



UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
(ONLINE)
SEMESTER II
SESSION 2019/2020**

COURSE NAME : SYSTEM SECURITY
COURSE CODE : BIS 33503
PROGRAMME CODE : BIS
EXAMINATION DATE : JULY 2020
DURATION : 2 HOURS 45 MINUTES
INSTRUCTION : 1. ANSWER ALL QUESTIONS.
2. PLEASE MAKE SURE TO CLICK
"SAVE ANSWER" BUTTON FOR
SUBJECTIVE QUESTIONS.

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THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES

- Q1** (a) Analyse **FIVE (5)** possible security risks of an online banking system. (10 marks)
- (b) Discuss **ONE (1)** reason of conducting security evaluation from the perspective of a system developer and a user respectively (5 marks)
- Q2** (a) Differentiate between commercial and open source database. (7 marks)
- (b) Apply **FOUR (4)** principles to design a trusted online banking system. (8 marks)
- Q3** (a) Conduct **TWO (2)** types of attacks to derive sensitive data from non-sensitive data. (4 marks)
- (b) Write **FIVE (5)** Structured Query Language (SQL) functions that can be used to indirectly infer protected values in a statistical database. (5 marks)
- (c) As a system security administrator, propose **THREE (3)** appropriate practices to prevent unauthorized access. (6 marks)

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Q4 (a) Draw the Access Control List (ACL) for **Table Q4(a)**.

Table Q4(a) Access Matrix

	File 1	File 2	File 3	File 4
User A	Own Read Write		Own Read Write	
User B	Read	Own Read Write	Write	Read
User C	Read Write	Read		Own Read Write

(10 marks)

(b) Illustrate the mechanism of Discretionary Access Control (DAC) model based on **Table Q4(a)**.

(5 marks)

- END OF QUESTIONS -

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