

- An animal maintains its fluid balance by regulating the gain and loss of water. This maintenance is an example of
 - homeostasis
 - hydrolysis
 - cyclosis
 - peristalsis
- Which substance could best be used to determine the relative acidity of a solution?
 - Fehling's solution
 - Benedict's solution
 - pH paper
 - methylene blue
- The results of one experiment carried out by a research team would be considered valid if
 - the experiment had no control setup
 - all the members of the research team came to the same conclusion
 - the experiment had more than one variable
 - the experiment was repeated and the same results were obtained each time
- The total magnification of an image formed by a compound light microscope is a result of the combined magnifications of the
 - eyepiece and diaphragm
 - objective and mirror
 - eyepiece and objective
 - low-power objective and high-power objective
- Graphs of the data from laboratory investigations are used to
 - observe general trends in the data
 - make the observed data more accurate
 - prevent errors in measuring data
 - help change the original data tables
- In an experiment, what should be the relationship between the control group and the experimental group?
 - They should be different in size
 - They should resemble each other in at least two respects
 - They should not be similar in any respect
 - They should be identical in all respects except one

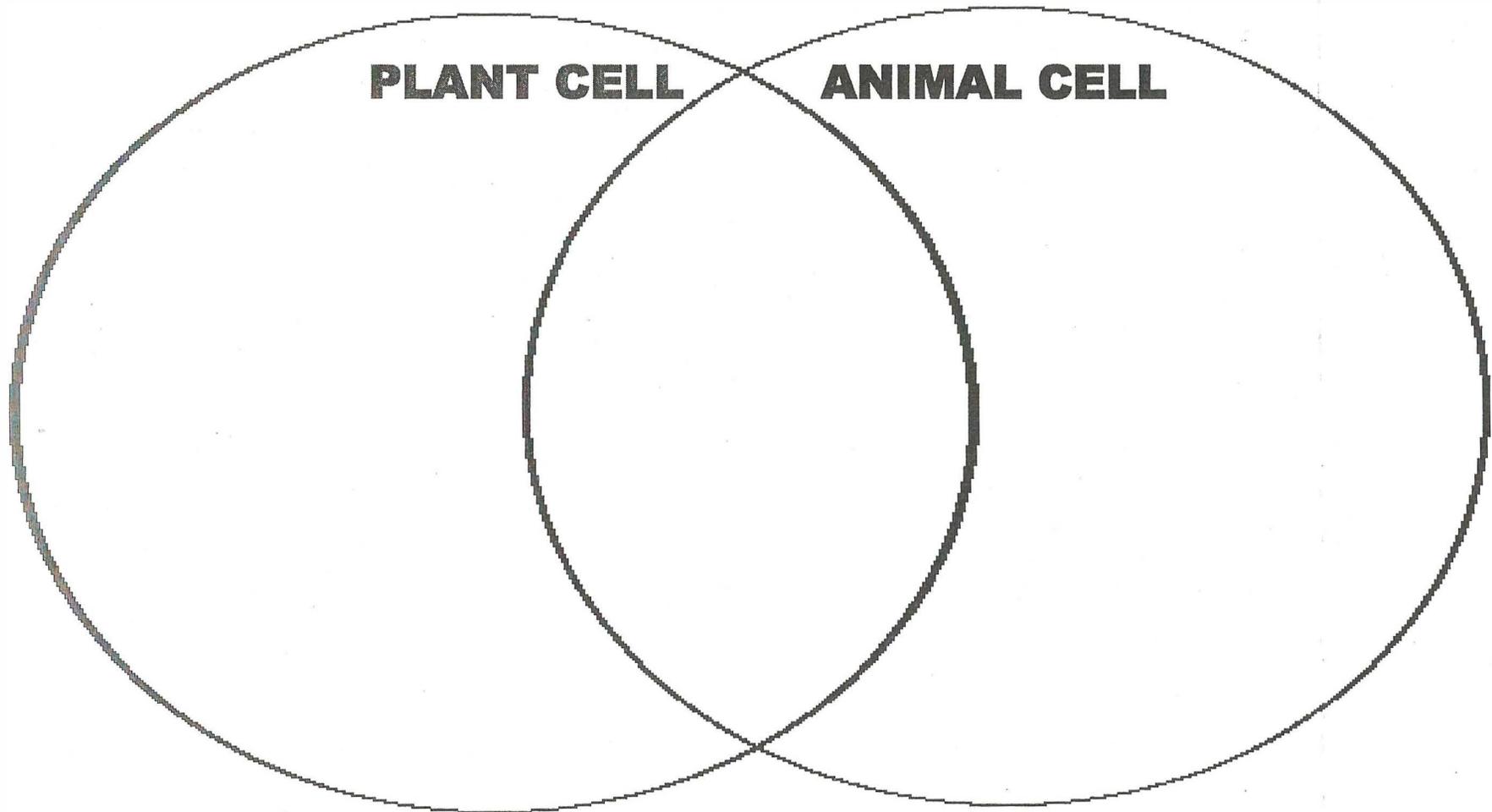
- Which term is defined as all the chemical reactions that are required to sustain life?
 - metabolism
 - nutrition
 - regulation
 - synthesis
- Organisms undergo constant chemical changes as they maintain an internal balance known as
 - interdependence
 - homeostasis
 - synthesis
 - recombination
- Excretion is best described as the removal of
 - metabolic wastes from a cell
 - toxic wastes by the process of cyclosis
 - water molecules from dipeptide hydrolysis
 - undigested material from the digestive tract
- Groups *A* and *B* in the table below contain molecular formulas of compounds.

