**1 Cells and tissues - *answers***

Self-assessment questions 1.02



**1** The section would appear like this

**2** The magnification at which plant cells could be

seen would be about x 100.

**3** Of the choices offered, (b) is the best description of a cell membrane's function: it controls the substances entering and leaving the cell.

**4** (a) Plant and animal cells have cytoplasm, cell membrane, mitochondria, nucleus and

 chromosomes.

 (b) Only plant cells have a cell wall, central vacuole and cell sap.

**5** The most likely sequence is as shown below.



 **b e d a c g f**

**6** If a cell develops in such a way that it does one particular job very efficiently, it is said to be *specialised*. Such a cell is also said to be *adapted* to its function. A nerve cell is *specialised* for conducting impulses. It can do this efficiently because of its *shape* and the chemical reactions in its *cytoplasm*.

**7** Cell structure: *nucleus, mitochondrion, cytoplasm*.

Tissue: *bone, nerve, muscle, epithelium*.

Organ: *brain, stomach, lung*.

System: *skeleton, heart and blood vessels, alimentary canal, lungs and windpipe.*

Note: You could reasonably argue that the digestive system includes salivary glands, pancreas and liver, and therefore the alimentary canal is an organ, not a system.