Instructions

Using maps given, design network system for 3 room includes devices need, media used and length of media, IP Addressing & Subneting, Routing concepts, application layer

Criteria for this design :

1. Devices used, Networking Media types and length of media used.
2. IP Addressing & Subnetting
3. Routing
4. Application Layer

To make sure your design is proper, used Cisco Packet Tracer as a tool to design.

A diagram of a room

Description automatically generated

Each team must create presentation (ppt), video presentaion, and cisco packet tracer simulation

Presentation and video presentaion must include following points:

1. Background (4%)
2. Objectives and Goals (2%)
3. Problem Identification (4%)
4. Theory (15%)

Fundamental concept of:

* 1. Networking Devices and media
  2. IP Addressing & Subnetting
  3. Routing (RIP, OSPF, EIGRP,)
  4. Application Layer (DNS, DHCP, HTTP/S)

Note : Please use references to explain fundamental concepts by showing citation (5%)

1. System Design (15%)

Explain your design include Network devices and media selection, Network topology, subnetting Calculation, router & switch configuration, ACL configuration, application layer Configuration (DNS, HTTP/S, DHCP)

1. Design Justification (15%)
2. Ethical and professional responsibility (10%)
   1. Explaination about security vulnerabilities based on CIA goals that may be happening on the network.
   2. Explaination about the social impact and economical impact to the user (client, company, etc) if there are security breaches.
   3. Explaination about how to overcome security breaches problems.
3. Results and discussion (10%)

Give all communication protocol testing evidence using packet tracer. **Didemokan pada video presentasi**

1. Summary (5%)
2. References (5%)

Use APA style references.

1. Video presentation
   1. Organization (5%)
   2. Clarity (5%)