**NETWORK COMMUNICATIONS**

# Task 2

# GROUP Nemesis | LAN DESIGN - PRELIMINARY ANALYSIS | Date: 22/11/2018

1. How many IP address will the new labs use?

The Labs will use more than 60 IP address because there will be 2 labs with 30 workstations.

1. Which class of IP does the Lab use?

Class B is suitable for use more than 16,382 (214 – 2) number of networks. For the future needs it is required.

1. How many devices can the labs handle?

There will be a multi-terabyte storage server in each lab. Many client and other peripheral devices, Multimedia lab etc.

1. What spec will the server and client computer will use?

The server computer will use different specification than the client because the server will carry out more operations to manage the clients.

1. How to save the space for overloaded cable used?

The Labs need some router and switch to save the space in that organization and also can save the cost.

1. What type of storage that lab will use?

All the information of the students and staff and teachers will be stored in the new multi-terabyte storage sever.

1. Which Operating System will the server use?

Red Hat Enterprise, Linux Windows Server, Mac OS X Server are the popular os for the server.

1. What is the bandwidth capacity required for the labs?

More than 120 Mbps bandwidth because the dean wants more capacity.

1. What about the security of the whole system?

SSH Keys, Firewalls, VPNs and Private Networking and many more precaution can be taken to secure the system.

1. What system does the server use to control network?

The server uses DHCP system for controlling and giving the address to each client for more simple and easy work and handle the IP address for client from the congestion.

Feasibility

The working project will be feasible enough because the budget given is suitable enough to make all the necessary arrangement and technical teams.