Group A	Group B
$C_6H_{12}O_6$	NaCl
$C_{12}H_{22}O_{11}$	NH_3

How would the compounds in these groups be chemically classified?

- group A - inorganic
group B - organic
- group A - organic
group B - inorganic
- group A - monosaccharides
group B - disaccharides
- group A - disaccharides
group B - monosaccharides

SIMILARITIES AND DIFFERENCES BETWEEN PLANT CELLS AND ANIMAL CELLS



Plasma membrane
Cell wall
Cytoplasm
Nucleus
Mitochondria

Golgi bodies
Ribosomes
Endoplasmic reticulum
Chloroplast
Lysosomes

Large Vacuole
Centrioles
Chlorophyll
Cellulose
DNA

Homework # 2.6

Cell City Analogy

In a far away **city** called **Grant City**, the main export and production product is the steel **widget**. Everyone in the town has something to do with steel widget making and the entire town is designed to build and export widgets. The **town hall** has the instructions for widget making; widgets come in all shapes and sizes. **Security** around the town hall monitors who and what can go into and out of the town hall. Any citizen of Grant can get the instructions and begin making their own widgets. Widgets are generally produced in **small shops** around the **city**.

After the widget is constructed, they are placed on **special carts** which can deliver the widget anywhere in the **city**. In order for a widget to be exported, the carts take the widget to the **postal office**, where the widgets are packaged and labeled for export. Sometimes widgets don't turn out right, and the "rejects" are sent to the **scrap yard** where they are broken down for parts or destroyed altogether. The town powers the widget shops and carts from a **hydraulic dam** that is in the city. The entire city is enclosed by a large wire **fence**. Only the postal trucks (and citizens with proper passports) are allowed outside the **city**.

A. Write the FUNCTION of the following ORGANELLES

1. Mitochondria: _____
2. Ribosomes: _____
3. Nucleus: _____
4. Endoplasmic Reticulum: _____
5. Golgi Apparatus: _____
6. Protein: used to build new structures like cells
7. Cell Membrane: _____
8. Lysosomes: _____
9. Nuclear Membrane: _____

B. #10-18 Match the parts of the city (underlined in the paragraph) with the parts of the cell (organelles).

PART OF THE CITY	ORGANELLE
10. <u>Widget</u> 	protein
11. <u>Town Hall</u> 	
12. <u>Security</u> 	nuclear membrane
13. <u>Small shops</u> 	
14. <u>Special carts</u> 	
15. <u>Postal Office</u> 	
16. <u>Scrap yard</u> 	
17. <u>Hydraulic dam</u> 	
18. <u>Fence</u> 	

19. How would you know if a cell is a plant? (2 points)