



**RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES**

**B Sc (General) Degree in Information and Communication Technology
Third Year – Semester II Examination - February/March 2019**

ICT 3207 – PROFESSIONAL PRACTICE AND ETHICS / PROFESSIONAL ISSUES

Time: Two (02) hours

Instructions to Candidates:

- Answer all questions.
 - This paper contains four (04) questions in six (06) pages.
 - Question 01 has 12 multiple choice questions. Write down the question number and the letter corresponding to the correct option in the answer booklet.
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1. Question 1

(24 Marks)

- I. Information Technology is at times considered a not so matured profession because
 - a. There are no Codes of Ethics and Conduct relating to the profession
 - b. There is no body of knowledge relating to the profession
 - c. There are no professional bodies representing the profession
 - d. There is no compulsory licensing /certification or membership required to practice IT

- II. Which of the following is not an essential characteristic of a professional body?
 - a. Defining the entry criteria for enrolment as a member of the profession
 - b. Formulating codes of ethics and professional conduct for its members
 - c. Finding employment opportunities for its members
 - d. Disciplining its members when they commit unprofessional acts

- III. Ethics
 - a. Is a rational examination of moral behavior.
 - b. Brings together the teachings of all the world's religious leaders
 - c. Is about always following the laws of the land
 - d. Is the study of defensible decision making

- IV. The market test,
- a. Is a formal test to test the ethicality of an action
 - b. Considers how doing or not doing an action may affect one's personal brand
 - c. Tests the impact of an action on the market
 - d. Is used to develop an effective marketing plan
- V. Which of following is not a formal ethical theory?
- a. The Consequentialist theory
 - b. The Deontologist theory
 - c. The TV test
 - d. The Virtue test
- VI. The Utilitarian theory
- a. Judges the ethicality of an action by evaluating how it affects the rights and duties of the stakeholders
 - b. Judges the ethicality of an action by evaluating how it affects the majority of the stakeholders
 - c. Judges the ethicality of an action by evaluating if it can be a universal law
 - d. Judges the ethicality of an action by evaluating if it treats any stakeholders with disrespect
- VII. The General Data Protection Regulation (GDPR)
- a. Is a data protection law targeted at protecting data in Sri Lanka
 - b. Is a law targeted at protecting data within the United States of America
 - c. Is a regulation adapted by the European Union (EU) to ensure data protection and privacy of EU citizens within and outside the EU
 - d. Is a data protection legislation adapted by the United Kingdom
- VIII. The ISO 31000 series of standards cover the area of
- a. Quality
 - b. Risk Management
 - c. IT Service Management
 - d. Information Security Management
- IX. Which of these scenarios could give rise to a potential conflict of interest?
- a. The wife of the manager of a bank branch works as one of his subordinates in the same branch
 - b. A manager and a subordinate have conflicting views about a certain matter

- c. The management of an organization pushes employee performance while the workers demand better conditions at work
 - d. The workers of an organization are divided in their support for different candidates at an election
- X. When an invention is protected by copyright the owner of the copyright and his/her heirs have rights to the invention for a period of
- a. 5 years
 - b. 20 years
 - c. His lifetime
 - d. His lifetime plus 75 years
- XI. Treating others in the same way one would like to be treated is known as
- a. The Golden Rule
 - b. The Silver Rule
 - c. Virtue Ethics
 - d. The Kant's Categorical Imperative
- XII. The Skills Framework for the Information Age (SFIA)
- a. Is a framework that helps IT professionals establish their skills and skill levels with global application
 - b. Is a framework that defines the IT skills needed in the UK by the year 2020
 - c. Is a framework for teaching IT skills in schools.
 - d. Is a framework used to convert a an IT illiterate workforce to an IT literate workforce.

(2 Marks for every correct answer. 24 Marks)

2. Question 2

(25 marks)

PQ Soft is a software company that specializes in the Banking and Financial Services sector. It has a core banking product that is used by a number of mid-sized banks.

