

MARK SCHEME

GCSE

BIOLOGY

AQA - COMBINED SCIENCE

B 2 - TEST 2

Organisation

Beginner

Mark schemes

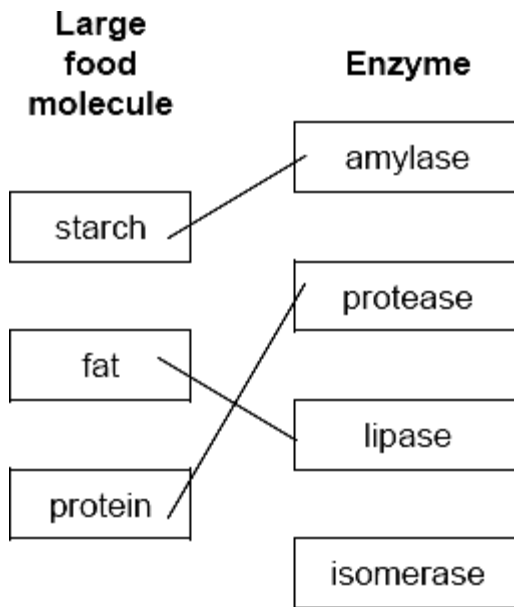
1.

- (a) (i) capillary 1
- (ii) diffusion 1
- (b) (i) Z 1
ignore any names
- (ii) large / increased surface / area / **or** to absorb more food **or** improved diffusion 1
allow all food absorbed

[4]

2.

- (a) (i)



all three correct = 3 marks
two correct = 2 marks
one correct = 1 mark
extra line from a large food molecule cancels the mark

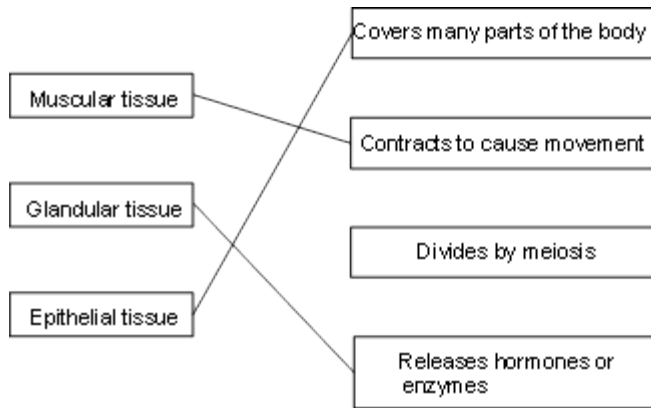
- (ii) sugars 3
- fatty acids and glycerol 1
- amino acids 1
must be in this order
- (b) liver 1

[7]

- 3.** (a) in sequence:
 2 = tissue(s)
 3 = organ(s)
 4 = system(s)

1

(b)

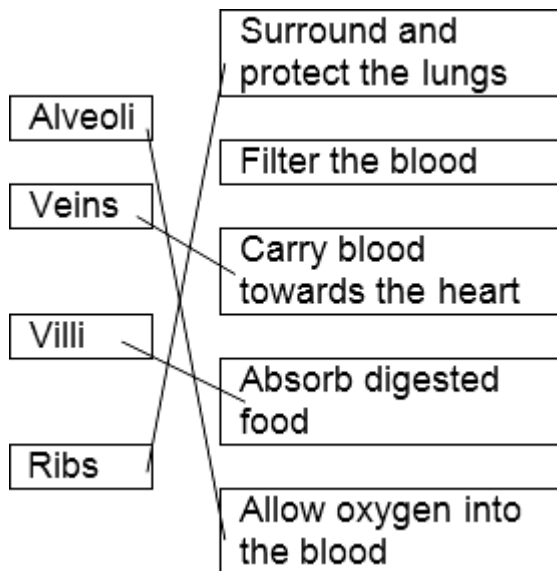


1 mark for each correct line
 extra line(s) from one tissue cancel

3

[4]

- 4.** (a)



4 correct = 4 marks
 3 correct = 3 marks
 2 correct = 2 marks
 1 correct = 1 mark
 extra line from a structure cancels the mark

4

(b) diffusion

1

[5]

5.

