28. In materials like aluminium and copper, the correct order of magnitude of various elastic modului is:

(a) Young's modulus < shear modulus < bulk modulus.
(b) Bulk modulus < shear modulus < Young's modulus
(c) Shear modulus < Young's modulus < bulk modulus.
(d) Bulk modulus < Young's modulus < shear modulus.

28. **(c)** Poisson's ratio, $\sigma = \dfrac{\text{lateral strain }(\beta)}{\text{longitudinal strain }(\alpha)}$

For material like copper, $\sigma = 0.33$

And, $Y = 3k(1 - 2\sigma)$

Also, $\dfrac{9}{Y} = \dfrac{1}{k} + \dfrac{3}{\eta}$

$Y = 2\eta(1 + \sigma)$

Hence, $\eta < Y < k$