Aloka joined PQ software 6 months ago as a developer. However, Aloka had also followed a course in Ethical Hacking and even though it was not part of his assigned duties, he used his hacking skills to informally test the security of the Core Banking product on an internal testing server. During this testing, Aloka identified a serious security flaw in the product and brought it to the notice of his manager. The manager in turn took the issue to PQ Soft's top management. However as the correction of this defect would require considerable re-engineering of the product, PQ Soft's management decided that they would defer action on this defect until the

next major release which was only due in about 12 months' time. In the meanwhile, they want Aloka to keep this issue as a secret and not divulge it to anyone within or outside the company.

Knowing the seriousness of the vulnerability Aloka did not agree with this course of action. If a real hacker was to find the vulnerability, the data of the customers of the Banks using this product could be seriously compromised leading to a major social issue. Yet PQ Soft's management was adamant. In desperation Aloka believes he should alert the customers of the banks of the security defect. In order to avoid a conflict with PQ Soft (his employer), he decides to do so anonymously.

- I. What is the name given to the type of action being contemplated by Aloka ? (2 Marks)
- II. Aloka's proposed action gives rise to serious ethical issues both for and against the action. State three facts of the above case that give rise to ethical concerns against Aloka's proposed action. (State the fact and the ethical principle(s) they violate. You may use the principles illustrated in various codes of ethics) (12 Marks)
- III. Describe the ethical principles that support Aloka's proposed action. (6 Marks)
- IV. Do you think that Aloka should proceed with his proposed action? Justify your answer. (5 Marks)

3. Question 3

(25 Marks)

- I. Distinguish between the terms Privacy and Confidentiality. (2 marks)
- II. Identify any privacy and / or confidentiality violations (if any) in each of the following scenarios. If there is a violation, identify how the violation happens.
 - a. A supermarket installs a CCTV system to guard against shop lifting. They have prominent sign boards indicating that the premises are under CCTV surveillance. (4 Marks)
 - b. A local government authority installs CCTV surveillance to guard against nefarious activities at a local park. The park is frequented by young lovers. The authority does not place any notices about the park being under CCTV monitoring. (4 marks)
 - c. Organiser's at a recent career exhibition collected data from the visitors under the pretext of an entrance ticket raffle. The visitors provided their name, address, telephone number, email address as well as their approximate spending on

education over the last year. The organizer's shared this data with all the stall holders who were mostly companies into education and training and also sold the data to an up-market clothing store who used the data to target potential high spending customers through SMS promos. (4 Marks)

- d. A supermarket collects information on purchases made by its customers through a loyalty card program. A researcher from a local university approaches the super market for this data to carry out studies relating to customer buying patterns. The super market shares this data after stripping out the customer identity from the data. (4 Marks)

- III. In the scenario given in i) d. the supermarket signed a non-disclosure agreement (NDA) with the researcher prior to sharing the data. What is the purpose of a non-disclosure agreement and why do you think the supermarket signed an NDA with the researcher? (4 Marks)
- IV. Software company, Prosoft signed a support contract with a local telecom company to support a value-added service (VAS) solution that the telecom company offers to its customers. This service provides considerable daily revenue to the Telco. The liability clause of the contract has no limit on Prosoft's exposure under the contract. Further as per the contract Prosoft's liabilities could also include loss profits and consequential damages. Discuss the risks faced by Prosoft as a result of the above. (3 Marks)

4. Question 4 (26 Marks)

- I. What is the legislation that provides legal recognition for documents stored in electronic form in Sri Lanka? (2 Marks)
- II. Describe with an example where each of the following methods of intellectual property protection are typically used in practice.
- a. Trade Secrets
 - b. Trade Marks
 - c. Patents
 - d. Copyright

(8 Marks)

- III. When installing software, we are often called upon to enter into “End-user license agreements” (EULA). What rights does a typical EULA bestow on the user? (2 Marks)
- IV. Recently there has been much publicity about ATM card information that had been compromised by installing skimming devices on certain ATM’s by an organized gang. Briefly discuss the legal position surrounding the use of such skimming devices in Sri Lanka. (4 Marks)
- V. Highlight two good practices to be followed in relation to each of the following areas relating to professional etiquette.
- a) Communicating with Email
 - b) Participating in meetings
 - c) Exchanging business cards
 - d) Answering the telephone
 - e) Dress Codes

(10 Marks)

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