

# CHM 1001 General Chemistry

## Assignment Answers

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### Part 1: Multiple-choice questions

Question No.	Answers
1	C
2	E
3	C
4	D
5	C
6	A
7	B
8	C
9	A
10	D
11	C
12	C
13	D
14	D
15	A
16	C
17	D
18	B
19	C
20	C
Grades	

### Part 2: Short answer questions (You can add pages if needed)

1.  $n_1 R_1 = n_2 R_2$

$$\frac{P_1 \cdot V_1}{T_1} = \frac{P_2 \cdot V_2}{T_2}$$

$$\frac{1 \text{ atm} \cdot 6.0 \text{ L}}{295 \text{ K}} = \frac{0.45 \text{ atm} \cdot V_2}{252 \text{ K}}$$

$$V_2 = 11.4 \text{ L}$$

$$2. P_1 = \frac{nRT}{V} = \frac{(62.07 - 55.85 \cdot 10^3) (0.082) (294)}{49} \text{ atm}$$

$$P_1 = 191 \text{ atm}$$

$$\left( \frac{P_2 + \frac{n^2 a}{V^2}}{V - nb} \right) = nRT$$

$$P_2 = \frac{P_1 V}{V - nb} - \frac{n^2 a}{V^2} = \frac{191.265 \cdot 49}{49 - (62.07 - 55.85 \cdot 10^3) \cdot 16} - \frac{(62.07 - 55.85 \cdot 10^3)^2 \cdot (2.253)}{49^2} \text{ atm}$$

$$P_2 = 149 \text{ atm}$$

3 a. dispersion force

b. dipole-dipole

c. hydrogen bond

4 a. P

b. N

5. (c), (d) & (f)