

Course No: CON 5311
Course Title: General Biology
Date: 09-11-2013
No. of Questions: (4)
Time: 1 hour
Using Calculator (No)

University of Palestine



Midterm Exam
2013-2014
Total Grade: 20

Instructor: Dr. Essameddin Elzatma
Student No.: _____
Student Name: _____
College Name: Dentistry
Dep. / Specialist: _____
Using Dictionary (No)

Q1: Multiple choice (5 Marks)

1- Which of the following is NOT a type of passive transport?

- A- diffusion B- osmosis C- endocytosis D- facilitated diffusion

2- Which of the following is a type of active transport?

- A- Na⁺/ K⁺ pump B- endocytosis C- exocytosis D- all of these

3- All of the following are carbohydrates EXCEPT

- A- starch B- glycogen C- chitin D- cholesterol

4- Active transport requires:

- A- a concentration gradient B- osmosis C- energy D- a hypertonic solution

5- Which of the following is not a part of an animal cell?

- A- mitochondria B- cell membranes C- cell wall D- cytoplasm

6- Facilitated diffusion _____ require energy and uses the help of _____

- A- does, transport proteins B- does, cytoplasm
C- does not, transport proteins D- does not, sodium pumps

7- A semi permeable membrane is stretched across a chamber filled with water. The membrane is only permeable to water. 60 mg of salt is added to the left side of the chamber. Which of the following will happen?

- A- water will move toward the right side B- salt will move toward the right side
C- water will move toward the left side D- salt will move toward the left side

8- What is the main function of mitochondria?

- A- to generate most of the cell's supply of chemical energy
B- to ingest and destroys foreign matter.
C- to process and package the proteins and lipids that are made by the cell
D- to carry the genetic information for the creation of new cells

9- A cell that is missing lysosomes would have difficulty doing what?

- A- digesting food B- storing energy
C- packaging proteins D- moving cytoplasm

10- Which of the following organelles would NOT be found in a plant cell?

- A- chloroplast B- DNA C- food vacuole D- cell membrane

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Q2: Indicate whether the following statements are true (T) or false (F) (5 Marks)

- 1- Active transport is the movement materials or ions from an area of lower concentration to an area of higher concentration. (T / F)
- 2- Symports transporter proteins move two solutes in the opposite direction. (T / F)
- 3- As the cell grow in size, the ratio of surface area: volume decrease. (T / F)
- 4- Transport through vesicles is a type of passive transport. (T / F)
- 5- Proteins are made of amino acids held together by ester bonds. (T / F)
- 6- The building blocks of nucleic acid molecules are called DNA and RNA. (T / F)
- 7- A hydrogen bond is stronger than either an ionic or a covalent bond. (T / F)
- 8- All euokaryotes lack the cell wall that surrounding the plasma membranes. (T / F)
- 9- The Na^+ / K^+ pump bring three Na^+ into the cell and export ions two K^+ ions. (T / F)
- 10- In normal conditions, the cells use protein as the first choice to get energy. (T / F)

Q3: Match the following sentence. (5 Marks)

- | | |
|---------------------------|---|
| 1- Triglycerides | ----- stops once the carrier protein saturated by the carried solute. |
| 2- The α helix | ----- source of energy inside the cell. |
| 3- Enzymes | ----- composed of 3 fatty acid and one molecule glycerol. |
| 4- RNA molecules | ----- derived basically from cholesterol |
| 5- Facilitated diffusion | ----- covalent bonding between amino acids |
| 6- Adenosine triphosphate | ----- do not consumed during chemical reactions |
| 7- Endocytosis | ----- secondary structure of proteins |
| 8- Simple diffusion | ----- down concentration gradient |
| 9- Steroid molecules | ----- bringing substances into the cells |
| 10- Peptide bonds | ----- consist of only one polynucleotide chain |

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Q4: Definitions (5 Marks)

1- Secondary active transport

2- Osmosis

3- Flagella of bacteria

4- Ribosomes

5- Saturated triglycerides

GOOD LUCK