

Question	Answer	Additional Data
1	HHV - 48MJ/Kg, LHV - 44.6 MJ/Kg	
2	a) 15.18 b)22.7 c) 6.5% d) 52702.8 KJ/Kg fuel	Hfc7H16 - 229000 KJ/Kg
3	a) 10.6 b) 13.8 c) 32.73 MJ/kg	
4	a) Co2 - 10.7% , CO - 0.94 % , O2-10.8% , N2-77.5% b) CnH2n (take C2H4) c) 47.7 MJ/kg fuel	
5	12.4 Kg air/Kg fuel	
6	a) 11.38 b) 34.25 MJ/kg c) 49%	
7	6021252.72 KJ	
8	a) 2285 K b) 1794 K c) 2300 K	
9	2101 K	
10	3203 K	Hc3h8@473 - 43621.6 KJ/Kmol Hc3h8@298 - 27725 KJ/Kmol solve by Cp method
11	3281 K	Hfc2H2 - 226730 KJ/Kg
12	2.49 MW	
13	a) 2627967 KJ b) 2.7 atm	Hfc5H12 - (-146.8 MJ/Kmol)
14	In CO2 - 0.89% AND in CO - 0.11 %	