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## Edit Quiz

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**SOC-19793107**

MCDB 3145 Quiz #1

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#1

**EDIT**

Which of the following characteristics is/are a basic property of cells?

**ANSWER CHOICE****A** Cells are highly complex and organized.**B** Cells possess a genetic program and the means to use it.**C** Cells are capable of producing more of themselves.**D** Cells acquire and utilize energy.

**E**

All of these are correct.

#2

 EDIT

Virtually all chemical changes that take place in cells require \_\_\_\_\_, molecules that greatly increase the rate at which a chemical reaction occurs.

**ANSWER CHOICE****A**

carbohydrates

**B**

proteins

**C**

DNAs

**D**

enzymes

#3

 EDIT

What characteristics distinguish bacterial and eukaryotic cells?

**ANSWER CHOICE**

- A** Eukaryotes have membrane-bound organelles; bacteria do not.
- B** Bacteria have relatively little DNA; eukaryotes generally have much more.
- C** Eukaryotic chromosomes are linear; bacterial chromosomes are circular.
- D** Bacterial DNA is naked or nearly naked; eukaryotic DNA is usually heavily associated with protein.
- E** All of these are correct.

**#4** EDIT

Which of the following are considered to be eukaryotes?

**ANSWER CHOICE**

- A** amoeba
- B** yeast
- C** trees



**D**

starfish

**E**

All of these choices are correct.

#5

 EDIT

Which of these is NOT a common feature of eukaryotic and bacterial cells?

**ANSWER CHOICE****A**

Mechanisms for transcription and translation.

**B**

Genetic information encoded in DNA.

**C**

Presence of Plasma Membrane.

**D**

Cytoplasmic organelles such as endoplasmic reticulum and Golgi complex.

#6

 EDIT

Which of the following is not a model organism?

**ANSWER CHOICE**

- A** Arabidopsis thaliana
- B** Homo sapiens
- C** Caenorhabditis elegans
- D** Mus musculus
- E** All of the above are considered model organisms.



#7

EDIT



Which of the following tripeptides would be most likely to be soluble in an organic (hydrophobic) solvent like benzene?

**ANSWER CHOICE**

- A** N - proline - phenylalanine - leucine - C
- B** N - glutamate - aspartate - glycine - C
- C** N - arginine - lysine - proline - C



**D** N - leucine - alanine - lysine - C

**E** N - phenylalanine - alanine - arginine - C

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**#8**

 EDIT



Which amino acid is most likely to be found in the core of a protein?



**ANSWER CHOICE**



**A** glutamic acid

**B** threonine

**C** serine

**D** methionine

**E** asparagine



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**#9**

 EDIT



Proteins are often composed of two or more distinct modules that fold up independently of one another. They often represent parts of a protein that function in a semi-independent manner. These modules are called \_\_\_\_\_.

**ANSWER CHOICE**

- A** protein motifs
- B** binding sites
- C** residues
- D** helices and sheets
- E** domains

**#10** EDIT

What level of structure, in multi-subunit proteins, is held together by intermolecular R group interactions?

**ANSWER CHOICE**

- A** quaternary structure



<b>B</b>	primary structure
<b>C</b>	tertiary structure
<b>D</b>	secondary structure

ADD QUESTION:

**MULTIPLE CHOICE**

**TRUE / FALSE**

**SHORT ANSWER**

**Socrative** Student Response by **MasteryConnect**



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## Edit Quiz

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**SOC-19794007**

MCDB 3145 Quiz # 2

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#1

**EDIT**

Which of the following is NOT a function of the plasma membrane?

**ANSWER CHOICE****A**

Scaffold for biochemical activities.

**B**

Compartmentalization

**C**

Responding to external signals

**D**

Providing a nonselective permeable barrier.

#2

 EDIT

The major structural component of cell membranes is \_\_\_\_\_.

**ANSWER CHOICE****A** a lipid bilayer**B** cholesterol**C** the carbohydrates attached to lipids and proteins**D** protein channels and carriers

#3

 EDIT

How do the membranes of eukaryotic cells vary?

**ANSWER CHOICE****A** Some membranes have unique molecules that are yet to be characterized.

**B**

Some proteins are unique to each membrane.

**C**

Some membranes are not selectively permeable.

**D**

None of the above.



#4

 EDIT

Most of the functions of a cell membrane are performed by \_\_\_\_\_.

**ANSWER CHOICE****A**

proteins

**B**

glycolipids

**C**

cholesterol

**D**

none of these



#5

 EDIT

Which of the following is true about the cholesterol associated with membranes?

### ANSWER CHOICE

**A**

It makes all membranes fluid at room temperature.

**B**

It is oriented with the small hydroxyl group embedded in the lipid bilayer and the remainder of the molecule toward the membrane surface.

**C**

It interferes with the movements of the fatty acid tails of the phospholipids.

**D**

All of these statements are correct.

#6

 EDIT

The movement of water molecules into a region of higher solute concentration across a selectively permeable membrane is known as \_\_\_\_\_.

### ANSWER CHOICE

**A**

pinocytosis

**B**

osmosis

**C**

phagocytosis

**D**

diffusion

#7

 EDIT

Passive transport includes \_\_\_\_\_.

