



## GRIFFITH COLLEGE

<b>Course</b>	MSCC
<b>Module title</b>	Information Security
<b>Tutorial No.</b>	2
<b>Minimum Word Count</b>	n/a
<b>Issue Date</b>	07/04/2025
<b>Due Date</b>	14/04/2025 @ 9.00 am
	Late submissions <ul style="list-style-type: none"><li>• possible up to 17.04.2025 @ 9am</li><li>• penalised at a rate of 10% per day (or part thereof)</li></ul>

### Important: Please Read

**Tutorials** are an important aid to learning.

All content should be your own work, copying and pasting content (*or AI generated content*) is NOT PERMITTED, and you will not receive a grade if you do so.

For problem-based questions, you must include all workings (step-by-step) in your solution.

**Tutorial submissions should be:**

1. Well written
2. Properly structured
3. Use citations and references where appropriate
4. Include a cover page and a cover sheet
5. YOUR OWN WORK!
6. **ALL WORK WILL BE CHECKED FOR PLAGIARISM!**

## Tutorial 2 Questions

Q1	Explain how to generate a pair of RSA encryption keys given two prime numbers, $p = 11$ and $q = 3$ .
Q2	Find out the secret key that Alice and Bob will share using the Diffie-Hellman key exchange when they start with: $g=7$ and $n = 11$ . Alice generates $a=3$ and Bob generates $b= 5$ as their initial secret prime numbers.
Q3	With the help of a diagram, describe in detail how a Certification Authority can be used to provide a secure communication
Q4	What is a public key certificate? And what information does it contain?