

MARK SCHEME

GCSE

BIOLOGY

AQA - TRIPLE SCIENCE

B 2 - TEST 1
ORGANISATION
Beginner

Mark schemes

1.

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

1

B = cytoplasm

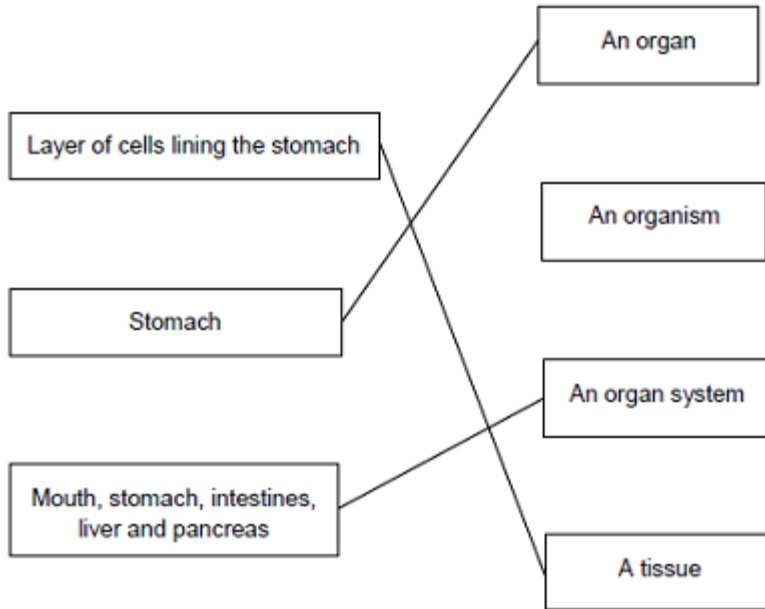
do not accept cytoplast

1

(ii) To control the activities of the cell

1

(b)



extra lines cancel

3

[6]

2.

(a) The damaged alveolus has a smaller surface area.

1

(b) Less oxygen is taken in.

1

[2]

3. (a)

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

(b) (i) diffusion
allow phonetic spelling

1

(ii) glucose

1

(iii) mitochondria

1

[5]

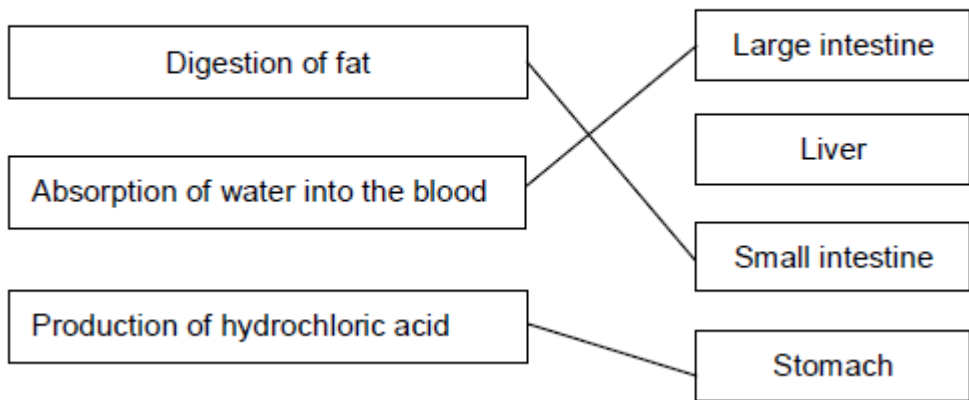
4. (a) (i) large intestine = **E**
 small intestine = **D**
 stomach = **B**

1

1

1

(ii) **Function** **Organ**



extra lines cancel

3

(b) The concentration in the blood is lower.

1

[7]

5.

