

MOCK TEST PAPER # 8

SOLUTION

PHYSICS (CLASS-XII)

1. $E = -\frac{dV}{dr}$ and for a hollow sphere, $E = 0$ at the centre.

2. Resistance of bulb is more than that of toaster.

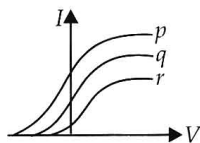
3. A permanent magnet should retain its magnetism for a long time.

5. The bands of colour on carbon resistance in sequence are orange, violet, red and silver.

7. Metals B yields photoelectrons with the light of given wavelength.

OR

I is maximum of P metal, less for q metal and least for r metal.



10. $\frac{I_{\max}}{I_{\min}} = \frac{25}{16}$

15. $R_1 = 1990 \Omega$,
 $R_2 = 18$,
 $R_3 = 180 \text{ K}\Omega$

Magnetic field induction at P , Q , R is $2 \times 10^{-5} \text{ T}$, 10^{-4} T and $4.7 \times 10^{-5} \text{ T}$ respectively.

16. The modulating Singal = $\frac{A_1 A_C}{2} \cos \omega_m t$.

17. $v = -25 \text{ cm}$, $h = 10 \text{ cm}$ and the image is erect, virtual and magnified.

21. (i) 1.4 V.
 (ii) 0.7 Ω ,
 (iii) 1 A

24. $\therefore a_y = \frac{f}{m} = \frac{qE}{m}$, $t = \frac{L}{v_x}$ and $y = \frac{1}{2} a t^2$

