



**UNIVERSITI KUALA LUMPUR
BUSINESS SCHOOL**

**FINAL EXAMINATION
MARCH 2025 SEMESTER**

COURSE CODE	: EAB11203
COURSE NAME	: INTRODUCTION TO INFORMATION TECHNOLOGY
PROGRAMME NAME	: BACHELOR IN ACCOUNTING (HONS)
DATE	: 26 JUNE 2025
TIME	: 9.00 AM – 12.00 PM
DURATION	: 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. Please **CAREFULLY** read the instructions given in the question paper.
2. This question paper has information printed on both sides of the paper.
3. This question paper consists of **TWO (2) Sections; Section A and Section B.**
4. Answer **ALL** questions in **Section A and Section B.**
5. Please write your answers on the answer booklet provided.
6. All questions must be answered in **English** (any other language is not allowed).
7. **This question paper must not be removed from the examination hall.**

THERE ARE SEVEN (7) PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (Total: 40 marks)

INSTRUCTION: Answer ALL questions.

Please use the answer booklet provided.

Question 1

Information system security and control are essential for protecting data, ensuring system integrity, and preventing unauthorized access. Suggest any **FIVE (5)** tools or technologies for safeguarding the information system.

(10 marks)

Question 2

Consider a new startup providing an online platform for freelance artists. Demonstrate why **Free/Freemium** and **Commission-based** model are recommended for this startup and justify these choices.

(10 marks)

Question 3

Porter's competitive forces seek to identify strategy through series of five influences. Consider you are already in food and beverage industry, examine how new businesses can enter your market and threaten your company. Describe information system strategy that you could use to maintain your business if competitors can easily enter your market with little money and effort.

(10 marks)

Question 4

Discuss **FIVE (5)** effects of maintaining good relationship with suppliers with information system.

(10 marks)

SECTION B (Total: 60 marks)**INSTRUCTION: Answer ALL questions.****Please use the answer booklet provided.****CASE STUDY 1****MIS In Your Pocket**

Can you run your company out of your pocket? Perhaps not entirely, but there are many functions today that can be performed using an iPhone, BlackBerry, or other mobile handheld device. The smartphone has been called the "Swiss Army knife of the digital age." A flick of the finger turns it into a Web browser, a telephone, a camera, a music or video player, an e-mail and messaging machine, and for some, a gateway into corporate systems. New software applications for social networking and salesforce management (CRM) make these devices even more versatile business tools.

The BlackBerry has been the favored mobile handheld for business because it was optimized for e-mail and messaging, with strong security and tools for accessing internal corporate systems. Now that's changing. Companies large and small are starting to deploy Apple's iPhone to conduct more of their work. For some, these handhelds have become necessities.

Doylestown Hospital, a community medical center near Philadelphia, has a mobile workforce of 360 independent physicians treating thousands of patients. The physicians use the iPhone 3G to stay connected around the clock to hospital staff, colleagues, and patient information. Doylestown doctors use iPhone features such as e-mail, calendar, and contacts from Microsoft Exchange ActiveSync. The iPhone allows them to receive time-sensitive e-mail alerts from the hospital. Voice communication is important as well, and the iPhone allows the doctors to be on call wherever they are.

Doylestown Hospital customized the iPhone to provide doctors with secure mobile access from any location in the world to the hospital's MEDITECH electronic medical records system. MEDITECH delivers information on vital signs, medications, lab results, allergies, nurses' notes, therapy results, and even patient diets to the iPhone screen. "Every radiographic image a patient has had, every dictated report from a specialist is available on the iPhone," notes Dr. Scott Levy, Doylestown Hospital's vice president and chief medical officer. Doylestown doctors

also use the iPhone at the patient's bedside to access medical reference applications such as Epocrates Essentials to help them interpret lab results and obtain medication information.

Doylestown's information systems department was able to establish the same high level of security for authenticating users of the system and tracking user activity as it maintains with all the hospital's Web-based medical records applications. Information is stored securely on the hospital's own server computer.

D.W. Morgan, headquartered in Pleasanton, California, serves as a supply chain consultant and transportation and logistics service provider to companies such as AT&T, Apple Computer, Johnson & Johnson, Lockheed Martin, and Chevron. It has operations in more than 85 countries on four continents, moving critical inventory to factories that use a just-in-time (JIT) strategy. In JIT, retailers and manufacturers maintain almost no excess on-hand inventory, relying upon suppliers to deliver raw materials, components, or products shortly before they are needed.

In this type of production environment, it's absolutely critical to know the exact moment when delivery trucks will arrive. In the past, it took many phone calls and a great deal of manual effort to provide customers with such precise up-to-the minute information. The company was able to develop an application called ChainLinq Mobile for its 30 drivers that updates shipment information, collects signatures, and provides global positioning system (GPS) tracking on each box it delivers.

As Morgan's drivers make their shipments, they use ChainLinq to record pickups and status updates. When they reach their destination, they collect a signature on the iPhone screen. Data collected at each point along the way, including a date- and time-stamped GPS location pinpointed on a Google map, are uploaded to the company's servers. The servers make the data available to customers on the company's Web site. Morgan's competitors take about 20 minutes to half a day to provide proof of delivery; Morgan can do it immediately.

TCHO is a start-up that uses custom-developed machinery to create unique chocolate flavors. Owner Timothy Childs developed an iPhone app that enables him to remotely log into each chocolate-making machine, control time and temperature, turn the machines on and off, and receive alerts about when to make temperature changes. The iPhone app also enables him to remotely view several video cameras that show how the TCHO FlavorLab is doing. TCHO employees also use the iPhone to exchange photos, e-mail, and text messages.

