

Unit 1-1 Practice Test

Name - Key Block- \_\_\_\_\_

A. Matching: Relate the function to the organelle

Organelle	Function
<u>k</u> lysosome	a. photosynthesis
<u>h</u> ribosome	b. packaging and secretion of proteins
<u>g</u> Rough ER	c. storage
<u>b</u> Golgi bodies/apparatus	d. filled with nutrients and water
<u>a</u> chloroplast	e. control centre of cell
<u>d</u> cytoplasm	f. steroid synthesis
<u>i</u> chromosomes	g. vesicle production
<u>l</u> nucleolus	h. protein synthesis
<u>e</u> nucleus	i. cell respiration
<u>i</u> mitochondrion	j. location of ribosome production
<u>f</u> Smooth ER	k. intracellular digestion
<u>c</u> vacuole	l. determine cell features

B. Quick Questions:

1. What is the distinction between a prokaryotic cell and a eukaryotic cell? Nucleus
2. The nucleus of a cell is enclosed by a envelope, which has pores for \_\_\_\_\_
3. Where is DNA found? Nucleus Where is RNA found? Cytoplasm
4. What does cytoplasm consist of? Cytosol
5. The functions of a cell membrane are: Structure and Protection
6. Cellular respiration is  $C_6H_{12}O_6 + O_2 \rightarrow 6CO_2 + H_2O + 25ATP$
7. The folds inside a mitochondria are called Cristea
8. 2 locations where ribosomes can be found are: Rough ER and Cytoplasm
9. The Smooth E.R does not have any ribosomes and so it can not synthesis Protein
- omit 10. Cellulose are sugars linked together by a \_\_\_\_\_ bond
11. Cilia have a 9 + 2 arrangement of microtubules

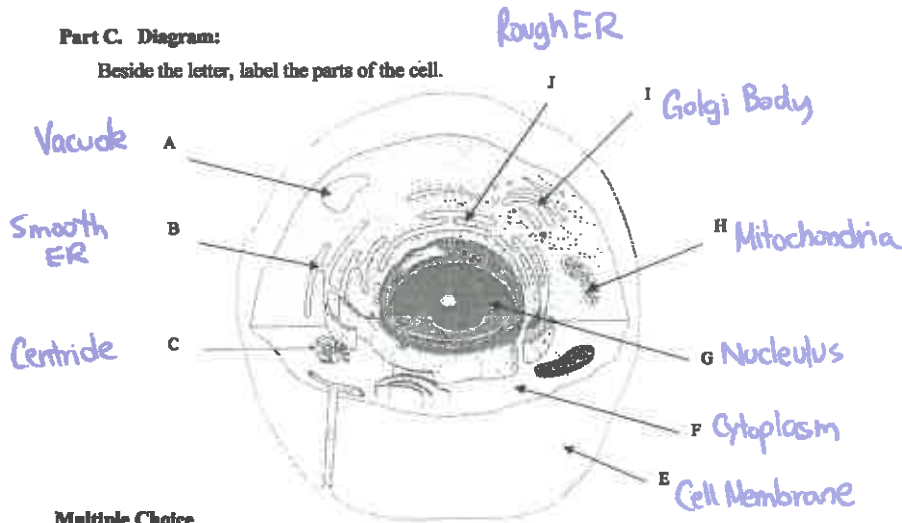
12. Basal bodies have a 9 + 0 arrangement and act as an anchor to flagella

13. What is the functional relationship between each of the following pairs of organelles?

- a. lysosomes and vesicles lysosomes digest waste in vesicles
- b. ER and Golgi apparatus/bodies part of endomembrane system; deal with protein & other molecules
- c. ribosomes and ER ribosomes produce proteins attached to ER
- d. chloroplasts and mitochondria cellular respiration ↔ photosynthesis
- e. Golgi bodies and vesicles Golgi body packages protein, lipids in vesicles
- f. cell membrane and vesicles Cell Membranes allow entry/exit of vesicles
- g. ribosomes and nucleolus Ribosomes produced in nucleolus
- h. Rough ER and vesicles Vesicles pinched off from Rough ER
- i. Golgi body and lysosome Golgi body produces lysosomes

Part C. Diagram:

Beside the letter, label the parts of the cell.



Multiple Choice

- Which organelles will give off oxygen and use up carbon dioxide?  
 A. Lysosomes. B. Mitochondria.  
 C. Endoplasmic reticulum. **C. Chloroplasts.**
- Which of the following BEST describes a function of endoplasmic reticulum?  
 A. Intracellular transport. B. Communication.  
 C. Energy distribution. **D. Protein storage.**
- Which of the following structures is present in a prokaryotic cell?  
 A. Mitochondria. B. Nucleus.  
**C. Ribosome.** D. Endoplasmic reticulum.
- Which of the following is true for both prokaryotic and eukaryotic cells?  
**A. Manufacture enzymes.** B. Form vesicles for exocytosis.  
 C. Have nuclear membranes. D. Have chromosomes composed of DNA.
- To which of the following organelles would microtubules be most closely associated?  
 A. Chloroplasts. B. Mitochondria.  
**C. Cilia.** D. Rough endoplasmic reticulum.
- Which of the following BEST describes the function of the organelle below?  
 A. Intracellular digestion.  
**B. Protein synthesis.**  
 C. Modifying cellular products for secretion.  
 D. Phagocytosis.



7. Which of these pairs is BEST associated with plant cells?

- A. Cilia and flagella. B. Chloroplasts and centrioles.  
 C. Rounded shape and flexibility. **D. Cell walls and large central vacuoles.**

Fill in the table.

NAME	Describe its STRUCTURE	FUNCTION
Lysosome	Contains hydrolytic enzymes	Digestion of intra (inside) cellular material or used in cell death
Nucleolus	Large, circular, dark staining object in the nucleus	Produce ribosomes
Centriole	Microtubules 9+0	Help with cell division (only in animal cells)
Cilia + flagella	9+2	Used for cell locomotion or movement of the cell
Mitochondria	Bean shaped organelle with a multi-folded inner membrane	ATP production
Microfilament	Found in cytoskeleton	Support with cell
Golgi Body	Stacks of flattened membranous sacs	Packages materials for export out of the cell. Also makes vesicles
Cell Wall	This structure is made mostly of cellulose	Structure & protection
Vesicle	Liquid enclosed by lipid bilayer	Excretion, uptake, transport
Chloroplast	Thylakoids stacked grana in stroma middle	Photosynthesis takes place here
Smooth E.R.	Long network of folded tubes	Lipid, hormone production
Polysome	mRNA & 2 or more ribosomes	Several ribosomes that translate mRNA
Plasma Membrane	Phospholipid bilayer	Controls what enters and exits the cell.

omit X