Do not write your name on the assignment. Write your name only on the back of this sheet of paper and staple your answers on the front of this sheet of paper. Failure to follow these directions will cost you 1 point on the assignment.

1) (35 points) Use an isoquant/iso-cost diagram to derive the short-run MC curve. Plot three points on the SRMC curve. Explain how you got the points.
2) ( 25 points) Illustrate on the SRATC/SRAVC/AFC/SRMC diagram an increase in the price of electricity. Explain why the curve(s) moved as drawn.
3) ( 25 points) Copy the table into you answer sheet and fill it in. Show all work done to calculate the values.

| Q | TC | TVC | ATC | AVC | AFC | MC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 30 |  |  |  |  |  |
| 1 | 54 |  |  |  |  |  |
| 2 |  |  | 37 |  |  |  |
|  |  | 66 |  | 22 |  |  |
|  |  |  |  |  | 6 | 32 |

4) ( 15 points) Why is the long-run average total cost curve the envelope of the short-run average total cost curves?
