

所別：工業管理研究所碩士班 乙組 科目：生產作業與管理

(共六題，請按順序作答)

一、供應鏈策略須因為產品分類(product categories)之不同而不同，請問功能性產品(functional products)與創新性產品(innovative products)此二產品分類各需使用何種供應鏈？請分開說明原因。(十五分)

二、請問勞斯萊斯汽車與中華汽車在下圖之定位為何？並回答原因。(十分)

	Low volume-low, standardization, often one of a kind	Multiple products, low volume	Few major products, higher volume	High volume-high standardization, commodity products
Job shop				
Batch				
Assembly line				
Continuous flow				

(註：將此圖 copy 於答案卷上，圈出二公司之位置，並回答原因)

三、請問 Product Development、Marketing、Manufacturing 各部門於產品開發的細部設計步驟中(亦即 Detailed Product/Process Engineering 步驟中)，有哪些工作或活動？(請於答案卷上畫出以下表格，並填滿表格中不同部門之工作或活動)(十五分)

Functional activities	Detailed Product/Process Engineering
Product Development	(請填 Product Development 部門人員之工作或活動?)
Marketing	(請填 Marketing 部門人員之工作或活動?)
Manufacturing	(請填 Manufacturing 部門人員之工作或活動?)

四、何謂倒沖扣帳(Backflush)？何時用到？(十分)

**注意：背面有試題**

所別：工業管理研究所碩士班 乙組 科目：生產作業與管理

五、依據以下短文，從語詞表中選擇適當的語詞，由(1)到(16)按照順序填寫(務必分行)(三十分)。

The Business Requirements Planning (BRP) model shows how business planning, master planning, materials planning, and capacity planning processes should work together. The BRP model starts the business plan (regarding profit), sales plan (regarding revenue), and production plan (regarding (1)). Once the production plan has been checked to make sure that the resources are available and that the top level plans are consistent, it is used as input to the (2), which is a plan (in units) for the firm's end products (or major subassemblies). The (3) module translates the schedule into a (4), i.e., (5). (6) translates the plan into a (7), which is defined in terms of (8). Ultimately, the system creates both (9) for suppliers and (10) for the firm's own factories. Orders in the (11) (in the first period) are released and become (12). This planning process is supported by the (13) database, which provides information on items, which is the (14), the bill of material, which is (15) required for each item, and the routings, which is (16) required to make an item.

語詞表:

- scheduled receipts
- materials plan
- costs and aggregate units
- action bucket
- shop hours
- orders defined by quantities and due dates
- Enterprise Resources Planning
- purchase orders
- capacity plan
- shop orders
- Materials Requirements Planning
- item master
- master production schedule
- the sequence of steps
- Capacity Requirements Planning
- the linked list of items

六、下表列舉三類製造系統。請參考關於 make-to-stock 描述，分別定義 (1) assemble-to-order 以及 (2) engineer-to-order (二十分)。

System	Concept	Inventory	Customer lead time
Make-to-stock	Standard finished products are stored in inventory waiting for customer demand.	Large finished goods inventory. Usually also has WIP and raw materials.	Only the delivery time from the finished goods to the customer.
Assemble-to-order			
Engineer-to-order			