UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY *OF* COLOMBO SCHOOL *OF* COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)

Academic Year 2021 – 3rd Year Examination – Semester 5

IT5105: Professional Issues in IT
Structured Question Paper
(*TWO HOURS*)

To be completed by the candidate

BIT Examination Index No: ....

Important Instructions:

- The duration of the paper is **2 (two) hours**.
- The medium of instruction and questions is English.
- This paper has **4 questions** and 9 **pages**.
- **Answer all questions.** All questions carry **equal** marks.
- **Write your answers** in English using the space provided **in this question paper**.
- Do not tear off any part of this answer book.
- Under no circumstances may this book, used or unused, be removed from the Examination Hall by a candidate.
- Note that questions appear on both sides of the paper.
  If a page is not printed, please inform the supervisor immediately.
- Calculators are **not** allowed.
- *All Rights Reserved.*

Questions Answered

Indicate by a cross (×), (e.g. ☒) the numbers of the questions answered.

		Question numbers			
To be completed by the candidate by marking a cross (×).	1	2	3	4	
To be completed by the examiners:					

1

1) *Group Dynamics* is the study of groups and the processes that are involved in group formation and functioning. It is a field that is diverse and has the elements of sociology, communication studies and psychology. Since groups ~~are~~ consists of diverse individuals interacting with each other, it is termed as a dynamic process.

(a) List **four** (4) characteristics usually included in the elements of Group Dynamics.

(04 Marks)

> ## ANSWER IN THIS BOX
>
> 1. Forming
>
> 2. Norming
>
> 3. Performing
>
> 4. Performing

(b) Due to the inherent nature of groups, it is important for a group to have a leader. However, each leader has his/her own style of providing direction, implementing plans, and motivating people. The description given in Column A describe styles of leadership. Write the name of the leadership style against each description in Column B.

(12 Marks)

Column A Description	Column B Leadership style
These types of leaders lead by acting as a father figure by taking care of their team. These leaders supply complete concern for their team. In return they receive the complete trust and loyalty of their people.	Paternalistic
These leaders focus their leadership on motivating their team through a system of rewards and punishments. They identify the needs of their team and give rewards to satisfy those needs in exchange for certain levels of performance.	Transactional
These leaders give all the rights and power to make decisions to the team members. They allow followers to have complete freedom to make decisions concerning the completion of their work	Laissez-faire
These types of leaders believe that direct supervision is the key in maintaining a successful environment for the team.	Authoritarian

These leaders share the decision-making abilities with team members by promoting the interests of team members and by practicing social equality.	Democratic
The main objective of this type of leader is to work to change their team members' needs and to redirect their thinking	Transformational

(c) In most dynamic groups there are members with diverse personalities. List the **four** (04) main types of personalities.

(4 Marks)

ANSWER IN THIS BOX

1. Analyst

2. Diplomats

3. Sentinals

4. Explorers

(d) One of the major concerns in dynamic teams is the space for conflicts. A good leader should always be aware of this as well as of the strategies for conflict resolutions. List the **five** (05) conflict resolution strategies a leader should be aware of when leading a group of dynamic individuals.

(5 Marks)

ANSWER IN THIS BOX

1. Discussion

2. written Communication

3. Mediation

4. Compromise

5. Voting

25 Marks

2) (a) What are the reasons accepted by law as justification for staff dismissal?

(4 Marks)

ANSWER IN THIS BOX

Lack of capability;
Misconduct
Breach of the law;
Redundancy

(b) The terms in Column A and statements in Column B are associated with ethical issues in social networking platforms. Match the suitable contents of a cell in Column A with the contents of a cell in Column B.

(8 Marks)

	Column A		Column B
1	Cyberbullying	P	Content, such as pornography or violence, that is not generally thought to be appropriate for viewing by children.
2	Cyberstalking	Q	An aggressive, intentional act or behaviour that is carried out by a group or an individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself.
3	Adult Content	R	Uploading videos showing violence or obscenity
4	Uploading inappropriate materials	S	The repeated, unwanted, and disruptive breaks into the life-world of a victim, with whom one has no relationship (or no longer has), with motives that are directly or indirectly traceable to the affective sphere

ANSWER IN THIS BOX

1-> Q
2- S
3- P
4- R

(c) Explain the difference between hackers and crackers **(3 Marks)**

ANSWER IN THIS BOX

- Hackers – Test limitations of systems out of intellectual curiosity
- Some smart and talented
- Others inept; termed "lamers" or "script kiddies"
- Crackers – Cracking is a form of hacking – Clearly criminal activity

(e) Following are a list of issues that related to *intellectual property* and information technology.

Plagiarism, Reverse engineering, Open-source code, Competitive intelligence, Trademark infringement, Cybersquatting

Write the name of the correct issue against the descriptions of issues given bellow from the list above.

