 1
Total marks			4

QUESTION 3

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)i)	tissue	extra box ticked cancels the mark	1
a)ii)	organ	extra ring drawn cancels the mark	1
b)i)	Layer B Layer C	each extra box ticked cancels 1 mark	1 1
b)ii)	(contain) chloroplasts / chlorophyll	other parts disqualify	1

c)		<p>two correct = 2 marks</p> <p>one correct = 1 mark</p> <p>extra line from a part of a cell cancels the mark</p>	2
Total marks			7

QUESTION 4

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)i)	release energy	<p>allow provide / supply / give energy</p> <p>do not accept produce / create / generate / make energy</p> <p>do not allow release energy for respiration</p>	1
a)ii)	contain half the (number of) chromosomes or contains one set of chromosomes or contains 23 chromosomes	<p>allow genetic information / DNA / genes / alleles instead of chromosomes</p> <p>accept haploid</p>	1
b)	<p>any two from:</p> <ul style="list-style-type: none"> • (stem cells) are unspecialised / undifferentiated • are able to become differentiated or can form other types of cell / tissue / organ • stem cells can / able to divide / multiply 	allow description eg 'no particular job'	2
Total marks			4

QUESTION 5

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	in sequence: 2 = tissue(s) 3 = organ(s) 4 = system(s)		1
b)		1 mark for each correct line extra line(s) from one tissue cancel	3
Total marks			4

QUESTION 6

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)i)	A = cytoplasm B = (cell) membrane		1 1
a)ii)	nucleus	accept chromosome / DNA / genes accept phonetic.	1
b)			3
Total marks			6

QUESTION 7

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)i)	A = (cell) membrane B = cytoplasm	do not accept cytoplasm	1 1
a)ii)	To control the activities of the cell		1
b)			3
Total marks			6

QUESTION 8

QUESTION	ANSWER	EXTRA INFORMATION	MARKS																
a)	<table border="1"> <thead> <tr> <th>Structure</th> <th>Organ</th> <th>Organ system</th> <th>Tissue</th> </tr> </thead> <tbody> <tr> <td>Stomach</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>Cells lining the stomach</td> <td></td> <td></td> <td>✓</td> </tr> <tr> <td>Mouth, oesophagus, stomach, liver, pancreas, small and large intestine</td> <td></td> <td>✓</td> <td></td> </tr> </tbody> </table>	Structure	Organ	Organ system	Tissue	Stomach	✓			Cells lining the stomach			✓	Mouth, oesophagus, stomach, liver, pancreas, small and large intestine		✓		all 3 correct = 2 marks 2 correct = 1 mark 1 or 0 correct = 0 marks	2
Structure	Organ	Organ system	Tissue																
Stomach	✓																		
Cells lining the stomach			✓																
Mouth, oesophagus, stomach, liver, pancreas, small and large intestine		✓																	
b)i)	diffusion	allow phonetic spelling	1																
b)ii)	glucose		1																
b)iii)	mitochondria		1																
Total marks			5																

QUESTION 9

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)i)	A = nucleus B = (cell) membrane		2
a)ii)	any two from: <ul style="list-style-type: none"> no (cell) wall no (large / permanent) vacuole no chloroplasts / chlorophyll 	ignore shape	2

b)	because high to low oxygen / concentration or down gradient	allow 'more / a lot of oxygen molecules outside' ignore along / across gradient	1
c)	a tissue		1
Total marks			6