


## National University of Computer and Emerging Sciences, Lahore Campus

	Course Name:	Professional Issues in IT	Course Code:	CS449
	Degree Program:	BS(Computer Science)	Semester:	Spring 2020
	Exam Duration:	180 Minutes	Total Marks:	65
	Paper Date:	06-Jul-2020	Weight	
	Section:	ALL	Page(s):	3
	Exam Type:	Final		

Student : Name: \_\_\_\_\_ Roll No. \_\_\_\_\_ Section: \_\_\_\_\_

- Instruction/Notes:**
1. Writing must be clear and readable.
  2. **You are required to write using bullet points only**, do not write in paragraphs. Any opinion must be supported by a justification in the subsequent sentence. There will be no credit without providing justification.
  3. If required divide your answer into multiple sections each having bullet points only.
  4. Paragraphs will be discarded.
  5. **Solution must be scanned into one multi-page PDF file** and uploaded to the provided location.
  6. **Scanning must be done in good lighting** conditions with clear focus. It is your responsibility to ensure that your Answer Sheets are readable for the Instructor.
  7. Read the questions carefully multiple times. Make sure that you answer what is being asked and nothing else. Frame the answer in your mind first before starting to attempt.

**Q1. [10 marks]** A newly hired Director of Cyber Security, of a medium-sized Cloud based product company, has identified important and urgent Infrastructure Security improvements company-wide. She has laid out a plan to improve Infrastructure Security at a cost of \$1 Million. With other competing projects, the Director has to defend her proposal to the CIO. How can the CIO (you) sort out what really needs to be done without appearing to be micromanaging or discouraging the new Director of Cyber Security? What options are available to CIO to handle this situation, write at least 4 options.

Length of answer: Your answer must not exceed one page.

**Q2. [5 marks]** You being the founder of a startup software development company have detected a patent infringement by another company. Your legal consultant has identified three options:

- (1) ignore the infringement, in court, due to financial reasons;
- (2) threaten to file a law-suit, with a possibility of out-of-court settlement; or
- (3) negotiate aggressively for a cross-licensing agreement

Which option would you pursue and why?

Length of answer: Your answer must not exceed half a page.

**Q3. [10 marks]** Apply IDEAL method to following problem:

Children's entertainment channel Nickelodeon developed an app for children (around 10 years of age) that was downloaded about 10,000 times in a month. But most of the downloaders did not sign up. The app testing team ran hundreds of A/B tests to confirm that the app's look was OK and it was easy to use.

How can you help identify the problem? Can you use the IDEAL method or problem reframing to help solve the problem?

Length of answer: Your answer must not exceed one page.

**Q4. [10 marks]** Opportunity Cost of capital is the loss of income you could have received by investing the money somewhere else, in a suitable interest bearing account for example. Calculate the opportunity cost for you under the following scenario.

Five years ago you gave a loan of 100,000 PKR to one of your friends. Your friend has returned the loan during the last five years with 20,000 PKR per year. What is the opportunity cost of this transaction for you? (Remember to factor in returned amounts)

Interest Rate = last two digits of your roll number. E.g. if your roll number is 16L-1234 the interest rate would be 34%

**Q5. [5 marks]** Imagine you have been assigned to lead an internal organizational team to overcome issues in the "Professional Ethics" area. After reporting of some incidents, an initial investigation was conducted (by an internal team) and you are now required to come up with a solid policy to prevent and handle such issues in future.

- **Trade Secrets** – have been leaked through informal ways (emails, printouts etc.) to a competitor organization, which could be detrimental to the success of some projects within your organization.

Devise and document a new policy/procedure to address above items.

Length of answer: Your answer must not exceed half a page.

**Q6. [25 marks]** All answers should not exceed 4 bullet points.

A. [4 marks]

List down two instances of application of fair use doctrine that you have actually seen while studying in your university. Provide description and justification why you think it was a fair use.

B. [4 marks]

List down two instances of copyright infringement you have actually seen during your stay in the university. Provide description and justification of why do you think it was copyright infringement.

C. [4 marks]

Write the name of one tool or technique that has increased your productivity as a software developer the most. Justify your answer.

(You can not provide the name of an IDE as an answer to your question, think of something else).

D. [4 marks]

You are incharge of networks in an organization and got a call from one of your operations team member Afzal at midnight that the company servers have been compromised and an attacker was able to get access to the company network. Afzal tells you that he is currently working on identifying the attacker and he needs just one more hour to do that. What are you going to do and why?

G. [4 marks]

Describe one example from your own experience when you failed to do proper time management, what was the result and how you could have avoided it. Actual experience from your life is needed.

H. [3 marks]

Provide a list of 2 fake news that you actually believed initially and then found out they were fake. Also describe the reason behind why you believed the news initially and how did you get to know that it is fake afterwards. Please don't mention anything discussed in the class. Provide actual incidents in your experience.

I. [2 marks]

List down one instance where an organization has done consumer profiling on you. Provide description, approximate date (year/month) and organization name.