

Mata Kuliah : Fisika I

Sifat :

Kelompok :

Waktu :

Hari, Tanggal :

Dosen :

1. Thermometer scale x has a melting point of 40° and the boiling point of 160° degrees. Thermometer scale y has a melting point of 20° and the boiling point of 180° degrees. Calculate the temperature :
 - a. $20^\circ X = \dots\dots\dots^\circ Y$
 - b. $T_x + T_y = 80$, then $T_c = \dots\dots\dots^\circ C$
2. 190 cm long metal wire at $0^\circ C$ and the increased length of 0.2 cm when heated to $100^\circ C$. The metal in volume 390 cm^3 at $20^\circ C$, calculate how much the increased volume at a temperature of $70^\circ C$?
3. If 200 g of water $10^\circ C$ mixed with 100 g of $t^\circ C$ water produces a mixture with a final temperature of $30^\circ C$, what is the temperature t ?
4. Give examples in daily life, and explain the principles of :
 - a. Thermic energy transfer
 - b. Law of thermodynamics
5. A vibrating object in simple harmonic with equation of $y=5 \sin (3\pi t + \pi/6)$. y in meter, t in seconds, and scale angle in radians. Determine :
 - a. Amplitude, frequency and the period of motion
 - b. Instantaneous velocity and acceleration
 - c. Position, velocity and acceleration at $t=2s$
 - d. Maximum velocity and acceleration
 - e. Kinetic energy and potential energy at $t=1s$ if $m= 100g$
 - f. Total energy

000 *Selamat Mengerjakan* 000

