I. WRITE THE ANSWERS FOR THE FOLLOWING QUESTIONS.

1. What is voltage? (Define and explain voltage in detail.)
2. How can we measure the following quantities by using measuring devices and draw the circuit to measure them.
    A. Electric current
    B. Voltage
    C. Resistance of the resistor
3. In a television picture tube 5×10^{14} electrons shoot out of the electron gun in a second. How large is the electric current flowing in the tube. (elementary charge e=1.6×10^{-19})
4. Two resistors of 5Ω and y are connected in series. The total resistance of these resistors is 12Ω. What is the value of y resistor?
5. When we express the resistance with the factors that affect resistance of a conductor with in a constant temperature in mathematical relation it can be expressed as follow(R=$\rho\frac{L}{A}$) where, R=resistance, ρ=resistivity, L= length of the conductor, A= area of the conducting wire. So do the following question Copper has a resistivity of 1.7×10^{-8}Ωm .what is the resistance of a 200m of copper wire of diameter 3cm?
6. What we call objects that can emit light?
7. Define A. reflection
    B. Refraction
8. Explain the reason that why light can't travel through opaque materials?
9. What kind of image is formed by pin-hole camera?
10. A small immersion heater connected to a 12 volt supply from which it takes a current of 3.5A is immersed in 0.6kg of cold water for 3 minute. Calculate the increase on temperature of the water? (Take specific heat capacity of water is $3000\frac{joule}{kg\,℃}$)

N.B:-No 10 is from Unit four, other questions are related with unit five and unit six.

PHYSICS G-8

*Set by **physics** teachers*

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