

The school requires to be connected to the Internet, in order to accomplish its normal operations. As the network administrator or engineer you are required to design and implement the network as per their network proposal given by the institution through its ICT department.

There different departments within their premise such as, LABORATORIES, ICT, FINANCE, HOSPITAL, LIBRARY, ADMINISTRATION, SECURITY and TRANSPORT. The administration department and others should have a WI-FI for its users in case of LAN failure. The devices used should be CISCO proprietary, one router 2911 series, 2960 switch, Lightweight Access Point as basic devices. The users should connect automatically on their respective networks., with security at hand, perform all basic device configurations, layer two security. Configure the access point using WPA2-PSK, with AES as an encryption algorithm. The company is provided with 192.168.0.0/24 by the Internet Service Provider., you are required to subnet and distribute to the departments putting into consideration principles of network design.