



Undergraduate Programme
Department of Computer Science and Mathematics
Semester 2 Year 2019

FINAL EXAMINATION PAPER

ITC262 PROFESSIONAL PRACTICE IN IT

Important Instructions to Students:

1. Read the questions, instructions carefully and answer the questions.
2. You are allowed an **extra 10 minutes reading time** (during this time, you are not allowed to write with pen) and **180 minutes (3 Hours) to complete this paper**.
3. Silent, non-programmable calculators are allowed, but not supplied.
4. Write all your answers in the answer booklet provided. If you need extra sheets, please ask from the supervisor. Write your name, course code and student identification number in the answer booklet and in the attendance sheet.
5. **This Final Course Examination Paper is worth 100 marks contributes 50% of the total course assessments.**
6. This paper contains four (4) sections A, B, C and D. All questions in sections A, B and C are compulsory to answer. **Only one** question has to be answered from section D. Each section starts on a new page.
7. Write all your answers legibly. The marker has the right to award zero for answers that are not legible.
8. This is a **Closed Book Examination**. The University views plagiarism, cheating and dishonest practice as serious offences and if found, offenders are penalized.

Examination Paper Content (Format):

<u>Section</u>	<u>Question</u>	<u>Content</u>	<u>Marks</u>	<u>Suggested Time</u>
A	1-20	Short Answer Questions	40	65minutes
B	1-10	Critical Thinking	30	65 minutes
C	1-2	Case Studies	20	30 minutes
D	1-4	Essay	10	20 minutes
		TOTAL	100	180 Minutes

SECTION A: SHORT ANSWER QUESTIONS**[40 Marks]***All questions in this section are compulsory*

1. It is a common practice for managers to hold people accountable to meet “stretch” goals, quotas, and budgets. How can this be done in a way that does not encourage unethical behaviour on the part of employees?
[2 Marks]
2. Should software piracy within the boundaries of third-world countries be tolerated to allow these countries an opportunity to move more quickly into the information age? Why or why not?
[2 Marks]
3. How do you distinguish between misrepresentation and embellishment of one’s professional accomplishments on a résumé? Provide an example of an embellishment that would not be considered misrepresentation.
[2 Marks]
4. What is the difference between breach of contract and material breach of contract? In a breach of contract dispute, what recourse can the non-breaching party take?
[2 Marks]
5. What is the difference between risk assessment and an IT security audit?
[2 Marks]
6. What is the difference between industrial spying and the gathering of competitive intelligence? Is the use of competitive intelligence ethical or unethical? Why?
[2 Marks]
7. What is a pen register? What is required in order for a law enforcement agency to gain approval for a pen register?
[2 Marks]
8. Do you think that law enforcement agencies should be able to use advanced surveillance cameras and data from vehicle data recorders in a court of law? Why or why not?
[2 Marks]
9. What can an ISP do to limit the distribution of hate email? Why would such actions not be considered a violation of the subscriber’s First Amendment rights?
[2 Marks]
10. What is a John Doe lawsuit? Do you think that a corporation should be allowed to use subpoena to identify a John Doe before proving that the person has done damage to the company? Why or why not? Under what conditions will the courts execute a John Doe lawsuit?
[2 Marks]
11. What is a cross-licensing agreement? How do large software companies use such agreements? Do you think their use is fair to small software development firms? Why or why not?
[2 Marks]

12. What problems can arise in using nondisclosure and non-compete agreements to protect intellectual property?
[2 Marks]
13. Define and briefly discuss the difference between white box testing and black box testing.
[2 Marks]
14. Explain the difference between strict liability and negligence.
[2 Marks]
15. Define the term telework. What technologies are essential for effective telework?
[2 Marks]
16. What is the digital divide? Where does it exist? Why is it important to bridge the digital divide?
[2 Marks]
17. Identify two significant advantages that social network advertising has over other forms of advertising.
[2 Marks]
18. Can role be playing illegal and violent fantasies in a virtual world affect individuals and society in the real world? What are the social and ethical implications of such role playing? Should limits be placed on what players can do in virtual worlds?
[2 Marks]
19. What factors must a company consider in deciding whether to employ offshore outsourcing on a project?
[2 Marks]
20. Why do companies that make use of a lot of contingent workers fear getting involved in a co-employment situation? What steps should they take to avoid this situation?
[2 Marks]

1. You are a recent graduate of a well-respected business school, but you are having trouble getting a job. You worked with a professional résumé service to develop a well-written résumé and placed it on several Web sites; you also sent it directly to contacts at a dozen companies. So far, you have not even had an invitation for an interview. You know that one of your shortcomings is that you have no real job experience to speak of. You are considering beefing up your résumé by exaggerating the extent of the class project you worked on for a few weeks at your brother-in-law's small consulting firm. You could reword the résumé to make it sound as if you were actually employed and that your responsibilities were greater than they actually were. What would you do?

