Assignment 2

1. During the discussion on production economics, a number of techniques were presented to compare investment alternatives and production strategies. What factors have been left out in this discussion? Can discounted cash flow approaches take these factors into account? See reference below. Limit your discussion to less than 2 pages.


2. Contrast (in less than 2 pages) the era of flexible automation with that of mass production, fixed automation and Taylorism. See reference below.


3. Develop a conceptual design for a robot attendant at a gas station. The driver should be able to get the robot to fill the tank without getting out of the car. In particular,
   • describe how the complete system would function;
   • the component technologies that would be required; and
   • the possible benefits of such a system.
Do you think such a system would be profitable? Why?

4. How are the following companies using robotics and related technology? Which company do you think would be most likely to invest in the robot gas station attendant.
   • ABB
     http://www.abb.se/robotics/
   • Adept
     http://www.adept.com/home.html
   • Honda
   • Sony
     http://www.sony.co.jp/sol/robot/

5. Read Chapter 2 [SN 99]. Do you see any difference between Japan and U.S.A.?

Other reading: [SN 99] Chapter 64