

### الأسئلة الاسترشادية لمادة الأحياء

للف الثاني الثانوي- الفصل الدراسي الأول- للعام الدراسي ٢٠٢٠/٢٠١٩

(النسخة الإنجليزية)

(1)

Which of the following substances DOES NOT transported through the transporting system in plants?

(A) H<sub>2</sub>O

(B) Glucose

(C) Cellulose

(D) Mg<sup>+2</sup>

Study the following table, and then conclude:

Substance	Concentration in villi	Concentration in transporting vessels
Na <sup>+</sup>	155 mg / 100 ml	15 mg / 100 ml
Glycine	0.02 %	0.1 %
H <sub>2</sub> O	75 %	70 %
Cl <sup>-</sup>	1.01 mg / 100 ml	1.5 mg / 100 ml
Fat droplets	0.33 %	0.35 %

(2)

Which substance transferred to the transporting vessels by the same property?

(A) Sodium ions and Chlorine.

(B) Water and Fat droplets.

(C) Chlorine ions and Glycine.

(D) Glycine and Fat droplets.

During preparation of a cross section in a stem of recent dicot plant, and adding Iodine dye on the sample to be clearer

(3) **What is the tissue(s) that you expect NOT to be stained by the deep blue color?**

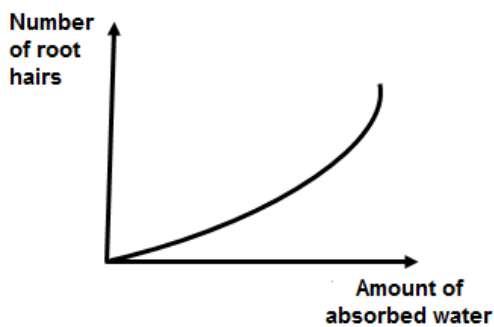
(A) Pericycle and cambium.

(B) Cortex and Pith.

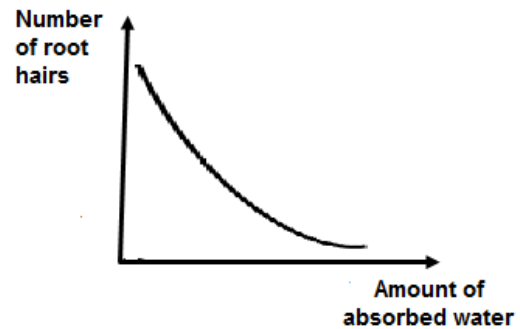
(C) Medullary rays and Pith.

(D) Cortex and vascular bundle.

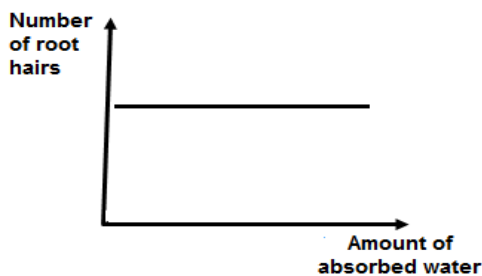
(4) **Which of the following graphs represent the relation between the number of root hairs and amount of absorbed water?**



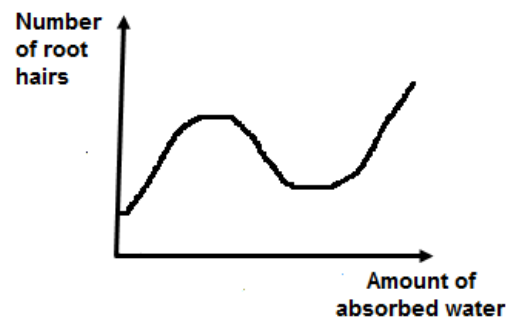
(A)



(B)



(C)



(D)

(5) Which of the following plant leaves produce largest amount of oxygen at day time?