[3 Marks]

2. You are in charge of awarding all computer hardware service contracts (valued at over \$2 million per year) for your employer. In recent emails with the company's current service contractor, you casually exchanged ideas about family vacations. You mentioned that your family is planning on vacationing in the Scottsdale, Arizona, area. You are surprised when the contractor emails you an offer to use his company's condominium at a plush Scottsdale resort, complete with golf and health club privileges. He assures you that the condo would normally be empty that time of year and that other customers frequently use the condo. The resort is one you are familiar with but have never used because the rental is well over \$5,000 per week. You would really like for your family to experience staying at a five star resort but you worry about the potential consequences of accepting the offer. If your manager saw a copy of the emails exchanged with the contractor, could it appear that you were soliciting a bribe? Could this offer be considered a bribe? What would you do?

[3 Marks]

3. You are one of the top students in your university's computer science program of 200 students. You are surprised when you are met after class by two representatives from a federal intelligence agency. Over dinner, they talk to you about the increasing threat of cyberterrorist attacks launched on the United States by foreign countries and the need to counter those attacks. They offer you a position on the agency's super-secret cyberterrorism unit, at a starting salary 50 percent higher than you know other computer science graduates are being offered. Your role would be to both develop and defend against new zero-day exploits that could be used to plant malware in the software used by the government and military computers. Would such a role be of interest to you? What questions might you ask to determine if you would accept their offer of employment?

[3 Marks]

4. Your auto insurance company has offered you a 15 percent discount (roughly \$200 per year) if you agree to let them install a sophisticated vehicle event data recorder (EDR) in your car. You have read over the terms of the agreement and discover that if you are involved in an accident, you must agree to let the data from the device be collected and analyzed by a third-party accident investigation firm. You must also agree to let findings from this analysis be used in a court of law. What questions would you want answered and what advice might you seek before deciding whether to accept this discount offer?

[3 Marks]

5. A coworker confides to you that he is going to begin sending emails to your employer's internal corporate blog site, which serves as a suggestion box. He plans to use an anonymous remailer and sign the messages "Anonymous." Your friend is afraid of retribution from superiors but wants to call attention to instances of racial and sexual discrimination observed during his five years as an employee with the firm. What would you say to your friend?

[3 Marks]

6. You have been asked by the manager of software development to lead a small group of software developers in an attempt to reengineer the latest release of the software by your leading competitor. The goal of the group is to identify features that could be implemented into the next few releases of your firm's software. You are told that the group would relocate from the United States to the island of Antigua, in the Caribbean Sea, to "reduce the risk of the group being distracted by the daily pressures associated with developing fixes and enhancements with the current software release." What sort of legal and/or ethical questions might be raised by this reengineering effort? Would you consider taking this position?

[3 Marks]

7. You are a programmer for a firm that develops a popular tax preparation software package designed to help individuals prepare their federal tax returns. In the course of testing some small changes that were made to the software, you detect an error in the software that results in roughly a 5 percent underestimation of the amount owed—both for those who indicated that they were single and for those who indicated that they were married but filing separate tax returns. It is now late March, and it is likely that well over 100,000 users who submitted their returns using your firm's software will be affected by this error. What do you do?

[3 Marks]

8. It is the year 2028, and robots are being introduced to handle the screening of patients at physicians' offices in the United States. The robots look human and are able to speak and understand English and Spanish. The robots are capable of performing basic nursing tasks such as taking a patient's vital signs. Upon arriving at a physician's office, a patient would meet with the robot to determine the patient's current conditions and symptoms and to review pertinent medical history from the patient's EHR. The robot would then form a preliminary diagnosis and suggest a course of action, which could include additional tests, medication, referral to a specialist, or hospitalization. A human physician would then review the preliminary diagnosis and suggested course of action. If necessary, the physician would meet with the patient to confirm the robot's diagnosis and order any additional work or medications that might be necessary. The robotic physician assistant can be made available 24/7 and can even be stationed at convenient locations such as shopping malls, schools, and college campuses. The goal of using robotic physician

exclude

[3 Marks]

9. You are 30 minutes into a job interview for your dream job—one where your college education and experience could really be applied. So far everything is going well. Then, the interviewer asks you to write down your Facebook user name and password so she can do further research after the formal interview is over. What would you do?

