

國立勤益科技大學九十七學年度研究所碩士班招生筆試試題卷

所別：工業工程與管理系碩士班

組別：甲組

科目：生產管理

准考證號碼：□□□□□□□□ (考生自填)

考生注意事項：

- 一、考試時間 100 分鐘。
- 二、請依提號順序作答。
- 三、以所附之計算機計算。

**** 附計算機 ****

試題一：〈20分〉

What is business strategy? One of the most popular ways to define strategies is using Michael Porter's three strategy categories. Please explain Porter's three strategies.

試題二：〈20分〉

The Time News Co. sales manager wants to forecast the demand for each day of week 5. The daily demand for the past four weeks is presented in the following table.

Day	Week 1	Week 2	Week 3	Week 4
Sunday	820	840	800	840
Monday	540	530	500	540
Tuesday	480	530	560	480
Wednesday	400	420	430	450
Thursday	430	450	490	470
Friday	610	630	620	610
Saturday	700	710	740	760

Determine the seasonal index for each day of a week by centered moving average and compute the demand for each day of week 5.

試題三：〈20分〉

An office manager has asked to prepare an estimate of the proportion of time that an employee spends on the telephone, with a confidence of 95%. Base on previous data, the office manager estimates that about half of employee's time is spent on the telephone. (1) If the office manager uses a sample size of 100 observations, what is the maximum possible error? (2) How many observations are needed in a work sampling study to estimate the time percentage within 5 percent?

試題四：〈20分〉

The forecast for each period is 30 units. The starting inventory is 56. The MPS rule is to schedule production if the projected inventory on hand is negative. The production lot size is 70 units. The following table shows committed orders. Determine the projected on-hand inventory, MPS and ATP for each period.

Starting Inv.=56	1	2	3	4	5	6
Forecast	30	30	30	30	30	30
Customer orders	34	20	31	13	8	6
Projected on-hand inventory						
MPS						
ATP						

試題五：〈20分〉

Demand for long-stemmed red roses at a small flower shop can be approximated using a Poisson distribution that has a mean of four dozen per day. Profit on the roses is \$3 per dozen. Leftover flowers are marked down and sold the next day at a loss of \$2 per dozen. Assume that all marked-down flowers are sold. What is the optimal stocking level? What is the expected profit?