(A)



(B)



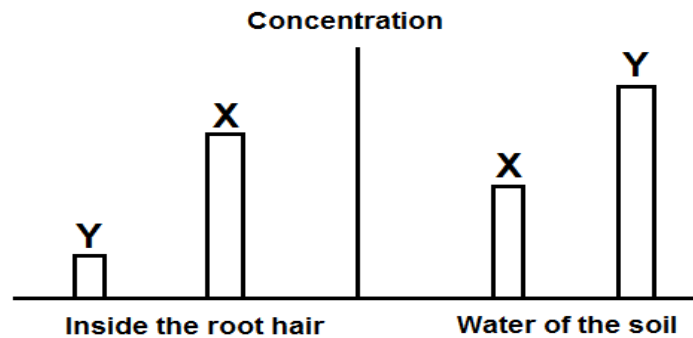
(C)



(D)



Study the following figure which represents the - concentration of ion (X) and ion (Y) for elements needed by a certain plant in the soil and inside the root hair of this plant, then determine:

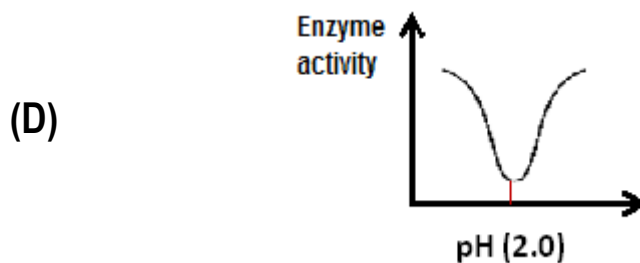
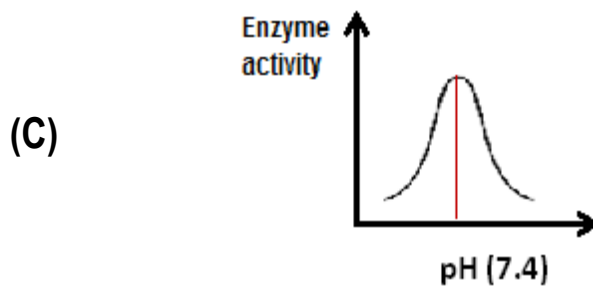
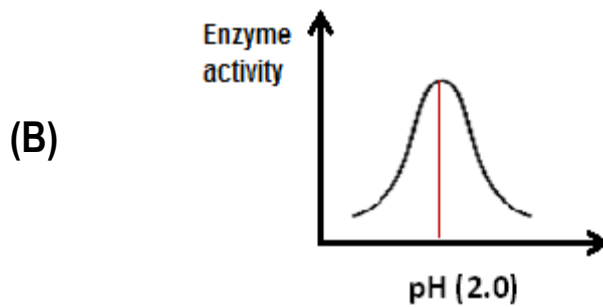
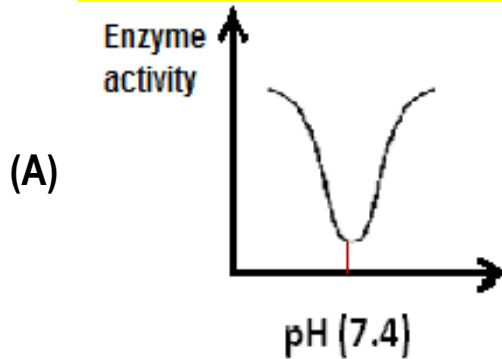


(6) What are the physical phenomena that lead to transfer of ion (X) and ion(Y) consequently?

- (A) Active transport, Diffusion.
- (B) Selective permeability, Active transport.
- (C) Diffusion, Selective permeability.
- (D) Selective permeability, Diffusion.

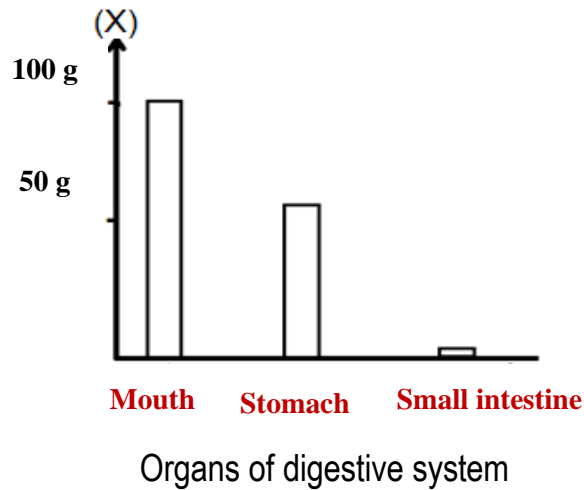
If you know that pepsin enzyme is active in narrow range of high concentrations of hydrogen ions.

(7) What is the graph relation that represents the highest rate of activity for pepsin and pH value?



Study the graph which represents the pathway of 100 gm of food substance (X) across the different parts of digestive system after more than one hour of its eating.

