**Biology unit 1 homework - Mark schemes**

**Q1.**

(a)    

*extra lines cancel*

**3**

(b)     Cell wall

*in either order*

**1**

Chloroplast

*allow (permanent) vacuole*

**1**

**[5]**

**Q2.**

(a)     (i)      **A** − (cell) wall

**1**

**B** − cytoplasm

**1**

**C** − plasmid

**1**

(ii)     bacterium cell has cell wall / no nucleus / no mitochondria / plasmids present

*accept its DNA / genetic material is not enclosed / it has no nuclear membrane*

*it = bacterium cell*

*accept converse for animal cell*

*ignore flagella*

**1**

(iii)    any **one** from:

•        chloroplast

*ignore chlorophyll*

•        (permanent) vacuole

**1**

**Q3.**

(a)     chromosomes

**1**

(b)     diagram showing four separate chromosomes two long and two short
(as in diagram 1)

*allow each chromosome shown as two joined chromatids
do* ***not*** *allow if chromosomes touching each other*

**1**

**Q4.**

(a)     any **two** adaptations with linked descriptions from:

•        many alveoli to provide a large surface area

•        good blood supply to maintain steep diffusion / concentration gradient

•        thin walls so gases do not have far to diffuse / travel

•        well ventilated to maintain steep diffusion / concentration gradient

***1*** *mark for adaptation and* ***1*** *mark for linked description*

*allow to collect oxygen* ***or*** *to bring carbon dioxide to lungs*

**4**

**Q5.**

(a)     diffusion

**1**

active transport

**1**

**1**

**Q6.**

 (a)    a tissue

**1**