UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2016/2017

COURSE NAME	:	CORPORATE SECURITY ENGINEERING
COURSE CODE	:	BIS 33103
PROGRAMME CODE	:	3 BIS
EXAMINATION DATE	:	JUNE 2017
DURATION	:	2 HOURS 30 MINUTES
INSTRUCTION	:	ANSWER **ALL** QUESTIONS

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THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

Q1   (a)   Differentiate Type 1 and Type 2 for breach of security.

(4 marks)

(b)   Determine either 'Type 1' or 'Type 2 for each of the following security breach.

(i)   Trojan

(2 marks)

(ii)   Brute force supervisor password

(2 marks)

(iii)   Password theft

(2 marks)

(c)   Company Solution has four main systems for daily operation; OS, Accounting Program, Accounting data, Insurance Data and Payroll data. Amy, Bre and Cho have different roles in the company. The management has provide access to each of them according to their roles. Amy is the IT staff and has full access (read (r), write (w) and execute (x) to OS and accounting program. She can only read the accounting data but can both read write to insurance data and payroll data. Bre can read and execute the OS and accounting program and can only read accounting data but does not has access to insurance data and payroll Data. Cho can execute and read the OS and accounting program, read the accounting data but can both read and write to payroll data and insurance data.

(i)   Draw the Access Control Matrix for Amy, Bre and Cho.

(8 marks)

(ii)   Bre want to add a module of new accounting calculation to the accounting program. By considering the Access Control Matrix, who should Bre consult?

(2 marks)

Q2   (a)   Music Inc. is preparing to launch new songs for a new artist. The songs are planned to be uploaded online however the management worried of the copyright issue since it has been changed over the time.

(i)   Differentiate copyright between music uploaded to the Internet with music released using compact disc (CD).

(4 marks)

(ii)   State **TWO (2)** methods to do copyright for digital material on the Internet.

(2 marks)

(iii)   Compare the two methods that have been stated in **Q2(a)(ii).**

(4 marks)

(b)   Company Dzen is a new IT company in Kedah. The management plan to draft new security policies for the company. You are asked by the manager to take the responsibilities.

Provide **FIVE (5)** major security policies required for the company.

(10 marks)

Q3   (a)   Define defense in depth.

(2 marks)

(b)   The management of Company Defhack consult you to plan the technical security for the company.

(i)   Outline **FOUR (4)** classes of technical countermeasures used by most companies to defend from security threats.

(8 marks)

(ii)   Determine the countermeasures for each class of technical countermeasures as mentioned in **Q3 (b)(i).**

(4 marks)

(c)   Differentiate **THREE (3)** password cracking techniques.

(6 marks)

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Q4 (a) You are a network administrator for Company ABC. The company has been attacked by the DDoS attack. Due to this, the company has lost RM5 millions. To prevent future lost, you have been asked to come out with relevance security goals. Each goal exists for a reason.

(i) Outline **FOUR (4)** goals for creating secure network.

(8 marks)

(ii) Justify the need of each goal in **Q4 (a)(i)**.

(12 marks)

- END OF QUESTION -

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