[3 Marks]

10. Your firm has just added six H-1B workers to your 50-person department. You have been asked to help get one of the workers "on board." Your manager wants you to introduce him to other team members, provide him with some basic company background and information, and explain to him how work gets done within your organization. Your manager has also asked you to help your new co-worker become familiar with the community, including residential areas, shopping centres, restaurants, and recreational activities. Your goal would be to help the new worker be productive and comfortable with his new surroundings as soon as possible. How would you feel about taking on this responsibility? What would you do?

[3 Marks]

1. Google Book Search Library Project

Google announced the Google Book Search Library Project, a highly ambitious plan to scan and digitize books from various libraries, including the New York Public Library and the libraries at Harvard University, Oxford University, Stanford University, and the University of Michigan. Google's goal is to "work with publishers and libraries to create a comprehensive, searchable, virtual card catalog of all books in all languages that helps users discover new books and publishers discover new readers."

Because many of the books are protected under copyright law, Google needed a way to avoid problems with copyright infringement. Therefore, Google established a process requiring publishers and copyright holders to opt out of the program if they did not want their books to be searchable. Publishers and copyright holders were incensed and argued that they should control who can view and search their books. In October 2005, the Authors Guild and the Association of American Publishers (on behalf of McGraw-Hill, Simon & Schuster, John Wiley & Sons, Pearson Education, and the Penguin Group) filed suit against Google to stop the program. They argued that making a full copy of a copyright-protected book does not fit into the narrow exception to the law defined by fair use.

After more than two years of discussions, the parties negotiated a settlement in October 2008. The settlement did not resolve the legal dispute over whether Google's project is permissible as a fair use; however, it concluded the litigation, enabling the parties to avoid the cost and risk of a trial. The proposed settlement would give Google the right to display up to 20 percent of a book online and to profit from it by selling access to all or part of it. Google would also sell subscriptions to its entire collection to universities and other institutions, but offer free portals to public libraries where users could pay a per-page fee to print parts of the book. In addition, Google would set aside \$125 million to compensate authors and publishers for originally infringing on their copyrights, to pay the legal fees of the authors and publishers, and to establish a Book Rights Registry where rights holders can register their works to receive a share of ad revenue and digital book sales.

Google, as well as many authors and publishers, defended the settlement, saying the project would benefit authors, publishers, and the public and renew access to millions of out-of-print books.

However, in a further complication, the U.S. Department of Justice (DOJ) began an inquiry in April 2009 into the proposed settlement. In September, the DOJ urged the court to reject the settlement. The DOJ concluded that the settlement violated copyright, antitrust, and class action laws on three grounds. First, one goal of the settlement was to offer copyrighted materials to the public electronically while compensating copyright holders. However, the DOJ concluded that Google's system did not require copyright owners to register. Moreover, the project includes many "orphan books"—those whose copyright holders are unknown or cannot be located. In addition, the DOJ argued that the settlement should result in a marketplace in which consumers have a choice of outlets from which they can obtain the access and in which prices are kept competitive. Finally, the DOJ harshly criticized the settlement because, as a class action, it failed to protect the rights of absent class members. The DOJ generally questioned whether a class action lawsuit was an appropriate method of dealing with the issues that arise from such a large-scale project to provide public electronic access to copyrighted material. A more appropriate venue, the DOJ suggested, would be the legislature.

The parties in the case quickly responded by working out a new agreement. Through the revised agreement, Google's book registry would actively seek out authors and rights holders and Google would only scan books in English-speaking countries. In addition, the settlement limited ways that Google could make money from the project.

In February 2010, however, the DOJ rejected the amended settlement for violating class action, antitrust, and copyright laws. The DOJ made specific suggestions to help avoid copyright infringement, such as arranging for authors to opt in rather than opt out and listing a book in the registry for two years prior to making it available online. But, from an antitrust perspective, the arrangement was still extremely problematic, the DOJ noted, as there are no serious competitors in the market. Amazon has approximately three million to Google's tens of millions of books.

This time the parties did not rush to develop a new agreement. Instead, New York Federal District Judge Denny Chin postponed a ruling on the agreement a few weeks later. The judge wanted to give all parties involved time to submit comments on the amended agreement. The court issued no ruling during 2010. Then in December 2010, Google launched its own online bookstore of eBooks. Of its over three million titles, only 200,000 had been licensed through publishers. The remaining 2.8 million were texts no longer covered by copyright law in the United States.

Questions

1. Do you think that Google should have taken a different approach that would have allowed it to avoid litigation and a lengthy delay in implementing its Book Search Library Project? Please explain your answer.

