招 生 學 年 度	九十七	招 生 類 別	碩士班
系 所 班 別	資訊工程學系碩士班		
科　　　　目	科技英文		
注 意 事 項			

1. Read the paragraphs and translate underlined sentences into Chinese. (4% each)

Farewell, Arthur C. Clarke

If you received an e-mail from me several years ago, you might have seen it end with this quote: Any sufficiently advanced technology is indistinguishable from a rigged demo. This line, which I'd seen thrown around without attribution on the Internet years before, was a snarky way to mock the tech industry's habits of hype. But it was also a nod to one of my favorite science-fiction authors, Arthur C. Clarke, and his aphorism that "(1) **Any sufficiently advanced technology is indistinguishable from magic.**" (2) **Clarke died at age 90 yesterday after a prolific career that saw him not just imagine the future but correctly predict a decent chunk of it.** If you watch satellite TV or tune into XM radio, give thanks to Clarke, who popularized the idea of using geosynchronous satellites as telecommunications relays. (3) **Should you someday climb to Earth orbit on a space elevator, give Clarke credit for putting that idea in people's heads as well.** Clarke wrote more than 100 books, but 2001: A Space Odyssey--in both its print and film incarnations--stands above them in pop-cultural significance. With its calm, bloodlessly homicidal computer HAL 9000, it gave us some of sci-fi's most memorable moments. The simple phrase "I'm afraid I can't do that" has never been the same. Clarke was sadly wrong about the advances we'd make in spaceflight by 2001; there is no Pan Am space shuttle with connecting service to the Moon. (4) **But his portrayal of how humans might react to the discovery of evidence of an alien intelligence's presence near Earth--a bureaucratic frenzy to cover up the news until it could be properly dealt with--seems dead-on.** NASA paid Clarke one of the highest compliments possible by naming Apollo 13's command module "Odyssey," then repeated the compliment decades later with the Mars Odyssey probe orbiting that planet now.

Dell Smartphone Appears Imminent, Analysts Say

The development of smartphones, however, seems like a logical step for Dell to expand its presence in the mobile market, said Neil Mawston, director of wireless device strategies at analysis firm Strategy Analytics. However, (5) **Dell will need an Apple iPhone killer to really make a dent in the market**, analysts said. Dell competitors Apple, Hewlett-Packard and Toshiba are already present in mobile computing with smartphones and PDAs (personal digital assistants), and (6) **the market is just too big for Dell to ignore**, Mawston said. The company already makes cellular laptops, and the move to smartphones isn't a big leap, Mawston said.

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注 意 事 項			

(7) **Apple is ahead with the iPhone, and to attract consumers, Dell will need to make a splash with an attractive handset featuring the right operating system and content.** (8) **A rumored announcement in support of Google's Android mobile platform never materialized at last month's Mobile World Congress in Barcelona.** Dell may adopt the Microsoft Windows Mobile OS for its smartphone, which will be a good win for Microsoft, Mawston said.

(9) **The smartphone will be an effective replacement for Dell's previous Axim personal digital assistants that it killed last year, citing a declining market for pen-based PDAs.** Dell's Axim product portfolio was weak, with not many devices on offer, Mawston said. The company needs a replacement for Axim, and the new smartphone could fill that void.

However, Dell faces challenges if it decides to enter the smartphone market. (10) **Dell will need good design and technology to contend with the popular iPhone, which is setting the benchmark on smartphone design.** The company will also need a stronger distribution network, Brown said. Dell is a well-established brand name in the U.S. but not in Europe, where it could encounter some bumps in trying to sell a smartphone. The distribution tie-ups with companies like Tesco and Carrefour, which are established grocery retailers, could help in the sales of prepaid phones, not high-end smartphones. (11) **The company will need to tie up with established retailers like Dixon's or Carphone Warehouse to be competitive**, Brown said.

Sensor Networks
(12) **Sensor networks are the integration of sensor techniques, distributed computation and wireless communication techniques.** The network can be embedded in our physical environment and used for sensing, collecting data, processing information of monitored objects and transferring the processed information to users. (13) **The architecture of the sensor node's hardware consists of five components: sensing hardware, processor, memory, power supply and transceiver.** We can deploy these devices easily without human control. These nodes can self-organize and adapt to support several applications. (14) **However, the limited energy, computational power, and communication resources of a sensor node make the protocols of ad-hoc wireless networks unsuitable for sensor networks.** So, in recent years, there are a lot of protocols proposed for sensor networks.

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2. Read the paragraphs and translate underlined sentences into English. (4% each)

電腦病毒

(1) 電腦病毒是類似生物病毒一樣的程式，它會複製自己並傳播到其他宿主，並對宿主造成損害。宿主也是程式，通常是作業系統，從而進一步傳染到其他程式、其他的電腦。(2) 電腦病毒在傳播期間一般會隱蔽自己，由特定的條件觸發，並開始產生破壞。

電腦病毒具有的不良特徵有傳播性、隱蔽性、感染性、潛伏性、可激發性、表現性或破壞性，通常只表現兩種以上所述的特徵就可以認定該程式是病毒。電腦病毒的生命周期為開發期—傳染期—潛伏期—發作期—發現期—消化期—消亡期。

病毒一般會自動利用 25 電子郵件埠傳播，利用物件為微軟作業系統捆綁的 Outlook 的某個漏洞。將病毒自動複製並群發給存儲的通訊錄名單成員。郵件標題較為吸引人點擊，大多利用如「我愛妳」這樣家人朋友之間親密的話語，以降低人的警戒性。如果病毒製作者再應用腳本漏洞，將病毒直接嵌入郵件中，那麼用戶一點郵件標題打開郵件就會中病毒。

(3) 最大的病毒不過 1MB，一般的病毒僅在 1KB 左右，這樣除了傳播快速之外，隱蔽性也極強。部分病毒使用「無行程」技術或插入到某個系統必要的關鍵行程當中去，所以在任務管理器中找不到它的單獨運行行程。(4) 而病毒自身一旦運行後，就會自己修改自己的檔案名並隱藏在某個用戶不常去的系統資料夾中，這樣的資料夾通常有上千個系統檔案，如果憑手工搜尋很難找到病毒。而病毒在運行前的偽裝技術也不得不值得我們關注，將病毒和一個吸引人的檔案捆綁合併成一個檔案，那麼運行正常吸引他的檔案時，病毒也在我們的作業系統中悄悄的運行了。

網際網路

網際網路（Internet），又音譯因特網或者英特網，在 1990 年代發展初期，因其跨國際性連接之特性，在台灣亦有人稱其為國際網路，或國際電腦網路。是指在 ARPA 網基礎上發展出的世界上最大的全球性互聯網絡。而網際網路（interconnection network 或 internet），在香港和中國常譯作互聯網，或稱互連網，即是「連接網路的網路」，可以是任何分離的實體網路之集合，(5) 這些網路以一組通用的協定相連，形成邏輯上的單一網路。這種將電腦網路互相聯接在一起的方法稱為「網路互聯」。

單獨提起網際網路，一般都是網際網路或接入其中的某網路，有時將其簡稱為網或網路（the Net）。(6) 對網際網路的使用稱之為「上網」、「衝浪」、「瀏覽」及「漫游」，而使用網際網路的人則稱之為「網民」，網上朋友稱為「網友」。

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3. Describe the meanings and your feelings about the following cartoons in English. (10% each) (Please write at least five English sentences for each.)

(1)

(2)

Would you mind holding my printer?
My other phone is ringing.