AE441A Quiz 2



	Name: Aditya Raghawanshi Roll: 170052
	Civen ran:
	(24501 + (02+3.76 N2) -> (02 + 420 + N2
	after baloncing,
	$C_2 H_3 OH + 3(O_2 + 3.76 N_2) \longrightarrow 2 CO_2 + 3H_2 O + 11.28 N_2$
	5 113011 4 5(02+5.46 N2) - 2(02 4 5H20 4 11.26 H2
	A = mass of air = 2
	A = mass of air = 2 (Mass basis) F s mass of fuel
H. K. E.	FIS mass of fuel $= 3(32 + 3.76 \times 28) = [8.95] \text{ Arg (Mars basis)}$ $1(24 + 6 + 16)$
	1(24+6+16)
	$h_{10}^{2} = 0$ Kg J/Knol = $\frac{1(24 + 6 + 16)}{4}$ = $\frac{1}{5}$ moles of Juel = $\frac{3 \times 4 \cdot 76}{5}$ = $\frac{14.28}{5}$ And $\frac{1}{5}$ = $\frac{3 \times 4 \cdot 76}{5}$ = $\frac{14.28}{5}$ And $\frac{1}{5}$
(2)	here = - 277690 KJ/Kmol Fis mores of Jaco
	hjo = 0 kg 5 (Knol = 3x4.76 = [4.28] (Malor boil)
	hjn > 0 KJ/Kmol (Molor basis)
	(69 6 16 8 1 - 1 - 4 0 16 6 6 - =
	Hreac = 1.(-277690) + 3(0) + 3.76x3(0)
	= -277690 KJ/Knol
	FILLY = 29710 6+ 43/1:
lus.	hj 1120(g) = -241845 KJ/Kmol (gas)
N 32 - S.C	hj coz = -393546 KJ/Kmol
	hg N2 = 0 K3 /Knul
	Mprod = 2(-393546) + 3(-241845) + 11.28(0)
	= -15/2627 KJ/Kmal
<u> </u>	3P = (-8.38 = 1) to 20 to 1
	LHV = Mreac - Mprod
	= -277690 - (-1512627)
	= 1234937 KJ/Knol = (1234937/46) KJ/Kg of C2MOON
	= (123493+146) 101 Kg of C2116011
	72/8/95/85/85/85/85/85/85/85/85/85/85/85/85/85
	= 26846.45 KJ/Kg)
THE STATE OF THE S	= 26846.43



	Service of the second service of the
	Hreac vill be same for MMV
	1/20 will be in liquid state for MMV.
,	init class was to
	Hard and the state of the state
£ £	hi. (1) = hi (1) - hu (10)
	$h_{jH_{20}}(l) = h_{j(H_{20})}(g) - h_{H_{20}}(vap)$ $= -241845 - (44010)$
	= -285855 KJ/Kmol
_	hjoz = -393546 KJ/Kmol
	hgrz 2 O KJ/Kmol
	Hproa = 2(-393546) + 3(-285855)
-	= -16 44657 KJ/Kmol
- 5 W	5-10-7-4-65+ 10 (1mol
(60 121.00)	HW = Mreact - Hprod
	= -277690 - (-1644657)
	(a) = 1366967 KJ/Kniel) 1 = 3000
_	= (1366967/46) (J/Kg of C2 MXOM
_	HHN = 29716.67 KJ/Kg)
-	CORNER DEPOSITOR OF THE
- * " ₁	At 200% Staidinmetric air
	C2M50M + 6 (02 + 3.76N2)> 2002 + (3/120) + 302 + 22.56N2
	2002 + (3/120) + 302 + 22.56 N2
	Mass of 602 in fr in product side,
	Mass of W2 = 2(12+32) = 88
. (Mass of 0, = 3(32) = 96
	Mass of N== 22.56(28)=631.68
	(+ castala) = 00 1 1 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
	Year = 88 = [0.107]
	88+96+631-68
	Y ₀₂ = 96 = 0.117 88+96+631.68
	$\frac{1}{12} = \frac{631.68}{88 + 96 + 631.68} = 0.774$
	00 1 10 T 60