Assignment Brief 1 (RQF)

Higher National Certificate/Diploma in Computing

Student Name/ID Number:	
Unit Number and Title:	**Unit 2: Networking**
Academic Year:	**2021 – 2022**
Unit Assessor:	**Van Ho**
Assignment Title:	**Networking Infrastructure**
Issue Date:	**April 1st, 2021**
Submission Date:	
Internal Verifier Name:	
Date:	

Submission Format:

Format:

- The submission is in the form of an individual written report. This should be written in a concise, formal business style using single spacing and font size 12. You are required to make use of headings, paragraphs and subsections as appropriate, and all work must be supported with research and referenced using the Harvard referencing system. Please also provide a bibliography using the Harvard referencing system.

Submission

- Students are compulsory to submit the assignment in due date and in a way requested by the Tutor.
- The form of submission will be a soft copy posted on http://cms.greenwich.edu.vn/.
- Remember to convert the word file into PDF file before the submission on CMS.

Note:

- The individual Assignment *must* be your own work, and not copied by or from another student.
- If you use ideas, quotes or data (such as diagrams) from books, journals or other sources, you must reference your sources, using the Harvard style.
- Make sure that you understand and follow the guidelines to avoid plagiarism. Failure to comply this requirement will result in a failed assignment.

Unit Learning Outcomes:

LO1 Examine networking principles and their protocols.

LO2 Explain networking devices and operations.

Assignment Brief and Guidance:

Assignment scenario

You are employed as a network engineer by Nguyen Networking Limited, a high-tech networking solution development company, which has branches in Ho Chi Minh City, Hanoi, Da Nang and Can Tho. The company has been contracted to implement a networking project from a local educational institute. The specification of the project is given below:

- People: 200 students, 15 teachers, 12 marketing and administration staff, 5 higher managers including the academic heads and the programme managers, and 3 computer network administrators.
- Resources: 50 student lab computers, 35 staff computers, and 3 printers.
- Building: 3 floors, all computers and printers are on the ground floor apart from the IT labs – one lab located on the first floor and another located on the second floor.

Task 1

The CEO of the company, Mr. Nguyen, has asked you to investigate and explain networking principles, protocols and devices and submit a report.

You will need to produce a report that includes the following:

- An introduction to provide an overview of your report.
- Benefits and constraints of different types of networks and networking standards.
- The impact of network topology, speed of communication and bandwidth requirements.
- Effectiveness of networking systems.
- Discussion on operating principles of networking devices and server types and networking software.
- Discuss the relationship of workstation hardware with networking software.
- Explore a range of server types and justify the selection of a server, considering a given scenario regarding cost and performance optimization.
- For the given specification, identify the topology protocol for the efficient utilization of a networking system.

Learning Outcomes and Assessment Criteria (Assignment 1):			
Learning Outcome	Pass	Merit	Distinction
LO1	**P1** Discuss the benefits and constraints of different network types and standards. **P2** Explain the impact of network topology, communication and bandwidth requirements.	**M1** Compare common networking principles and how protocols enable the effectiveness of networked systems.	**D1** Considering a given scenario, identify the topology protocol selected for the efficient utilization of a networking system.
LO2	**P3** Discuss the operating principles of networking devices and server types. **P4** Discuss the inter-dependence of workstation hardware with relevant networking software.	**M2** Explore a range of server types and justify the selection of a server, considering a given scenario regarding cost and performance optimisation.	