

WORLD MISSION HIGH SCHOOL

ASSIGNMENT OF ZERO CLIENT APPLICATION

DATE:21 November,2025

SUBMISSION DATE: Monday, **24 November,2025**

TRAINER: Urban RURANGISA

TOPIC: Selecting Tools & Equipment for Zero Client Installation

Scenario Background

World Mission High School is preparing to upgrade its computer laboratory using **Zero Clients (NComputing L-series)**.

The school will use:

- **1 powerful Host PC (vSpace Server)**
- **30 Zero Clients (L230)**
- **One 24-port network switch**
- **Ethernet cabling (Cat6)**
- **A server rack**
- **A UPS system**

You have been assigned as the **student technician**. Your task is to carefully select the **tools and equipment** needed to ensure a smooth installation and long-term operation.

STUDENT TASKS

1. Identification of Necessary Tools (Understanding & Analysis)

List **five (5)** essential tools required during the installation of zero clients.

For each tool, explain **its purpose**.

2. Network Equipment Selection (Critical Thinking)

The school has 30 zero clients.

Explain **which type of network switch** is most suitable:

- 24-port unmanaged
- 24-port managed
- 48-port managed

Give **two reasons** supporting your choice.

3. Cable Selection Decision (Problem Solving)

If the school wants stable network performance for all zero clients, should you use **Cat5e** or **Cat6** cables?

Explain **two technical reasons** for your choice.

4. Power Protection Scenario (Reasoning & Evaluation)

The school experiences:

- Power fluctuations
- Occasional blackouts

Explain **why installing a UPS** is important for:

1. The host PC (vSpace Server)
2. The network switch

5. Safety Considerations (Application)

List **three safety precautions** you must follow when installing zero clients and explain **why each is important**.

6. Testing and Verification

After installing all zero clients, describe **two tests** you would perform to confirm that:

- The clients are working properly
- The network is stable

BONUS QUESTION

The school wants to avoid future problems such as overheating, dust, and cable mess. Recommend **three (3)** additional equipment or accessories** that will improve the lab's long-term stability, and explain the purpose of each item.