

FBQ1: Active transport is the transportation of some molecules through the cell membrane powered by ____ from the cell's reserves.

Answer: Energy

FBQ2: ____ is the movement of ions or molecules from regions of higher concentration to regions of lower concentration.

Answer: Diffusion

FBQ3: The diffusion of water across a cell membrane from an area of low solute concentration to an area of high solute concentration is called ____

Answer: Osmosis

FBQ4: Liposomes are circular pockets that are enclosed by a ____

Answer: Lipid layer

FBQ5: Protein within the cell membrane normally transport chemicals and ____ across the membrane.

Answer: Information

FBQ6: The biological membranes can be considered as a two-dimensional liquid where all lipid and protein molecules diffuse more or less easily, according to the ____ model

Answer: fluid mosaic

FBQ7: Proteins that are transported by the endoplasmic reticulum and from there throughout the cell are marked with an address tag called a ____.

Answer: Signal sequence

FBQ8: The movement of substances across the membrane can be ____, occurring without the input of cellular energy.

Answer: Passive

FBQ9: The ____ of a polarized cell is the surface of the plasma membrane that forms its basal and lateral surfaces.

Answer: basolateral membrane

FBQ10: ____ proteins interact widely with hydrocarbon chains of membrane lipids and can be released by agents that compete for the same nonpolar interactions.

Answer: Integral

FBQ11: Antigens are present on cell membrane because they are receptors that aid cell to cell ____.

Answer: Communication

FBQ12: ____ signal sequence of amino acids directs proteins to the endoplasmic reticulum, which inserts the proteins into a lipid bilayer.

Answer: N-terminus

FBQ13: ____ permeability refers to the ease with which molecules hook unto it.

Answer: Membrane

FBQ14: Homeoviscous adaptation is the ability of some organisms to regulate the fluidity of their cell membranes by altering ____.

Answer: Lipid composition

FBQ15: ____ is the science that describes how organisms function and survive in continually changing environments.

Answer: Physiology

FBQ16: Lipid rafts and caveolae are examples of cholesterol-enriched ____ in the cell membrane.

Answer: Microdomains

FBQ17: Paired cylindrical structures located near the nucleus, which play an

important role in cell division are referred to as ____.

Answer: Centrioles

FBQ18: 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.

Answer: Mesosome

FBQ19: The ____ is an important feature in all cells, especially epithelia with microvilli.

Answer: Glycocalyx

FBQ20: The cell membrane consists of three classes of ____.

Answer: lipids amphipathic

FBQ21: The cell membrane is selectively _____ to ions and organic molecules and controls the movement of substances in and out of cells.

Answer: Permeable

FBQ22: A ____ is the basic structural and functional units of living things.

Answer: Cell

FBQ23: Exocytosis is the process of removing waste materials from ____.

Answer: Cells

FBQ24: Peripheral proteins are proteins that are bounded to the membrane by electrostatic interactions and ____ with the hydrophilic phospholipid heads.

Answer: Hydrogen bonding

FBQ25: The cytoskeleton provides a scaffolding for membrane ____ to anchor to, as well as forming organelles that extend from the cell.

Answer: Proteins

FBQ26: With the following proportions of lipids: 3% phosphatidyl-serine, 3% sphingomyelin, 10% cholesterol and 55% phosphatidyl choline. The membrane discussed is ____.

Answer: rat liver nuclear membrane

FBQ27: The cell membrane serves as the attachment surface for the extracellular ____, and cell wall and intracellular cytoskeleton.

Answer: Glycocalyx

FBQ28: ____ are circular pockets that are enclosed by a lipid bilayer.

Answer: Lipid vesicles Liposomes

FBQ29: The cytoskeleton is found underlying the cell membrane in the cytoplasm and provides a ____ for membrane proteins to anchor to, as well as forming organelles that extend from the cell.

Answer: Scaffolding

FBQ30: The lipid bilayers of the cell membrane have very low ____ for ions and most polar molecules.

Answer: Permeability

FBQ31: Crystals of calcium oxalate or silicon dioxide in plants, granules of energy-storage materials such as starch, glycogen, or polyhydroxybutyrate are all ____.

Answer: cytoplasmic inclusions

FBQ32: In gram-negative bacteria, the region outside the plasma membrane but inside the outer membrane is the ____.

Answer: Periplasm

FBQ33: The molecules of phospholipid in the cell membrane form a ____.