(a) stoma / stomata

ignore pore

1

(b) guard (cell)

1

(c) osmosis

in this order only

1

transpiration

1

(d) increasing temperature

1

increasing wind speed

1

(e) any **one** from:

- for photosynthesis
- to bring mineral (ions) into / up the plant
allow correctly named ions e.g. nitrates

- translocation
allow to cool the plant

1

(f) any **one** from:

- decreased transpiration
allow no transpiration
- less water lost
allow no water lost

1

(g) $\frac{12}{800}$

1

0.015 (millimetres)

1

15 (micrometres)

allow 1 mark for incorrect width $\times 1000$

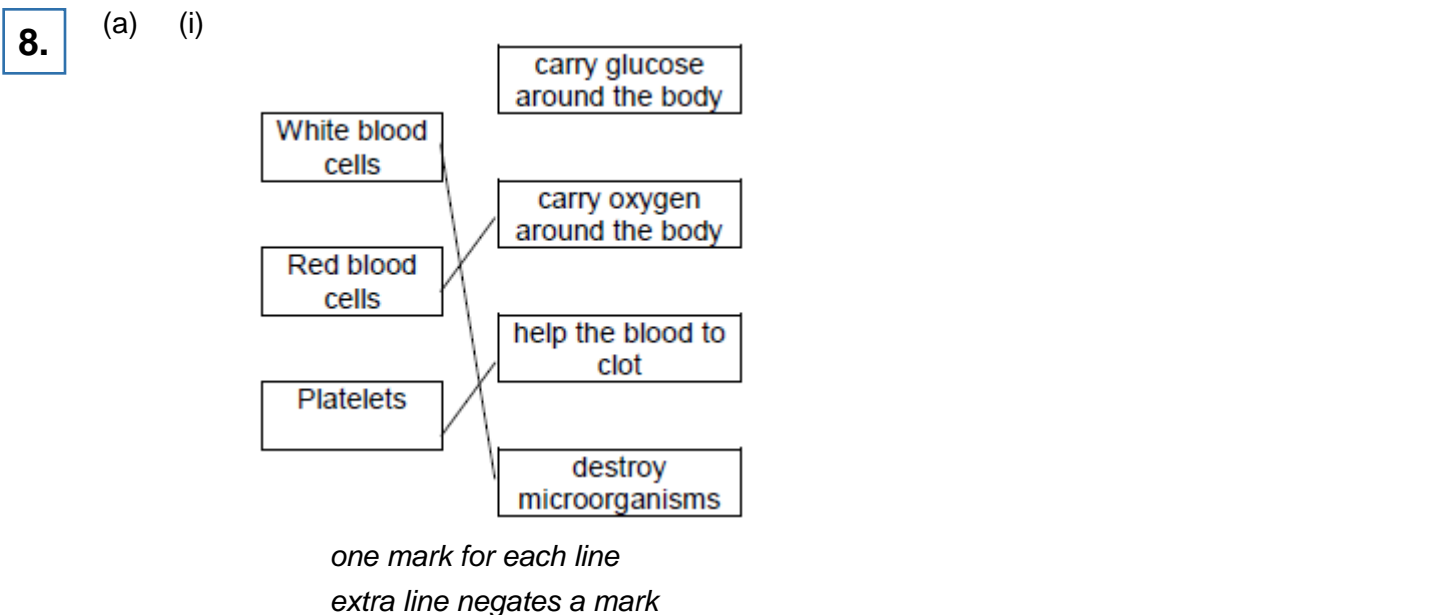
1

an answer of 15 (micrometres) scores 3 marks

[11]

6. (a) The damaged alveolus has a smaller surface area. 1
- (b) Less oxygen is taken in. 1
- [2]**

7. (a) xylem **and** phloem 1
either order
allow words ringed in box
allow mis-spelling if unambiguous
- (b) (i) movement / spreading out of particles / molecules / ions / atoms 1
ignore names of substances / 'gases'
- from high to low concentration
accept down concentration gradient
ignore 'along' / 'across' gradient
ignore 'with' gradient 1
- (ii) oxygen / water (vapour) 1
allow O₂ / O2
ignore O² / O
allow H₂O / H2O
ignore H²O
- [4]**



(ii) any **one** from:

- carbon dioxide / CO₂
- urea

do not allow urine

ignore water

ignore ions

1

(b) (i) B

1

(ii) D

1

(iii) vein

accept correct named

examples

1

(c) (i) any **one** from:

- keeps artery / blood vessel open **or** widens artery / blood vessel
- allows (more) blood to heart / cardiac muscle
- (allows) blood to flow more easily
- allows (more) oxygen to heart / cardiac muscle

1

(ii) any **two** from:

- bleeding
allow blood clots
- infection
- damaging blood vessels
- damaging the heart
- risk from anaesthetic

2

[10]

9.

