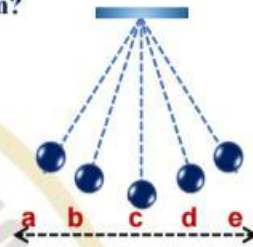




First: Multiple Choice Questions

1) The opposite figure illustrates a simple pendulum. Which of the following pairs of points represents a distance equal to the amplitude of vibration?

- (A) a , e
- (B) b , e
- (C) a , d
- (D) c , a



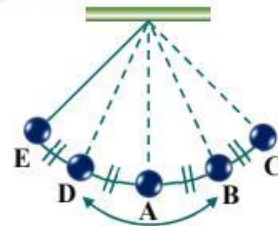
2) The opposite figure shows one arm of a tuning fork. Which of the following represents one complete vibration?

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



3) A simple pendulum oscillates between points A, B, C, D, and E as shown in the figure. The ratio of the time taken for displacement AD to the time taken for displacement AB equals ...

- (A) 1/2
- (B) 1/4
- (C) 1/3
- (D) 1/1





4) The maximum displacement of a vibrating string takes **0.002 s**, so the frequency equals ... Hz

- (A) 250 (B) 125
(C) 500 (D) 1000

5) If the number of complete vibrations made by a vibrating body is **1800 vibrations** per minute, then the frequency equals

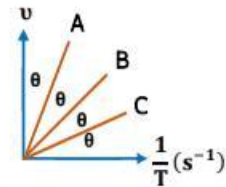
- (A) 0.6 Hz (B) 1.5 Hz
(C) 30 Hz (D) 90 Hz

6) A vibrating body has a frequency equal to **9 times** its time period, so the periodic time equals s

- (A) 1/3
(B) 1/9
(C) 1/81
(D) 1

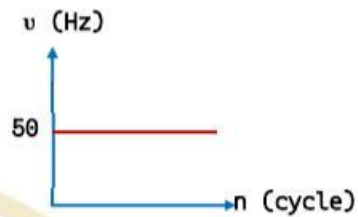
7) Three students **A**, **B**, and **C** drew graphs representing the relationship between the reciprocal of the time period and the frequency. If all the angles are equal, the correct evaluation of the students' graphs is:

- (A) Student A is correct, and students B and C are incorrect
(B) Student B is correct, and students A and C are incorrect
(C) Student C is correct, and students A and B are incorrect
(D) Students A and B are incorrect, and student C is incorrect



8) The opposite graph shows the relationship between the number of vibrations of a vibrating body and its frequency. The periodic time equals

- (A) 50 s
- (B) 0.2 s
- (C) 0.02 s
- (D) 0.002 s



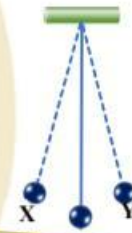
Second: Essay Questions

9) In the opposite figure, if the pendulum moves from point X to point Y in a time interval of 0.1 s, calculate the frequency of this pendulum.

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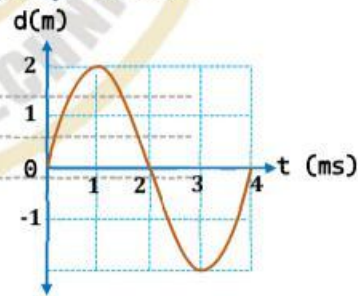


1) The opposite graph illustrates the motion of a vibrating body. Calculate the frequency of this body

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- The end -

