一、印刷生產過程的方式，主要有三種版式，試述
　　比三種版式的生產方式未來發展趨勢為何？15%

二、試述影響某之彩色出版系統（Desktop Publishing
　　System）的輸出品質的關鍵因素。20%

三、試述身為一個現代式印刷廠品質管理部門主管應
　　有的工作責任為何？15%

四、在七十年代裏，印刷機持續朝向 ~~自動化~~ 數位化。操作方式的
　　發展趨勢，試述到目前為止，印刷機自動化過程中有
　　那些重要技術問題，無請舉例說明。15%

五、試就一全國性發行的雜誌，銳述其後加工作業連線處理
　　的過程（附圖解）及特點。15%

六、解釋名詞。20%（每題4分）
　　1. Stochastic Screening.
　　2. Device Independent Color
　　3. Digital Data Exchange Standards (DDES)
　　4. Rasterization
　　5. EPS & TIFF File Format

（共一頁）

20 points for each question

1. Explain the following terms

   1). Configuration management
   2). Manufacturing resources planning
   3). Quality robust design
   4). Breakeven analysis
   5). Work sampling

2. Distinguish between dependent and independent demand in a McDonald's, in an integrated manufacturer of personal copiers, and in a stationery supply house.

3. Three new-product ideas have been suggested. These ideas have been rated as follows:

	Product			
	A	B	C	Weight (%)
1. Compatibility	4	2	2	10
2. Patent	2	2	4	20
3. Technical risk	1	2	4	10
4. Competitive edge	5	4	2	15
5. Producibility	1	2	3	20
6. Sale's prospects	4	5	3	10
7. Development cost	1	2	4	15

  a. Determine a weighted score for each product idea. What is the ranking of the three products?
  b. What are some of the advantages and disadvantages of this method of product selection?

4. You are going to start a new business. The activities and times required are given below:

	（趕工成本）
	Expediting cost
Activity	per day
1 - 2	$ 50
2 - 3	30
2 - 4	40
3 - 4	20
4 - 5	20
3 - 5	50

  a. Find the critical path and project completion time.
  b. What is the ES,LS,EF and LF for each activity?
  c. How much is the total slack?
  d. Suppose the project completion must be reduced by 1 day. The cost of expediting various activities are shown above. What should be done and how much will it cost?

5. A manufacturer of automobile carburetor is considering three locations - Taipei, Taichung, and Kaohsiung - for a new plant. Cost studies indicate that fixed costs per year at the sites are $30,000, $60,000 and $110,000 respectively; and variable costs are $75 per unit, $45 per unit and $25 per unit, respectively. The expected selling price of the carburetors produced is $120. The company wishes to find the most economical location for an expected volume of 2,000 units per year.

1. 〔15%〕
   計算機硬體可分為幾大部份？

2. 請解釋下列子題中，各對名詞之相異性．

   〔5%〕 (a) Microprocessor 及 Microcomputer.
   〔5%〕 (b) Main Memory 及 Auxiliary Storage.
   〔5%〕 (c) ROM 及 RAM.
   〔5%〕 (d) Interactive Processing 及 Batch Processing.
   〔5%〕 (e) System Software 及 Application Software.

3. 〔15%〕
   請描述 Sequential Files, Indexed Files, 及 Direct (or Relative) Files 在儲存上
   及處理上之相異性．

4. 〔15%〕
   常見之資料庫系統有 Hierarchical Database, Network Database, 及 Relational
   Databases. 請比較其優缺點及異同點．

5. 〔15%〕
   一個資訊系統之發展可分為五大步驟: (1) Analysis, (2) Design, (3) Development,
   (4) Implementation, 及 (5) Maintenance. 請詳述每一步驟應完成之工作．

6. 〔15%〕
   結構化程式設計強調三個觀念: (1) Modules, (2) Control Structures, 及 (3) Single
   Entry/Single Exit. 請分別詳述之．