

Name of the Student: _____

Max. Marks : 18 Marks

Time : 18 Minutes

Mark Schemes

Q1.

(a) (i) 19 800

for correct answer ignore working or lack of working

165 × 120 but no answer / wrong answer = 1 mark (ignore extras)

2

(ii) any **two** from:

- for respiration
ignore oxygen debt
- energy released
allow energy produced
- prevents anaerobic respiration
- prevents build-up of lactic acid

2

(b) any **two** from:

- increased breathing rate(*)
- increased depth of breathing **or** deep breathing(*)
()more breathing is max 1 mark*
ignore increase in heart rate
allow heavier breathing
*do **not** allow harder breathing*
- dilation of arteries / vasodilation
allow blood vessels dilate
*do **not** allow veins / capillaries dilate*
- blood diverted from elsewhere
ignore name of organ

2

[6]

Q2.

- (a) transpiration / evaporation / diffusion
ignore osmosis

1

- (b) (i) D

1

- (ii) any **two** from:

- more / faster diffusion **or** evaporation **or** transpiration
- molecules move faster
- maintains concentration gradient
or keeps water concentration low in the air
or brings in more dry air
or removes damp air / water

2

[4]

Q3.

(a) any **two** from:

- age
- gender
- mass
- number in group
- time

2

(b) any **two** from:

- highest (mean) mass loss on Rosemary Conley **or** Rosemary Conley most effective
- least (mean) mass loss in control group **or** mean

2

(c) (Atkins)

costs least

1

mass loss very similar to other diets **or** second highest mass loss
or as effective as other diets

1

(d) any **two** from:

- (exercise) increases metabolic rate / respiration
ignore sweating
- (exercise) needs / uses energy / calories
allow burns fat / calories
*do **not** accept energy for respiration*
- (this) energy comes from food / fat
- less food / energy/ calories converted to fat

2

[8]