BIO214
___ is the movement of ions or molecules from regions of higher concentration to regions of lower concentration.

Diffusion
Liposomes are circular pockets that are enclosed by a ___

Lipid layer
Proteins within the cell membrane normally transport chemicals and ___ across the membrane.

Information
Antigens are present on cell membrane because they are receptors that aid cell to cell ___.

Communication
_____ signal sequence of amino acids directs proteins to the endoplasmic reticulum, which inserts the proteins into a lipid bilayer.

N-terminus
___ permeability refers to the ease with which molecules hook unto it.

Membrane
Homeoviscous adaptation is the ability of some organisms to regulate the fluidity of their cell membranes by altering ___ composition.

Lipid
The science that describes how organisms function and survive in continually changing environments is called _____.

Physiology
The process of removing waste materials from cells is known as ___.

Exocytosis
Peripheral proteins are proteins that are bounded to the membrane by electrostatic interactions and ___ with the hydrophilic phospholipid heads.

Hydrogen bonding
The ___ is an elaboration of the plasma membrane.

Mesosome
The protists and bacteria that live inside the gut of termite and help in digesting its woody diet are referred to as ___.

Endosymbionts
Increased absorption rate of ___ by the epithelial cells is possible because of microvilli on the apical surfaces of the epithelial cells.

Nutrients
Plasma membrane serves as selective ___ for the import and export of materials between the cell and its surrounding environment.

Barrier
A system is an association of ___ that have a common function.

Organs
Levels of cellular organization together with the resultant tissues-organs-and-systems form the ___ process.

Physiological
___ molecules are used to add amino acids during protein translation.

Transfer RNA
Mitochondria generate the cell's energy by ___

Oxidative phosphorylation
The component of a biological cell that creates proteins from all amino acids and RNA representing the protein is _____.

Ribosome
They digest excess or worn-out organelles, food particles, and engulfed viruses or bacteria. They are ___ and _____

Lysosomes and Peroxisomes
Correct folding of newly-made proteins is made possible by several ___ proteins of the endoplasmic reticulum

Chaperone
Protoplasm is composed of a mixture of small molecules and ___.

Macromolecules
___ are specialized lipid-storage cells, which are also found in a range of other cell types.

Adipocytes
___ involves the attachment of oligosaccharides.

Glycosylation
___ are organelles on which protein synthesis takes place.

Ribosomes
The ___ is a biological membrane that separates the interior of all cells from the outside environment. It is selectively-permeable to ions and organic molecules, and controls the movement of substances in and out of cells.

Cell membrane
Crystals of calcium oxalate or silicon dioxide in plants, granules of energy-storage materials such as starch, glycogen, or polyhydroxybutyrate are all _______ inclusions.

cytoplasmic
In gram-negative bacteria, the region outside the plasma membrane but inside the outer membrane is the ___.

Periplasm
Proteins that are transported by the endoplasmic reticulum and from there throughout the cell are marked with an address tag called a ___.

Signal sequence
The movement of substances across the membrane can be ___, occurring without the input of cellular energy.

Passive
The ___ membrane of a polarized cell is the surface of the plasma membrane that forms its basal and lateral surfaces.

basolateral
___ proteins interact widely with hydrocarbon chains of membrane lipids and can be released by agents that compete for the same nonpolar interactions.

Integral
Paired cylindrical structures located near the nucleus, which play an important role in cell division are referred to as ___.

Centrioles
The ___ is an elaboration of the plasma membrane; a sort of rosette of ruffled membrane intruding into the cell. Not all prokaryotic cells have it.

Mesosome
The cell membrane consists of _____ classes of lipidsamphipathic.

three
Which of the following molecules would pass through the phospholipid bilayer easily?

Benzene

___ molecules are used to add amino acids during protein translation.

Transfer RNA (tRNA)

A human cell has genetic material contained in the _____ and ___ genomes

nuclear; mitochondrial

Which of the following is not an integral membrane protein?

phospholipid

Which of the following is not an amphipathic lipid?

Acids

How do the length and degree of unsaturation of fatty acid affect cell membrane fluidity?

Unsaturated lipids create a kink, which prevents the fatty acids from packing together as tightly, thus decreasing the melting temperature of the cell membrane

During osmosis, the solution that gains water is ___ while the solution that loses the water is ___.

Hypertonic; Hypotonic

In facilitated diffusion, the rate of diffusion across a membrane, from a high concentration to a lower concentration is accelerated by the action membrane ___ called, that act as carrier molecules and aid in diffusion.

Permeases

Simple diffusion can be accomplished by the passage of solutes through __ transmembrane proteins called channel proteins.

tunnel-like

The phospholipic layer is so called because made mostly from a double layer of lipids; _____ and ___ molecules.

hydrophobic fat-like; hydrophilic phosphorus

Milk sugar is _____

a disaccharide composed of glucose and the monosaccharide galactose

The ___ is a specialized region within the nucleus where ribosome subunits are assembled.

nucleolus

Fluid mosaic membrane is another term for ___

Phospholipid bilayer

Which of the following is not a component of the eukaryotic cytoskeleton?

eukaryases

In humans the nuclear genome is divided into 23 _____.

chromosomes

In the movement of substances across the membrane, the cell is required to expend energy. What type of movement does this refer to

Active

Which of the following is not a constituent of cell cytoplasm?

nucleus

Which of the following is not correct about ribosomes?

Ribosomes are divided into several subunits

Transport through the nuclear pore complexes is active; meaning that it requires ____.

All of the options

Splicing factors are needed to:

cut out intron regions and splice the exon regions

Which of the following are not molecules and macromolecular assemblies exported from the nucleus?

histones

Organelles that are modified chloroplasts are broadly called ___, and are involved in energy storage through photosynthesis

plastids

The primary function of the golgi apparatus include the following except ___

delivery of nucleotide sugars from the cytosol

Which of the following is a similarity between mitochondria and chloroplasts?

All of the options

Why are ribosomes classified as ribozymes? .

Ribosomes are classified as ribozymes because the ribosomal RNA seems to be most important for the peptidyl transferase activity that links amino acids together

Mitochondrial and chloroplast DNA are similar to Prokaryotic DNA in following ways except _____.

Mitochonria have their own DNA duplicated in the nucleus in similar manner with prokaryotic DNA

Depending on the enzymatic needs of a cell, massive changes can occur in the protein content without any noticeable _____ changes.

structural

Which of the following is a step in gluconeogenesis?

Conversion of glucose-6-phosphate to glucose

The smooth endoplasmic reticulum _____ while the Sacroplasmic reticulum stores ___

synthesizes molecules; and pumps calcium

Cytoplasmic ___ are small particles of insoluble substances suspended in the cytosol.

Inclusions

Which of the following is not a cytoplasmic inclusion?

Organelles

DNA of the nucleus with its associated proteins are collectively referred to as _____

chromatin

Prokaryotic genetic material is organized in a simple circular DNA molecule in the _____

region of the cytoplasmnucleoid

Retroviruses have ___ as their genetic material.

RNA

Foreign DNA can be artificially introduced into the cell by a process called _____

transfection