North Western University, Khulna

Department of Computer Science and Engineering
Semester Final Examination, Summer-2021
Program: 4 Year B.Sc. in Computer Science and Engineering
4th Year 3rd Semester
Course Title: Information Security & Control
Course Code: CSE-4305

Part-1: Written Assessment

Exam date:	**25/10/2021**	**40 out of the Full Marks: 60**
Start Time:	**10.00 AM**	**End Time: 11.30 AM**
Total Time:	**1 hr 30 min**	

N.B. **i)** Answer any **Four** questions and submit the answer script through **Google Classroom**
ii) Figures in the right margin indicate full marks

Q1. **a)** Suppose attack on confidentiality happens, how will you know? **3**

b) Take three prime integers (p, c, y) as public key from 5 to 17 and compute message signature(s, t) of El Gamal Algorithm. **7**

Q2. **a)** In which cryptosystem, two keys are used? Why it is used? **3**

b) Explain a DES Round with neat diagram **5**

Q3. **a)** Differentiate between information security and network security. **3**

b) If you are given to design a system, how will you ensure the security of the system? What aspects will be in your mind to ensure security? **7**

Q4. **a)** Give definitions of **4**

- Cryptosystem
- Cryptanalyst
- Crypto currency
- Cryptology

b) "Upload the file timely" – how will you transform the plain text to cipher text by Ceaser cipher and transposition cipher? **6**

Q5. **a)** How hash function works for integrity and authenticity check? Explain with figure. **5**

b) Differentiate between security services and security mechanism. **5**

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Part-2: Oral Assessment

Exam date: **20 out of the Full Marks: 60**

N.B.   The questions are compulsory and the figures in the right margin indicate full marks

Q1.   You must have to deliver **Presentation** on the selected topic and submit it through **Google**   **10**
          Classroom within the given time.

Q2.   **Viva-voice** to be held on the scheduled date and time.   **10**