(1) Equation $v_{AM} = V_c \sin \omega_c t + \frac{mV_c}{2} \cos (\omega_c - \omega_m)t - \frac{mV_c}{2} \cos (\omega$

(2) Bandwidth $BW = 2f_m$

(3) Modulation Index $m = \frac{V_m}{V_c}$

(4) Upper Sideband Frequency $f_c + f_m$

(5) Lower Sideband Frequency $f_c - f_m$

(6) Modulation Index $m = \frac{V_{max} - V_{min}}{V_{max} + V_{min}}$

(7) Carrier Power $P_c = \frac{V_c^2}{2R}$

(8) Each Sideband Power $P_{USB} = P_{LSB} = \frac{m^2}{4} P_c = \frac{m^2 V_c^2}{8R}$

(9) Total Sideband Power $P_{SB} = \frac{m^2 V_c^2}{4R}$

(10) Total Transmitted Power $P_T = \left(1 + \frac{m^2}{2}\right) P_c = \frac{V_{rms}^2}{R}$

where V_{rms} = r.m.s. voltage of AM signal

(11) Transmission Efficiency $\eta = \frac{m^2}{2 + m^2} \times 100\ \%$

(12) Power in Terms of Current $I_T = I_C \left[1 + \frac{m^2}{2}\right]^{\frac{1}{2}}$

(13) Peak Voltage of AM $= V_c + V_m$