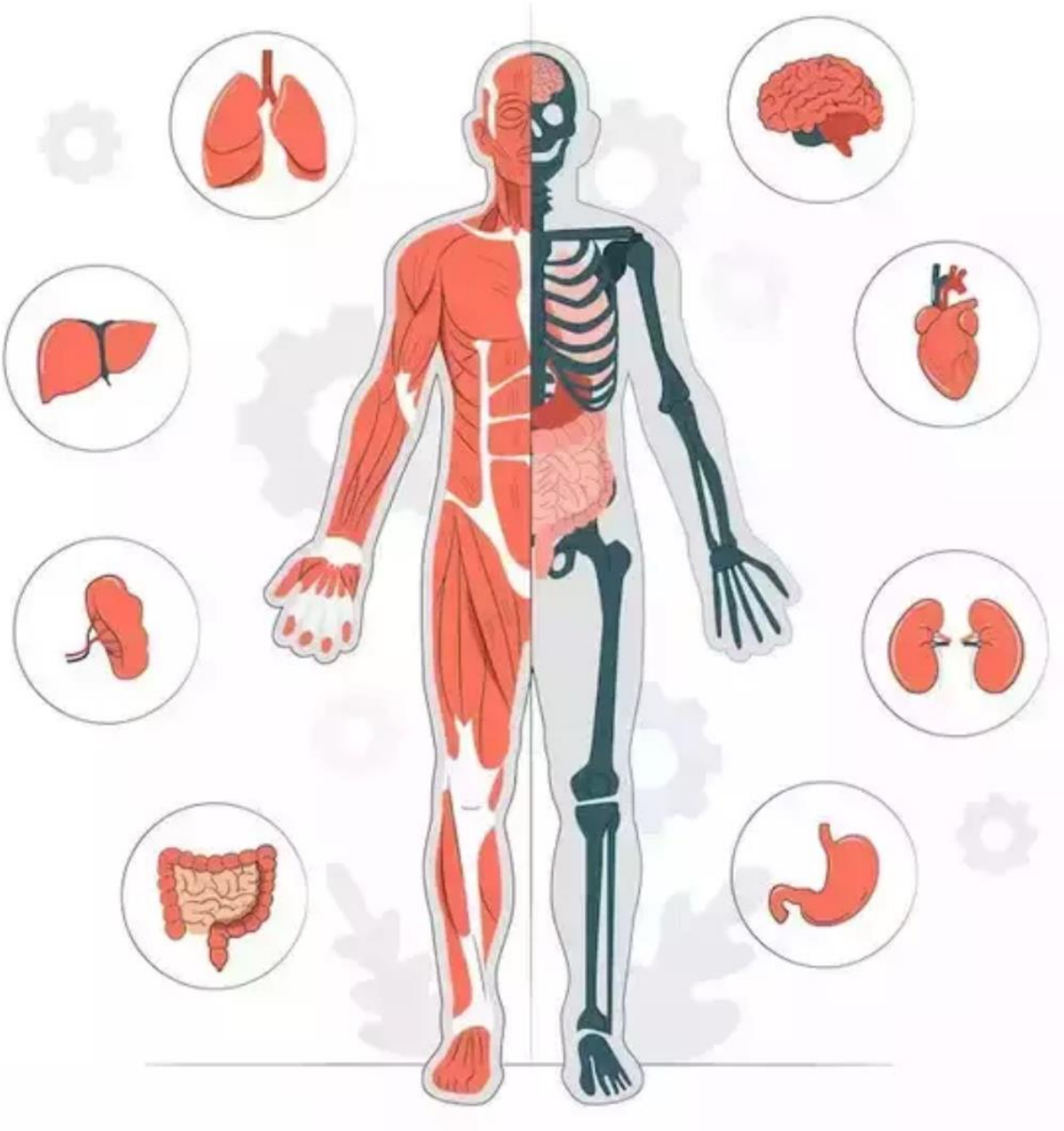

Faculty of dentistry

Physiology

Transport across the cell membrane 1

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1. Which of the following is NOT a type of membrane protein?

A) Integral proteins

B) Peripheral proteins

C) Glycoproteins

D) Ribosomal proteins

2. What type of channel is always open?

A) Voltage-gated channels

B) Ligand-gated channels

C) Leak channels

D) Carrier proteins

3. Osmosis is the movement of water from?

A) High solute concentration to low solute concentration

B) Low solute concentration to high solute concentration

C) High pressure to low pressure

D) Low temperature to high temperature

4. What structure allows water to move rapidly across the membrane?

A) Ion channels

B) Aquaporins

C) Carrier proteins

D) Ribosomes

5. What happens to a red blood cell placed in a hypertonic solution?

A) Swells and bursts

B) Shrinks

C) Remains the same

D) Divides

6. Which property is unique to facilitated diffusion compared to simple diffusion?

A) Requires a concentration gradient

B) Does not need energy

C) Uses carrier proteins

D) Moves molecules through lipid bilayer

7. What happens to a cell placed in an isotonic solution?

A) Water moves into the cell

B) Water moves out of the cell

C) No net water movement occurs

D) The cell bursts

8. What type of membrane protein spans the entire lipid bilayer?

A) Peripheral protein

B) Integral protein

C) Glycoprotein

D) Lipoprotein

9. What happens when a ligand binds to a ligand-gated ion channel?

A) The channel closes

B) The channel opens

C) The ion pump activates

D) ATP is synthesized

10. What type of molecules can pass through the cell membrane by simple diffusion?

A) Large polar molecules

B) Charged ions

C) Small nonpolar molecules

D) Proteins

Answers :-

1) D
2) C
3) B
4) B
5) B
6) C
7) C
8) B
9) B
10) C