

## Chapter3

1-Which of the following type of microscope is used to study the internal structure of the cell?

- a) Light Microscope
- b) Scanning electron microscope
- c) Transmission electron microscopes
- d) None of the above

2-Which one of the following is found in animal cells?

- a) Central vacuole
- b) cell wall
- c) Lysosome
- d) Chloroplast

3-Ribosomes are synthesized in

- a) Nucleolus
- b) Nucleus
- c) endoplasmic reticulum (ER)
- d) Golgi apparatus

4-Which one of the following organelles can digest macromolecules such as proteins, and use enzymes to recycle the damaged organelles?

- a) Lysosome
- b) Ribosome
- c) Nucleus
- d) Mitochondria

5- Which one of the following are Energy-Converting Organelles?

- a) Mitochondria& Ribosome
- b) Ribosome& Chloroplasts
- c) Mitochondria & Chloroplasts
- d) Ribosome& Mitochondria

6- Extracellular matrix (ECM) is made up of

- a) Cellulose
- b) collagen fibers
- c) fats
- d) Glucose

7- Which one of the following organelles is not a part of the endo-membrane system?

- a) Lysosome
- b) Ribosome
- c) Chloroplast
- d) Golgi apparatus

8-----is one of the Smooth ER functions

- a) lipids synthesis
- b) Distribution of manufactured proteins
- c) protein synthesis
- d) None of the above

9-The cells of Pancreas that secrete digestive enzymes have an abundance of....., which receive & pack these enzymes into transport vesicles to release their contents outside the cells.

- a) Ribosome
- b) Chloroplast
- c) Golgi apparatus
- d) Mitochondria

10- .....are the sites of protein synthesis.

- a) Mitochondria
- b) Lysosomes
- c) Ribosomes
- d) Golgi apparatus

## Chapter 4

11- The Cell membrane phospholipids have a..... head and two .....tails.

- a) Hydrophilic& hydrophobic
- b) Hydrophobic& hydrophilic
- c) Hydrophilic& hydrophilic
- d) Hydrophobic& hydrophobic

12- The cell membrane allows some substances such as ..... to cross more easily than others.

- a) Oxygen
- b) Carbon dioxide
- c) Water
- d) All of the above

13- Which one of the following mechanisms is used to export bulky molecules, such as proteins or polysaccharides?

- a) Endocytosis
- b) Exocytosis
- c) Diffusion
- d) Osmosis

14-..... is a biological process, which uses ATP to pump molecules AGAINST/UP the concentration gradient ( molecules move from a low concentration of solute to high concentration of solute).

- a) Passive Transport
- b) Active Transport
- c) Osmosis
- d) Endocytosis

15- ..... is the net movement of molecules from a region of higher concentration to a region of lower concentration.

- a) Passive transport
- b) Osmosis
- c) Active transport
- d) Pinocytosis

16- Which statement is CORRECT about osmosis?

- a) It occurs only across a semi-permeable membrane
- b) Water travels from a solution of lower solute concentration to a solution of higher solute concentration
- c) A+b
- d) None of the above

17- Which one of the following statements is TRUE about diffusion?

- a) It involves movement of solvent molecules
- b) It occurs when particles move from a region of lower concentration to a region of higher concentration
- c) It does not require a semi-permeable membrane
- d) All of the above

18- To block the enzyme action, the enzyme's active site interacts with

- a) the enzyme's substrate
- b) competitive inhibitors
- c) non-competitive inhibitor
- d) All of them

19- The study of energy relationships and their transformation is called

- a) Photosynthesis
- b) Metabolism
- c) Thermodynamics
- d) Oxidation

20- ATP is composed of adenine (a nitrogenous base), ribose (a five-carbon sugar), and

.....

- a) three phosphate groups
- b) two phosphate groups
- c) one phosphate group
- d) none of the above