INDIVIDUAL ASSIGNMENT 1

COURSE CODE : DDWD 3343
COURSE NAME   : COMPUTER SECURITY
YEAR / PROGRAMME   : 3 DDWD
SUBMISSION   :

INSTRUCTION / *ARAHAN:*

1. THIS ASSESSMENT WILL CONTRIBUTE 5% OF THE ASSESSMENT.
2. **PLEASE SUBMIT THIS LAB SKILL IN FORM OF PDF (SOFTCOPY) / A4 PAPER SIZE (HARDCOPY) BEFORE 15 SEPTEMBER 2024.**
3. MAKE SURE TO COMPLETE ALL ASSESSMENT
4. PLEASE FOLLOW THE FORMAT:
   a. TIMES NEW ROMAN FONT SIZE 12.
   b. SPACING 1.5.
   c. JUSTIFY ALIGNMENT THE PARAGRAPH.
5. THE FAILURE FOLLOWING THE REQUIREMENT WILL CAUSE LOSING MARK
6. PLEASE FOLLOW THE RUBRIC ASSESSMENT:

CRITERIA	4 POINTS	3 POINTS	2 POINTS	1 POINTS
SUBMISSION FORMAT [/4]	FOLLOW ALL FORMAT INSTRUCTION	DID NOT FOLLOW 1-2 OF THE FORMATS	DID NOT FOLLOW 2-3 OF THE FORMATS	NOT MAINTAINING THE TIDY OF THE TASK
UNDERSTANDNG VALUE [/4]	ABLE TO UNDERSTAND THE BASIC CONCEPT OF SECURITY, GIVING EXAMPLE AND RELATE TO THE THREAT BY EXLAINING HOW TO SOLVE THE PROBLEM	ABLE TO UNDERSTAND THE BASIC CONCEPT OF SECURITY, GIVING EXAMPLE AND RELATE TO THE THREAT AND HOW TO SOLVE THE PROBLEM	ABLE TO UNDERSTAND THE BASIC CONCEPT OF SECURITY, GIVING EXAMPLE THAT RELATE TO THE TOPIC.	ABLE TO UNDERSTAND THE BASIC CONCEPT OF SECURITY AND LIST THE EXAMPLE.
ANSWER ELABORATION [/4]	STUDENT ABLE TO ANSWER ALL QUESTION GIVEN, DISCUSS AND ELABORATE THE ISSUE, RELATE TO THE CURRENT SITUATION, AND COMPARE TO OTHER ALTERNATIVE SOLUTION OR ISSUE.	STUDENT ABLE TO ANSWER ALL QUESTION GIVEN STUDENT ABLE TO ELABORATE THE ISSUE, RELATE TO THE CURRENT SITUATION, AND COMPARE TO OTHER ALTERNATIVE SOLUTION OR ISSUE.	STUDENT ABLE TO ANSWER ALL QUESTION GIVEN, ELABORATE THE ISSUE, RELATE TO THE CURRENT SITUATION, AND LIST TO OTHER ALTERNATIVE SOLUTION OR ISSUE.	STUDENT ABLE TO ANSWER ALL QUESTION GIVEN ELABORATE THE ISSUE, AND LIST TO OTHER ALTERNATIVE SOLUTION OR ISSUE.
EXAMPLE PROVIDE AND DISCUSSION [/4]	STUDENT ABLE TO LIST AT LEAST 2 EXAMPLE THAT CONTAINS PRO AND CONS OF THE SITUATION, EXPLAIN THE EXAMPLE THAT RELATE TO THE CURRENT SITUATION.	STUDENT ABLE TO LIST AT LEAST 2 EXAMPLE THAT CONTAINS PRO AND CONS OF THE SITUATION AND EXPLAIN THE EXAMPLE.	STUDENT ABLE TO LIST 1 EXAMPLE THAT CONTAINS PRO AND CONS OF THE SITUATION AND EXPLAIN THE EXAMPLE.	STUDENT ABLE TO LIST 1 EXAMPLE THAT CONTAINS PRO AND CONS OF THE SITUATION
PLAGIARISM [/4]	NO PLAGIARISM DETECT (ORIGINALLY FORM STUDENT)	1- 20% PLAGIARISM DETECTED	21-50% PLAGIARISM DETECTED	>50% PLAGIARISM

STUDENT NAME:	

MATRIC NUMBER:	

INSTRUCTION: ANSWER ALL QUESTIONS

CHAPTER 1:

1. Define what is computer security.

2. List and explain important terminologies in computer security.

3. List and discuss threats with regard to computer security.

4. Understand what are security vulnerabilities.

5. Explain security principles (goals).

6. Discuss security strategies and controls.

CHAPTER 2:

1. Explain cryptography and its importance in computer security.

2. Describe cryptosystem, and encryption / decryption process.

3. Differentiate between symmetric and asymmetric cryptosystem.

4. List and explain **THREE (3)** various encryption/ decryption algorithms.

5. Cryptography:

    a. Solve encryption for message: "Malaysia Madani" and key: "c" using ceaser cipher.

    b. Solve encryption for message: "Computer Security" and key: "begin" using vernam cipher.

    c. Solve encryption for message: "Saya Sayang Miss Fatimah" and key: "iyelatu" using columnar transposition cipher.

6. Discuss and list the **STRENGTH** and the **WEAKNESS** of each encryption method.

7. Given p=23 and q= 17, encrypted message = 11 using RIvest Shamir Adelman (RSA) algorithm.

8. Given p=27 and g=13, using Diffie Hilam Algorithm, solve:

    a. Private key for Ilyas, given public key = 9.

    b. Private key for Ibrahim, given public key = 7.

    c. Find share key.

CHAPTER 3:

1. Define the concept of secured program.

2. Differentiate malicious and non-malicious code.

3. Identify and describe programming errors with security implication.

4. List and explain different types of viruses, how and where it attacks and how it gains controls.

5. Explain virus signature.

6. Identify the impact of viruses to the computing system.

7. Discuss and explain various policies, procedures and technical controls against virus threats.