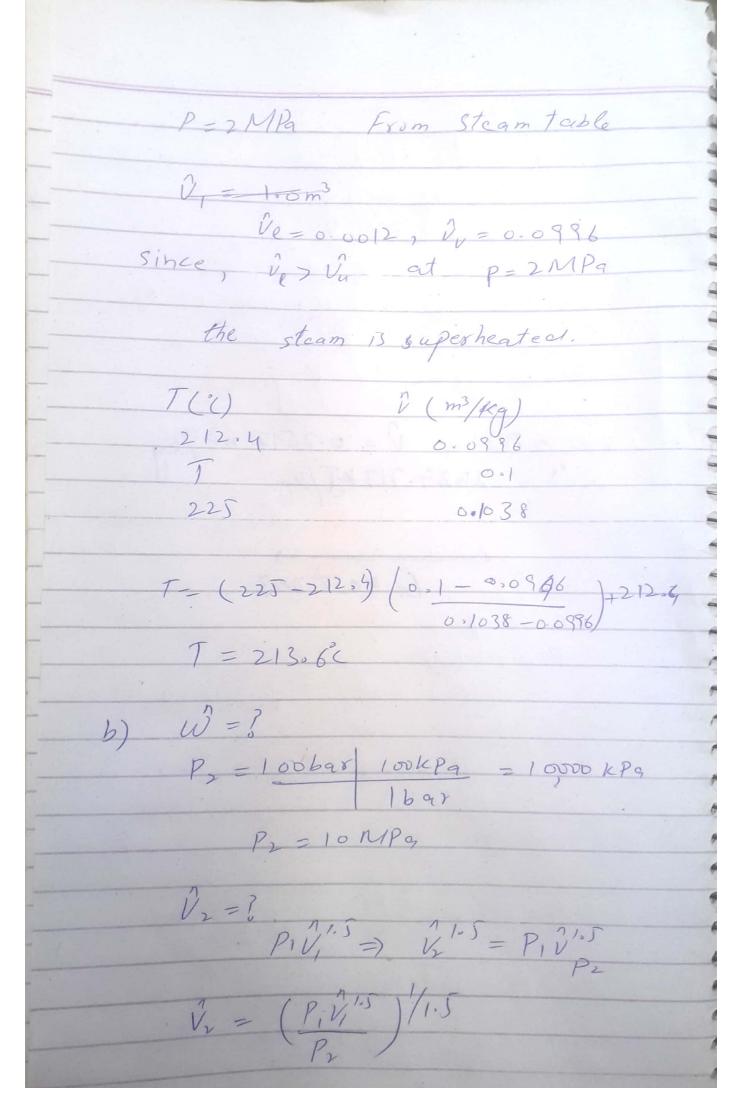
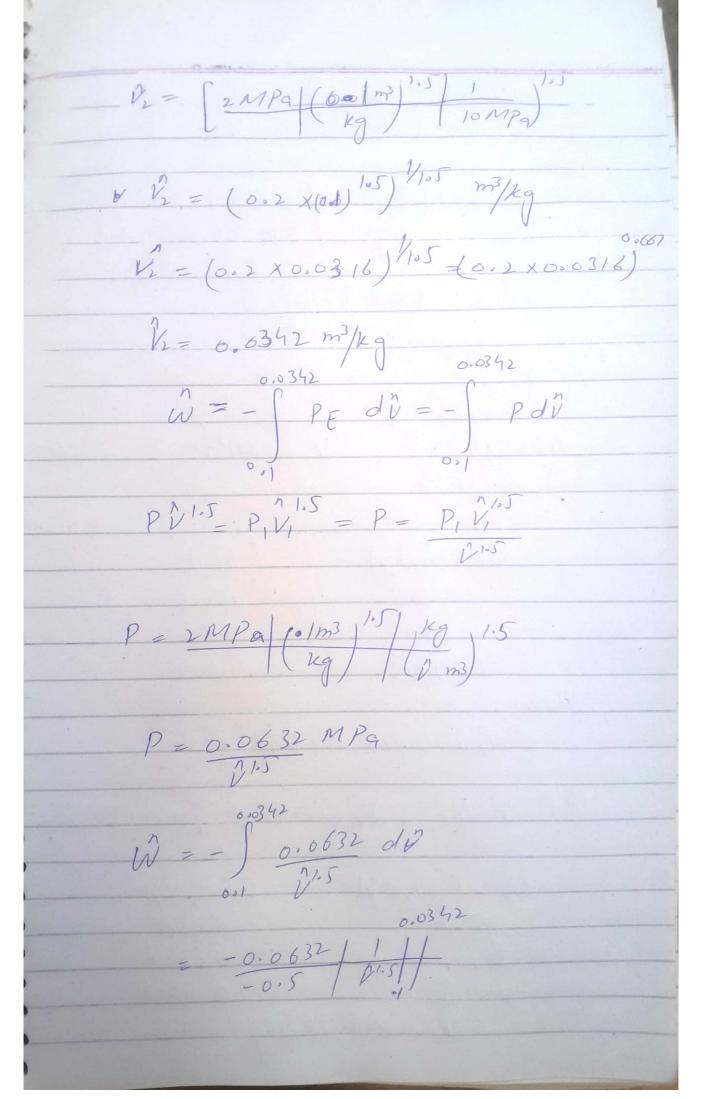
Name: Muhammad Umair Bashir Rollno: chen 19111006 Subject: chemical Engineering thermodynaming Question 1 System:-A set of the things in which working or interset in it system. Spurrounding:-A past of which separate from the system Surrounding Adiabatic process: An adiabatic process - is a thermodynamic process, in which there is no heat transfer into 00 out of the system (Q=0). The system can be considered to be perfectly insulated. Isolated system. an isolated system is a Sciences system without any Phy SI cal exchange - neither matter energy can enter or exist

Chen19/11/006 but can only move around inside. An extensive property of matter that the amount of matter changes like other physical properties, as extensive property may be observed and measured without any chemical Question 2 2600 KJ /kg Solution: -B = (1-11) Ug + 11 Ug 2600 = (1-1)697 + 4(2573) 2 697- 69Bx + 25734 2600 = 69B + 1370x 2600-697 M=0.921.1

Chen 19111006 V= N. Vg D = 0.921 x0.2798 V = 0.2512 m3/kg $0 = (1-1) \cup 1 + 1 \cdot \cup 9$ $0 = (1-0.921) 697 + (0.921 \times 2573)$ 0 = 54.984 + 2369.733D = 2424.717 KJ/kg K = 0.921, D = 0.2512 m3/kg 3 = 2424.717 KJ/kg Question3 m=10kg P1 = 20 bax V, = 1.0 m3 PV relation = PV'S = constant a) T=?P1=20bar 100kpg = 2000/cpg P, = 2 MPa 1, = 1 m3 = 0,1 m3/kg





$\hat{\omega} = -0.063^{2} \left[\frac{1}{(0.0342)^{5}} \right]$
W = 0.2838MPq.m3/1000KPq//KN
W= 283.8 KJ/kg
() 9=?
$At state 1, P_1 = 2MPa, T_1 = 213.6c$ $U_1 = \frac{7}{3}$
4. (KJ/kg) T(c)
2600.3 U ₁ 213.4 2628.3 225.
2628-3 Phen 4, = 2602-97 KJ/kg
At state2, P2=10MPq = 1 = 0-0342m3/kg
Or (KJ/kg) D(m3/kg)
3144.5 0.0328
a, = 3095.15KJ/kg

95.15-2602-97 KJ/kig