(10 Marks)

Description	Name of the Issue
Process of taking something apart in order to build a copy of it	*Reverse engineering*
Gathering of legally obtainable information to help a company gain an advantage over another company who works on a similar project	*Competitive intelligence*
The unauthorized use of a name in a manner that is likely to cause confusion, deception, or mistake about the source of the goods and/or services.	*Trademark infringement*
Registering domain names for famous trademarks or company names hoping the trademark's owner will buy the domain name for a large sum of money	*Cybersquatting*
Converting an application that ran on one vendor's database to run on another's	*Reverse engineering*

25 Marks

3 (a) Briefly explain the functionality of a *Document Management System* and how it can be beneficial to an IT organization.

(6 Marks)

ANSWER IN THIS BOX

Versions and timestamps - The document management system will keep multiple versions of documents. The most recent version of a document is easy to identify and will be served up by

default.

Approvals and workflows - When a process needs to be changed, the system will manage both access to the documents for editing and the routing of the document for approvals.

Communication - When a process changes, those who implement the process need to be made aware of the changes. A document management system will notify the appropriate people when a change to a document is approved.

(b) State the difference between *Ethics* and *Business Ethics*?

(4 Marks)

ANSWER IN THIS BOX

Ethics is a branch of philosophy that involves moral principles that govern a person's or group's Behaviour. Business ethics can be defined as the critical, structured examination of how people & institutions should behave in the world of commerce.
There can be more correct answers to this question. Any suitable correct answer will be given marks.

(c) State **five** (05) actions/measures that can be taken to create an *ethical organizational culture*.

(5 Marks)

ANSWER IN THIS BOX

• Selecting a right leader
• Have a clear purpose & strategy
• Everyone in the company focus on doing the right thing
• Hiring the right people
• Take actions again unethical behaviours
• Run ethical training courses
• Reward people for doing the right thing
• Tolerate mistakes

(d) Briefly explain, why promoting good *business ethics* is important.

(4 Marks)

ANSWER IN THIS BOX

• To gain the good will of the community
• To create an organization that operates
consistently
• To foster good business practices
• To protect organization/employees from legal
action
• To avoid unfavourable publicity

(e) Briefly describe **two** (02) advantages and disadvantages of the *fairness approach*.

(6 marks)

ANSWER IN THIS BOX

Fairness approach
– Focuses on fair distribution of benefits/burdens
– Guiding principle is to treat all people the same
• Problems
– Decisions can be influenced by personal bias
– Others may consider the decision unfair
There can be more correct answers to this question. Any suitable correct answer will be given
marks.

4 (a) Assume that you have been asked to develop a new social networking application (e.g. like Facebook) for Sri Lanka. How do you encourage *freedom of speech* in such an application while avoiding its *misuses*?

(5 marks)

ANSWER IN THIS BOX

Freedom of Speech:

Allow users to post anything which is not belongs to hate speech, misinformation, obscenity, harassment.
To Minimize hate speech:
Encourage conflict sensitive reporting and multicultural awareness campaigns
Regulate social media

Encourage victims and witnesses to report hate speech related crimes

Impunity against hate crimes can be tackled by establishing monitoring and evaluation

(b) Digital marketing uses the Internet and digital technologies to promote products and services. However, sending *unsolicited e-mails (spam)* is considered unethical behaviour in digital marketing. Explain why.

(5 marks)

ANSWER IN THIS BOX

Generally, legitimate marketing emails are sent by businesses once you opt in to receive them. They allow you to subscribe to a newsletter, sign up for services, read members-only content, or share messages via email and social media.

Spam messages often come from illegitimate email addresses, and may contain explicit or illegal content. These emails often use scare tactics, contain typos and misleading information, and are sent in bulk from an anonymous sender. They seldom contain an unsubscribe link, and if it does, that link may be embedded with malware. This could lead to cybercriminals gaining access to your computer, smartphone, and other devices.

(c) Explain what *whistleblowing* is and why it is considered as an important act?

(5 marks)

ANSWER IN THIS BOX

Workplace whistleblowing occurs when an individual reports wrongdoing in an organisation, such as financial misconduct or discrimination. This person is often an employee but can also be a third-party such as a supplier or customer.
Whistleblowing is an ethical thing to do. It addresses wrongdoing and allows justice to reach the depths of companies that otherwise may remain unexposed.

(d) Provide an example of *green computing* and explain why green computing is important.

(5 marks)

ANSWER IN THIS BOX

Green computing is the environmentally responsible and eco-friendly use of computers and their resources. In broader terms, it is also defined as the study of designing, engineering, manufacturing, using and disposing of computing devices in a way that reduces their environmental impact.

(e) Assume that you are developing an *online learning platform* for school children. Briefly explain how children's *Online Privacy Protection* can be achieved in such a platform?

(5 marks)

ANSWER IN THIS BOX

Platforms catering to children must offer comprehensive privacy policies, notify parents or guardians about its data-collection practices, and receive parental consent before collecting personal information from children under 13.
Assigns rights to parents regarding their children's education records. Implement rights transfer to student once student becomes 18.

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