

1. 說明 electronic business 對 Fayol 所提之五大管理機能之影響。(10%)
2. 功能式組織有那些學習障礙?(10%)
3. 請用管理控制系統觀念說明僅使用單一績效指標(例如：業績)做為控制目標之缺點。(10%)
4. 企業如何將資訊轉換成管理所需之知識?(10%)
5. 請以領導高科技研發團隊為例，說明 Fiedler 之權變領導模式如何應用?(10%)，

6. (15%) A manager is trying to decide whether to build a small, medium, or large facility. Demand can be low, average, or high, with the estimated probabilities being 0.25, 0.40, and 0.35, respectively.

A small facility is expected to earn an after-tax net present value of just \$18,000 if demand is low. If demand is average, the small facility is expected to earn \$75,000; it can be increased to average size to earn a net present value of \$60,000. If demand is high, the small facility is expected to earn \$75,000 and can be expanded to average size to earn \$60,000 or to large size to earn \$125,000.

A medium-size facility is expected to lose an estimated \$25,000 if demand is low and earn \$140,000 if demand is average. If demand is high, the medium-sized facility is expected to earn a net present value of \$150,000; it can be expanded to a large size for a net payoff of \$145,000.

If a large facility is built and demand is high, earnings are expected to be \$220,000. If demand is average for the large facility, the present value is expected to be \$125,000; if demand is low, the facility is expected to lose \$60,000.

Please answer the following problems.

- (1) Draw a decision tree for this problem. (10%)  
(2) What should management do to achieve the highest expected payoff? (5%)
7. (15%) The NCKU Clothing Company makes jeans for children. Management has just prepared a forecast of sales (in pairs of jeans) for next year and now must prepare a production plan. The company has traditionally maintained a level work-force strategy. Currently, there are eight workers, who have been with the company for a number of years. Each employee can produce 2000 pairs of jeans each planning period. Every year management authorizes overtime in periods 1, 5, and 6, up to a maximum of 20% of regular-time capacity. Management wants to avoid stockouts and backorders and won't accept any plan that calls for such shortages. At present there are 12000 pairs of jeans in finished goods inventory. The demand forecast is as follows.

Period	1	2	3	4	5	6
Sales	25,000	6,500	15,000	19,000	32,000	29,000

Please answer the following problems.

- (1) Is the level work-force strategy feasible with the current work force, assuming that overtime is used only in periods 1, 5, and 6? Explain. (10%)  
(2) Find two alternative plans that would satisfy management's concern over stockouts and backorders, disregarding costs. What trade-offs between these two plans must be considered? (5%)
8. (20%) The drill press is a bottleneck operation in a production system. Currently, five jobs are waiting to be processed. Following are the available operations data. Assume that the current date is week 5 and that the number of remaining operations and the shop time remaining include the operation at the drill press.

job	Processing Time	Due Date	Operations Remaining	Shop Time Remaining (week)
A	4	10	3	4
B	8	16	4	6
C	13	21	10	9
D	6	23	3	12
E	2	12	5	3

Please answer the following problems.

- (1) Specify the priority for each job if the shop floor control system uses each of the following priority rules: SPT (Shortest Processing Time), EDD (Earliest Due Date), S/RO (Slack per Remaining Operations), and CR (Critical Ratio). (10%)  
(2) For each priority rule, calculate the average flow time per job at the drill press. (5%)  
(3) Which of these priority rules would work best for priority planning with an MRP system? Why? (5%)