

thebiotutor

AS Biology OCR

Unit F211: Cells, Exchange & Transport

Module 1.1 Cell Structure

Answers

1. 1500;

500 000;

ACCEPT 1400 and 300,000 for 1 max only

[2]

2. ability to see (two) objects (that are close together) as separate objects / AW;

ACCEPT ability to distinguish two objects

see detail;

IGNORE clarity / clear

[2]

3. (i) (*release of energy*) mitochondria;

1

(ii) (*movement of cilia*) cytoskeleton;

ACCEPT mitochondria if not used in (i)

1

(iii) (*secretion of mucus*) Golgi (vesicle);

ACCEPT cytoskeleton if not used in (ii)

ACCEPT Golgi body / apparatus

DO NOT ACCEPT Golgi vessel

1

[3]

4. (i) **A** smooth endoplasmic reticulum / SER

B nuclear, membrane / envelope;

C mitochondrion;

D nucleolus;

mark first response on each line only

ACCEPT nucleus, membrane / envelope

ACCEPT mitochondria

DO NOT ACCEPT nucleous

4

- (ii) (mitochondria) vary in shape;
longer than wide;

ACCEPT sausage shaped/long and thin
ACCEPT if shown by drawing

cut in different planes / angles / AW;

just divided / growing;
artefact / deformed during preparation of section;

need comparative statement
ACCEPT C has been cut in longitudinal plane, E has
been cut in transverse, section / plane
ACCEPT one cut horizontally, other cut vertically
ACCEPT in different positions / one viewed from
above the other from the side

2 max

- (ii) correct answer = two marks

3.75 / 3.8;;

if answer incorrect **ALLOW** one mark for correct working

ACCEPT if 3.75 or 3.8 is seen anywhere in response
(even if later rounded to 4)

Max 1 if response is 4 with no working

how to award one mark for working e.g.

candidate shows correct calculation but wrong answer

$$\text{actual length} = \frac{20 \times 15}{80}$$

OR

candidate uses magnification ($\times 4000$) in calculation:

actual length = $15000 / 4000$;

length of C should be 15mm / $15000\mu\text{m}$

ACCEPT ecf for working mark if length of C is not
measured correctly but incorrect figure is used in
calculation correctly

2

[8]

5. (i)

4

	eukaryotic cell	prokaryotic cell
cell wall		
nuclear envelope		x ;
Golgi apparatus	✓;	
ribosomes	✓;	
flagellum		sometimes present;

(ii) Golgi apparatus
repackage / transport, proteins;
add carbohydrate group to protein;

max 1

ribosome
site of protein synthesis;

2

[6]