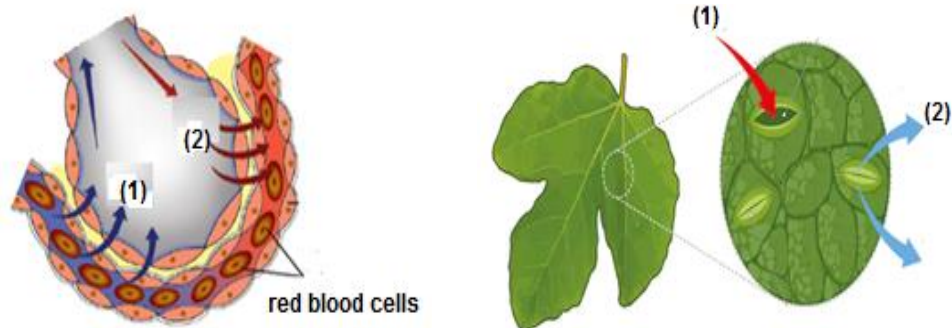
Amount of food substance



(8) **What is the form of substance (X) will be transported through the villi in small intestine?**

- (A) Glycerin.
- (B) Monosaccharides.
- (C) Fatty acids.
- (D) Amino acids.

Study the two figures then conclude:



(9) **What represented by the arrow number (1) and arrow number (2) consequently?**

- (A) Carbon dioxide and Oxygen.
- (B) Water vapor and Carbon dioxide.
- (C) Oxygen and water vapor.
- (D) Oxygen and Carbon dioxide.

The picture represents part of electrocardiogram (EKG) for normal human heart. If you know that:

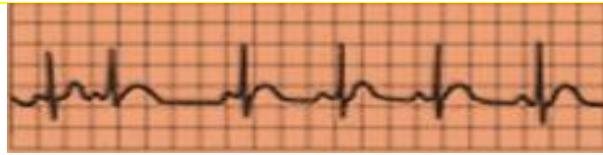
- Part (P) represents contraction of atria to pump the blood to ventricles.
- Part (QRS) represents the contraction of ventricles to pump the blood outside the heart.
- part (T) represents the secondary contraction of ventricles to pump blood residues outside the heart



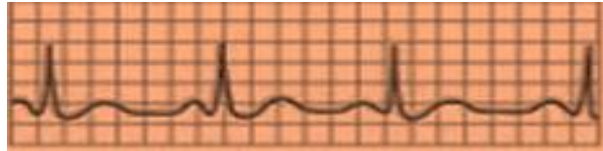
(10)

**Which of the following diagrams represents the slow heart beats rate?**

(A)



(B)



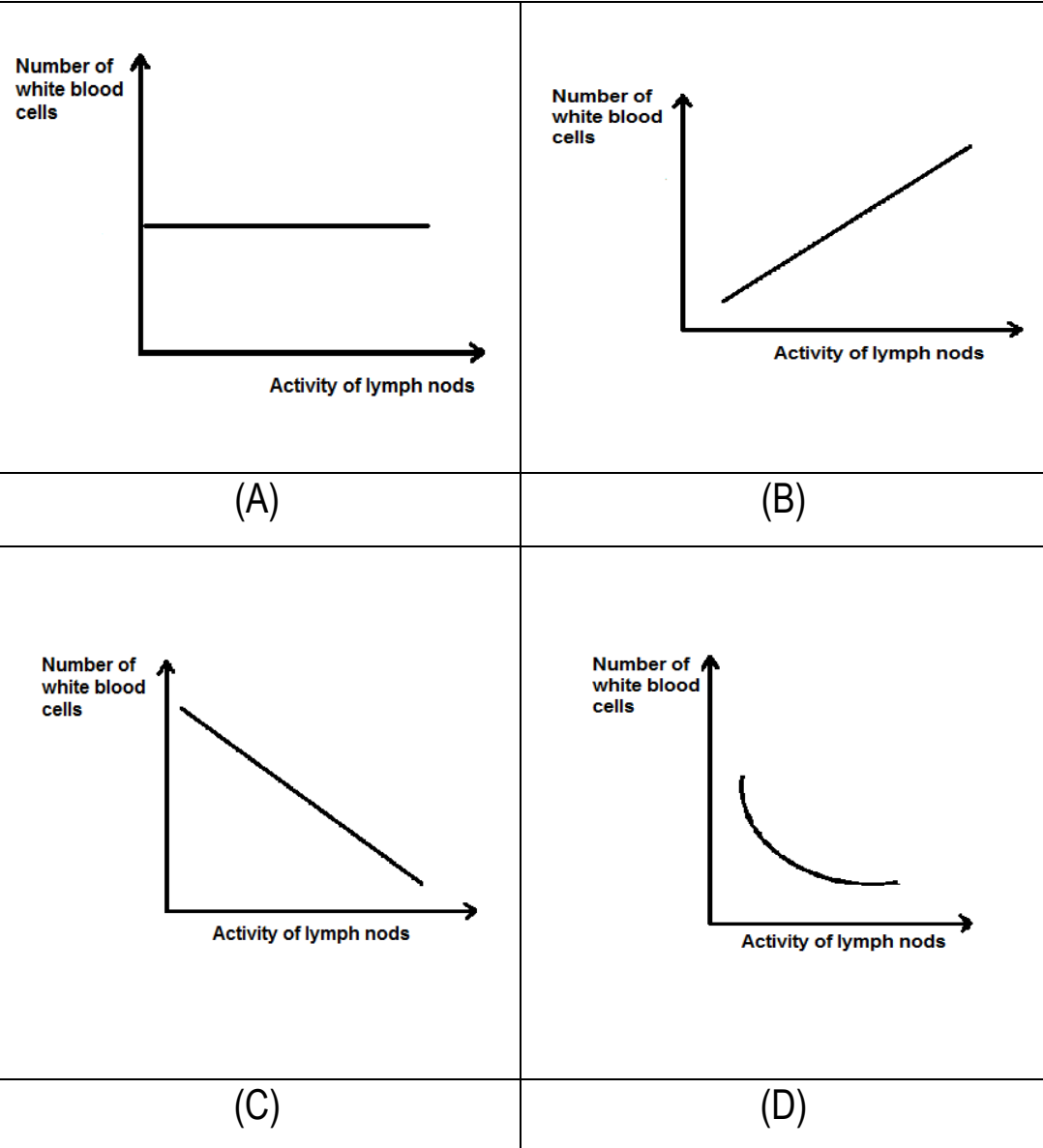
(C)



