## COMPUTER LAW AND INVESTIGATION Time Allowed: 2 Hours

Instructions to Candidates

1. This paper comprises **10** multiple choice questions in Section A, **5** short answer questions in Section B and **1** case study question in Section C.
2. Start Section B and Section C on a new page.
3. This paper consists of **7** pages (inclusive of cover page).
4. Answer **ALL** questions.
5. You are provided with an Appendix consisting of 7 pages for your reference.

**The Exam Paper and Appendix are not to be removed from the exam venue.**

**SECTION A: MULTIPLE CHOICE QUESTIONS**

**Choose the BEST answer and answer ALL questions.**

1. The legislative process involves three readings of a Bill. What do Members of Parliament do during the second reading of a Bill?

1. Introduce the Bill.
2. Vote on the Bill.
3. Debate on the Bill.
4. Present the Bill to the President for her assent.

2. The Personal Data Protection Act 2012 applies to personal data which refers to and includes \_\_\_\_\_\_\_\_\_.

1. data about an individual who can be identified from the data
2. personal data of living individuals and deceased individuals
3. personal data about an individual regardless of whether it is true or false
4. All of the above.

3. According to the Criminal Procedure Code, for bailable offences, \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. the accused is generally entitled to be released on bail.
2. the police have the discretion to decide whether to release an accused on bail.
3. a police officer may arrest without warrant.
4. an accursed will be able to be released on bail if the offence is punishable with death or life imprisonment.

4. Which of the following is a power conferred on the police under the Criminal Procedure Code?

1. Automatic powers of search if investigating a non-arrestable offence.
2. Obtain relevant evidence unlawfully for the purpose of prosecuting offences.
3. Break open doors and windows of a place without notifying the person residing in the residence of the purpose of the search warrant.
4. Access to a computer suspected to be used in an arrestable offence.

5. Which one of the following may be considered as hearsay evidence?

1. A says he saw B holding a blood-stained kitchen knife
2. A says he heard from B that B heard a woman’s scream coming from the kitchen
3. A says that he heard a woman’s scream coming from the kitchen
4. A says he found a kitchen knife stained with blood

6. The Infocomm Media Development Authority \_\_\_\_\_\_\_\_\_\_\_\_.

(a) makes statutory legislation in relation to the infocomm and media industries

(b) develops and regulates the infocomm and media sectors

(c) prosecutes offences under the Cybersecurity Act and Computer Misuse Act

(d) all of the above

7. When a company conducts a forensic investigation on an employee’s computer, all of the following are considered critical to the investigation except \_\_\_\_\_\_\_\_\_\_\_.

1. ISO 17799
2. Computer User Instruction Manual
3. Company’s Computer User Policy Agreement
4. Personal Data Protection Act

8. The Cybersecurity Act 2018 deals with \_\_\_\_\_\_\_\_\_\_.

1. censorship of undesirable internet content
2. investigation and prosecution of computer crimes
3. the prevention, investigation and response to cybersecurity threats
4. all of the above

9. In criminal law cases, the burden of proof always remains on the \_\_\_\_\_\_\_\_\_\_\_ in relation to the facts in issue throughout the whole trial

1. Defence
2. Judge
3. Prosecution
4. Witness

10. The Spam Control Act applies to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

(a) private electronic messages to another person

(b) messages which are purely factual in nature

(c) unsolicited commercial electronic messages

(d) appeals for donations by charities and religious organ isations

**SECTION B: SHORT ANSWER QUESTIONS**

**Answer ALL questions. Answer this Section on a new page.**

1. (a) What are two (2) differences between law and ethics.

Law is a collection of rules that come from the parliament or judge-made laws while ethics are rules of conduct that comes from social system.

(b) Describe what are the 2 types of ethical reasoning and give an example of each type of reasoning.

(c) Describe the two (2) approaches for media regulation in Singapore and identify the

preferred approach.

• Statutory Regulation

- to protect the public against the risk of poor practice

• Sedition Act (Cap 290)

- creates offence of sedition

• Official Secrets Act (Cap 213)

- prevent disclosure of official documents and information

• Films Act (Cap 107)

- relate to possession, importation, making, distribution & exhibition of films

- classification (G, PG, PG13, NC16, M18, R21)

• Newspaper & printing access act (Cap 206)

- licensing of newspaper companies & related

• Undesirable publications act (Cap 338)

- prevent importation, distribution, reproduction of undesirable publication that are obscene or objectionable (Extreme religion views islamic terrorism)

• Industry self regulation codes of conduct

- content guidelines for imported publications, (adult content should not be easily reachable by young)

Industry self regulation is preferred

2. (a) Describe clearly the jurisdiction of the following courts in the Singapore Legal System.

1. District Court

ii Court of Appeal

(b) Name one (1) alternative dispute resolution method and state three (3) advantages this

method has over litigation

1. (a) What are two (2) forms of punishment in Singapore and state the four (4) objectives of punishment in criminal law.

(b) Describe the three (3) sources of criminal law in Singapore and state the relevant classification of criminal law each source relates to.

Penal Code Cap 224 (Substantive Criminal Law)

Criminal Procedure Code Cap 68 (Procedure Criminal Law)

Evidence Act Cap 97 (Procedure Criminal Law)

4. Bio-Life a pharmaceutical start-up is about to introduce their version of the Covid-19 vaccine which cost less than one-third the price of other vaccines. Six (6) weeks before its official release to the market, Janice, a laboratory researcher employed by Bio-Life who has been working on the development of the vaccine passed two (2) terabytes worth of data relating to Bio-Life’s Phase 3 vaccine trials to her boyfriend John. John is a senior scientist from Cell Inc, Bio-Life’s main competitor.

