MET 350 Test 2 reflection Ben Smithson

1. Overall, this test went okay, I was able to use context clues and previous examples to get the system drawn. Some of the wording became confusing to me which is why I seemed to miss a part of the system. I should not have put the super heater recirculating which was able to mess up my entire system. My answers went terrible but that definitely had a large cause and effect on the answers I got and the correct answers for each problem since they built off each other.

2. WRITING RUBRIC (Applied to the whole test, not to particular problems)

1.	Purpose	0.5/10.0
2.	Drawings	1.0/10.0
3.	Sources	1.0/10.0
4.	Design considerations	1.0/10.0
5.	Data and variables	0.5/10.0
6.	Procedure	2.0/10.0
7.	Calculations	2.0/10.0
8.	Summary	0.5/10.0
9.	Materials	0.5/10.0
10.	Analysis	1.0/10.0
	TOTAL	**10.0/10.0**

PROBLEM 1)

1.	Actual cycle diagram	0.75/14
2.	P-v and T-s diagrams	1.5/14
3.	State calculations (10 of them)	1.5/14
4.	Double interpolation for state 6	0/14
5.	Calculate y1	0.75/14
6.	Turbine work	0.75/14
7.	Mass flow rate	0.5/14
8.	Heat rate at space heating	0.75/14
9.	Heat released in condenser	0.5/14
10.	Utilization factor (need pumps & Qin)	1.5/14
11.	Final results	0.5/14
	TOTAL	**9/14**

FINAL GRADE:

10.0 + (80)*(9/14) = 61.429

3. If I was able to go back before taking the test again, I would have looked over examples and practiced drawing my own system more. I feel that this would have helped my process and system overall in a good way. It would have created a great improvement on my answers as well cause my system would have been completely correct which would have let my answers be correct.

4. I have learned to read the problem carefully and create a system one part at a time. Overall my system came out close but was different with the space heater circulation. I also forgot a pump to push the fluid to the boiler.

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A. I had an issue with drawing the system and finding some of the equations for the questions asked, including mass flow rate and the double interpolation.

B. First I did all of the calculations this time and looked over practice problems to do so. Also, I was able to look at the practice problems in the homework that helped a lot for this situation.

C. I have learned that when creating a system, it is necessary to make sure that the answers lign up and will create a successful system in the long run. If the system is not efficient, then there is no point.

D. I believe engineers will use this test for creating a regeneration system as well as to figure out if this specific system is efficient or not.

E. I believe I will use the states and equations through the entire semester as well as in my career as an engineer if I was assigned a task to create my own system for a company.

F. As stated above this will help to understand the concepts in the fields with regeneration systems including all of the parts with the boiler, fwh, condenser, turbine and space heater.

G. These concepts of regeneration will be necessary in the engineering field in order to create a system that is efficient enough to allow for the steam to regenerate and make power in the long run.

H. I have been able to apply some of the concepts in thermal applications for the simple gas cycle because I have worked on cars for a little while, so I understand how the combustion engine works and it is interesting to me.

I. I feel most improved in the state's concepts of the test. I was able to create all states, even though my system was off a little, I showed how my states were and got the correct answers for my system.

J. Stated above how these concepts will work in the engineering field.

K. I would say I spent a total time of 8 hours on this test with looking through examples, hw, and coming up with the system. It took me a while to draw out the system where I thought it was correct. My system ended up being wrong by a little but most of it was correct which took one of the longest parts for me. Also, getting all of the states took a little bit of time because it is a tedious task to begin with. Overall, I enjoyed this test and will improve on drawing out my system in the future to make it more efficient.