



Sri Lanka Institute of Information Technology

B.Sc. Honors Degree in Information Technology

Final Examination  
Year 2, Semester 2 (2022)

IT2090 – Professional Skills

Duration: 2 Hours

June 2022

Instructions to Candidates:

- ◆ This paper is preceded by 10 minute reading period. The supervisor will indicate when answering may commence.
- ◆ The total marks for the paper are 60.
- ◆ This paper contains 4 pages, including the cover page.
- ◆ Electronic devices capable of storing and retrieving text, including calculators and mobile phones are not allowed.

## Question 1: Professional Development Plan and Values (15 marks)

Part of an advertisement published on a website that promotes vacancies in the IT sector is given below.

*Here is an exciting opportunity if you are a passionate Java - J2EE developer and want to take a deep dive into Big Data technologies. ABC Ltd is a Big data/Hadoop service provider in Colombo Our client is one of the largest insurance companies on Wall Street with an extended offshore development team based in Colombo.*

*Education: A Bachelor's degree in computer science, Information Technology*

*Skills: Experience in Spring, Spring Boot, Spring Data or ORM libraries Experience in SQL Exposure to CICD practices and Agile Development. Excellent interpersonal, verbal, and written communication skills in English. Analytical skills Familiar with Linux / Unix Operating systems will be a definite advantage.*

*Experience in Scala and Spark Development will be a definite advantage*

*The candidate should have a strong work ethic and the ability to perform in a high-pressure environment. Further, the candidate must be self-motivated and exhibit growth potential. This is a very dynamic work environment where team members will be continually challenged. Highly motivated individuals will thrive in an open culture, which encourages out-of-the-box thinking. An attractive remuneration package including medical insurance and excellent opportunities for career development is available to the right candidate.*

- a) Identify a skill mentioned in the vacancy. Perform a SWOT analysis to develop that skill in you. (6 marks)
- b) Assuming you will embark on your career in the above domain, derive 3 SMART strategies from the above SWOT analysis. (3 marks)
- c) According to the above advertisement, what are the values that help you be considered a suitable candidate for the above post? (3 marks)
- d) Briefly explain the meaning of "Future Value". Identify a future value from the advertisement and describe what actions you would take to inculcate that value in you. (3 marks)

## Question 2: Team Leadership and Team Diversity (20 marks)

“Different strokes for different folks” is a famous saying that describes a leadership style that changes according to the situation and in response to the individuals being managed.

- a) What is the leadership style described in the above sentence?  
(2 marks)
- b) Describe the two qualities of individuals being managed as explained in this theory.  
(2 marks)
- c) Describe two leadership styles that a leader can exercise on an individual according to the different levels of the qualities mentioned in the b) above.  
(4 marks)
- d) Clarifying different diversity factors and benefits of having diversity in teams, write a short essay on “Why professionals should embrace diversity when working in teams”.  
(4 marks)
- e) What does it mean by “Cognitive Diversity”. Explain why it is more important than other diversity factors mentioned in d) above.  
(3 marks)

## Question 3: Professional Responsibility and Codes of Ethics (20 marks)

- a) Name two professional bodies that accredited SLIIT IT Degree programs?  
(2 marks)
- b) Describe characteristic attributes of an established profession.  
(3 marks)
- c) Briefly describe different parties that a computer professional is responsible for when he practices his profession.  
(2 marks)
- d) Nimal is a statistical database programmer, who works at ABC company that provides statistical software. He is on a project that writing a large statistical package needed by another company. After months of hard work, Nimal got stuck in a few parts of the program. His manager informed him that he has to complete the project within the next few days.  
Anil, one of Nimal’s colleagues has shown him some code fragments and algorithms that Anil developed for some other company, and Nimal found some code fragments of an early version of a commercial software package developed at another company, both can be directly incorporated into his program.  
Nimal uses code segments from his friend’s work and the commercial software but does not tell anyone or mentioned them in the documentation.  
Assuming Nimal is a member of the Computer Society of Sri Lanka, critically evaluate different CSSL Code of Ethics areas that are complicated with his behavior in this project.  
(8 marks)

#### **Question 4: Entrepreneurship and Intellectual Property (20 marks)**

- a) Develop the “Value Proposition Canvas” for the software/hardware product developed in your 2<sup>nd</sup> year ITP project (or any other product development project or an e-commerce site).  
(6 marks)
- b) Who are the early adopters of your software/hardware product mentioned above? Describe their characteristics.  
(2 marks)
- c) Briefly explain different intellectual property rights that one can obtain for his/her inventions.  
(2 marks)
- d) By considering how developed countries increase their wealth using Intellectual Property Rights, Write an essay on “How Innovations and Intellectual Property Rights can help to solve Current Economic Crisis in Sri Lanka”.  
(5 marks)

***- End of the Paper -***