Answer: phospholipid bilayer

FBQ34: Pores and gates are examples of ____.

Answer: transmembrane protein complexes

FBQ35: ____ membrane has the following mineral composition; 8% Carbohydrate, 43% lipid and 49% protein.

Answer: human erythrocyte plasma

MCQ1: DNA of the nucleus with its associated proteins are collectively referred to as ____

Answer: chromatin

MCQ2: Prokaryotic genetic material is organized in a simple circular DNA molecule in the ____

Answer: region of the cytoplasm nucleoid

MCQ3: Retroviruses have ____ as their genetic material.

Answer: RNA

MCQ4: Foreign DNA can be artificially introduced into the cell by a process called ____

Answer: transfection

MCQ5: Flattened stacks of membrane usually found in a series of five to eight in golgi apparatus are known as ____.

Answer: Cisternae

MCQ6: Depending on the enzymatic needs of a cell, massive changes can occur in the protein content without any noticeable ____ changes.

Answer: structural

MCQ7: Which of the following is a step in gluconeogenesis? .

Answer: Conversion of glucose-6-phosphate to glucose

MCQ8: Which of the following is not an integral membrane protein?

Answer: phosphoproteins

MCQ9: Small particles of insoluble substances suspended in the cytosol are known as cytoplasmic ____.

Answer: inclusions

MCQ10: The following are an amphipathic lipid except ____.

Answer: Glycerines

MCQ11: Mitochondrial and chloroplast DNA are similar to Prokaryotic DNA in following ways except ____.

Answer: Mitochondria have their own DNA duplicated in the nucleus in similar manner with prokaryotic DNA

MCQ12: Which of the following may have played a role in the transition from prokaryotes to eukaryotes?

Answer: Sex as the stereotyped choreography of meiosis and syngamy

MCQ13: Major differences between prokaryotic and eucaryotic cells are that

Answer: prokaryotic cells lack a nucleus and membranous organelles while eukaryotic cells contain a membrane-bound nucleus and numerous membrane-enclosed organelles

MCQ14: Which of the following is not correct about lipids of a typical cell?

Answer: Lipids form about 3% of the dry mass of a typical cell.

MCQ15: Steroids include the following except ____

Answer: progesterone

MCQ16: The Golgi will use a xylose link to polymerize ____ onto proteins to form ____.

Answer: glycosaminoglycans; proteoglycan

MCQ17: Which of the following models states that the vesicles fuse to each other at the cis face of the Golgi apparatus and are essentially pushed along as new vesicles fuse together behind them?

Answer: Cisternal maturation

MCQ18: Ribosomes classified as ribozymes because they: .

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

MCQ19: Paired cylindrical structures located near the nucleus, which play an important role in cell division are known as ____.

Answer: Centrioles

MCQ20: The following are the primary functions of the golgi apparatus except ____.

Answer: delivery of nucleotide sugars from the cytosol

MCQ21: Which of the following is not correct about the lipid layer of the cell membrane?

Answer: Lipid bilayers have very high permeability for ions and most polar molecules.

MCQ22: Apical membrane is evidenced in the following polarized cells except ____.

Answer: basolateral cells

MCQ23: Integral membrane protein can be found in the following except ____.

Answer: pits

MCQ24: Which of the following molecule types would pass through the cell membrane more easily?

Answer: Electrically neutral, small molecules

MCQ25: Cell membrane has both ____ and ____ portions

Answer: protein and phospholipid

MCQ26: The following are basic types of tissue in the body except ____.

Answer: Head

MCQ27: Which of the following are not molecules and macromolecular assemblies exported from the nucleus?

Answer: histones

MCQ28: Major systems in the human body include the following except ____.

Answer: bony

MCQ29: Levels of cellular organization together with the resultant tissues-organs-and-systems form the ____

Answer: physiological processes

MCQ30: Prokaryotic cells have no ____ while eukaryotic cells have ____

Answer: nuclei, true nuclei

MCQ31: Which of the following is not a theory about the origin of small molecules?

Answer: Small molecules are not divisible

MCQ32: Mitochondria generate the cell's energy via ____.

Answer: oxidative phosphorylation

MCQ33: The microtubules of a cell are produced by ____.

Answer: Peroxisome

MCQ34: What is the function of the contractile vacuole?

Answer: For osmoregulation; to pump water out of the cell if there is too much water

MCQ35: Which of the following molecules would pass through the phospholipid bilayer easily?

Answer: Benzene