**ANSWER CHOICE****A**

osmosis

**B**

facilitated diffusion

**C**

diffusion of a substance directly across the lipid bilayer of the membrane.

**D**

all of the above



#8

 EDIT

How do cells transport small, nonpolar, hydrophobic molecules, such as steroid hormones, across the



cell membrane?



### ANSWER CHOICE



- A** Such molecules diffuse freely.
- B** Via active transport.
- C** Via endocytosis.
- D** None of the above.

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#9

 EDIT



What kind of membrane protein penetrates into the hydrophobic part of the lipid bilayer?



### ANSWER CHOICE



- A** integral protein
- B** lipid-anchored protein
- C** peripheral protein
- D** phosphatidylcholine



#10

 EDIT

What kind of membrane protein is found entirely outside the bilayer on either the extracellular or cytoplasmic surface? These proteins are covalently linked to a membrane lipid situated within the bilayer.

**ANSWER CHOICE****A** lipid-anchored protein**B** transmembrane protein.**C** carbohydrate-anchored protein**D** peripheral protein

ADD QUESTION:

MULTIPLE CHOICE

TRUE / FALSE

SHORT ANSWER

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## Edit Quiz

Share Quiz:  
**SOC-19794553**

MCDB 3145 Quiz #3

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#1

**EDIT**

What technique below is often used to identify transmembrane segments of integral proteins?

**ANSWER CHOICE****A** Michaelis-Menten plot**B** hydropathy plot**C** hydrophilicity plot**D** titration plot

**E**

Lineweaver-Burk plot

#2

 EDIT

A channel that opens in response to changes in ionic charge across a membrane is called a \_\_\_\_\_.

**ANSWER CHOICE****A**

electric-gated channel

**B**

ligand-gated channel

**C**

charge-gated channel

**D**

voltage-gated channel

**E**

positive-gated channel

#3

 EDIT

A channel that opens in response to the binding of a specific molecule, which is usually not the solute

that passes through the channel is called a \_\_\_\_\_.

### ANSWER CHOICE

- A** electric-gated channel
- B** charge-gated channel
- C** voltage gated channel
- D** ligand-gated channel
- E** positive-gated channel



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### #4

 EDIT



Diffusion during which the substance to be transported binds selectively to a membrane-spanning protein which helps the process along, is called \_\_\_\_\_.



### ANSWER CHOICE

- A** osmosis
- B** simple diffusion



- C** active transport
- D** facilitated osmosis
- E** facilitated diffusion

#5

 EDIT

The sodium-potassium pump makes the cell interior more \_\_\_\_\_ by pumping \_\_\_\_ sodium ions out of the cell for every \_\_\_\_ potassium ions pumped in.

**ANSWER CHOICE**

- A** negative, 2, 3
- B** positive, 2, 3
- C** negative, 4, 3
- D** positive, 3, 2
- E** negative, 3, 2

#6

 EDIT

In the Na<sup>+</sup>/glucose cotransporter, \_\_\_\_ moving down its gradient drives the transport of \_\_\_\_ against its gradient.

**ANSWER CHOICE****A** Na<sup>+</sup> ions, K<sup>+</sup> ions**B** Na<sup>+</sup> ions, glucose**C** K<sup>+</sup> ions, glucose**D** glucose, Na<sup>+</sup> ions**E** glucose, K<sup>+</sup> ions

#7

 EDIT

Which site in a neuron receives incoming information from external sources?

**ANSWER CHOICE****A** Cell body

<b>B</b>	Terminal knob
<b>C</b>	Dendrites
<b>D</b>	Axon
<b>E</b>	Axon hillock

#8

 EDIT

As an action potential is initiated, the membrane is \_\_\_\_\_. This is caused by the \_\_\_ of \_\_\_ ions.

**ANSWER CHOICE**

<b>A</b>	depolarized, influx, K+
<b>B</b>	depolarized, efflux, Na+
<b>C</b>	hyperpolarized, influx, Na+
<b>D</b>	hyperpolarized, efflux, Na+
<b>E</b>	depolarized, influx, Na+



#9

 EDIT

How do Na<sup>+</sup> ions enter a neuron when an action potential is initiated?

**ANSWER CHOICE****A** a voltage-gated Na<sup>+</sup> facilitated transporter**B** a voltage-gated Na<sup>+</sup> channel**C** a gated Na<sup>+</sup> pump**D** the Na<sup>+</sup>/K<sup>+</sup>-ATPase**E** the ligand-gated Na<sup>+</sup> channel

#10

 EDIT

What causes the membrane potential to return to the normal negative value after an action potential has occurred?

**ANSWER CHOICE****A** opening of a ligand-gated Na<sup>+</sup> channel

- B** opening of a voltage-gated K<sup>+</sup> facilitated transporter
- C** opening of a voltage-gated K<sup>+</sup> channel
- D** closing of a voltage-gated K<sup>+</sup> channel
- E** opening of a voltage-gated Na<sup>+</sup> channel

ADD QUESTION:

**MULTIPLE CHOICE**

**TRUE / FALSE**

**SHORT ANSWER**

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