Applied General Science (TVQ01028, TVQ01029) formulae

For use in exams from the January 2017 series onwards

BIOLOGY

- Magnification = $\dfrac{\text{observed size}}{\text{actual size}}$

CHEMISTRY

- moles = $\dfrac{\text{mass}}{M_r}$

- $PV = nRT$

- $Q = mc\Delta T$

- moles = vol (dm^3) x concentration (mol dm^{-3})

PHYSICS

Energy and Efficiency

- efficiency = $\dfrac{\text{useful energy (or power) output}}{\text{total energy (or power) input}}$

- $U = \dfrac{Q}{At\,\Delta T}$

Insert for Applied General Science (TVQ01028, TVQ01029) formulae
For use in exams from the January 2017 Series onwards v4

Turn over ▶

Electricity and Circuits

- $I = Q/t$

- $P = IV$

- $I = V/R$

- rate of heat loss $= I^2R$

- $R_{total} = R_1 + R_2 + R_3$

- $1/R_{total} = 1/R_1 + 1/R_2 + 1/R_3$

Dynamics

- $F = ma$

- $p = mv$

- $F = \Delta p/t$

- (average) $v = s/t$

- $v = u + at$

- $v^2 = u^2 + 2as$

- $s = ut + \frac{1}{2}at^2$

- $GPE = mgh$

- $KE = \frac{1}{2}mv^2$

- $P = E/t$

- weight $= mg$