(D)

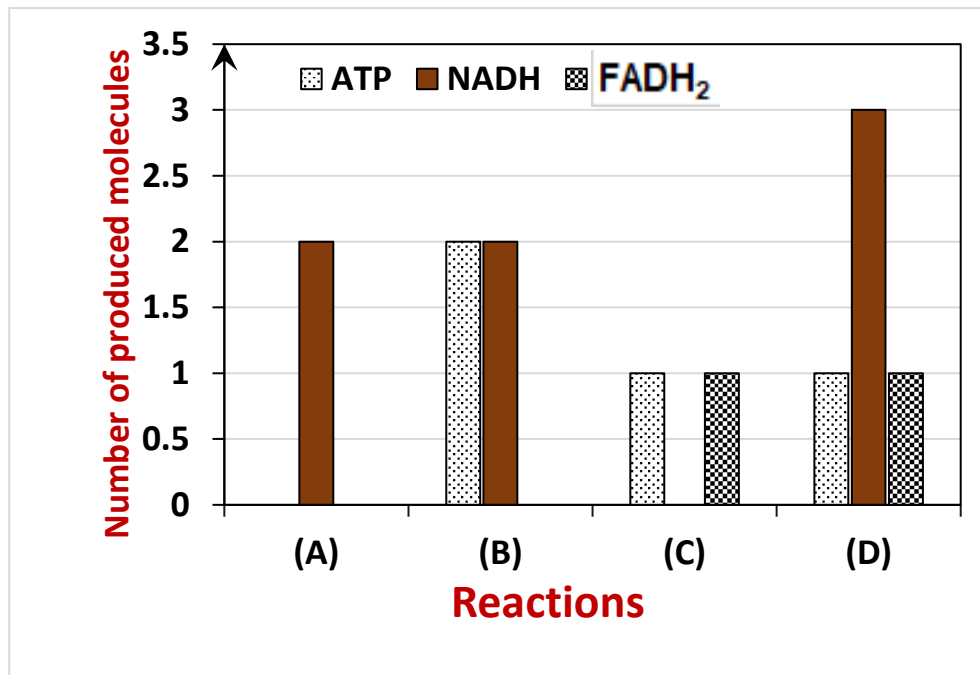


(11) What is the graph relation that represents the immunity state for a person in the first days of bacterial infection?





Study the graph which represents some products of cellular respiration reactions, then determine:



(12) Which reactions occur in the cell cytoplasm?

- (A) (A)
- (B) (B)
- (C) (C)
- (D) (D)