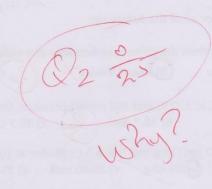
(F10)	30 Frinty only
Physical Chemistry_Chpt_One_Properties of Ga	ses au-li-road alaba signatura
Name of a student ZAHRAM OSSAMA ABASsignature Zandale	No3
University of Mustansiriyah	1st Semester-2021
Department of Chemistry	1st Exam-paper C
Q1: Circle the right answer for all of the following:	(50 points)
1: If a gas has polar particles then the difference between the volume of this gas is  Answer:  a) V <sub>Real</sub> > V <sub>Perfect</sub> b) V <sub>Real</sub> < V <sub>Perfect</sub> 2: A gas occupies 60 × 10 <sup>3</sup> mL at 150 °C and 760 mmHg pressure. What would be its  Answer:  a) 88.7 mL  b) 38.7 dm <sup>3</sup> c) 38.7 L <sup>-1</sup> d)  3: Calculate the weight of H <sub>2</sub> O gas (18 g.mol <sup>-1</sup> ) in a 5 L cylinder at 10 x 10 <sup>2</sup> kPa and 3 Answer:  a) 29.40 g mol <sup>-1</sup> b) 29.40 g c) 29.40 mol  d) 29.40 kg	d) V <sub>Real</sub> ≠ V <sub>Perfect</sub> s volume at STP?  38.7 dm <sup>-3</sup>
4: Calculate the density of H <sub>2</sub> O placed in a 22400 mL cylinder at 10 <sup>5</sup> Pa and 0 °C.	0.804 L-1 5/5
6: A tank contains a certain amount of gas at 10 <sup>5</sup> Pa. The gas is transferred to another of 200 × 10 <sup>3</sup> Pa. What should be its volume?  Answer: (a) 80 L b) 80 Pa L c) 80 Pa dm <sup>3</sup> (b) 80 L <sup>-1</sup>	ther tank 40 dm <sup>3</sup> with pressure
7: According to Boyle's law the pressure of a gas is inversly proportional with?  Answer: a) p b) T c) R d) V e) n  8: The difference between real and ideal gas, that the real gas interested in?  Answer: a) V & p b) V & T c) p & n  d) T & p	الغرفس
10: The behaviour of real gas is ideal when the value of Z is equal to  Answer:  a) V <sub>m</sub> < V <sup>0</sup> <sub>m</sub> b) V <sub>m</sub> > V <sup>0</sup> <sub>m</sub> c) V <sub>m</sub> = V <sup>0</sup> <sub>m</sub>	d) V <sub>m</sub> ≠ V <sup>O</sup> <sub>m</sub>
Q2: The following data have been observed for 800 mg of nitrogen gas at 273 k. molar mass of N <sub>2</sub> .	by 1.80 dm <sup>3</sup> . The $p_f$ and $V_f$ of $v_f$ in (i) bar, (ii) torr. (25 points)
Wed 10/11/2021 Best wishes	Or Abduljabbar I. R. Rushdi

Wed\_10/11/2021

Best wishes Dr Abduljabbar I. R. Rushdi



Q3) U2=1.80 dm3 V1=2.14 P2=2\*102 P1=?

P1. V1 = P2. V2
P1 = 2\*18\*1.80
P1 = 360
P1 = 168.2 KPa