Part I: Please explain the distinction between four of the following five pairs of concepts:
1. Nominal wage versus the real wage.
2. Nominal interest rate versus the real interest rate
3. Economic profit versus accounting profit
4. GDP versus Disposable Income
5. Employment versus the Civilian Labor Force
Part II: Please answer three (only 3) of the following four questions

1. The graph shows the marginal cost, the average total cost, and the average variable cost functions for a firm that sells its product in a competitive market.

   a. Label the average total cost, the average variable cost and the marginal cost curves on the graph.

   b. Label the Break Even Point and the Shut Down Point on the graph.

   c. If there is free entry and exit of firms in this industry (all with the same cost functions), what price will prevail in the long run? How much will each firm produce? Explain

   d. If the market demand curve for this competitive industry is $Q = 600 - 10p$, how many firms will survive in the industry in the long run?
2. Suppose that \( C = 50 + \frac{3}{4}Y_d \),
\[
    Y_d = \frac{2}{3}Y \quad \text{and} \quad \]
\[
    Y = C + I + G + X - M.
\]
\[a. \] The exogenous variables of this multiplier model are:
\[b. \] The endogenous variables are:
\[c. \] The reduced form equation for \( Y \) as a function of the exogenous variables is
\[d. \] \[
    \frac{\partial Y}{\partial G} = 
\]
\[e. \] \[
    \frac{\partial Y}{\partial I} = 
\]

3. Suppose that \( C = 50 + \frac{3}{4}Y_d \),
\[
    I = 100 - 500i \quad \text{(thus if } i = 10\% \text{ investment will be 50)},
\]
\[
    Y_d = \frac{2}{3}Y \quad \text{and} \quad \]
\[
    Y = C + I + G + X - M.
\]
\[c. \] The exogenous variables of this IS model are:
\[d. \] The endogenous variables are:
\[c. \] The reduced form equation for \( Y \) as a function of the exogenous variables is
\[d. \] \[
    \frac{\partial Y}{\partial G} = 
\]
\[e. \] \[
    \frac{\partial Y}{\partial i} = 
\]
4. The production function for Econoland is \( q = \alpha L^{3/4} K^{1/4} \)
   a. Is this production function homogeneous of degree 1? Explain

   b. Under what circumstances will workers be paid the value of their marginal product (i.e., \( w = p \frac{\partial q}{\partial L} \))? Carefully explain why.

   c. If the workers are paid the value of their marginal product, what will be labor’s share (\( wL/pQ \))? Why?
Honors Option: (Do not attempt to answer this question until you have checked over your answers to the standard questions - credit will not be given for a partial answer to the Honors Option.)

A profit maximizing firm operating in competitive markets has production function $Q = L^{2/3} K^{1/3}$.

Determine the long run total cost function for this firm if it hires workers for $1.00 per day and rents machines for $4.00 per day.