

Practice Question Set For GCSE
Subject : Biology
Paper-1 Topic: B1 Cell Biology

Name of the Student: _____

Max. Marks : 20 Marks

Time : 20 Minutes

Mark Schemes

Q1.

(a) B

no mark for ÉBÉ, alone

large(r) surface / area **or** large(r) membrane

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

if named hormone / enzyme must be correct for pancreas

- enzyme / named enzyme

1

(ii) many ribosomes

1

(ribosomes) produce protein

accept insulin / hormone / enzyme named is (made of) protein

or

allow many mitochondria (1)

provide energy to build protein **or** to make protein (1)

accept ATP for energy

1

[4]

Q2.

(a) any **two** from:

- transport up / against concentration gradient / low to high concentration
- uses energy
- use of protein / carrier

2

(b) microvilli – large(r) surface area
accept have carriers

1

mitochondria – release energy **or** make ATP
*do **not** accept 'makes energy'*

1

[4]

Q3.

- (a) (i) 6 1
- (ii) 4 1
- (b) (i) pancreas
ignore islets of langerhans 1
- (ii) 'X' anywhere between >1 and ≤ 2 hours
anywhere in that column 1
- (c) any **four** from:
- water movement
*do **not** accept solution*
- out of cells
- dilute to concentrated solution
*accept reference to correct gradient -
high Ψ to low Ψ **or** high to low 'water concentration'
must be unambiguous – i.e. **not** 'high to low concentration'
accept low to high concentration*
- reference to partially / selectively
permeable membranes **or** described
- cells shrink / get smaller
*allow crenated
ignore plasmolysed / flaccid / floppy
etc* 4

[8]

Q4.

(a) any **two** from:

- large surface / area **or** many villi **or** have microvilli
accept big surface / area
- thin surface **or** thin wall **or** surface 1-cell thick **or**
capillaries near surface **or** permeable **or** partially permeable
accept they are thin
*do **not** allow thin **cell** wall*
- many blood vessels **or** many capillaries **or** capillary network
or good blood supply
ignore 'constant blood flow' owtte
ignore extras eg moist or reference to gases
- have enzymes
ignore release enzymes
 - *accept reference to lacteal as 5th point*
 - *allow reference to having mitochondria*

2

(b) (i) small(er) (surface area) / flat(ter) / short(er)
or not as folded

or fewer capillaries owtte

allow small(er) lacteal

ignore references to wide / thick / spread out etc

1

(ii) less absorption (of digested food) / less digestion / diffusion

accept slower for less

accept description of less digestion

accept less food can get in

*do **not** allow zero absorption*

*do **not** allow 'collection' of nutrients*

1

[4]