UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2018/2019

COURSE NAME   : WEB SECURITY

COURSE CODE   : BIS 20303

PROGRAMME CODE   : BIS/BIW

EXAMINATION DATE   : DECEMBER 2018 / JANUARY 2019

DURATION   : 3 HOURS

INSTRUCTION   : ANSWER **ALL** QUESTIONS

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

TERBUKA

Q1 (a) Describe **TWO (2)** examples of Integrity Message attacks.

(4 marks)

(b) Suggest **THREE (3)** solutions for Integrity Message attacks.

(6 marks)

(c) Suggest an example for each of the following authentication approach:
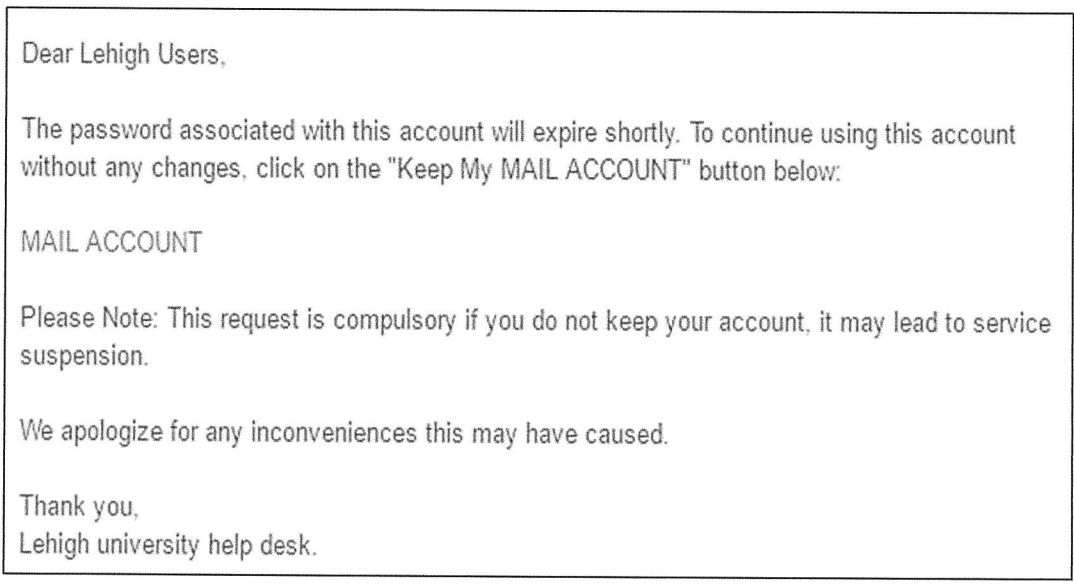
i. Based on What You Know

ii. Based on What You Have

iii. What you know and what you have

(6 marks)

Q2 (a) Explain **TWO (2)** types of attacks in Reconnaissance phase.

(4 marks)

(b) Based on Figure **Q2(b),** identify **THREE (3)** characteristics of email phishing.

(6 marks)

Dear Lehigh Users,

The password associated with this account will expire shortly. To continue using this account without any changes, click on the "Keep My MAIL ACCOUNT" button below:

MAIL ACCOUNT

Please Note: This request is compulsory if you do not keep your account, it may lead to service suspension.

We apologize for any inconveniences this may have caused.

Thank you,
Lehigh university help desk.

Figure Q2(b)

(c) Suggest **FIVE (5)** ways to mitigate phishing attack.

(10 marks)

2

Q3   (a)   Explain **TWO (2)** benefits of Internet Protocol Security (IPSec).

                                     (4 marks)

      (b)   Discuss **TWO (2)** differences between End-to-end Authentication and End-to-Intermediate Authentication.

                                       (2 marks)

      (c)   Suggest **THREE (3)** common protocol used to protect Internet and Web transactions.

                                       (6 marks)

Q4   (a)   Describe **FOUR (4)** features provide by Pretty Good Privacy (PGP) protocol.

                                       (4 marks)

      (b)   Distinguish between Pretty Good Privacy (PGP) with Secure/Multipurpose Internet Mail Extensions (S/MIME) protocol to secure e-mail services.

                                       (2 marks)

      (c)   Sketch the process of authentication on sending e-mails by using PGP protocol.

                                       (8 marks)

Q5   (a)   Describe **TWO (2)** common types of Firewall.

                                         (4 marks)

      (b)   Describe **THREE (3)** attacks on Packet Filters.

                                       (6 marks)

      (c)   Based on the following scenario:

                                       (10 marks)

            Assuming you have been hired by FathanScure Sdn Bhd as a Network Administrator. The company's network consists of a router, firewall, web servers and file servers in DMZ areas and about 100 hosts. The company also provides three hotspots around the company's building.

            Improve FathanScure Sdn Bhd. using any **FIVE (5)** network security strategies, parameters or protections.

3

Q6   (a)   Describe **TWO (2)** types of assets for any organization.

(4 marks)

(b)   Explain **THREE (3)** types of Disaster Recovery backup sites.

(4 marks)

(c)   Propose **FIVE (5)** Bring Your Own Device (BYOD) security policy for a corporate service.

(10 marks)

- END OF QUESTION -

4