

## 國立臺灣科技大學 112 學年度碩士班招生試題

系所組別：工業管理系碩士班乙組  
 科 目：生產管理

( 總分為 100 分；所有試題務必於答案卷內頁依序作答，否則不予計分 )

- 1.(20 %) Please explain the meaning of the following terms for items 1.1 to 1.3 and answer the short question for item 1.4 (5%)
- 1.1 (5%) Lot for lot  
 1.2 (5%) Two bin system  
 1.3 (5%) Economic order quantity  
 1.4 (5%) For the fixed purchase quantity and variable purchase period scenario, which of the above purchase methods will be applied?
2. (15 %) A company is planning to add a new line of product, which will require leasing new equipment for \$1200 per month, variable cost will be \$2 per unit and the retail process for that product will be \$6 per unit.
- 2.1 (10%) How many unit must be sold in order to break even?  
 2.2 (5%) How many unit must be sold to realize the profit of 2000/month
3. (15%) A manager wants to choose one of the two forecasting alternatives. Each alternative was tested using historical data. The resulting errors for the two are shown in the following.

Period	1	2	3	4	5	6	7	8	9
Alt#1	3	-2	0	2	1	-2	2	-1	2
Alt#2	4	3	-3	-1	1	-1	0	1	0

- 3.1 (10%) Please compute the MSE for these two alternatives.  
 3.2 (5%) which forecasting method is better?



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4. (15%) 流程分析包含哪些有價值與無價值的動作類型？請詳細說明。請以圖書館服務流程為例，繪製現況流程程序圖，並論述如何以 ECRS 原則，優化該流程，繪製優化的流程程序圖。
5. (15%) 請詳述七大浪費類型與看板系統邏輯。請以校園自助餐為例，論述如何在其前後台實施看板系統以消除浪費？與可消除哪些浪費？
6. (20%) 請安排 5 個訂單，以滿足最短總完工時間的要求。每個訂單以順流方式依序經過兩個工序，其所需工時(分鐘)如下。請排序、繪製甘特圖，並證明其為最佳化排序。

訂單	多軸加工	焊接
1	9	10
2	15	12
3	8	5
4	14	6
5	7	2

