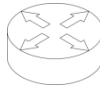





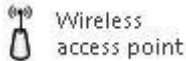




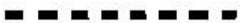



Question

This assignment aims to improve the students' ability to provide a network solution as a diagram for a small scale business or for a given network problem as an individual assignment.

Guideline for Candidates

1. Student should design a network diagram using a software tool (eg. Microsoft Visio Diagram Designer) for a small scale business or for a given network problem using symbols given below in table.
2. The diagram should consist of a minimum of 10 network components and 20 computers.
3. The diagram should contain accurate network symbols with properly named and labelled components.
4. The diagram should illustrate the correct usage of appropriate cables, when network components and devices are placed on the diagram

Name Device	Device Image
Router	
Switch	
External Firewall	
Patch panel	
Servers (File Server)	
Bridges	
WAPs (Wireless Access Point)	
Modems	
straight through network cable	

Cross over Cables	
Printer	 Printer
Scanner	 Scanner
Computers	 PC

Sample network problems

Imagine you need to design a network diagram for Janine High-School, Colombo. There are two computer labs with 10 Desktop computers on each lab (Note: Two labs are situated in a considerable distance). All the Desktop computers should connect to the internet, but they should be protected from the threats come via internet using an external firewall. File server should be accessible to all computers and outlets. Each computer lab should have one dedicated printer. Also three network outlets has been requested for

- 1) Cashier room
- 2) Student counsellor
- 3) Manager room

Floor plan diagram is provided below

