



**COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE**

**NCIS303 NETWORKS AND COMMUNICATION**

**END OF SECOND SEMESTER EXAMINATIONS**

**JANUARY /MAY 2020**

**LECTURER: MRS L TEMBANI-FUNDISI**

**DURATION: 48HRS**

---

---

### ***INSTRUCTIONS***

You are required to answer any **1 question**.

Credit will be awarded for logical, systematic and neat presentations

Each question carries equal marks of 100marks

---

### **Question 1**

"Network topology affect your decision in setting up a network". Discuss

### **Question 2**

"One way of securing a network is through the use of passwords". Discuss

### **Question 3**

Imagine you have been appointed to design the network to be deployed in three new buildings on a new university campus. Building A contains a dedicated computer room containing 10 very high performance dedicated servers. The servers provide services to students and staff who may need to gain access from the Internet as well as from within the university's own network. Building B contains the offices of 12 lecturers and 8 administrators who only use medium power desktop computers located on fixed desks. Building C contains two lecture rooms and a lounge/coffee shop. The lecture rooms have a desktop computer at the front for use by the lecturers, but some lecturers prefer to use their own laptop or tablet computer. All the students use laptop or tablet computers to take notes and keep in touch with their friends. An underground duct exists between building A and building B which are only 30 metres apart. Building C is 30 metres from building A but no ducts exist and installing one is not possible.

- a. Briefly explain type of network that should be deployed in the building that houses the dedicated computer room and what equipment should be installed?
- b. Describe briefly the type of network that should be deployed in the second office building and what equipment should be installed?
- c. Briefly describe the type of network that should be deployed in the teaching building and what equipment should be installed?

What type of network connections should be used to link the buildings together and where and how should the university's Internet connection be made?

**End of Examination**