



University of Ruhuna- Faculty of Technology
Bachelor of Bachelor of Information and Communication Technology Honors Degree
Level 1 (Semester I) Examination, June/July 2025
Academic year 2023/2024

Course Unit: ICT4142, Professional Issues in IT (Written)

Duration: 02 hours

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This paper contains *five (05)* pages including this instruction page

IMPORTANT INSTRUCTIONS:

1. The medium of this examination is **English**.
2. This is a **Closed Book** examination.
3. This Examination consists of *four (04)* questions that are given equal marks.
4. You must *answer all four (04) questions* in this examination.
5. You are allowed to use non-programmable calculators for this examination.

Question 01

- a)
- i) Briefly define the following terms. *(10 Marks * 3 = 30Marks)*
- Common Law
 - Statute Law
 - Criminal Law
- b)
- i) Explain what it means to be a professional employee, and describe how professionalism is reflected in work behavior and quality. *(15 Marks)*
- ii) Why is it important for software engineers to act professionally and ethically? *(15 Marks)*
- iii) Write down *two (02)* professional bodies related to professionals in Sri Lanka. *(05 Marks * 2 = 10 Marks)*
- iv) Briefly explain how professional bodies contribute to education, using *three (03)* key points. *(05 Marks * 3 = 15 Marks)*
- v) What is Continuing Professional Development (CPD)? Briefly explain how it supports both individuals and industry career development. *(05 Marks * 3 = 15 Marks)*

Question 02

- a)
- i) There are several types of business structures in Sri Lanka. Briefly explain *five (05)* of them. *(08 Marks * 5 = 40 Marks)*
- ii) Briefly explain the *three (03)* principles that are fundamental to the concept of a limited liability company. *(05 Marks * 3 = 15 Marks)*
- b)
- i) Briefly explain how startups differ from small businesses. *(05 Marks *2 =10 Marks)*

- ii) Assume you are planning to start a small software company in your hometown. Your company will focus on developing customized software solutions for local businesses, to expand to serve a wider market over time.

Considering different sources of finance available, identify and explain *two (02)* suitable sources you would choose to fund your startup. Justify your choices by explaining how each source fits the needs of your business. *(20 Marks)*

- iii) Why is it important for you to have a proper business plan before launching a company? Explain your answer by giving *three (03)* key reasons that show how a business plan supports the success of a company. *(05 Marks * 3 = 15 Marks)*

Question 03

a)

- i) Organizations can be structured in different ways depending on their goals and operational needs. Describe the following *three (03)* organizational models by highlighting their key characteristics: *(06 Marks *3=18 Marks)*

- Bureaucratic Model
- Organic Model
- Matrix Management

- ii) Explain the concept of structuring a company by market sector. Mention *one (01)* key advantage and *two (02)* potential risks associated with this approach. *(20 Marks)*

b)

- i) Briefly describe the concept of indirect discrimination. Give *one (01)* suitable example for indirect discrimination that can occur in an organization. *(15 Marks)*
- ii) Describe *three (03)* possible ways how an administrative body can avoid discrimination in the workplace. *(05 Marks *3 =15 Marks)*
- iii) Briefly explain the impact of the internet on privacy using *four (04)* key points. *(04 Marks *4 = 16 Marks)*
- iv) Compare how the UK legal framework and Sri Lankan legal framework handle computer Crimes, using *four (04)* key points. *(04 Marks *4=16 Marks)*

Question 04

- a) A vehicle manufacturing company was launched in Sri Lanka to assemble electric scooters. They plan to introduce **three (03)** models to the market named **SwiftRide**, **EcoZoom**, and **VoltRunner**. The company operates only on **weekdays**. **Skilled mechanics have been recruited to carry out the assembly work**. For the year 2025, there are a total of **261 weekdays**. Mechanics are entitled to **12 days of annual leave** and **08 days of sick leave**. Additionally, there are **11 public holidays** for the year 2025. Each mechanic is required to work **8 hours per day**. (50 Marks)
- i) Calculate the Total Revenue earning hours for the year 2025. (10 Marks)
- ii) By referring to the information given below which is related to the salary of a mechanic, calculate the cost of the **three (03)** scooter models by using **Fixed Overhead** method. (40 Marks)

Annual salary: **Rs.1020000**

EPF, ETF, Medical Insurance and other benefits: **10% of the annual salary**.

Annual overhead cost of the Company: **Rs.1 850 000**

Direct costs and expected sales of different scooter models are shown in below given **Table 1**.

Model	Cost of components (Rs.)	Time spending by a Mechanic (Hours)	Expected sales
SwiftRide	158,000	10	300
EcoZoom	260,000	20	200
VoltRunner	320,000	30	150

Table 1

- b) PureWater Solutions Pvt. Ltd Company is planning to invest in a water purification project. The initial investment required is **Rs. 90,000.00**. The project is expected to generate annual revenues and incur operating costs over the next **four (04) years**. All the costs are subject to inflation, which is judged to be around **5%** over the period. The company uses a discount rate of **6%** to evaluate the project. (50 Marks)

- i) Perform DCF analysis on the project *by copying Table 2* to your answer script. (32 Marks)

Category	Year 0	Year 01	Year 02	Year 03	Year 04
Initial Investment	90000				
Annual Cost	0	6000	6300	6615	6946
Annual Revenue	0	18000	20000	22000	44000
Annual Cash flow	.....	.....	.....	.....	.....
Discount Factor	.....	.....	.....	.....	.....
Discounted Cash Flow	.....	.....	.....	.....	.....
NPV	.....			

Table 02

- ii) According to the DCF analysis, should the PureWater Solutions Company proceed with the project? (02 Marks)
- iii) Explain your reason. (02 Marks)
- iv) If PureWater Solutions Company decides to operate the project for an additional year (Year 05) with the same revenue as **Year 04**, and only with the cost adjusted for inflation by the rate of 5%, apply DCF analysis again on the project-, and draw the updated table. (10 Marks)
- v) Should the company continue the project? (02 Marks)
- vi) Explain your reason. (02 Marks)

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