With this data, Cell Inc was able to improve and significantly lower the price of its own version of the Covid-19 vaccine. Cell Inc was also able to launch their vaccine three weeks ahead of Bio-Life, causing Bio-life substantial loss of profits.

With reference to the facts of this case, state and explain what the legal elements of the Law of Confidential Information are.

Information must be Confidential (Trade secrets)

Janice, a laboratory researcher employed by Bio-Life who has been working on the development of the vaccine passed two (2) terabytes worth of data relating to Bio-Life’s Phase 3 vaccine trials to her boyfriend John. The law of confidential information states that information must be confidential if it is a trade secrets, business secrets or government secrets. Since Janice passed 2 terabytes worth of trade secrets to her boyfriend John, Janice has breached the law of confidence. Hence Janice is liable and may face a lawsuit from Bio-Life seeking compensation from quantified financial loss of profits.

5. (a) Explain the differences between the legal burden of proof and the evidential burden of

proof in criminal cases.

(b) Briefly describe the rule against “Hearsay”.

Under Section 62 of the Evidence Act requires direct evidence to be given.

A witness who gives oral evidence must testify as to what they see.

**SECTION C: CASE STUDY QUESTION**

**Answer all parts of the following question. Answer this Section on a new page.**

Dr Casey Loong was employed as an orthopaedic surgeon with Tengah General Hospital (TGH). Dr Loong and his wife were married in 2015 but their relationship started to sour in January 2020 as Dr Loong suspected that his wife was having an extra-marital affair with a Mr Charles Kwan. In June 2020 he asked his wife to leave the matrimonial home after his suspicions were confirmed. He then sought to identify Mr Kwan’s wife, Mrs Emily Kwan so that he could contact her and request her to convince Mr Kwan to leave his wife alone. However, Dr Loong was not able to find reliable information in the public domain to contact Mrs Kwan. On 16 July 2020, Dr Loong used the computer bearing workstation number CL79000849-0, which was located at TGH, to search for Mrs Kwan's contact details by accessing the hospital’s Clinical Manager System (CM). The CM system keeps the personal particulars and medical records (including hospital visits, drug allergies, etc.) of all the patients under TGH. Although Dr Loong had access to the CM system for his work purposes, he did not have any authority to access such system for his own personal purposes. Using the CM system, Dr Loong successfully found the phone number of Mrs Kwan. He wrote down Mrs Kwan's phone number and passed Mrs Kwan’s contact details to his sister and instructed his sister to call Mrs Kwan.

Two years earlier in 2018, Dr Loong installed a software "Aobo Mac OS X Keylogger 3.9.0"1 (the "keylogging software") in his laptop, a Macbook Pro, which was shared between his wife and himself. The keylogging software had features such as recording keystrokes, recording desktop screenshots by interval, recording websites visited and chat conversations, recording keystrokes typed in email content and secretly sending logs to email. Dr Loong did not inform his wife that he had installed the keylogging software. Dr Loong had set the keylogging software to capture the keystrokes of and take periodic screenshots when his wife used the computer and send the information via email to his email account. With the keylogging software, Dr Loong was able to gather information about email messages and instant messages sent out by his wife using the laptop from different email accounts owned by her. Dr Loong did not have his wife’s consent to intercept her personal communications. Subsequently, after Dr Loong’s wife left the matrimonial home to stay with her parents, she brought along the laptop and continued to use it. As such, Dr Loong was able to gather more information about his wife’s activities with the help of the keylogging software. Dr Loong subsequently used the information gathered, in the divorce proceedings in the Family Justice Courts.

1. (a) Explain the offences that Dr Casey Loong had committed under the Computer

Misuse Act.

On 16 July 2020, Dr Loong used the computer bearing workstation number CL79000849-0, which was located at TGH, to search for Mrs Kwan's contact details by accessing the hospital’s Clinical Manager System (CM). The computer misuse act states that unauthorised access to computer material is an offence and is liable for conviction. Dr Loong had access the system for his own personal purposes. Hence he is liable to a fine not exceeding $5,000 or to imprisonment for a term not exceeding 2 years or to both

Dr Loong installed a software "Aobo Mac OS X Keylogger 3.9.0"1 (the "keylogging software") in his laptop, a Macbook Pro, which was shared between his wife and himself. The keylogging software had features such as recording keystrokes, recording desktop screenshots by interval, recording websites visited and chat conversations, recording keystrokes typed in email content and secretly sending logs to email. The computer misuse act states that unauthorised use or interception of computer service is an offence and is liable for conviction. Dr Loong gathered information about email messages and instant messages sent out by his wife. Hence Dr Loong is liable to a fine not exceeding $10,000 or imprisonment for a term not exceeding 3 years or both.

(b) Cite at least one relevant case pertaining to the offences that Dr Loong

committed.

Lim Siong Khee v PP (2001)

(c) Describe any six (6) possible mitigating factors that Dr Loong may plead?

First offence

Community Service

Good Public Service

Plea of Guilt at earliest opportunity

Shown remorse by doing certain acts

Cooperation with enforcement authorities

(d) What are the possible sentences that Dr Loong may face for the various offences

committed?

Since Dr Loong committed multiple offences, he will face the minimum of a fine not exceeding $5,000 or imprisonment for a term not exceeding 2 years or both however it also depends on the mitigating factors as well as the second offence.

**- End of Paper -**