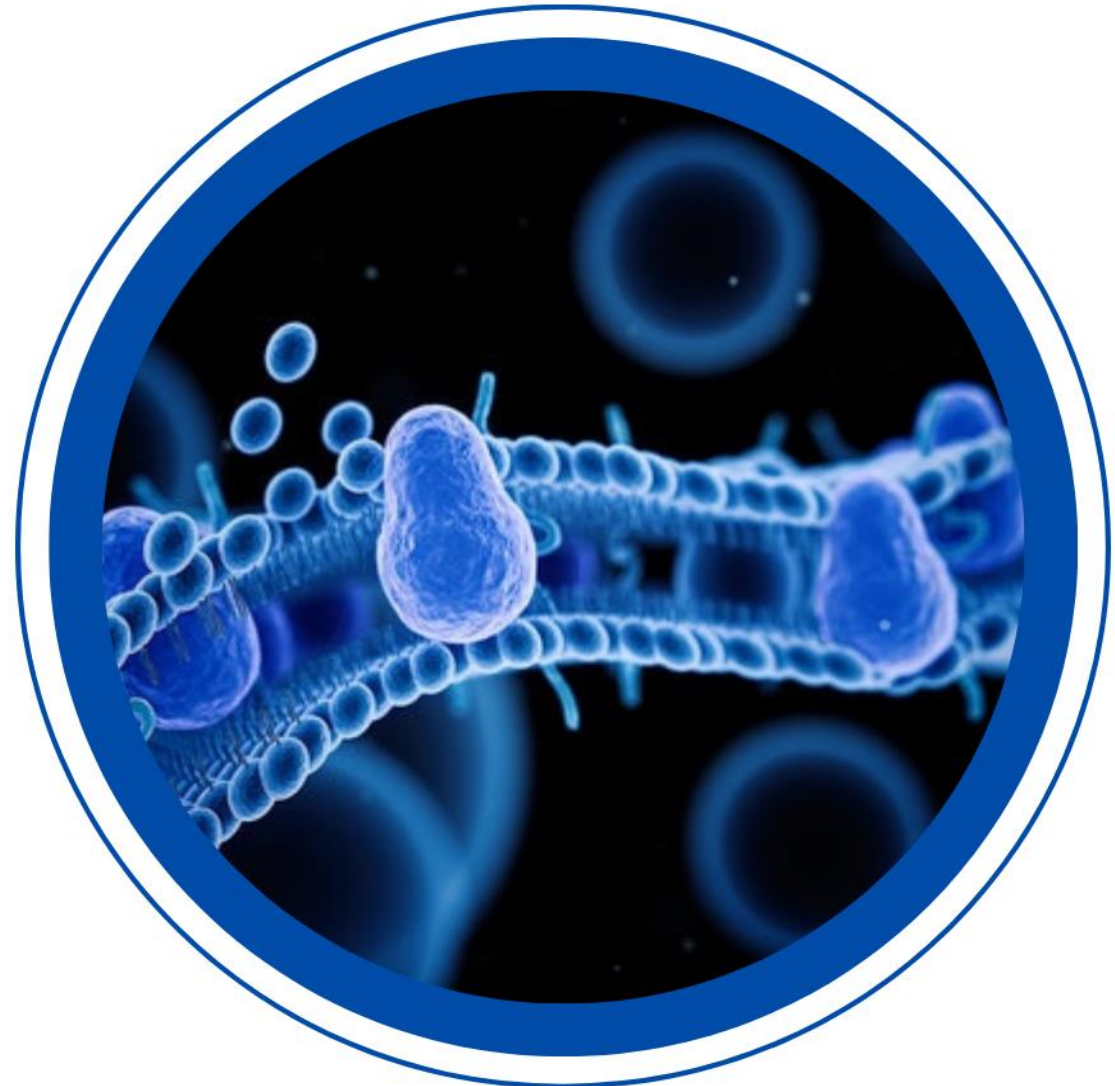




GI

PHYSIOLOGY

FINAL PAST PAPERS



Done by: Rababa'h

1- As part of a physiology experiment, an intestinal preparation is placed in a solution at an appropriate temperature to preserve its viability. The smooth muscle cells in the preparation exhibited a slow wave frequency of 8 waves/minute, and a contraction frequency of 4 contractions/minute. Upon treatment of the preparation with norepinephrine, the most likely observed recordings of slow wave frequency and contraction frequency, respectively, would be:

