1. After Dot-Com bubble bursts, many people realize what is the real situation of running an e-commerce business and adjust the company’s strategy efficiently. Given this situation, please explain what is “shopping bot” and “GIRF” strategy. In addition, if you set up a web site which only provides advertisement, can you make money? Please give the reasons. 20%

2. a) Explain the referential integrity constraint. Please use diagrams (examples) to aid your explanations. 8%
   b) Illustrate the concept of specialization/generalization. 5%
   c) Briefly explain the differences between OLTP (On-Line Transaction Processing) and OLAP (On-Line Analytical Processing). 7%

3. IP traffic management architecture: Integrated Service (IS) and Differentiated Service (DS)
   a) Why is IP traffic management necessary? 10%
   b) Compare the IS with the DS? 5%
   c) Describe how the Quality of Service (QoS) is supported using IS and DS, respectively. 5%

4. 路由器怎麼知道依據訊息地址傳送資料？舉一個常用的路由協定。20%

5. 「資訊管理」要能幫忙使用者做好的決策才有用。什麼叫做「決策盲點」和「決策陷阱」？請舉五個人們常患的決策盲點或陷阱。您如何避免它們。20%

6. a). 何謂 Globe Logistic Management？要做到 Just-in-Time 時 HUB 的角色如何？ 5%
   b). 試設計一個含有 Hub 功能的 Globe Logistic Management 架構圖，並說明之。 10%
   c). Describe software risk characteristics? 5%

7. 電腦的智慧化是人類積極追求的目標，試以四十年為期替國家圖書館的電腦化，規劃其每年逐步的設計方向。若此則吾人能期許於四十年後可看到我們國家圖書館的電腦化管理是聰明的。試分別從電腦化之資料處理、資訊分析、決策輔助，與主動決策分別逐年進行設計與說明。20%