(a) ventricle

1

(b) lungs

1

(c) valve circled on heart

1

(d) no fatty deposit

1

healthy artery is wider / bigger hole / has more blood flow

1

(e) statins

1

stent

1

(f) any **two** from:

- smoking
- high-fat diet
- lack of exercise

allow:

- *overweight / obese*
- *having high blood pressure*
- *having high cholesterol*

2

(g) 8 (%)

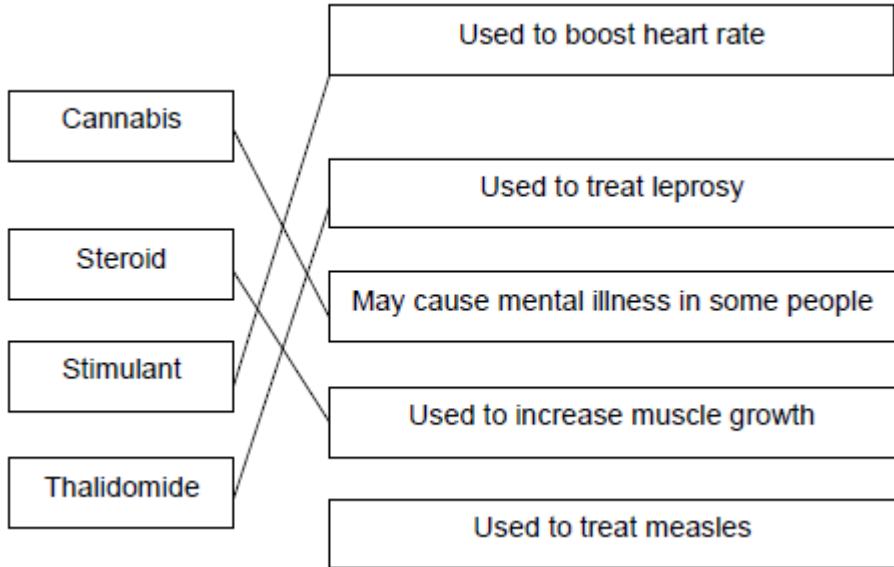
1

(h) more males have coronary heart disease than females

1

[11]

6. (a)



extra line from any drug cancels that mark

4

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

- (live) animals
accept named examples, eg mice
ignore people / volunteers
- cells
- tissues
*do **not** allow plants*

1

(ii) to check that the drug works

1

to find the best dose to use

1

(iii) only scientists at the drug company

1

(c) (i) 420

1

(ii) statin(s)

1

- (iii) any **one** from:
- side effects
allow cost
 - other medication
allow patient choice
 - other (medical) conditions
*allow family history **or** age*

1
[11]

7.

(a) (i) xylem

1

(ii) phloem

1

(iii) transpiration

1

(iv) stomata

1

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

- reduce / prevent evaporation of water from flask
- holds plant shoot in place
- prevent damage to the plant

1

(ii) same surface area **or** number of leaves

*(because if they used larger / smaller size shoots) there would be a larger / smaller surface area **or** a larger/ smaller number of leaves
allow same number of stomata*

1

from which (the same amount of) water evaporates

(and therefore) more / less water would escape

allow from which water escapes

1

(iii) 4.5

look for answer written in table

1

(iv) increasing temperature / heat increases (rate of) water loss / evaporation

1

(v) having moving air / a fan increases (rate of) water loss / evaporation

1

(c) (i) 0.3 g

1

- (ii) plastic bag reduces air flow across leaves
or
 air is humid around the leaves
allow plastic bag stops water (vapour) leaving
allow air (in plastic bag) becomes saturated (with water)

1

[12]

8.

- (a) (i) any **one** from:

- glucose
- oxygen
- carbon dioxide
- urea
- water

allow hormones

allow named example of a product of digestion

1

- (ii) (cardiac) muscle

allow muscular

1

- (b) (i) **B**

1

- (ii) **D** atrium / atria

ignore references to left or right

1

E ventricle(s)

ignore references to left or right

1

- (c) (i) a vein

1

- (ii) an artery

1

- (iii) keeps artery open / wider

allow ecf from part cii

1

(so) blood / oxygen can pass through (to the heart muscle)

1

[9]

9.	(a) (i)	64	1
	(ii)	36	
		<i>allow e.c.f from (i) i.e. 100 – answer given in (a)(i)</i>	1
	(iii)	any one from:	
		• only considers 16-year-olds	
		<i>ignore lack of evidence</i>	
		<i>allow does not refer to all ages</i>	
		• only about some / 5 countries	
		<i>allow does not refer to all countries.</i>	1
	(b)	the more exercise done the healthier a person is	
		<i>allow the more exercise done the higher the health rating</i>	
		<i>allow the less exercise done the lower the health rating</i>	1
	(c)	having a high cholesterol level	1
	(d) (i)	antibodies	1
	(ii)	antibiotics	1
			[7]