

มหาวิทยาลัยสงขลานครินทร์

คณะวิศวกรรมศาสตร์ ภาควิชาวิศวกรรมคอมพิวเตอร์

การสอบไล่กลางภาคการศึกษาที่ 2

ประจำปีการศึกษา 2546

วันที่ 21 ธันวาคม 2546

เวลา 09.00-12.00น

วิชา 240-526 Computer and Information Systems Security ห้องสอบ A401

ให้ตอบคำถามทุกข้อ แต่ละข้อคะแนนเท่ากัน

ไม่อนุญาตให้นำเอกสารเข้าในห้องสอบ

If not stated all questions, are related to SET(Secure Electronic Transaction) system.

1. What are seven major business requirements of the SET?
2. Describe several distinct stages of electronic shopping experience in SET
- 3.Explain concepts and roles of the following payment system participants
 - Cardholder
 - Issuer
 - Merchant
 - Acquirer
 - Payment gateway
 - Brand Financial institutions
- 4.Explain roles and functions of the following certificates.
 - Cardholder certificates
 - Merchant certificates
 - Payment gateway certificates
 - Acquirer certificates
 - Issuer certificates
- 5.Explain main steps involved for following registration:
 - 5.1Cardholder registration with Certificate Authority(CA)
 - 5.2Merchant registration with a Certificate Authority (CA)
6. Explain main steps involved for the following processing:
 - 6.1Purchase Request

6.2 Payment Authorization

6.3 Payment Capture

7 Explain the following processing scenarios:

7.1 Authorize and capture now: Sale Request

7.2 Authorize now and capture later: partial reversal for a new amount

7.3 Split shipment

7.4 Installment and recurring payments

7.5 Credit for an old transaction

8 Authentication

8.1 Explain how each of the following authentications is carried out

-Cardholder authentication

-Merchant authentication

-Payment Gateway authentication

8.2 How is Digital signature used in SET architecture?

8.3 What is a hash function and how it is used for supporting data integrity.?

9. For Brand CRL Identifier (BCI):

9.1 What is a function of a Brand CRL Identifier (BCI). ?

9.2 Explain the reasons why the following entities are included in BCI:

-Root CA

-Any brand CA

-Brand Geo-political CA

-Payment Gateway CA

10 Explain the following

-What are Certificate Authority primary functions?

-What is a hierarchy of trust for SET certificates that are used for verification.

-What are Thumbprints used for in managing certificates, CRL, or BCI?

-What is Commercial Data Masking Facility (CDMF)? What is it used for?

-Explain Digital envelope