



7A Cells...mark scheme

Assessment for learning...year 7 (level 3-6)

Question 1:

- (a) cell wall 1
chloroplast 1

answers may be in either order

accept 'vacuole'

*do **not** accept 'X'*

-

- (b) nucleus 1

*do **not** accept 'chromosomes'*

-

- (c) chloroplast 1

*do **not** accept 'chlorophyll'*

-

- (d) vacuole 1

accept 'sap'

*accept the correct label written within the vacuole on the diagram **or** next to label X*

- (e) near the upper surface of a leaf ✓ 1

if more than one box is ticked, award no mark

[6]

Question 2:

- (a) A: membrane 1
B: nucleus 1
C: cytoplasm 1

- (b) any **two** from 2
- cell wall
 - chloroplasts
- accept 'chlorophyll'*
- large vacuole
- accept 'vacuole'*
accept 'starch grain'
- [5]**

Question 3:

- (a) the leaf 1
order
- answers must be in the correct*
1
accept 'a green part'
accept 'stem' or other named
green part
- accept 'root hair'* 1
- (b) cell wall 1
- (c) (i) A 1
- accept 'contains genetic*
information' or 'controls the
production of enzymes'
- (ii) to control the cell 1
- (d) (i) any **one** from 1
it has no chloroplasts **or** no chlorophyll
- (ii) respiration 1
- if more than one box is*
ticked, award no mark
- [7]**

Question 4:

- (a) (i) 10 1
- accept answers from 7 to 13*
- (ii) any **one** from 1
- only some **or** 10% of the energy intake is passed on to the next level in the food chain
 - only some **or** 10% of the energy is stored in tissues
 - some energy is wasted at each stage
 - less energy is passed on to the carnivore
- consequential marking*
applies
accept the percentage given
in part (a) (i)

(b) a lot of energy is needed for muscle contraction 1

(c) any **one** from 1

- a cow cannot produce the correct enzyme
- micro-organisms produce the correct enzyme **or** cellulase

(d) folds increase the surface area 1

any **one** from 1

- more absorption takes place
- absorption takes place more efficiently
- absorption takes place more quickly

[6]

Question 5:

(a) glucose 1

*accept 'sugar' or
'carbohydrate'*

(b) (i) to absorb enough **or** more light 1

*accept 'to absorb as much
light as possible'*

*accept 'to absorb lots of
light'*

*accept 'more photosynthesis
takes place'*

(ii) chloroplasts 1

accept 'chlorophyll'

(c) (i) 4

<i>part</i>	<i>letter of part</i>
<i>cell wall</i>	D
<i>cytoplasm</i>	F
<i>nucleus</i>	A
<i>vacuole</i>	C

(ii) any **two** from 2

- A
- E
- F

[9]