BIOS 251 Week 5 Exam 2 Catabolism, Cell Structure & Transport Mechanisms Practice & Preparation

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Catabolism - **chemical reactions takes large molecules and makes them smaller, releasing energy in the process (exothermic)**

The codon encoding for the first amino acid added during translation is AUG

Lysosomes contain digestive enzymes used to digest pathogens and other chemicals the cell is looking to get rid of.

In which part of the cell is glucose fully broken down to release energy as ATP – mitochondria.

In which double-membraned organelle does DNA replication occur - nucleus

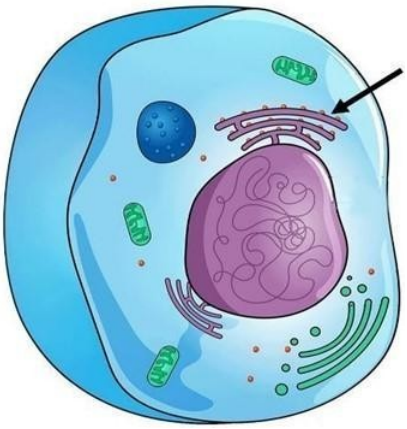
Metaphase - phase of mitosis do the chromatids line up in the middle?

Define:
Anaphase
Telophase
Metaphase
Prophase
Interphase

What is the resulting product of meiosis - two haploid cells

Ribosome - **the organelle that is directly involved in protein synthesis.**

Identify this membranous structure depicted in the image below with the black arrow.



Rough Endoplasmic Reticulum

Peripheral Proteins are on the outside of a cell membrane and acts as cell identity markers.

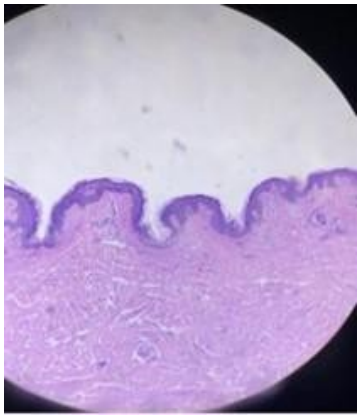
The use of a carrier protein to move a chemical, like an amino acid, across a membrane from an area of high concentration to an area of low concentration, in the absence of energy is an example of facilitated diffusion

Cells with a high regenerative capacity undergo **mitosis** at a more frequent rate

Endocrine glands are mainly composed of epithelial tissue

Skeletal muscle tissue types has alternating dark and light bands and is under conscious (voluntary) control

Main tissue type shown



Epithelial tissue

Nerve cell body - Soma

Cells of this tissue type have specialized junctions that allow for the rapid spread of electrical impulses. Cardiac muscle

Examples of passive membrane transport:
Facilitated diffusion
Simple diffusion
Osmosis

Connective tissue contains the protein fibers collagen, reticular, and elastic.