The Apple iPad is also emerging as a business tool for Web-based note-taking, file sharing, word processing, and number-crunching. Hundreds of business productivity applications are being developed, including tools for Web conferencing, word processing, spreadsheets, and electronic presentations. Properly configured, the iPad is able to connect to corporate networks to obtain e-mail messages, calendar events, and contacts securely over the air.

- (a) Describe **THREE (3)** business functions supported by **THREE (3)** applications that were described in the case. (6 marks)
- (b) Show with examples (at least **TWO (2)** each) on how these mobile applications solve problems for **EACH** organization. (12 marks)
- (c) List and justify (with example from the case), **TWO (2)** strategic business objectives that can be achieved with the use of mobile applications. (6 marks)
- (d) Propose **TWO (2)** examples of businesses that are most likely to benefit from equipping their **employees** with mobile applications? (6 marks)

CASE STUDY 2

Augmented Reality: Reality Gets Better

Many of us are familiar with the concept of virtual reality, either from films like Avatar and The Matrix, or from science fiction novels and video games. Virtual reality is a computer-generated, interactive, three-dimensional environment in which people become immersed. But in the past few years, a new spin on virtual reality known as augmented reality has emerged as a major focus of many companies' marketing efforts. More than just science fiction, augmented reality is an exciting new way of creating richer, more interactive experiences with users and future customers.

Augmented reality differs from traditional virtual reality because users of augmented reality (also called AR) tools maintain a presence in the real world. In virtual reality, users are completely immersed in a computer-generated environment, and often use head-mounted displays that facilitate the immersion and eliminate any interference from the real world. Augmented reality mixes real-life images with graphics or other effects and can use any of three major display techniques—head-mounted displays, just as with virtual reality, spatial displays, which display graphical information on physical objects, and handheld displays.

Almost everyone has already encountered some form of AR technology. Sports fans are familiar with the yellow first-down markers shown on televised football games, or the special markings denoting the location and direction of hockey pucks in hockey games. These are examples of augmented reality. Other common usages of AR include medical procedures like image-guided surgery, where data acquired from computerized tomography (CT) and magnetic resonance imaging (MRI) scans or from ultrasound imaging are superimposed on the patient in the operating room. Other industries where AR has caught on include military training, engineering design, robotics, and consumer design.

As companies get more comfortable with augmented reality, marketers are developing creative new ways to use the technology. Print media companies see AR as a way to generate excitement about their products in an entirely new way. Esquire magazine used AR extensively in its December 2009 issue, adding several stickers with designs that, when held up to a Web camera, triggered interactive video segments featuring cover subject Robert Downey Jr. Turning the magazine in different directions yielded different images. A fashion spread describing dressing in layers showed actor Jeremy Renner adding more layers as the

seasons changed. The orientation of the magazine as held up to a Web camera determined the season.

Lexus placed an advertisement in the magazine that displayed "radar waves" bouncing off of nearby objects on the page. Again, adjusting the angle of the magazine affected the content of the ad. Lexus Vice President of Marketing David Nordstrom stated that AR was attractive to him because "our job as marketers is to be able to communicate to people in interesting ways that are relevant to them and also entertaining." User response to the magazine was positive, suggesting that AR accomplished this goal. Other companies that have pursued AR as a way to attract and entertain their customers include Papa John's, which added AR tags to their pizza boxes. These tags display images of the company's founder driving a car when triggered using a Web camera. That company's president believes AR is "a great way to get customers involved in a promotion in a more interactive way than just reading or seeing an ad."

Mobile phone application developers are also excited about the growing demand for AR technologies. Most mobile phones have camera, global positioning system (GPS), Internet, and compass functionalities, which make smartphones ideal candidates for handheld AR displays. One of the major new markets for AR is in real estate, where applications that help users access real estate listings and information on the go have already taken off. An Amsterdam-based start-up, application developer Layar, has created an app for French real estate agency MeilleursAgents.com where users can point their phones at any building in Paris and within seconds the phone displays the property's value per square meter and a small photo of the property, along with a live image of the building streamed through the phone's camera.

Over 30 similar applications have been developed in other countries, including American real estate company ZipRealty, whose HomeScan application has met with early success. While the technology is still new and will take some time to develop, users can already stand in front of some houses for sale and point their phones at the property to display details superimposed on their screen. If the house is too far away, users can switch to the phone's interactive map and locate the house and other nearby houses for sale. ZipRealty is so encouraged by the early response to HomeScan that it plans to add data on restaurants, coffee shops, and other neighborhood features to the app. Another well-known application, Wikitude, allows users to view user-contributed Web-based information about their surroundings using their mobile phones.

Skeptics believe that the technology is more of a gimmick than a useful tool, but Layar's application has been downloaded over 1,000 times per week since its launch. Being able to access information on properties is more than just a gimmick—it is a legitimately useful tool to help buyers on the go. Marketers are finding that users increasingly want their phones to have all of the functionality of desktop computers, and more AR mash-ups have been released that display information on tourist sites, chart subway stops, and restaurants, and allow interior designers to superimpose new furniture schemes onto a room so that potential customers can more easily choose what they like best. Analysts believe that AR is here to stay, predicting that the mobile AR market will grow to \$732 million by 2014.

- (a) Discuss the differences between **virtual reality** and **augmented reality**.
(8 marks)
- (b) Explain why augmented reality so appealing to marketers? Compare **THREE (3)** different usage from the case.
(8 marks)
- (c) Demonstrate how augmented reality is useful for real estate shopping applications.
(6 marks)
- (d) Discuss the ways in which augmented reality applications have proven to be effective tools.
(4 marks)
- (e) Provide **TWO (2)** idea of other products or services that would be well suited to augmented reality.
(4 marks)

END OF EXAMINATION PAPER