(a) (i) large intestine = **E**

1

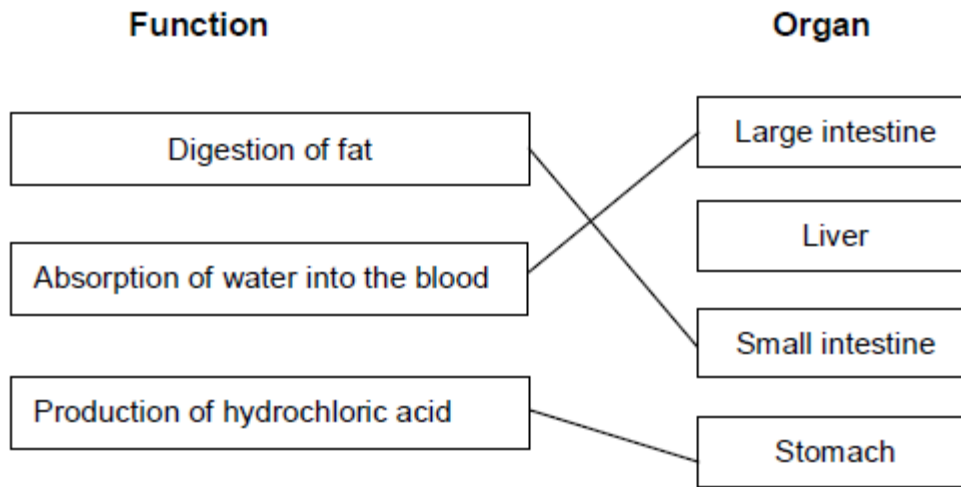
small intestine = **D**

1

stomach = **B**

1

(ii)



extra lines cancel

3

(b) The concentration in the blood is lower.

1

[7]

10.

(a) (i) A = (cell) membrane

1

B = cytoplasm

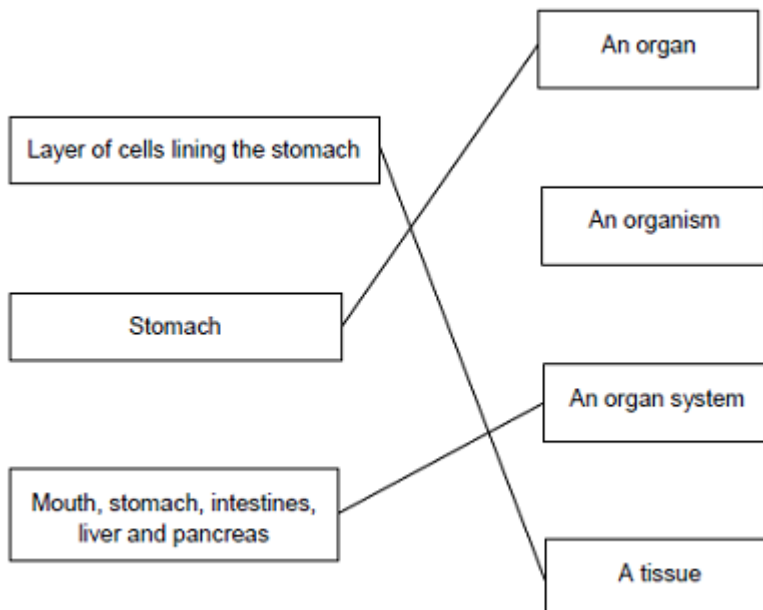
do not accept cytoplast

1

(ii) To control the activities of the cell

1

(b)



extra lines cancel

3

[6]

11.

(a) (i) capillary

1

(ii) diffusion

1

(iii)	Carbon dioxide	low(er)	high(er)
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1

Oxygen	high(er)	low(er)
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1 mark for each correct row

1

(b) (i) red blood cells

1

(ii) haemoglobin

1

[6]

12.

(a) (i) 18

1

(ii) Z

1

(b) (i) red blood cells

1

(ii) haemoglobin

1

[4]

13.

(a) (i) tissue

extra box ticked cancels the mark

1

(ii) organ

extra ring drawn cancels the mark

1

(b) (i) Layer B

each extra box ticked cancels 1 mark

1

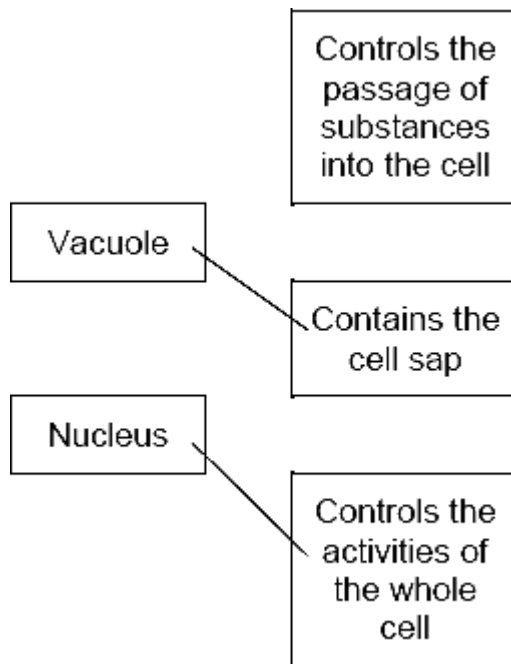
Layer C

1

- (ii) (contain) chloroplasts / chlorophyll
other parts disqualify

1

(c)



two correct = 2 marks

one correct = 1 mark

extra line from a part of a cell cancels the mark

2

[7]