

一、選擇題（單選，每題 2.5 分，答錯不倒扣）（共 50 分）

1. Sixty to eighty percent of major accidents in complex systems are attributed to _____.
 - A operator error
 - B data error
 - C hardware error
 - D software error
 - E user error
2. The advantages of prototyping include:
 - A users have a tangible system to work with
 - B user involvement can help with the acceptance of the system
 - C the system can be terminated if not feasible, without serious investment
 - D all of the above
 - E none of the above
3. The main issue addressed in the traditional system life cycle is:
 - A knowledge
 - B responsiveness
 - C resources
 - D timing
 - E control
4. The practice of performing and coordinating critical business procedures by using a computer, communication technologies, and computerized data is called:
 - A e-commerce
 - B automation
 - C information system design
 - D e-business
 - E mass marketing
5. Which of the following is NOT a symbol used for DFDs?
 - A process
 - B data store
 - C data flow
 - D external entity
 - E internal entity
6. An importance of DFDs is that there is:
 - A no symbol for flow of material
 - B no symbol for flow of information
 - C no symbol for flow of data
 - D too many symbols for flow of data
 - E no symbol for input
7. Management-by-walking-around is a/an _____ source of management information.
 - A informal
 - B formal, verbal
 - C formal, computer-based

- D formal
 - E informal, document-based
8. One of the most crucial issues of eBay is:
- A pricing
 - B trust between buyers and sellers
 - C delivery of the product
 - D complexity of the software
 - E downtimes of access
9. ERDs stand for:
- A entity-relationship diagrams
 - B extended relationship developments
 - C effective reengineering documents
 - D extended reengineering documents
 - E none of the above
10. SQL stands for:
- A simple query language
 - B straight query language
 - C sample query language
 - D structured query language
 - E structured quiz language
11. ISAM stands for:
- A indexed sequential access method
 - B information system access method
 - C independent access mechanism
 - D independent system access method
 - E indexed systems access mode
12. A set of general facts and if-then rules supplied by an expert in a expert system application is called a/an:
- A knowledge base
 - B inference engine
 - C transaction processing system
 - D database
 - E data gathering process
13. A strategy of using e-commerce while maintaining store- or office-based channels is sometimes called:
- A alternate sites
 - B multiple sales
 - C direct marketing
 - D online vs. offline sales
 - E clicks and bricks
14. A trusted third party who authenticates each of the two parties involved in an electronic commerce transaction is called:
- A a certification authority

- B an agent
 - C a middle man
 - D encryption manager
 - E system administrator
15. Microsoft uses the _____ method to organize its programming efforts.
- A push and pull
 - B synch and stabilize
 - C modularity
 - D independent programming
 - E standardized debugging
16. Which of the following is the most appropriate statement about the relationship between the business plan and the information system plan?
- A The business plan must be an integral part of the information system plan.
 - B The information system plan must be an integral part of the business plan.
 - C The information system plan must be added to the business plan after the latter has been thoroughly implemented.
 - D The business plan must be added to the information system plan after the latter has been thoroughly implemented.
 - E The information system plan should be completed independently of the business plan.
17. The processes of building, planning, and managing systems should be designed according to the _____ of its use.
- A technology side
 - B human side
 - C environmental side
 - D competition side
 - E customer side
18. Things that must go right in order for a business to succeed are called:
- A strategic factors
 - B competitive elements
 - C critical success factors
 - D key indicators
 - E strategic advantage
19. When a company purchases IS services from an outside vendor, it is referred to as:
- A outsourcing
 - B outbuying
 - C auctioning
 - D subcontracting
 - E secondary source
20. Political issues related to power and control within the organization often become visible during the _____ stage of the systems development life cycle.
- A initiation

- B development
- C maintenance
- D operation
- E implementation

二、個案分析(30 分)

屏科工業公司是建材業中的領導廠商，主要產品是乙烯樓板、天花板、接著劑、絕緣體、磁磚等。這家公司的 CEO 認為公司的文化太過於自以為是，他希望將公司改造成基於事實的管理，並且強調顧客的滿意。這些顧客包括建築師、包商、以及配銷商等。

改造過程中的主要工作是藉著將銷售流程制度化與自動化來提升顧客滿意度。過去的銷售方式是銷售人員將顧客的紀錄收存在厚厚的資料夾中，在進行價格的交涉時往往缺乏一致性。此外由於銷售人員的佣金乃是根據銷售量而非利潤，因此導致不少訂單以微薄利潤成交。另外，在商業競標的過程下，價格常有更動，造成不少發票出錯的案例，導致顧客相當的不滿，責備屏科公司應該在第一次就把這些基本資訊做對。而管理階層更希望能從銷售資料中，獲得有用的資訊以瞭解甚麼是顧客真正想要的，以及他們為何下或是不下訂單的理由。

為了改善顧客滿意度、發掘有用資訊，以提升銷售績效，該公司決定導入一套銷售自動化系統，名為「HEAT (High-Efficiency Armstrong Technology)」。每位銷售人員都會配備一部筆記型電腦，可以進入公司資料庫取得關於顧客的建築專案的規格資料，以及顧客偏好的資料。HEAT 還包含了一個模式可立即計算銷售人員的佣金。這個模式是根據訂單大小、運送天數、產品規格、以及價格推估利潤來決定佣金。因此佣金的計算不再只單單依據銷售量，亦考慮價格。它可讓銷售人員在努力獲取個人最大利益的同時，也能同步提昇公司的利潤。銷售人員仍舊擁有議價的決策權，但是他們也可以立即知道折扣的高低對於他們自己佣金的影響。

在導入這套資訊系統的初期階段，約有 50% 的銷售員從未將筆記型電腦帶出去使用。不過現在管理階層決定強制要求銷售人員一定要用電腦。每一筆訂單都必須透過這套系統來議價。銷售人員也必須負責將顧客對產品偏好的相關資訊鍵入系統中存檔。這套新系統的重要資訊檔案約花了八個月的時間，通通由銷售人員建立。為了確保新系統導入的成功，CEO 花了大半年的時間進行宣導，教育銷售人員如何透過這套系統來獲利。

雖然新系統帶來許多好處，但是銷售人員仍舊對多增加的額外工作負擔感到不悅。銷售額在系統導入後兩年分別成長了 9% 以及 13%，平均成交價格也上升了 10%，顧客抱怨減少了 48%，且顧客滿意度上升了 15%。有顧客注意到發票的錯誤率在一年內由原先的幾乎高達 40% 降為接近 0%。但既使有這麼多的成果，有些銷售人員還是抱怨額外資料的蒐集與鍵入佔用了個人許多的時間。另有些人則

是對於進入系統的螢幕介面過於繁瑣感到不悅。銷售人員對於整個資訊系統的滿意度 60 分都不到。

1. 請比較個案公司導入銷售自動化系統前後的企業流程與資訊的不同。(15 分)
2. 請從上述個案歸納出待檢驗的命題 (或稱看法)。(15 分)

三、簡答題(20 分)

1. 為因應企業資訊系統的新趨勢，資管人應擁有哪些能力？(10 分)
2. 資訊倫理議題可歸納為哪四項？(10 分)