000
version number

signature: _____
Johnny Student (jstudent)

Exam 3

Cover Page · Fall 2015

REMEMBER: Bubble in ALL Bubblesheet information!

This includes your first and last name, your UTEID, and your version number.

Please refer to the back of the bubble sheet for more info.

$R = 0.08206$ L·atm/mol·K

$R = 62.36$ L·torr/mol·K

$R = 0.08314$ L·bar/mol·K

$R = 8.314$ J/mol·K

$N_A = 6.022 \times 10^{23}$ mol^{-1}

1 atm $= 1.01325 \times 10^5$ Pa

1 atm = 760 torr

1 bar $= 10^5$ Pa

1 atm = 14.7 psi

$$PV = nRT$$

$$M = \frac{\rho RT}{P}$$

$$P_{\text{total}} = P_A + P_B + P_C + \cdots$$

$$x_A = P_A / P_{\text{total}}$$

$$\left(P + a\frac{n^2}{V^2}\right)(V - nb) = nRT$$

$$v_{\text{rms}} = \sqrt{\frac{3RT}{M}}$$

$$\frac{v_1}{v_2} = \sqrt{\frac{M_2}{M_1}}$$

$$E_k = U = \frac{3}{2}RT = \frac{1}{2}mv^2$$

NOTE: Please keep your Exam copy intact (all pages still stapled). You must turn in your exam copy, plus your bubble sheet, and any scratch paper.