

iv) overall gear ratio

$$= G = \frac{\omega_A}{\omega_B} = \frac{G_{AB}}{G_A} = \frac{d_B}{d_A}$$

~~Compound gear = A + B $\Rightarrow \omega_A = \omega_B$~~

$$\therefore G = G_{AB} \times G_{DC}$$

$$\frac{\omega_A}{\omega_D} = \frac{20}{20} \times \frac{60}{20}$$

$$= 4 \times 3$$

$$= 12 \text{ rpm} \rightarrow$$

iii) ~~G = 6~~

$$F = 40$$

$$F = 20$$