[3 Marks]
2. As a potential user, are you in favor of or do you oppose the Book Search Library Project? Please explain your answer.

[3 Marks]
3. Do you think that the proposed settlement gives Google an unfair advantage to profit from creating an online service that allows people to access and search millions of books?

[4 Marks]

2. Procter & Gamble Turns to Social Networking

Spending big on advertising has always been a key strategy for consumer products giant Procter & Gamble (P&G). With recent annual global ad spending over \$9 billion, P&G is one of the world's top advertisers.⁶³ P&G was an early sponsor and producer of daytime radio and TV dramas—for which the term soap opera was coined. Its Guiding Light program began airing on radio in 1937 and moved to TV in 1952.⁶⁴ The P&G produced and sponsored *As the World Turns*, which was the leading soap opera for decades, winning many daytime Emmy awards. However, over the years, women—the target audience for such programs—made a huge shift in their TV viewing habits as they moved into the workplace, became more interested in talk and reality shows, and, more recently, began spending more of their leisure time online. P&G finally pulled the plug on *As the World Turns* in 2010 after 53 years.

In 2006, P&G began working with Facebook to promote its brands using standard banner ads and promoting Facebook groups seeking fans for the company or its products. However, this approach was not very successful. P&G's biggest success was a Crest Whitestrips promotion that invited college students to become "fans" on its Facebook page. The company offered thousands of free movie screenings and sponsored concerts but still only attracted 14,000 fans to the product's Facebook page. When the promotions ended, the fans left too. The problem, according to Web guru Seth Goldstein, is: "Advertisers distract users; users ignore advertisers; advertisers distract better; users ignore better."

P&G's next experiment with social networking was in 2007, when it collaborated with Yahoo! and the ZiZi Group to create Capessa.com, an online social network targeted at women. Capessa enabled women to post their stories and discuss topics such as parenting, managing their careers, getting in shape, and dealing with illnesses. One of the goals of this experiment was to identify ways in which social networking could be used to gain a better understanding of women's likes, dislikes, interests, and needs. Ultimately, no direct connection between Capessa and an increase in sales could be made. That may be, in part, because some users are skeptical as to whether the stories posted on social networks are from real people or from paid actors or authors.

Recognizing that its current approach was not working, P&G invited Google, Facebook, Twitter, and other social media experts to work with it to explore how online and digital media could more

effectively support its marketing program. This spawned several new approaches. P&G has expanded its efforts to sell some top brands (Pampers, Olay, and Pantene) by offering shopping through a Facebook app. Consumers click a Shop Now tab on the page to complete their orders and then check out through Amazon.com. And its "Smell Like a Man, Man" commercials began appearing on YouTube. These commercials starred the beefy ex-football player Isaiah Mustafa wearing only a towel. The commercials were a big hit, drawing over 140 million views and helping its Old Spice brand sales to expand at a double-digit growth rate.

As a result of these successes, P&G set a goal that each of its brands develop a meaningful presence on Facebook. In addition, it is creating smartphone applications for its consumers; one free app available at Apple's App Store and Google's Android Market provides women with guidance on which P&G beauty products to use and how to use them to get a desired look. Marketing experts say many of the large companies were slow to adopt the use of social networks; however, they also agree that consumer goods companies Coca-Cola, Pepsi, P&G, Unilever, and Johnson & Johnson are now coming on strong. The decision to drop soap operas and move advertising dollars to social media was not a popular one with some senior P&G managers (who had spent much of their careers supporting advertising on soap operas) nor with many soap opera fans (who were very attached to these programs), but the decision was a clear indication that P&G recognizes that "the times they are a-changing."

Questions

1. Should the success of a social networking marketing campaign be measured simply by an increase in units sold? Why or why not?
[3 Marks]
2. What key arguments might have been used to convince P&G marketing executives to drop their long-running use of soap operas and replace them with social network advertising?
[3 Marks]
3. Develop a list of five key criteria that P&G might use to assess both the appropriateness and effectiveness of its YouTube commercials.
[4 Marks]

Answer only one question from the list

Topics List:

1. Discuss the impact of information technology on productivity and quality of life in Fiji.
2. Current status of intellectual property protection in Fiji.
3. Impact of Facebook on Fiji's Community in the last three years.
4. Most common computer and internet crimes in Fiji this year.

Choose one topic from the list given above and write a 350-400 words essay. The essay should have the following components

- ✓ A good Title
- ✓ Introduction (~60 words)
- ✓ Three content paragraphs discussing a relevant ethical and/or legal issue. Use good examples from local context. (~80-100 words per paragraph)
- ✓ Conclusion (~60 words)

THE END