- A. 4 and 0
- B. 4 and 4
- C. 8 and 0
- D. 8 and 8
- E. 0 and 0

Answer: C

2- Which of the following produce the HIGHEST metabolic rate:

- A. Sleep
- B. Hypothyroidism.
- C. Basal state.
- D. Fever
- E. Malnutrition

Answer: D

3- What happens by adding Ach to an experiment?

- A. Increases tonic contraction
- B. Decreases tonic contraction
- C. Increases phasic contraction
- D. B+C

Answer: A

4- The WRONG sentence about metabolic rate:

- A. CO_2 is used in indirect calorimetry
- B. Cold weather increases MR
- C. MR is increased with sympathetic

Answer: A

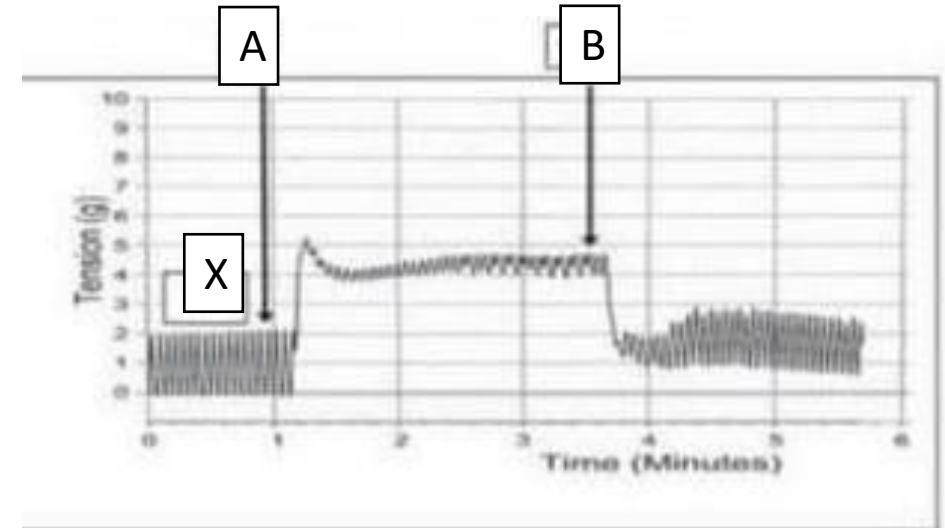
5- One of the followings is NOT true regarding to the metabolic rate :

- A. Energy equivalent of O₂ is needed to calculate metabolic rate by indirect calorimetry.
- B. It is higher in a person on a diet of fat than on protein diet.
- C. It represents the heat produced by a body per hour per meter square surface area.
- D. It is lower in a person during starvation and malnutrition.
- E. O₂ consumption is used for indirect calorimetric measurements of metabolic rate

Answer: B

6- The graph below represents the rat's small intestinal motility as shown in the physiology lab, before and after adding substance A and substance B. All the following sentences are true, EXCEPT. (مكرر أكثر من مرة)

- A. Substance A mimics the effect of acetylcholine.
- B. The effects of substance A could be mediated via muscarinic receptors.
- C. The part of the graph labelled as X represents slow waves.
- D. Substance A has increased tonic contraction.
- E. Substance B could be a competitive antagonist for substance A.



Answer: C

7- One of the followings regarding to the metabolic rate is NOT true:

- A. It represents the heat produced by a body per meter square surface area per hour.
- B. It is increased during sympathetic stimulation.
- C. To measure the BMR the tested person must be in sleep during measurement.
- D. It reflects the metabolic activities that are taking place in the body per time unit.
- E. O₂ consumption is used for indirect calorimetric measurements of metabolic rate.

Answer: C

8- Choose the Wrong statement

Answer: O₂ is used in direct calorimeter

9- Which of the following decrease the metabolism rate?

Answer: Malnutrition